KALATEC AUTOMAÇÃO

XINJE

HMI and micro printer

Connection manual

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1. Touchwin v2.c.6 software

1.1 Type choice

1.1.1 Printer type

1. Support thermal micro printer, dot matrix micro printer
2. Support ESC command/Epson print cartridge. The dot matrix graph print command is ESC K ml mh n1 n2...ni… , this command is for i*8 dot matrix graph.
3. Paper type: 57.5mm
4. Only support serial port print, cannot support parallel port print
5. Printer type

(1) SPRT

Type	Paper width (mm)	Print mode	Mark
SP-RMDIII32SH	57.5	Thermal	
SP-RMDIIIDSH-E83AS	57.5	Thermal	SH is serial port, PH parallel port
SP-DN16SH	57.5	Thermal	
SP-DN40SH	57.5	Thermal	
SP-CF40h	57.5	Thermal	

(2) BRIGHTEK

Type	Paper width (mm)	Print mode	Mark
E20	57.5	Dot matrix	
A7-2R90-31E72A	57.5	Thermal	
A5-2Z20-40E125	57.5	Dot matrix	
AA	57.5	Thermal	
E22-2R90-00E1172TGA	57.5		
E22-1R90-00E1172TGA-658	57.5		
WH-164Q0108A5 (232)	57.5	Dot matrix	

(3) SIUPO: refer to type choice conditions

(4) RONGDA: RD series

1.1.2 HMI type

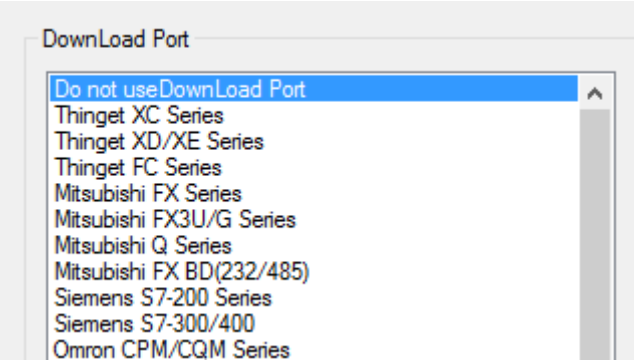
HMI: TP series, TH series (exclude TH465-MT/UT), TG series, TE series.

Integrated HMI and PLC controller: XMP-32, XMH-30 (for COM0).

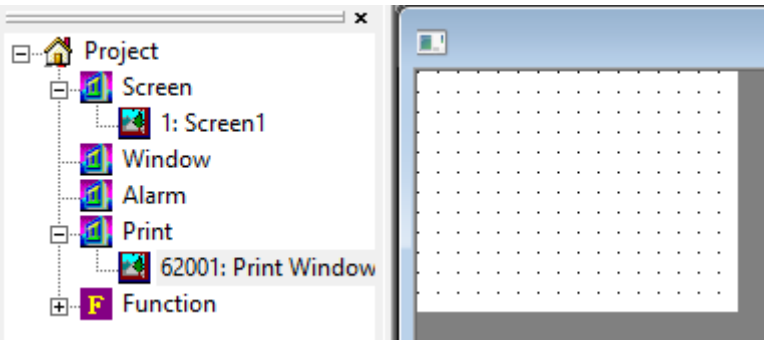
1.2 Print application

1.2.1 Screen making

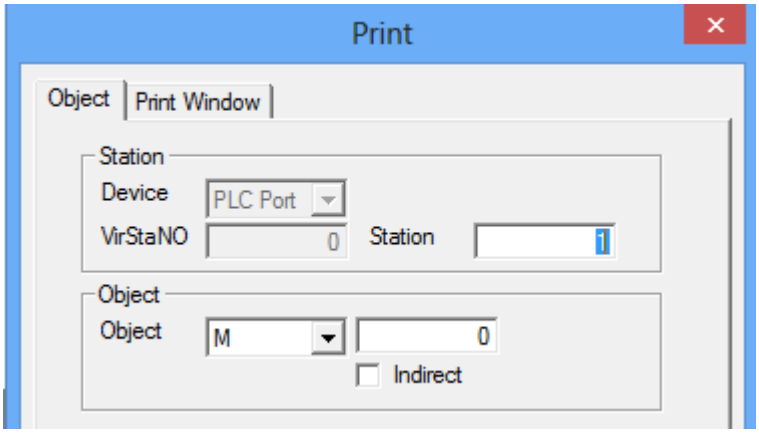
1. Make a new project, choose “Do not use download port” for download port device.

