Delta

Delta DVP-ES3 Series RTU

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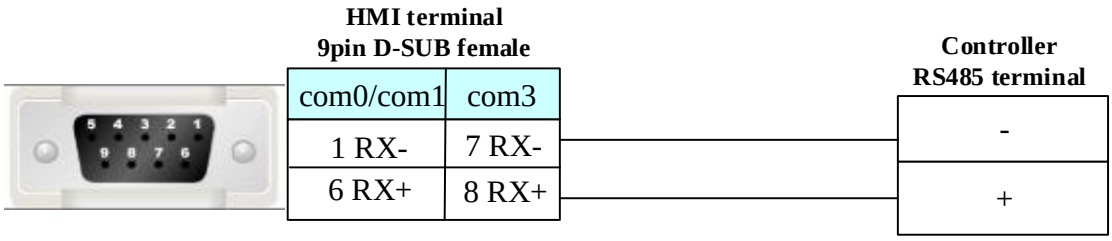
❖1 Introduction to Driver

Driver protocol	Delta DVP-ES3 Series RTU
PLC Model number	DVP-ES3
Website	https://www.delta-china.com.cn/zh-CN/index
Means of communication	RS485 interface
PLC interface	serial port
Serial parameters	Default baud rate 9600, data bit 8, Even, stop bit 1
On line simulation	Support

