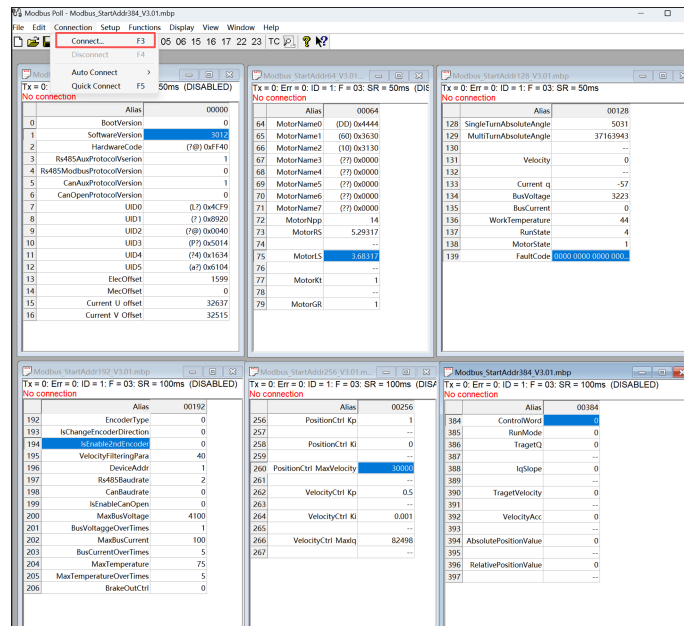


Modbus user guide

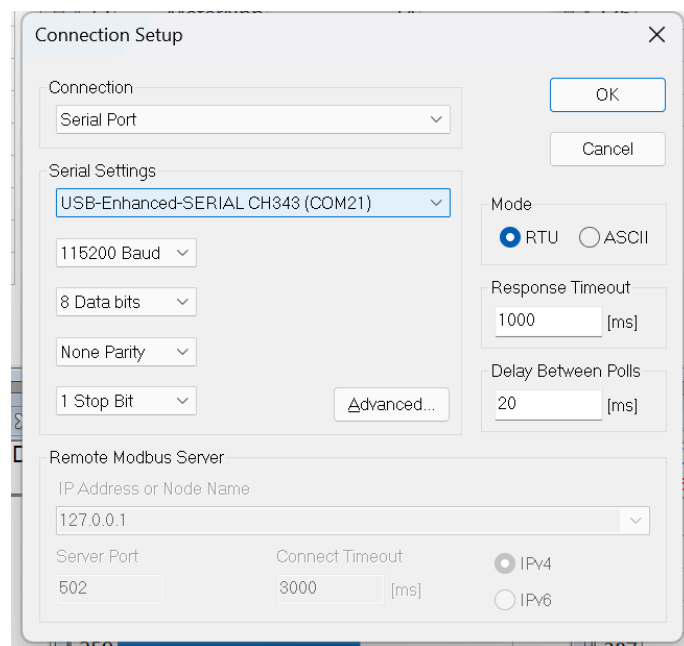
This document provides detailed instructions for the Modbus RTU communication example file using Modbus Poll -64Bit Version 7.2.2.

Using the software

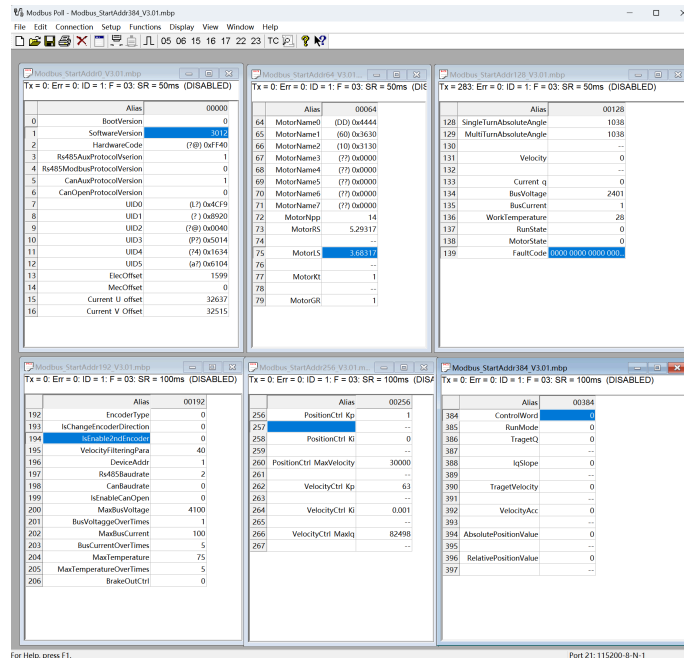
1. Open the software and connect to the servo drive.
Click "Connection" on the menu bar, then select "Connect".



