www.infoscan.com.cn
Tel：400-700-6288

infoscan FV5X

Operating Manual

NANJING BILIN INTELLIGENT IDENTIFICATION TECHNOLOGY CO., LTD

Ver:20220426

Catalogue

Setup Process 4
1 Unwrapping the Package 5
1-1 Scanner and its belonging 5
1-2 Cables and Power Adapter 6
1-3 Scanner Photographs: 7
1-4 Scanner Configuration: 8
2 Connecting Diagram 9
2-1 Cable connection Diagram 9
2-2 Connecting to Computer 10
2-3 I/O connection diagram 10
2-4 Input Wiring Diagram 12
2-5 Output Wiring Diagram 13
2-6 Power Input Diagram 14
3 Installation and Adjustment 15
3-1 Before Installation 15
3-2 Installation Diagram 15
3-3 Angle Adjustment 16
3-4 Product Dimensions 16
3-5 Reading Performance Chart 17
4 Connecting FV53 to infostepper 18
4-1 Introduction to infostepper 18
4-2 Connecting FV5X to infostepper 19
4-2-1 RS-232 Connection 19
4-2-2 Ethernet（TCP/IP）Connection 20
4-2-3 USB Connection 21
5 How to quickly Setup FV5X without infostepper 22
6 How to Set up FV5X with infostepper 23
6-1 Focusing-on adjustment 23
6-2 Getting a Clear Image 24
6-3 Image Parameters Setting 25
6-4 RS232 Parameters Setting 26
6-5 Ethernet Parameters Setting 28
6-6 Setting the Output Signal Level, Duration Pulse Width 29
6-7 Setting the Minimum Valid Trigger Time 30
6-8 Setting the Buzzer and Laser Aiming Function while Good or Failure Reading . 30
6-9 Trigger Command Generating and Cancelling 31
6-10 Generating the Failure Feedback Command 32
6-11 Rereading the Same Barcode 33
6-12 Setting the Barcode Filter Parameters 34
6-13 Auto-induced Reading Mode 35
6-14 Continuous Trigger Mode 36
6-15 Auto-tuning Function 37

6-16 Selecting the Readable Symbologies 38
6-17 How to Get the Pictures of A Barcode 39
6-18 How to Generate Setting Codes for the Selected Parameters for Cloning Other Scanners 40
6-19 How to Save and Operate the Configuration File 41
7 Settings for special applications 42
7-1 How to read multiple barcode in the same time 42
7-2 How to position and sort the barcodes 43
7-3 Defining the Prefix or Suffix 45
7-4 the Logic Diagram of IO Output 47
7-5 How to read a color-reversed barcode 48
7-6 How to Read Dot-matrix Barcode 49
7-7 How to Read Small-sized or Defaced DM Barcode 50
7-8 How to use the polling algorithm for complicated reading 52
8 Other settings 53
8-1 To View Decoded Data after Settings 53
8-2 How to Trigger the Scanner by Computer Command 54
8-3 How to simulate keyboard input 55
8-4 How to Check the Reader Firmware Version Information 56
8-5 How to Reset the Scanner to Factory-default Settings 57
8-6 How to convert characters to Hex code 58

Setup Process

1	Check packaging materials

2	Wiring and installation

3	Connecting the power adapter

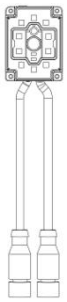
4	Connecting FV5X to computer and running the infostepper

5	Briefly setting up FV53

6	Detailed setting and running

1 Unwrapping the Package

1-1 Scanner and its belonging

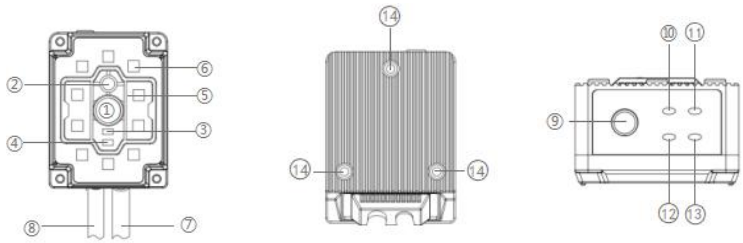
Model	Name	Package content	Quantity	Picture
FV53	Industrial scanner	Scanner	1	
		Quick Use Guide	1	
		Installation plate	1	
		Insulating gasket	1	
		Screws	1	