Hardware wiring：

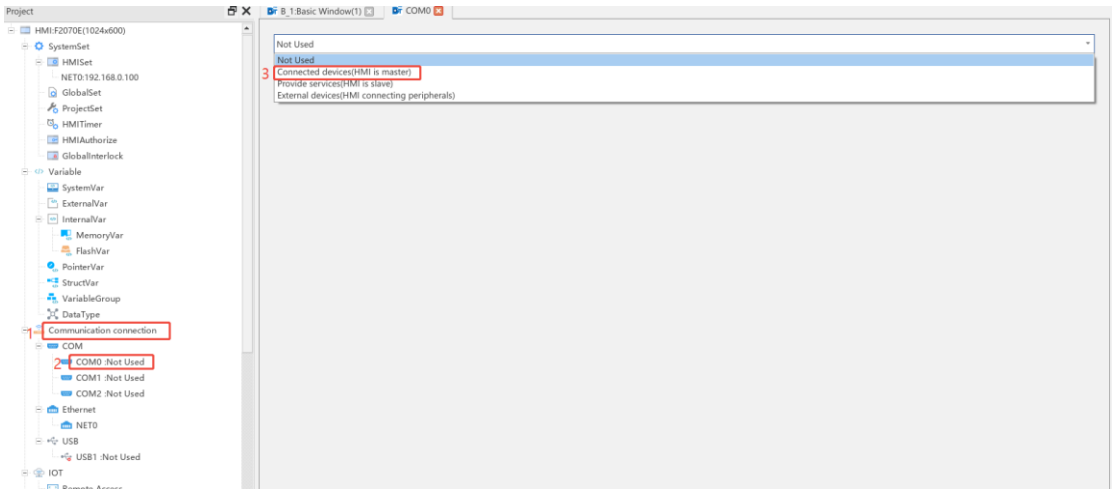
RS485 Communication cable：



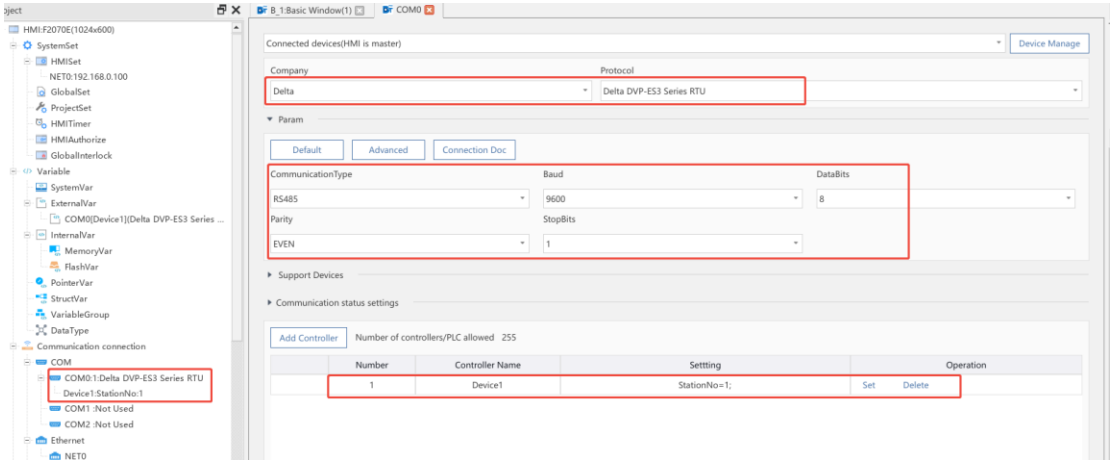
❖2 HMI configure

Add driver agreement

1.When using for the first time, select the corresponding serial port according to the protocol supported by the serial port of the touch screen, and check the connection device (HMI is the main device)

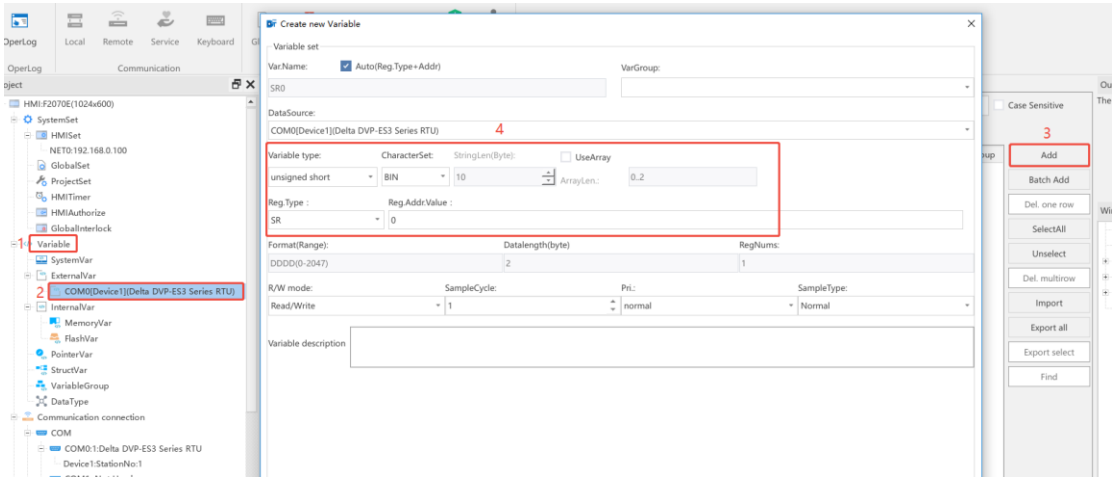


2.The company that is, the manufacturer chooses Delta, the protocol selects Delta DVP-ES3 Series RTU according to the needs, the communication method selects RS485 according to the needs, other parameters are shown in the figure below as the default value can not be modified, the advanced parameters in the advanced are generally not recommended to be modified



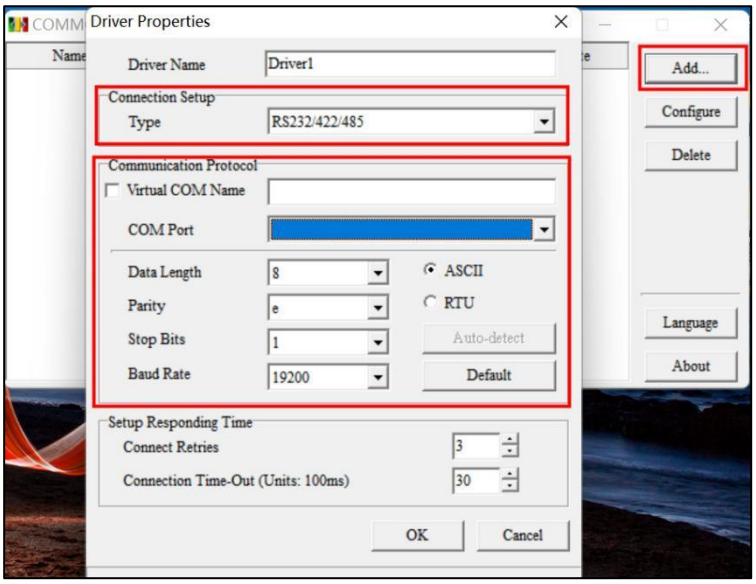
3.Add variables

Double-click COM0 in the variables and click Add, select different data types according to your needs and then add them, if you need to create a large number of variables of the same data type, you can choose to create a batch of quick generation