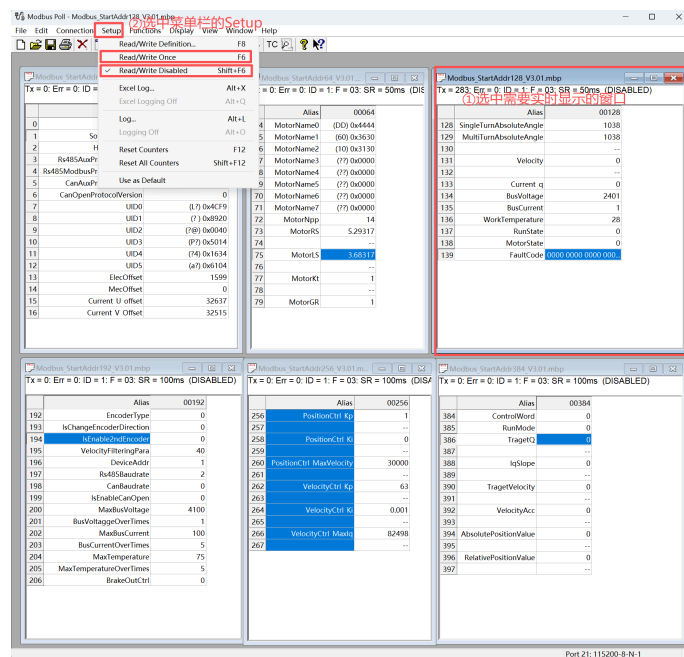
Select the corresponding COM port number, then click "OK".



After the connection succeeds, the interface is shown below.



2. Enable or disable continuous polling.



Read/Write Once: Each time "Read/Write Once" is clicked, the data in the selected window is updated once.

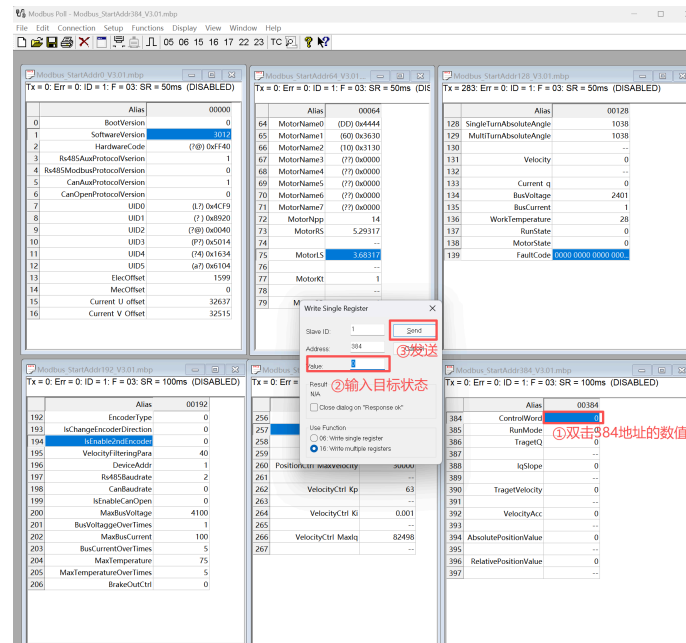
Read/Write Disabled: Select "Read/Write Disabled" to stop data updates in the selected window. Clear "Read/Write Disabled" to allow the selected window to update data continuously.

