

|NL1000PLUS| Series driver debugging software instructions

Contents

1 the software introduction and description.....	1
1.1 the Software introduction.....	1
1.2 the Software function description.....	1
2 Detailed description of each function.....	2
2.1 Device connection.....	2
2.2 Edit.....	2
2.3 Window.....	4
2.4 Help.....	4
2.5 Left navigation bar function.....	5
2.5.1 View real-time parameters.....	5
2.5.2 View param list.....	6
2.5.3 Import param.....	8
2.5.4 update param.....	9
2.5.5 oscilloscope.....	10
2.5.6 fault data.....	11
3 Troubleshooting.....	12
4 Connect new devices.....	13
5 Others.....	13

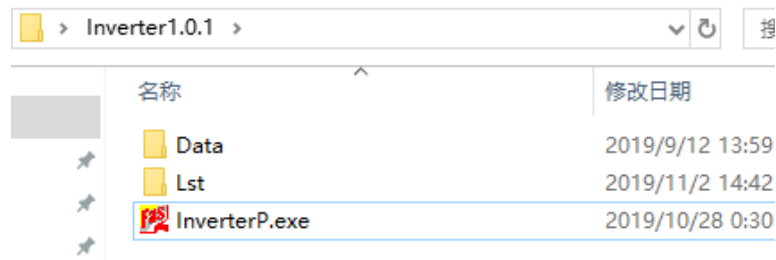
1 the software introduction and description

1.1 the Software introduction

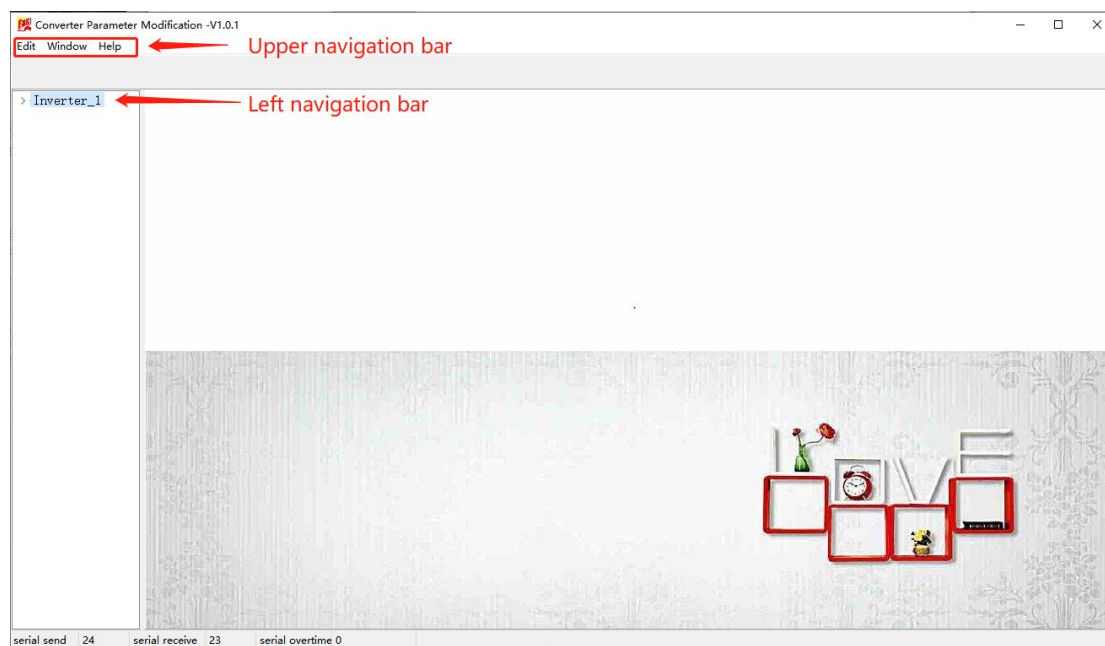
The operating environment of the software is Windows 7 and Windows 10 operating system. It is suitable for NL1000PLUS series inverters, used to debug inverters, easy to modify parameters, and oscilloscope function to check the bus voltage, output current and other parameters.