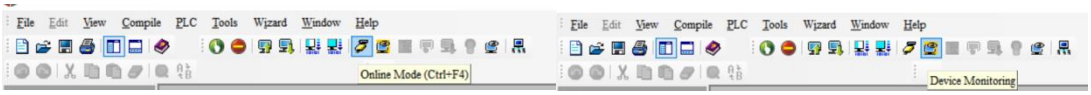


❖3 External Controller Configuration

3.1 Set communication parameters and connect to PLC,Open the "ISPsoft" software, and set the communication channel name and station number through "Tools --> Communication Settings"



3.2 Click on the online mode to select 【Device Monitoring】 or 【Program Monitoring】



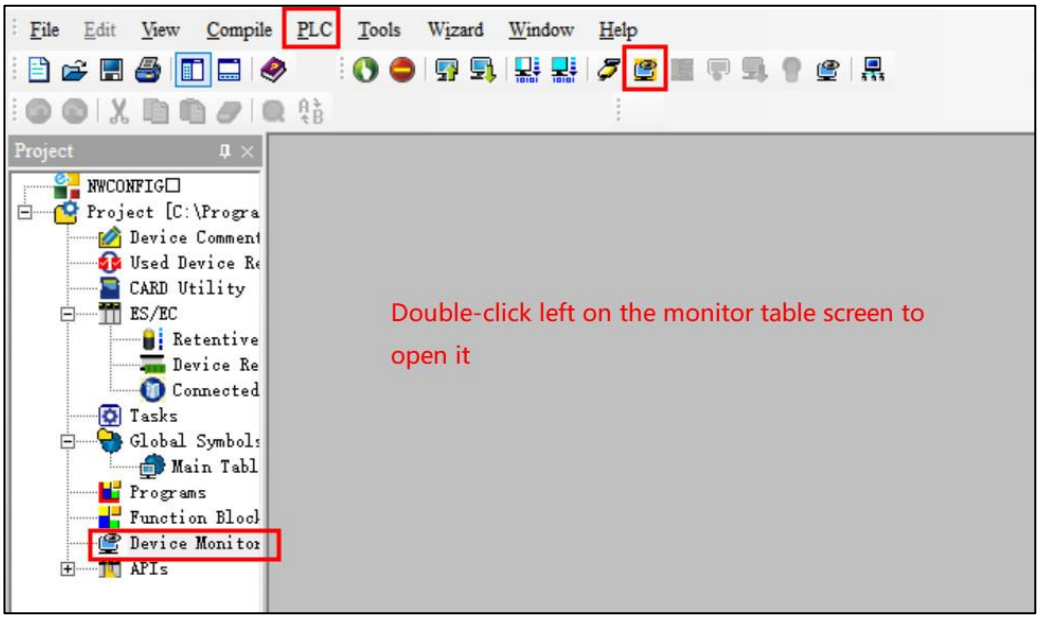
Device Monitoring： The current device status of the host can be monitored in real time through the monitoring table, and because in this mode, ISPSoft only needs to update the device status, so the program currently opened by ISPSoft does not need to be consistent with the program inside the host.

program monitoring： In this mode, the system will display the operating status of the program on the program screen in real time, and therefore the system will require that the program currently opened by ISPSoft must be consistent with the program inside the host.

Notice

The device monitoring mode can be started separately, while the program monitoring mode must be started together with the device monitoring mode.