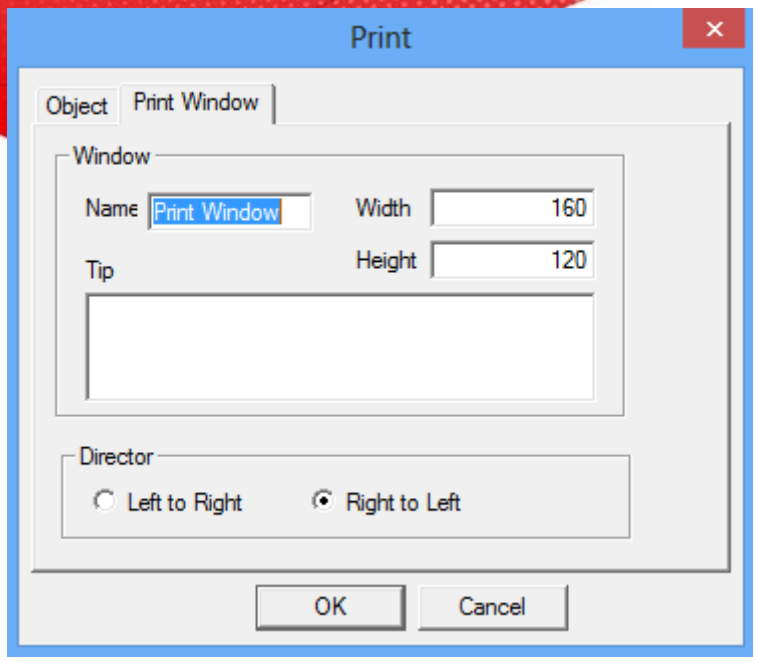


2. right click “print window” to add a new print window.



3. double click [62001] to open print attribute window.





Note:

(1) Object: for manually activation, please select the register starting from PSB256, activate mode is instant on; for PLC activation, please select PLC coil M, M open circuit time is about 3s.

(2) Paper direction: set as the print model. For example, SPRT print from right to left; BRIGHTEK print from left to right.

(3) Print window height is less than HMI screen height, print window width is less than print paper width.

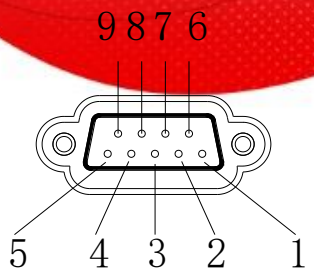
(4) Do not set background color for print window, otherwise the print background will be black.

(5) The component cannot over the range of print window, otherwise it cannot print.

(6) The print component cannot be copied when using Touchwin advanced function. Otherwise the print window will print more than 2 times at once.

1.3 Communication

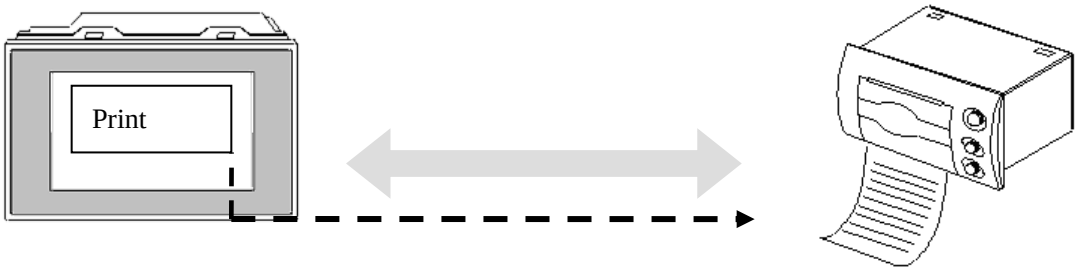
HMI download port:



Pin	Name	Explanation
1	NC	-
2	RXD	RS232 receive
3	TXD	RS232 send
4	A	RS485 +
5	GND	Ground
6	NC	-
7	B	RS485 -
8	NC	-
9	NC	-

1.3.1 TP and XMP-32 connect printer

The download port is in download mode. First, switch the download port to communication mode.



1. cut off the power of HMI, connect pin5 and pin6 of download port.
2. power on the HMI, then take off the wire between pin5 and pin6.
3. connect the communication cable.

Pin	Name
1	NC
2	RXD
3	TXD
4	A
5	GND
6	BUSY
7	B
8	NC
9	NC

Connect pin5 and pin6 with wire

Notes:

(1) Download port: change the download mode to communication mode. Connect pin 5 and 6, cut the power and give power again for the HMI.

(2) Download port: change the communication mode to download mode. Take off the cable, cut off the power and give power again for the HMI.