1.2 the Software function description

Open the folder where the software is located in [Inverter1.0.1], which contains two folders and [InverterP.exe] software. The Data folder stores data, and the Lst folder stores configuration files and images used in the program.



1) Open the [InverterP.exe] software main interface as follows:



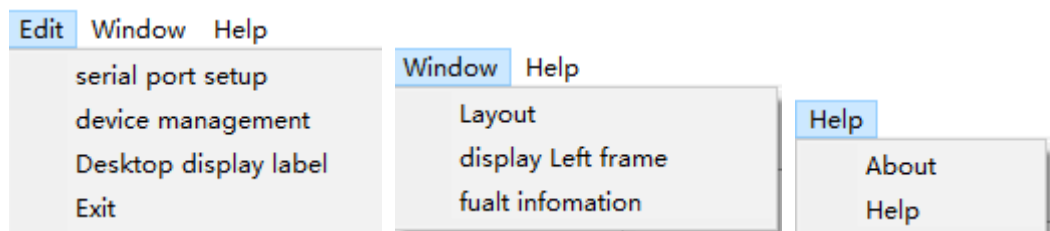
2) Top navigation bar function preview:

In [Edit], there are [serial port setup], [device management], [Desktop display

label], and [Exit].

In [Window], there are [Layout], [display Left frame], [fault Information].

In [Help], there are [About] and [Help].



Preview on the left navigation bar, the left navigation bar can perform real-time monitoring, view parameter list, import parameters, operate keyboard, oscilloscope, and fault record. The function is as follows:

```
▼ Inverter_1
  ...real data
  ...Param list
  ...import param
  ...update param
  ...oscilloscope
  ...fault data
```

2 Detailed description of each function

2.1 Device connection

Use the 485 serial cable to connect the device, the device is connected to the RS+ and RS- ports, and the other end is connected to the computer via USB.

2.2 Edit

2.2.1 When using the software for the first time, you need to open the [serial port setup] and modify the serial port number. If you do not know the serial port number, you can view it in [My Computer] -> [Device Manager] -> [Port (COM and LPT)]. After confirming the port, modify it in the software and click [Open]. If the button is displayed as [Off], you need to click twice.

Use the lower left display to determine if the connection is successful. When the connection is successful, the serial send and serial receive are increasing. The connection is fail if serial overtime is increasing.

serial send	5	serial receive	0	serial overtime	4
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2.2.2 Select a matching device type

Switch the device type in [Edit] -> [device management]. You can also modify the device name here. After the modification is completed, click the [Modify] button to save. After modifying the device type, you need to restart the software.

After completing the above settings and modifications, you can use the software to view the parameters, compare the actual values with the default values, and modify the parameter values.

2.3 Window

2.3.1 Modify layout

Click [Window] -> [Layout], you can place the background image you want to switch in the folder Lst, and fill in the name of the picture in the layout window. You can also modify the desktop background color and switch between Chinese and English. After editing, click Save. After saving, you need to restart the software to implement the modification.



2.3.2 Click [Window] -> [display Left frame] to hide/show the left navigation bar.

2.3.3 Click [Window] -> [fault information] to check whether the inverter is currently faulty. If it is faulty, display the fault information.