1-2 Cables and Power Adapter

(Please refer to the customer's actual order for product accessories)

Name	Package content	Model	Quantity	Picture
Cable	Serial communication cable	H12S-0.85M-USBD9P F14-V1	1	
	Ethernet communication cable	H8S-2M-RJ-V1	1	
Power	Power adapter	WT48-2402000-T	1	

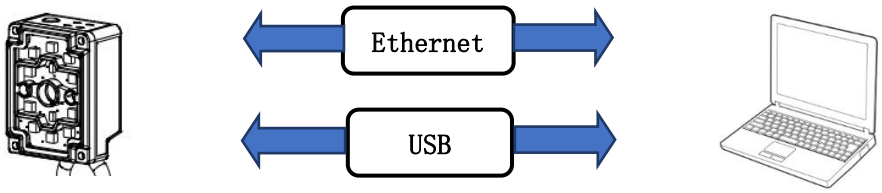
1-3 Scanner Photographs：



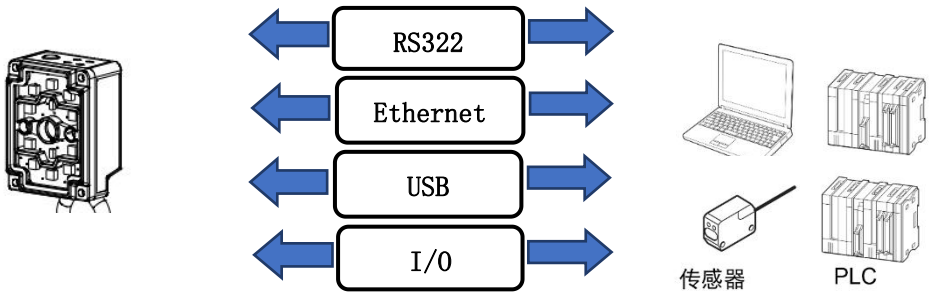
1	Camera lens
2	Laser aimer
3	Reading failure indicator（red）
4	Reading success indicator（bule）
5	Non polarization
6	Polarization
7	12 PIN Aviation jack（Serial communication、power supply、I/O）
8	8 PIN Aviation jack（Ethernet）
9	Trigger button
10	CIR2（Custom）
11	G/F（Reading success indication blue/Reading failure indication red)
12	CIR1（Custom）
13	PWR （Power indication）
14	M3 mounting hole

1-4 Scanner Configuration：

Setting up configurations：



Data communication`：

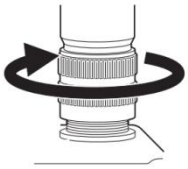


2 Connecting Diagram

2-1 Cable connection Diagram

1. Connect the aviation plug (male) of the cable to the aviation plug (female) of the code reader. Fv5x provides two interface terminals, 12 cores and 8 cores. Be sure to connect accurately。

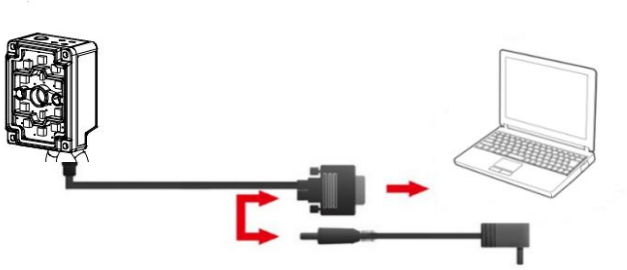
2. Rotate the aviation plug (male) screw clockwise to fix it。