(3) TP series HMI made before the May 2007:

A. TP460-L: Download port pin 5 and 8 connected.

B. TP560-L: Download port connect printer directly.

C. TP760-T/560-G/560T/A60-L/A60-T: Download port pin5 and 6 connected.

1.3.2 TH, TG, TE, XMH-30 connect printer

Download port connect printer directly

2 Printer application

2.1 SPRT printer

SP-RMⅢ32SH (DN series)

www.sprinter.com.cn

contact phone: 86-010-62969379

2.1.1 Printer specifications

Power supply: DC5V/6A

Printer paper: 57.5±0.5mm thermal paper

Mounting dimension: 103×57mm

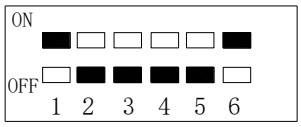
2.1.2 Printer communication parameters

baud rate: 9600bps

Parity: even

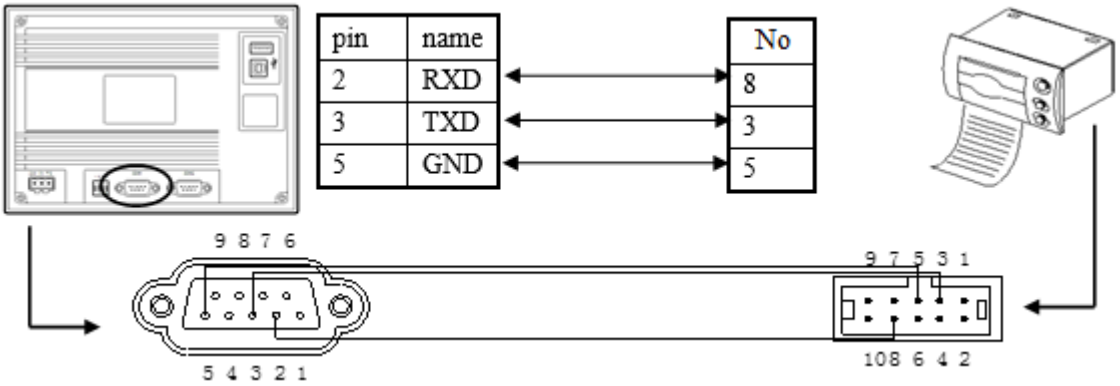
Handshake: any

DIP switch: switch 1 and 6 is ON, others are OFF.



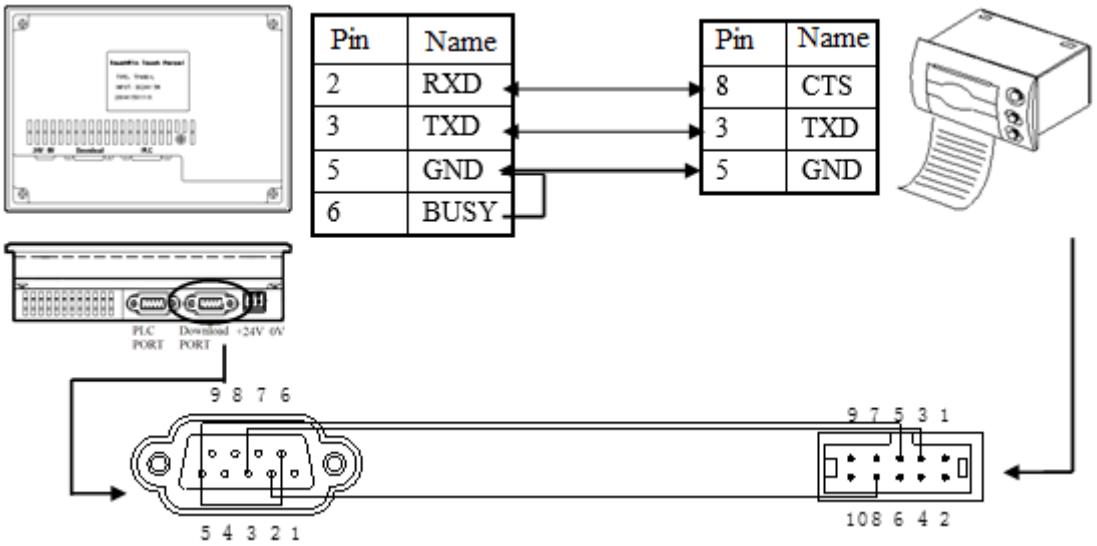
2.1.3 Communication cable

1. TH series HMI



2. TP series HMI

Download port description please refer to chapter 1.2.2.