2.4 Help

2.4.1 If there are any problems during the use, you can click [Help] -> [About] to call the software service.

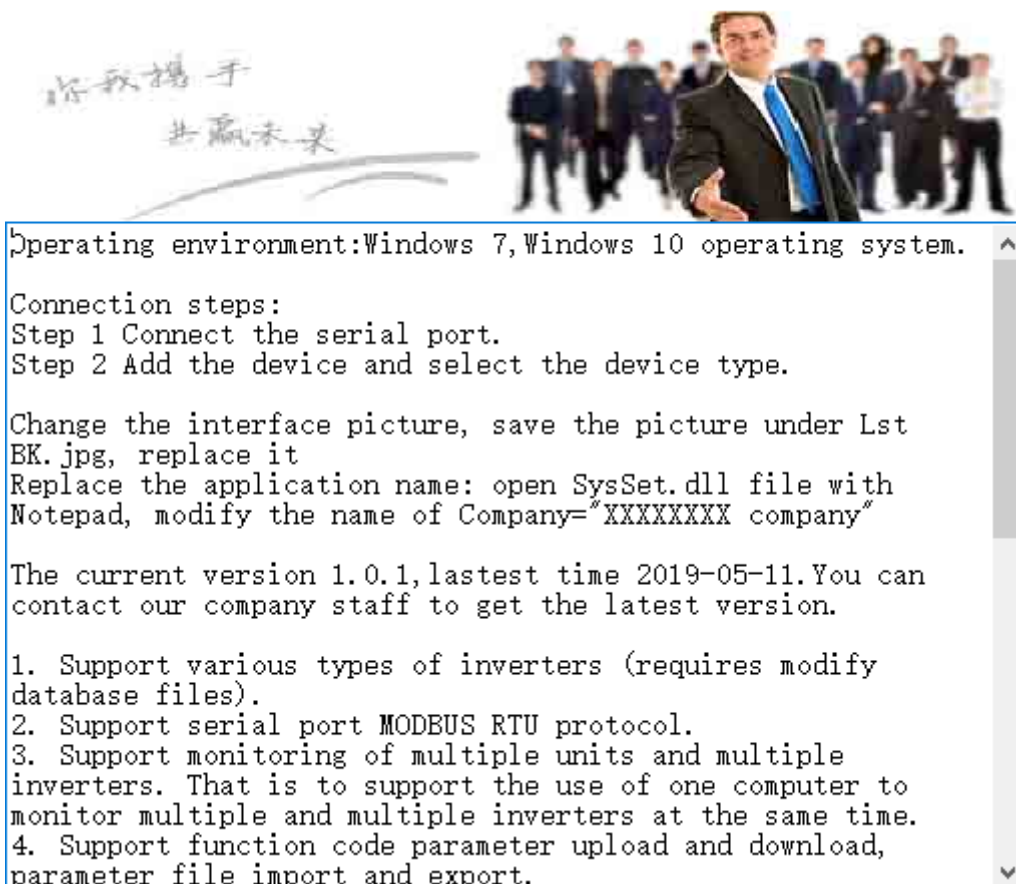


2.4.2 Click [Help] -> [Help] to view the applicable environment and usage of the

software.

Help

×



2.5 Left navigation bar function

2.5.1 View real-time parameters

The display is as follows:

Inverter Addr=1 x

RealTime name	Value	RealTime name	Value
Operating frequency	0.00	Busbar voltage	326.6
Output voltage	12.50	Output current	0.0
S output flag	0000 0000	Current temperature	0
Rotating speed	0	Cumulative running	375
FIV1 data	-10.00	FIV2	-10.000
FIV3	-10.000	Software version	0

FWD
Stop
reset

adjustment(Hz)

current state
Stop

You can modify the displayed real-time parameters, double-click the parameter name, and set the parameters that the user needs to display. As shown in the figure below, refer to the manual to change the title name, receive address, and decimal places displayed.

update monitor parameter
x

title name

receive address

0, 0x7000=0

v

display dot

Save

2.5.2 View param list

You can select the parameter group, or click the left and right buttons to view the parameters of the adjacent parameter group. red indicates that the current value of the parameter does not match the default value.