Control examples

Q-axis current control

Q-axis current control	Disable the motor;	0	0x00	384	0x0180	1	01 06 01 80 00 00 89 DE	01 06 01 80 00 00 89 DE
	Set the operating mode to Q-axis current control;	1	0x01	385	0x0181	1	01 06 01 81 00 01 19 DE	01 06 01 81 00 01 19 DE
	Set the target Q-axis current;	1000	0x00003E8	386	0x0182	2	01 10 01 82 00 02 04 00 00 03 E8 77 38	01 10 01 82 00 02 E0 1C
	Set the Q-axis current slope;	200	0x000000C8	388	0x0184	2	01 10 01 84 00 02 04 00 00 00 C8 F6 3A	01 10 01 84 00 02 00 1D
	Send the parameters and command, then enable the motor.	255	0xFF	384	0x0180	1	01 06 01 80 00 FF C9 9E	01 06 01 80 00 FF C9 9E

(1) Disable the motor by setting the value at register address 384 to 0, as shown below.



(2) Set the operating mode to Q-axis current control. Double-click the value at register address 385, then set the value for address 385 to 1.

(3) Set the target Q-axis current. Double-click the value at register address 386, then set the value for address 386 to 1000.

(4) Set the target Q-axis current slope. Double-click the value at register address 388, then set the value for address 388 to 200.

(5) Enable the motor. Double-click the value at register address 384, then set the value for address 384 to 255.

Speed control

Speed control	Disable the motor;	0	0x00	384	0x0180	1	01 06 01 80 00 00 89 DE	01 06 01 80 00 00 89 DE
	Set the operating mode to speed control;	2	0x02	385	0x0181	1	01 06 01 81 00 02 59 DF	01 06 01 81 00 02 59 DF
	Set the target speed;	10000	0x00002710	390	0x0186	2	01 10 01 86 00 02 04 00 00 27 10 6C 49	01 10 01 86 00 02 A1 DD
	Set the speed-mode acceleration;	2000	0x000007D0	392	0x0188	2	01 10 01 88 00 02 04 00 00 07 D0 F4 55	01 10 01 88 00 02 C0 1E
	Send the parameters and command, then enable the motor.	255	0xFF	384	0x0180	1	01 06 01 80 00 FF C9 9E	01 06 01 80 00 FF C9 9E

The procedure for writing register values is the same as that shown in step (1) of the Q-axis current control example. Write the values to the corresponding registers in sequence, as shown in the figure.

Absolute position control

Absolute position control Target absolute position: 180 degrees (180/360*16384 = 8192)	Disable the motor;	0	0x00	384	0x0180	1	01 06 01 80 00 00 89 DE	01 06 01 80 00 00 89 DE
	Set the operating mode to absolute position control;	3	0x03	385	0x0181	1	01 06 01 81 00 03 98 1F	01 06 01 81 00 03 98 1F
	Set the absolute target position;	8192	0x00002000	394	0x018A	2	01 10 01 8A 00 02 04 00 00 20 00 6F E0	01 10 01 8A 00 02 61 DE
	Send the parameters and command, then enable the motor.	255	0xFF	384	0x0180	1	01 06 01 80 00 FF C9 9E	01 06 01 80 00 FF C9 9E

The procedure for writing register values is the same as that shown in step (1) of the Q-axis current control example. Write the values to the corresponding registers in sequence, as shown in the figure.

Relative position control

Relative position control Relative move: 90 degrees (90/360*16384 = 4096)	Disable the motor;	0	0x00	384	0x0180	1	01 06 01 80 00 00 89 DE	01 06 01 80 00 00 89 DE
	Set the operating mode to relative position control;	4	0x04	385	0x0181	1	01 06 01 81 00 04 D9 DD	01 06 01 81 00 04 D9 DD
	Set the relative position value;	4096	0x00001000	396	0x018C	2	01 10 01 8C 00 02 04 00 00 10 00 FB CA	01 10 01 8C 00 02 81 DF
	Send the parameters and command, then enable the motor.	255	0xFF	384	0x0180	1	01 06 01 80 00 FF C9 9E	01 06 01 80 00 FF C9 9E

The procedure for writing register values is the same as that shown in step (1) of the Q-axis current control example. Write the values to the corresponding registers in sequence, as shown in the figure.