HMI	Printer	Function
2	8	Busy: printer send its busy state to HMI
3	3	Rx: receive HMI data
5	5	GND: signal ground

Notes:

The cable only fit for printer SP-RMⅢ32SH (DN series).

2.2 Brightek printer

WH-A72R90-31E72A(A7 series)/ E20 series/A5 series

www.whkj.com.cn/

Contact phone: 010-51655555

2.2.1 Printer specifications

Power supply: DC5V /3A

Printer paper: 57.5±0.5mm thermal paper

2.2.2 Printer communication parameters

Baud rate: 9600bps

Parity: even

Handshake: any

2.2.3 Communication cable

HMI	Printer	Function
2	6	Busy: printer send its busy state to HMI
3	5	Rx: receive HMI data
5	9	GND: signal ground

Notes:
The cable only fit for printer Brightek WH-A72R90-31E72A(A7 series)/ E20 series/A5 series.

2.3 SIUPO printer

SIUPO SP-M/D/E/F/H series (dot matrix/thermal)
www.siupo.com/index.asp
contact phone: 010-62378888

2.3.1 Printer specifications

Power supply: DC5V /6A

Printer paper: 44.5mm±0.5mm, diameter: 40mm (SP-E1610)

57.5mm±0.5mm, diameter: 40mm (for other models)

Mounting dimension: 103×57mm

2.3.2 Printer communication parameters

Baud rate: 9600bps

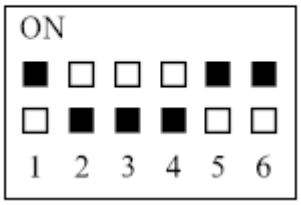
Parity: no parity

Data bit: 8 bits

DIP: switch 1, 5, 6 are ON, others are OFF

Note: switch 1, 2 ,3 can set the printer baud rate; switch 5, 6 can set the printer parity.

default setting:
9600bps, 8 data bits, no parity



2.3.3 Communication cable

The port of SP series printer is compatible with RS232. The port is 5-wire single-row socket.

HMI	Printer	Function
2	4	Busy: printer send its busy state to HMI
3	3	RXD: receive HMI data
5	5	GND: signal ground

Note:
The cable only fit for printer SIUPO SP-M/D/E/F/H series.

2.4 RONGDA printer

RONGDA RD series
www.rd-cn.com
Contact phone: 010-51659696

2.4.1 Printer specifications

Power supply: DC5V/6A

Printer paper: width 48mm

Print direction: from left to right

Note: HMI default print direction is from right to left. Please modify the direction in the Touchwin software. (refer to chapter 1.1.1)

2.4.2 Printer communication parameters

Baud rate: 9600

Parity: no parity

2.4.3 Communication cable

HMI	Printer	Function
2	8	Busy: printer send its busy state to HMI
3	3	RXD: receive HMI data
5	5	GND: signal ground

Note:

The cable only fit for printer RONGDA RD series.

3. Touchwin v2.d software

3.1 Type choice

1. Support thermal micro printer, dot matrix micro printer
2. Support ESC command/Epson print cartridge. The dot matrix graph print command is ESC K ml mh n1 n2...ni… , this command is for i*8 or i*24 dot matrix graph.
3. Paper type: 57.5mm
4. Only support serial port print, cannot support parallel port print
5. Printer type

(1) SPRT

Type	Paper width (mm)	Print mode	Mark
SP-RMDIII32SH	57.5	Thermal	
SP-RMDIIIDSH-E83AS	57.5	Thermal	SH is serial port, PH parallel port
SP-DN16SH	57.5	Thermal	
SP-DN40SH	57.5	Thermal	
SP-CF40h	57.5	Thermal	

(2) BRIGHTEK

Type	Paper width (mm)	Print mode	Mark
E20	57.5	Dot matrix	
A7-2R90-31E72A	57.5	Thermal	
A5-2Z20-40E125	57.5	Dot matrix	
AA	57.5	Thermal	
E22-2R90-00E1172TGA	57.5		
E22-1R90-00E1172TGA-658	57.5		
WH-164Q0108A5 (232)	57.5	Dot matrix	
U01-0R10-00E00820BA	57.5	Thermal	Cutter printer