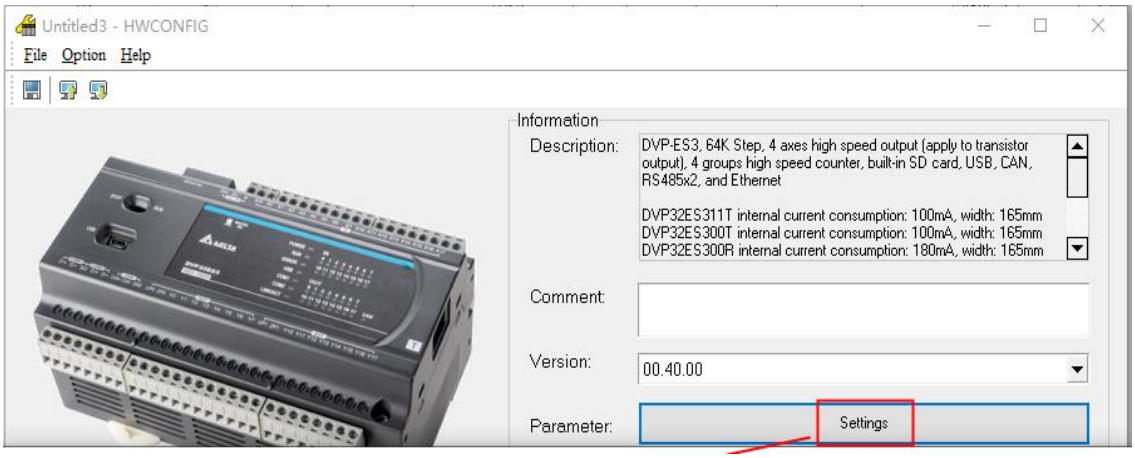
3.3 Monitoring table creation (both offline and online)

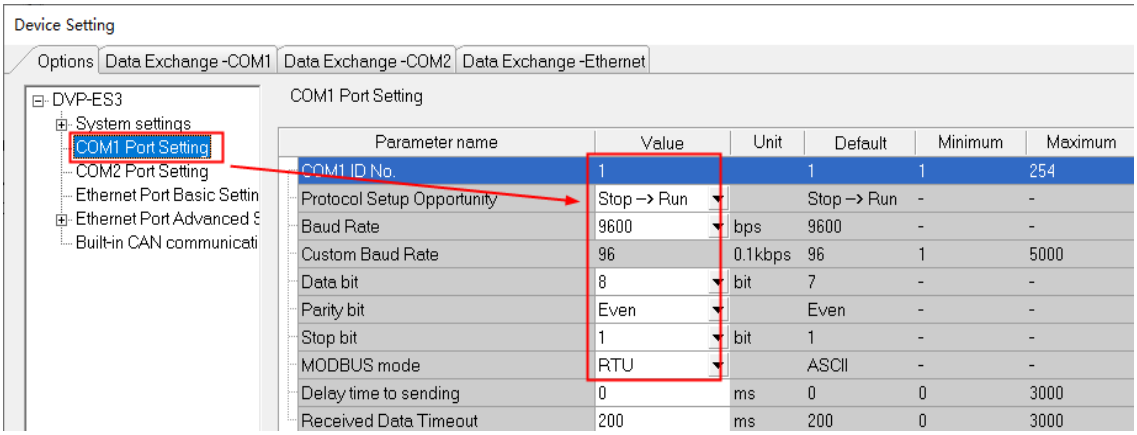


3.4 Configure communication parameters

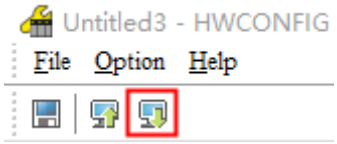
1). Open ISPSoft PLC programming software, and click HWCONFIG after the new project.

