

通讯选择

<u>S7-200 与 S7-300/400</u> 之间的以太网通讯

必备条件

• 带有STEP 7和STEP 7 Micro/WIN32(版本 3.2 SP1以上)软件的编程设备。

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- PC/PPI 电缆和PC适配器或者 CP5611/5511/5411 和MPI电缆。
- 一个CPU22X,符合以下类型要求:
 - CPU 222 Rel. 1.10 或以上
 - CPU 224 Rel. 1.10 或以上
 - CPU 226 Rel. 1.00 或以上
 - CPU 226XM Rel. 1.00 或以上
- 一个CP243-1, 订货号为 6GK7 243-1EX00-0XE0。
- 一个HUB和网络电缆或者以太网直连电缆。
- 一套 S7-300/400 PLC 包括以下器件:
 - 电源
 - CPU
 - CP343-1或CP443-1

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步骤1: 将CP243-1配置为CLIENT。



使用STEP 7 Micro/WIN32中的向导程序。在命令菜单中选择Tools--> Ethernet Wizard。

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步骤1: 将CP243-1配置为CLIENT。





STEP 7-Micro/WIN 32

1. 点击Next>按钮,系统会提示您在使用向导程序之前,要先对程序进行编译。 2. 点击Yes编译程序。

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步骤1: 将CP243-1配置为CLIENT。

Ethernet Wizard



- 1. 在此处选择模块的位置。
- 2. 在线的情况下,您也可以用Read Modules按钮搜寻在线的CP243-1模块。
- 3. 点击Next>按钮。

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步骤1: 将CP243-1配置为CLIENT。

Ethernet Wizard х Module Address Please select the address to assign to this CP243-1 module. If your network provides a BOOTP server (a service that will automatically assign IP addresses at startup), you may choose to have an IP address automatically assigned. IP Address 192 . 168 . 147 . 20 🛐 Subnet Mask 255 . 255 . 255 . 0 Gateway Address: Allow the BOOTP server to automatically assign an IP address for the module. Module Connection Type Specify the communications connection type for this module. Auto Detect Communications <Prev Next> Cancel. 2 1 3

- 1. 在此处填写IP地址。
- 2. 在此处填写子网掩码。
- 3. 选择模块的通讯类型。
- 4. 点击Next>按钮。

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步骤1: 将CP243-1配置为CLIENT。

Ethernet Wizard



3. 点击Next>按钮。

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步骤1: 将CP243-1配置为CLIENT。



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- 1. 配置该模块为CLIENT。
- 2. 在此处填写SERVER端的IP地址。
- 3. 在此处填写TSAP地址,请使用03.02。
- 4. 点击Data Transfers按钮。

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步骤1: 将CP243-1配置为CLIENT。

Configure CPU-to-CPU Dat	ta Transfers
CPU data transfers can be us remote server when the local I transfers may be defined to re- server. Click 'New Transfer' to	ed to transfer blocks of data between the local PLC and a PLC is equipped with a CP243-1 Ethernet module. Data ad data from the server, or write data from the local PLC to the o configure additional data transfer operations.
No Data transfers defined—	
Delete Transfer	< Previous Transfer
<u>D</u> elete Transfer	< Previous Transfer New Transfer

点击New Transfer按钮并点击Yes确认之后,您可以进入参数配置画面。

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步骤1: 将CP243-1配置为CLIENT。

Configure CPU-to-CPU Data Transfers × CPU data transfers can be used to transfer blocks of data between the local PLC and a remote server when the local PLC is equipped with a CP243-1 Ethernet module. Data transfers may be defined to read data from the server, or write data from the local PLC to the server. Click 'New Transfer' to configure additional data transfer operations. Data transfer 0 (1 defined) This data transfer should: Read data from the remote server connection. Write data to the remote server connection. How many bytes of data should be read from the server? 10-1 Local PLC Server (0.0.0.0) Where should the data be stored in the local PLC? Where should the data be read from in the server? VB2000 to VB2009 MB100 to MB109 symbolic name will be defined for this data transfer in your project. PeerMessage00_1 Delete Transfer New Transfer Cancel 2

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- 1. 选择是读取数据还是写入数据。
- 2. 填写通讯数据的字节个数。
- 3. 填写发送数据区和接收数据区的起始地址。
- 4. 点击OK按钮。

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步骤1: 将CP243-1配置为CLIENT。

ient or server, an	nd configure its associated p	roperties.	in, specily whether the	
Connection 0 (1	connections requested)			
 This is a Clie remote serve 	ent Connection: Client conne er.	ctions reque	est data transfers betwe	en the local PLC and a
C This is a Ser	ver Connection: Servers res	pond to cor	nection requests from r	emote clients.
- Local Propertie TSAP 10.00	es (Client)		Remote Properties (Ser TSAP 03.02	ver)
You may defin this connection	e up to 32 data transfers be n and the remote server. Data Transfers	tween	Specify the IP address connection. 192 . 1	of the server for this 68 . 147 . 1
Enable the K Please specify a symbolically whe Connection0_0	Keep Alive function for this c symbolic name for this clien en initiating data transfers wit	onnection. It connection In the remote	n. Your program can re e server.	ference this connectio
		L	< Prev Connection	Next Connection
			C	OK 🚺 Cano

点击OK进入下一个画面。



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步骤1: 将CP243-1配置为CLIENT。

Ethernet Wizard



- 1. 选择CRC校验。
- 2. 使用缺省的时间间隔30秒。
- 3. 点击Next>按钮。

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步骤1: 将CP243-1配置为CLIENT。

Ethernet Wizard



- 1. 填写模块所占用的V存储区的起始地址。
- 2. 你也可以通过Suggest Address按钮来获得系统建议的V存储区的起始地址。
- 3. 点击Next>按钮。

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步骤1: 将CP243-1配置为CLIENT。

Ethernet Wizard X The Ethernet Wizard will now generate the project components for your selected 2 3 3 configuration, and make that code available for use by your program. Your requested configuration consists of the following project components: Subroutine "ETH0 CTRL" Subroutine "ETHO_XFR" Global Symbol Table "ETHO_SYM" The module configuration will be placed at (VB0 - VB181) in the Data Block. Þ ۰. Call the initialization and control subroutine "ETHO_CTRL" every scan. The CP243-1 module configuration must be downloaded to the PLC before use. 10, 1000 <Prev Finish Cancel 点击Finish按钮,完成对该模块的配置。

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步骤2: 在CLIENT上编写通讯程序。



您可以使用向导程序为您提供的子程序,在CLIENT上编写图中的通讯程序。然后,将 整个项目下载到作CLIENT的CPU上。

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步骤3:用STEP7软件配置CP343-1或CP443-1。



使用HUB或者以太网直连电缆将CP243-1和CP343-1或CP443-1连接在一起, 您就可以在两个CPU之间交换数据了。

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