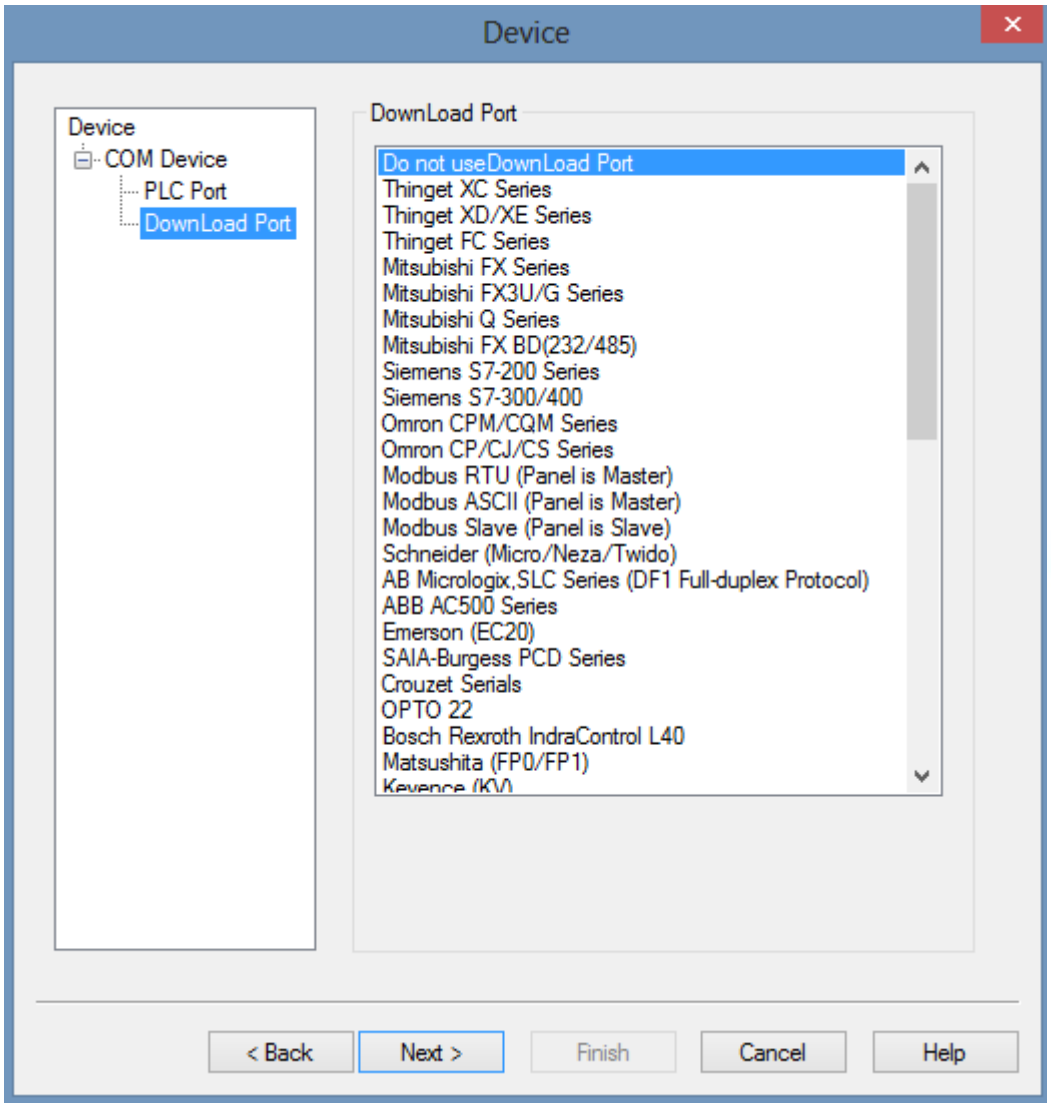
(3) SIUPO: refer to type choice conditions
(4) RONGDA: RD series

3.2 HMI type

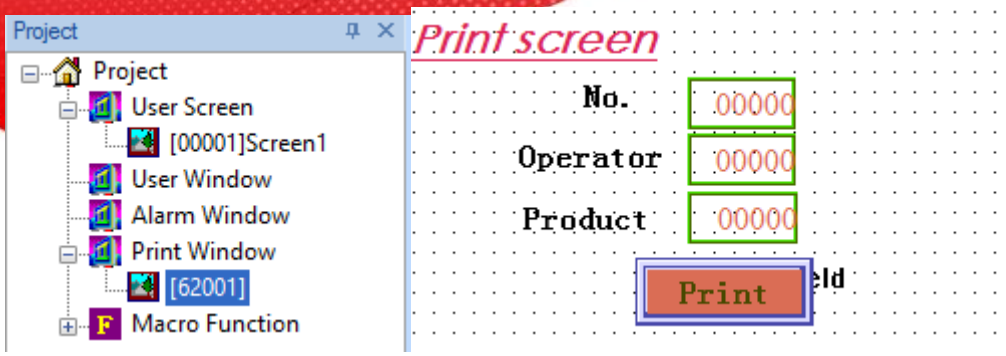
HMI: TH series (exclude TH465-MT/UT), TG series, TE series.
Integrated HMI&PLC controller: XMH-30 (use COM0).