Update parameter Inverter device type:PH300E Address=1							
<div> <div><<<</div> <div>D1 Oil pump parameter view</div> <div>>>></div> <div>Find</div> <div>OutputData</div> <div>edit database</div> </div>							
F.Code	ParameterName	Value	Unit	Default	Max	Min	Property
D1.00	Motor angle	234.9	°	0	359.9	0.0	☆
D1.01	Oil pressure setting	0.0	Kg	0	System oil press	0.0	☆
D1.02	Oil pressure feedback value	0.0	Kg	0	System oil press	0.0	☆
D1.03	Motor running speed	0	rpm	0	30000	-999	☆
D1.04	FIV1 analog voltage	0.0	V	0	10.0	-10.0	☆
D1.05	FIV2 analog voltage	0.0	V	0	10.0	-10.0	☆
D1.06	FIC analog voltage	0	V	0	10	-10	☆
D1.07	FIV1 simulation zero drift	0	V	0	10	-10	☆
D1.08	FIV2 simulation zero drift	0	V	0	10	-10	☆
D1.09	FIC simulation zero drift	0	V	0	10	-10	☆
D1.10	Given flow corresponding frequency	0.0	Hz	0	Maximum frequency	0.0	☆
D1.11	The degree of disturbance coefficient	0		0	1000	0	☆
D1.12	Communication oil pressure coefficient	0.0	Kg	0	System oil press	0.0	☆
D1.13	CAN communication interference	0		0	128	0	☆
D1.14	CAN send number	0		0	65535	0	☆
D1.15	Number of CAN receptions	0		0	65535	0	☆
D1.16	CAN buffer usage	0	%	0	1.0	0	☆

The parameter value can be modified by clicking on the current value of the parameter. The modification takes effect after closing the window for modifying the parameters.

Operation panel Inverter device type:PH300E Address=1

×

F. Code

P2.00

<<<

>>>

param value★

2

modifiable

Max:

65535

Min:

0


edit database

Permanent magnet synchronous servo motor

Motor type

default : model dependent

Click [edit database] to modify the parameters of the parameters and modify the default values, units, maximum values, and minimum values. Click [Refresh] after modification.

 update database record ×

add delete update << >> reflash

Func. Code: Address: ☐十六进制 名称:


default: Unit: Max: Min:

DetailDesc: Property:

1: Heavy load type

2.5.3 Import param

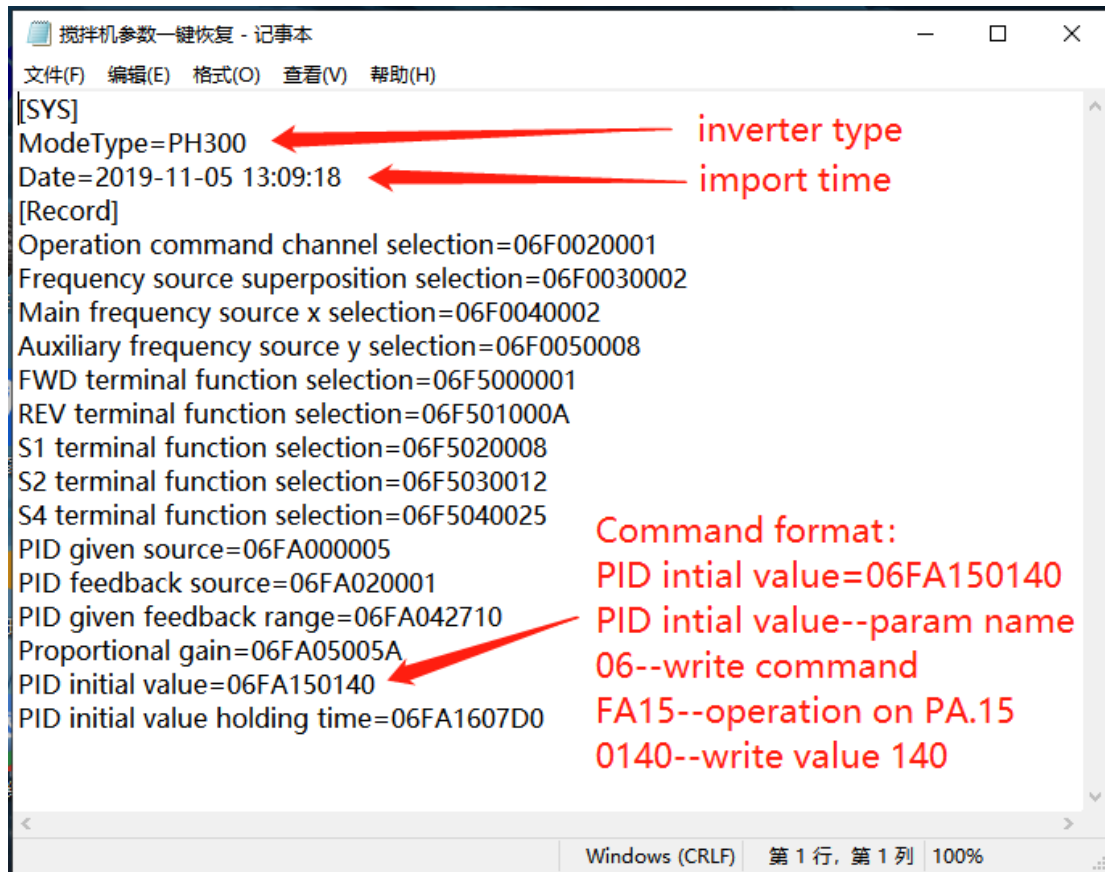
When you need to modify multiple parameters at the same time, you can organize the parameters into a txt file. Place the file in the Data folder; click [open file], and select the file you want to import. After importing, click [execute].