2). Click the setting button





3).After setting, click the download button



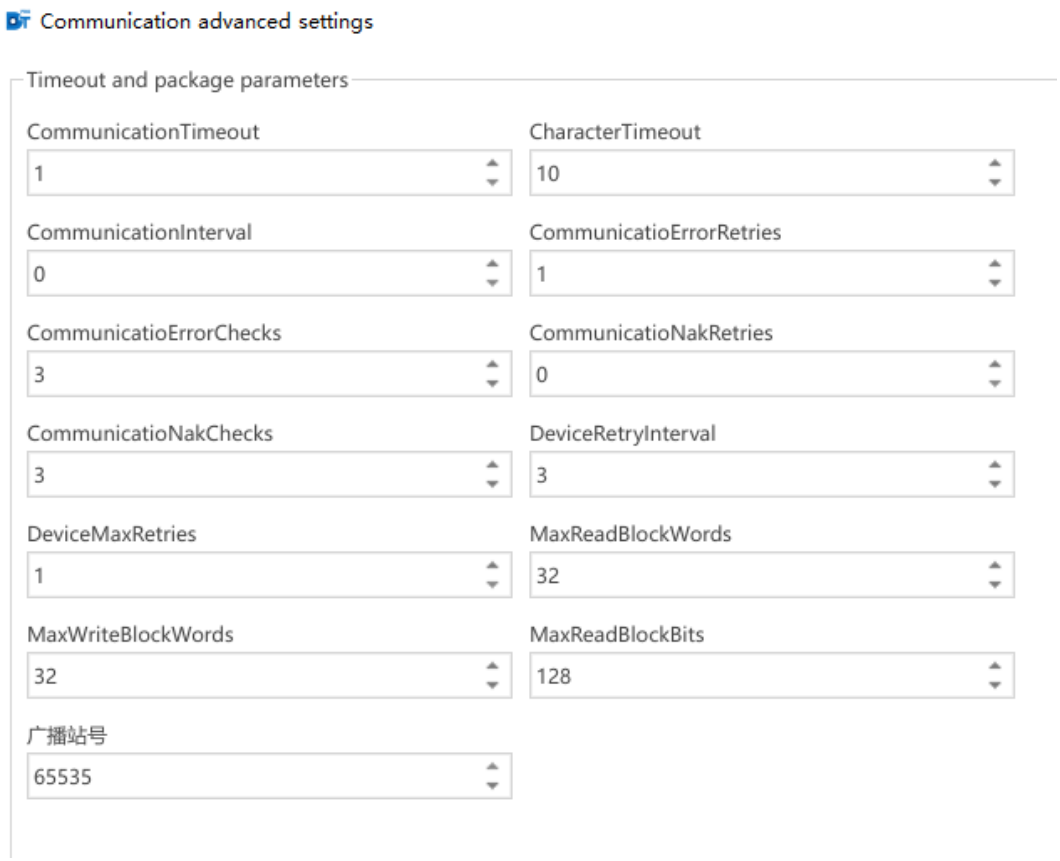
Notice

If the parameters on the PLC side are inconsistent, the HMI parameters can be modified synchronously to keep them consistent with the PLC.

❖4 Supported Register Types

Device	Bit Address	Word Address	Format	Notes
external input node	X0-377	------	OOO	
external output node	Y0-377	------	OOO	
internal secondary node	M0-8191	------	DDDD	
sequence control node	S0-2047	------	DDDD	
timer node	T_bit0-511	------	DDD	
counter node	C_bit0-511	------	DDD	
32-bit Counter	HC_bit0-255	------	DDD	
Special auxiliary sign	SM0-4095	------	DDDD	
Data Register	D_bit0.00-29999.15	------	DDDDD.DD	
timer register	------	T0-511	DDD	
counter register	------	C0-511	DDD	
Counter buffer (double word 32 bits)	------	HC0-255	DDD	
data register	------	D0-29999	DDDDD	
Index Register	------	E0-15	DD	
Special data Register	------	SR0-2047	DDDD	

❖5 Advanced parameters



parameter	illustrate
communication timeout	The HMI waits for the MCU to respond, and if the MCU does not respond within the set interval, the HMI considers the communication timed out and continues to send request packets, continuing to wait
Intercharacter timeout	After a command is sent, the received palindrome may not be transmitted at one time, and the time between any two characters in the multiple transmissions of the palindrome
The maximum number of registers in a word group package (read/write)	The protocol supports up to how many word registers can compose a frame to read or write at once.
The maximum number of registers in a byte pack	The maximum number of bit registers supported by the protocol can form a frame to be read at one time

❖6 Error Message

Reference Manual - Communication "Advanced Parameters" and "Error Message Table"