3.3 Print application

1. When making a new project, choose “do not use download port” for download port in Touchwin software.

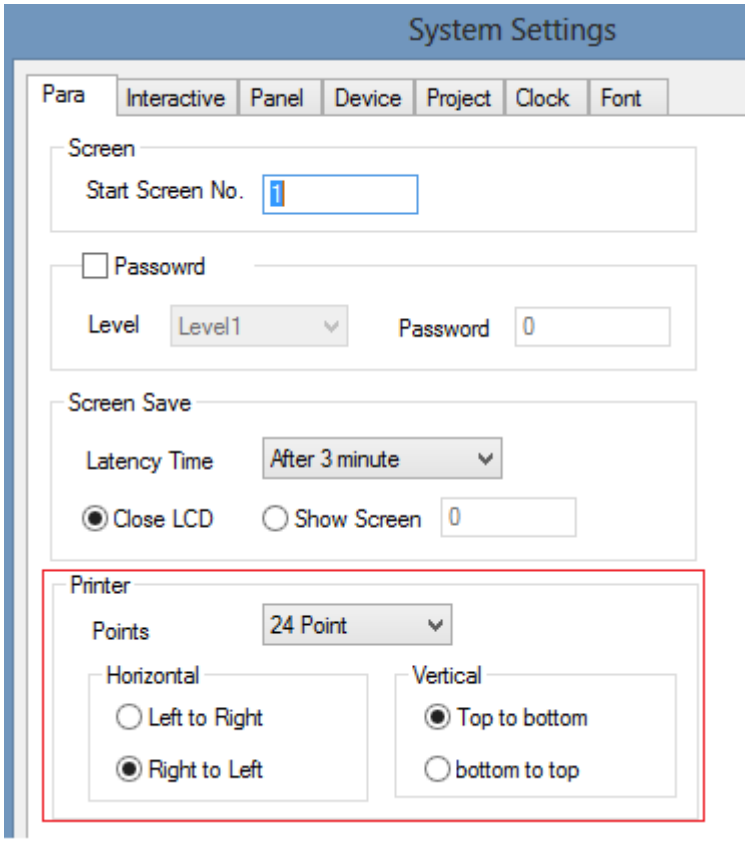


2. right click the mouse on the print window to add new window. Then edit the print contents in the print screen.



3. after editing the print screen, please set the print parameters.

(1) click File/setting in Touchwin software:

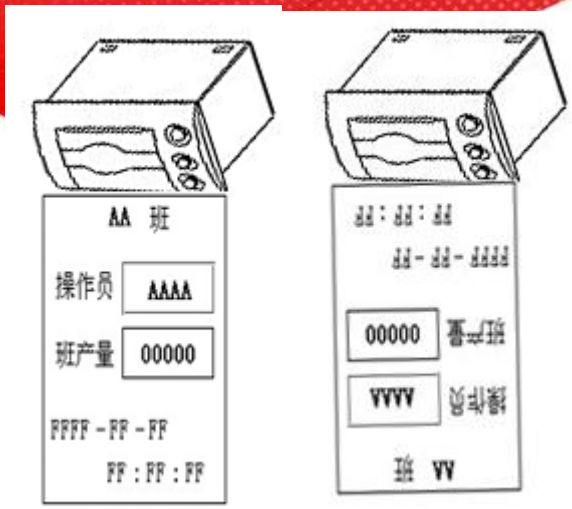


Points: 8 points and 24 points. Please choose the printer points as the printer features.