 批量修改变频器参数: Inverter device type:PH300E Address=1 搅拌机参数一键恢复.txt ×

Interval(ms): execute open file

Address	Name	Command	Value
F002	Operation command channel selection	06	0001
F003	Frequency source superposition selection	06	0002
F004	Main frequency source x selection	06	0002
F005	Auxiliary frequency source y selection	06	0008
F500	FWD terminal function selection	06	0001
F501	REV terminal function selection	06	000A
F502	S1 terminal function selection	06	0008
F503	S2 terminal function selection	06	0008

File template description:



2.5.4 update param

Simulate keyboard operation, select or fill in the function code, fill in the value to be modified in the parameter value box, click the [Modify Parameter] button, the modification is completed, and the modification will take effect after the window is closed.

Operation panel Inverter device type:PH300E Address=1 ×

Switch function code left and right

F. Code P2. 00 <<< >>>

param value ★ 2 modifiable

Update param value

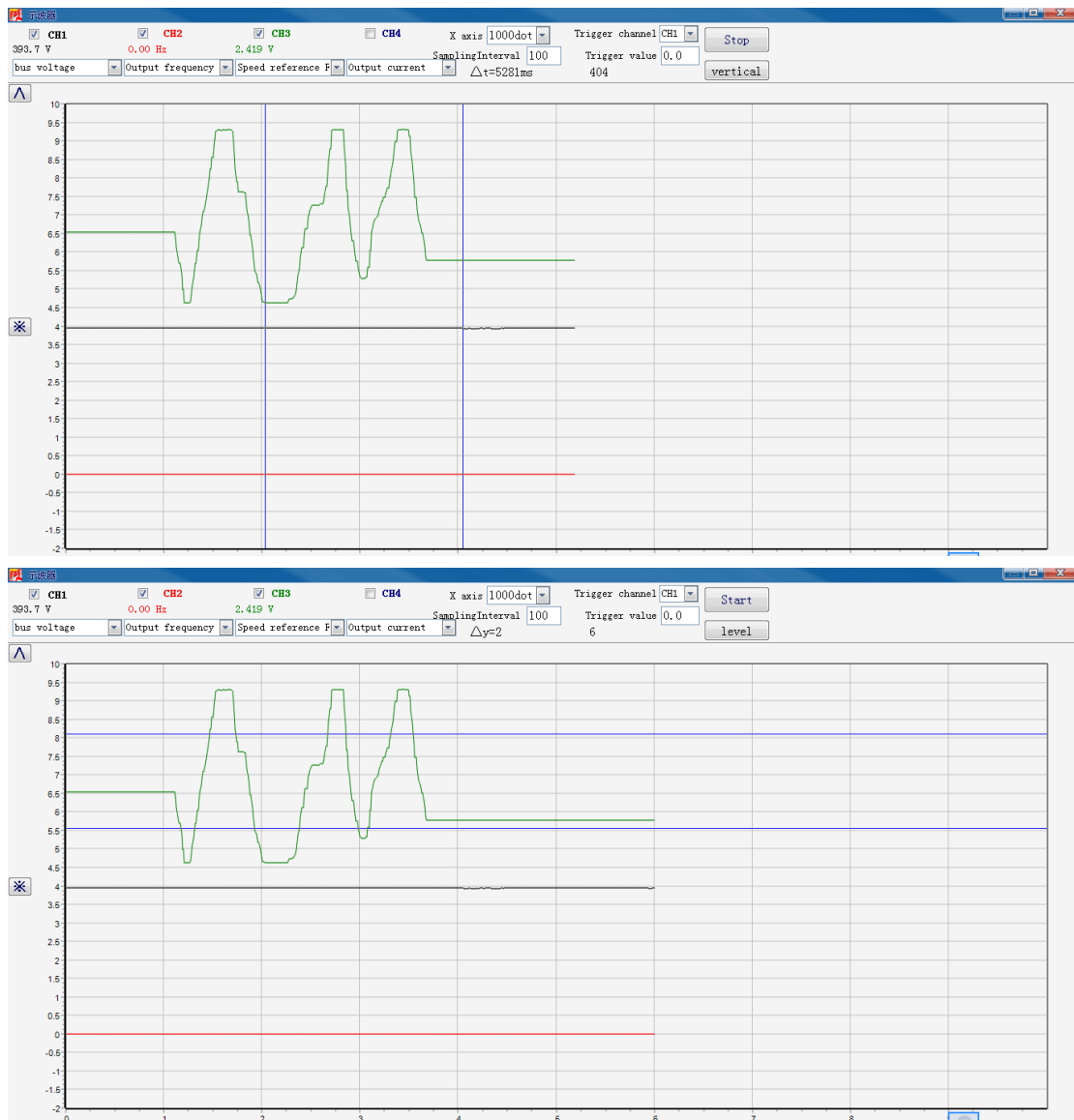
Max: 65535 Min: 0 edit database

Permanent magnet synchronous servo motor

Motor type	default : model dependent
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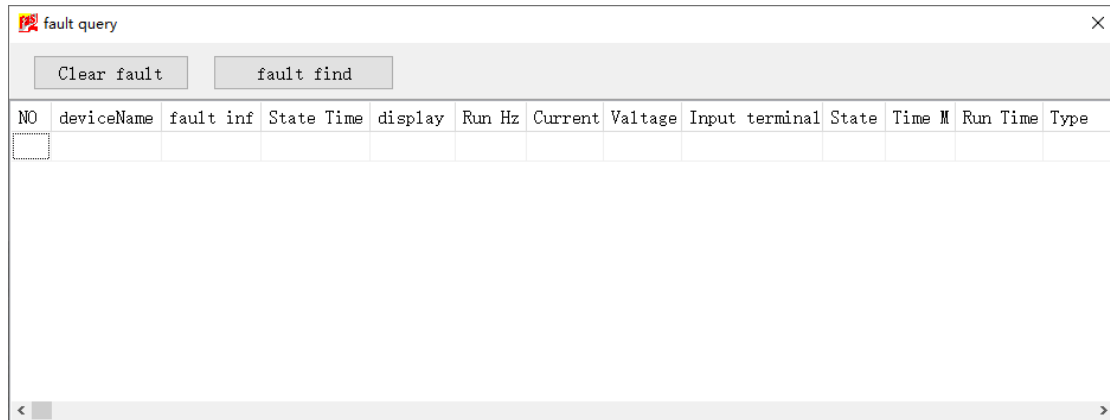
2.5.5 oscilloscope

Select the parameters and gains to be displayed. A maximum of four parameters can be displayed. Click CH1, CH2, CH3, and CH4 to select the channel for recording. Modify the unit length, sampling interval, trigger channel, and trigger value of the x axis as required. Then click [Start], and the parameter change will start to be displayed in the coordinate axis. Select the curve by frame to enlarge the curve. Select [Cursor] to draw two vertical scales in the picture or switch to horizontal scales. The scale difference is displayed on each channel. Click [Stop] to record gain.