Horizontal: choose the print direction as the printer features

Vertical: print contents direction

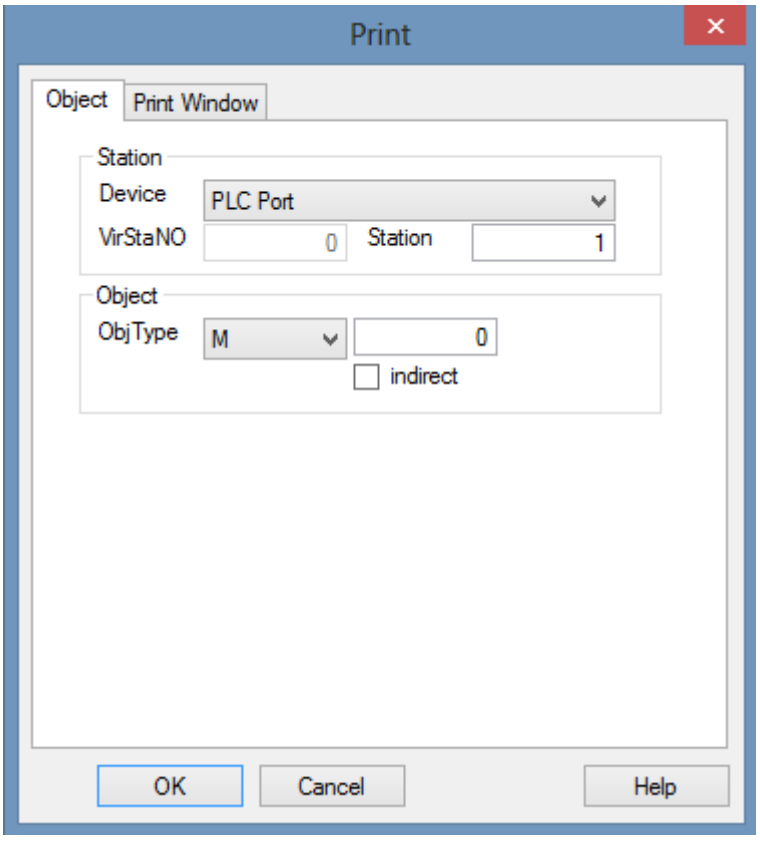
Note: If the print direction is wrong, the print contents will be garbled.

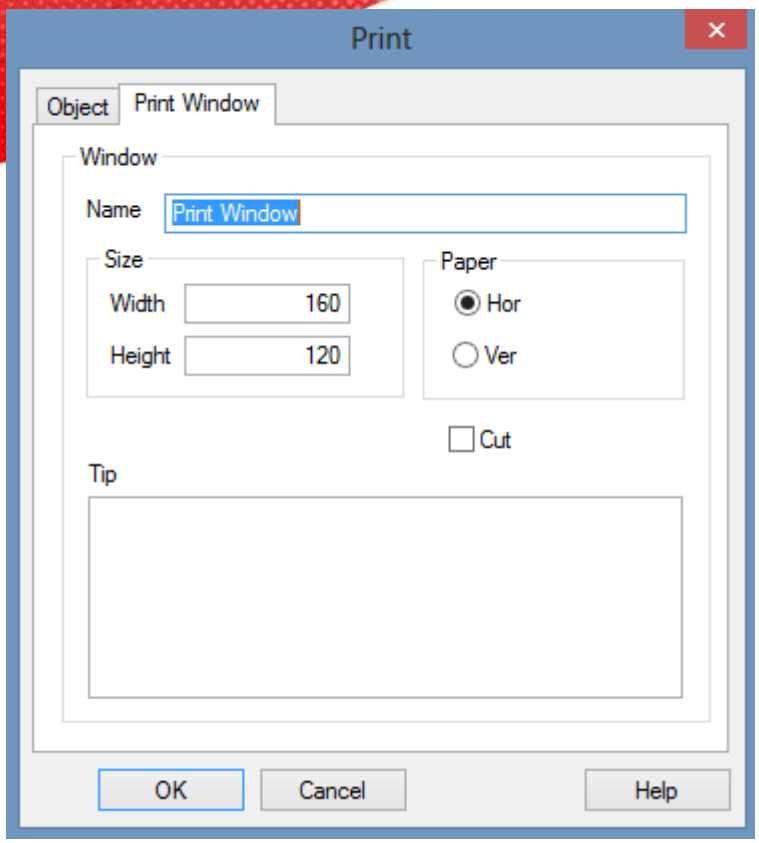


(2) Double click the print window to show the print setting window.

There are two tabs in the window.

Object: the coil to activate the printer. For HMI internal coil, the operation is instant ON. For PLC coil, the operation is ON for 3 seconds.

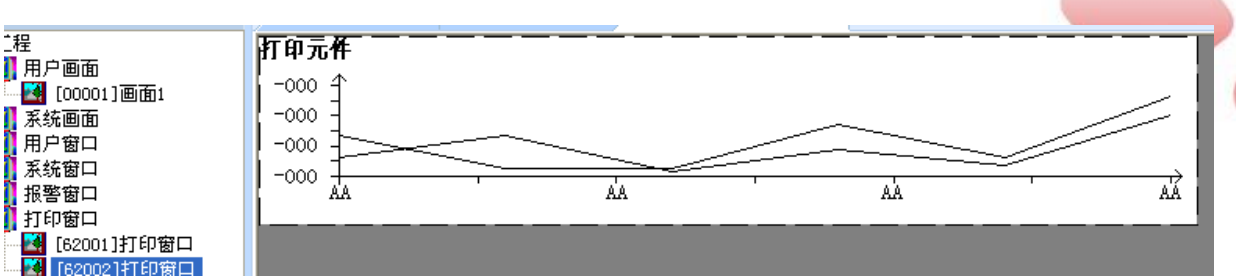




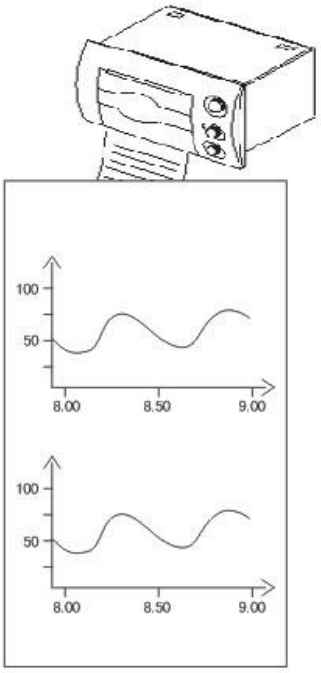
Size: the width cannot over the paper width. The height can be set as the print contents.

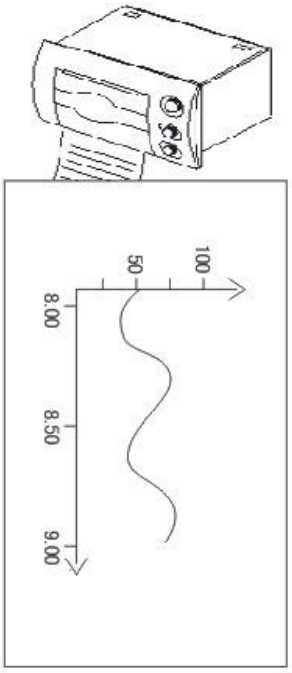
Cut: if the printer supports cutter function and the instruction is “ESC k n”, please select cut.

Paper: vertical direction is fit for printing curve and the print width can be large.



Print effect:





horizontal vertical

4. Q&A

Q1: Whether the printer can communicate with HMI PLC port?

A1: cannot. The printer can communicate with HMI download port.

Q2: Which HMI models can connect to printer?

A2: MP760-T, TP, TH, TG, TE series, OP560-L/T, XMP2-32, XMH3-30.

Note: TH, TG, XMH3-30 can connect the printer through download port. Other models should connect the pin 5 and 6 of download port, then connect to the printer.

Q3: Why the HMI cannot activate the printer?

A3: Reasons:

(1) Please check the HMI model. For TP/ MP760-T /OP560-L/T /XMP-32, the pin5 and 6 of download port should be connected, then connect to the printer.
(2) Check the communication cable
(3) Check the printer communication parameters
(4) Check the HMI download port setting in Touchwin software, it should be “do not use download port”.
(5) For thermal printer, check if the paper is reversed.
(6) The printer contents is over the printer window range.

Q4: Why the printer contents are garbled?

A4: Reasons:

(1) Check the baud rate of printer, it should be 9600bps
(2) Check the print window and print direction
(3) Check the communication cable
(4) Check if the printer cable is too long. Please keep the cable length is less than 30cm. otherwise, the print contents will be garbled.

Q5: Why the print contents are black color?

A5: Do not set background color for print window and the button (text, data input, data display) in the window.

Q6: Why the printer will print twice everytime?

A6: The print component is duplicated when making the project with advanced function of HMI.

Q7: What kind of printer can communicate with Touchwin HMI?

A7: (1) Only support micro-printer (thermal printer, dot matrix printer).

(2) Support ESC command/Epson print cartridge. The dot matrix graph print command is ESC K ml mh n1 n2...ni… , this command is for i*8, i*24 dot matrix graph.
(3) Paper type: 57.5mm
(4) Only support serial port print, cannot support parallel port print
Note: Xinje SCADA can support large printer.

Que esse conteúdo tenha agregado valor e conhecimento pra você!

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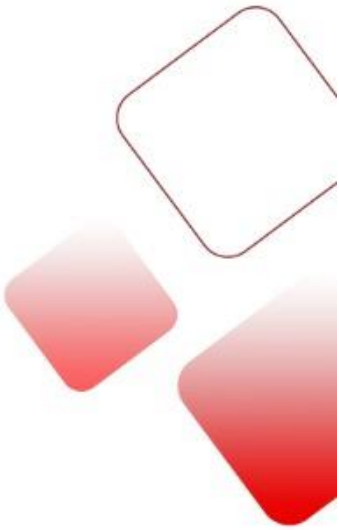
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