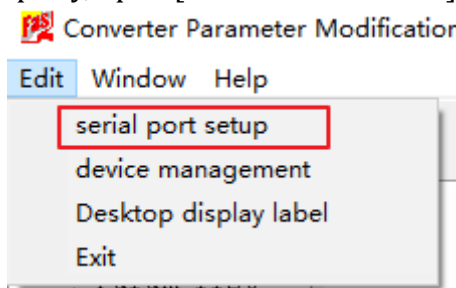
2.5.6 fault data

You can view the fault log, read the current fault of the drive, and clear all faults.

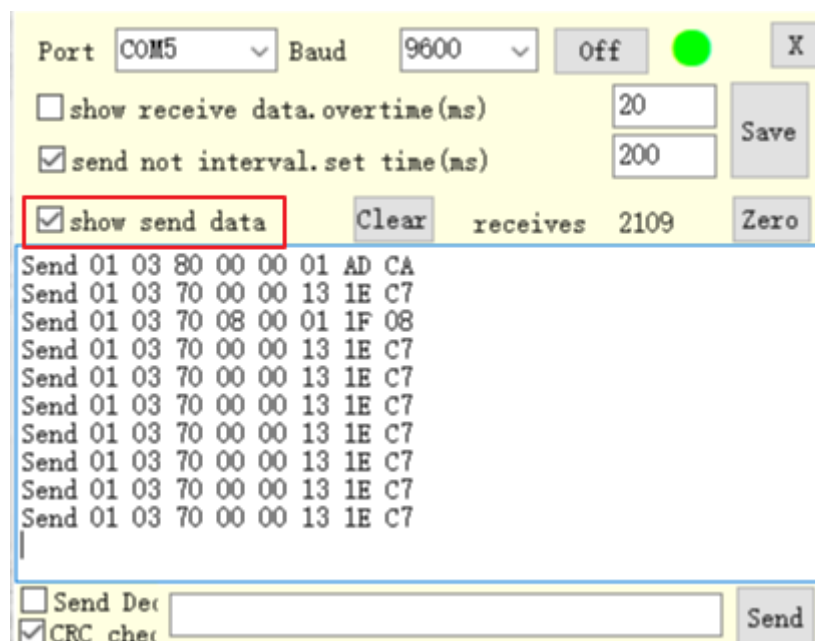


3 Troubleshooting

If the debugging software fails, reconnect the serial cable to the computer. If it still does not work properly, open [Monitor Serial Port] in [Settings].



Check the display serial port to send data, view the data sent and received, and find out the solution to the problem.



4 Connect new devices

To connect to a new series, you need to switch the device type in [Edit] -> [device management], click [Add] then restart the software.

device management ×

device name	<input type="text" value="Inverter"/>	<input type="checkbox"/> move the locati Panel display button
Modbus Add	<input type="text" value="1"/>	
device type	<div><div>PH300</div><div>PH300</div><div>PH300E</div></div>	<input type="checkbox"/> display REV
<input checked="" type="checkbox"/> Enable this		<input type="checkbox"/> display P_RE
display gif	<input type="text" value="no show animator"/>	<input type="checkbox"/> display P_FW
		<input type="checkbox"/> free stop

gif position

Left:	<input type="text" value="117"/>
Top:	<input type="text" value="514"/>
Height:	<input type="text" value="120"/>
Width:	<input type="text" value="100"/>

Modify the gif to be show path in Lst/animat(1..5).gif

5 Others

If you can't solve the problem, please contact the supplier or manufacturer for processing, or call the software service phone in [Help]->[About]. Thank you!