3. After the aviation cable plug (male) is firmly connected with FV5X, then the serial communication cable DB9 (female) is connected to the PC serial port, and the Ethernet communication cable RJ45 is connected to the PC Ethernet port (see computer wiring for details)。

2-2 Connecting to Computer

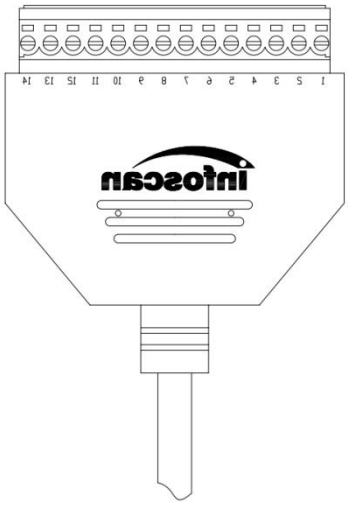
Connecting computer via serial port (DB9)：



Connecting computer via Ethernet (RJ45)：

2-3 I/O connection diagram

The I / O terminal is located on the serial communication cable. If the equipment is connected to external signals or to drive external equipment, it is necessary to use this terminal to connect with external equipment. The drawing of the terminal is shown as below, and the serial number and definition of the terminal are shown in the table。

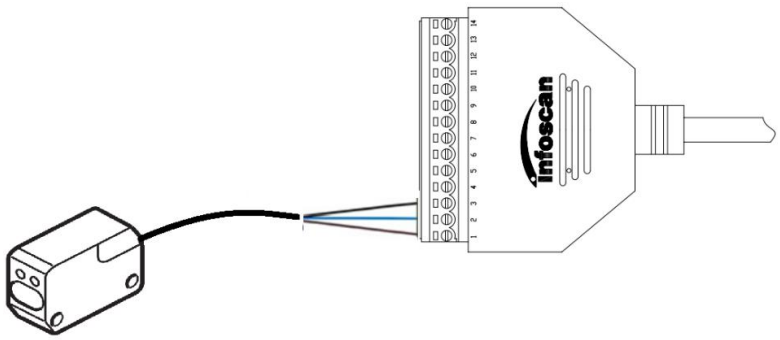


Serial number	Terminal name	Describe	Remarks
1	24V	Power input / output	Power output: it can supply power to external equipment (note ①) power input: it can be connected to 20-30v for power supply
2	GND	GND	GND
3	IN1	Input signal 1	Logic level (The default low level takes effect)
4	IN2	Input signal 2	Logic level (The default low level takes effect)
5	GND	GND	GND
6	COM-IN	Voltage output (+)	It forms voltage feedback with out1-out2, 5V \ 24V \ external voltage (no more than 36VDC)
7	OUT1	Transistor output 1	Optional internal pull-up and effective level (note ②)
8	OUT2	Transistor output 2	Optional internal pull-up and effective level (note ②)
9	NC		
10	NC		
11	NC		
12	GND	GND	GND
13	GND	GND	GND
14	24V	Power input / output	Power output: it can supply power to external equipment (note ①) power input: it can be connected to 20-30v for power supply

Note① : It depends on the voltage of the power supply connected to the serial port cable.
Note② : The effective level value can be set, and the default is 24VDC.

2-4 Input Wiring Diagram

1.NPN photoelectric sensor wiring;



The equipment defaults to the initial logic. The photoelectric sensor shall be NPN type, and the photoelectric sensor shall be connected to signal terminals 1, 2 and 3. The corresponding line sequence is shown in the table:

Photoelectric sensor	Terminal
+(L+)	1（DC24V）
-(M)	2（GND）
¬Q	3（IN1）

Note: The high level voltage of input terminal is ranged from 5v to 24v。

2.Switch connection;

The switch connection defaults to the initial logic. Connecting the switch to signal terminals 2 and 3, and when the switch is pressed, the trigger takes effect. The line sequence is shown in the table below:

Push button switch	Terminal
SW1	2（GND）
SW2	3（IN1）

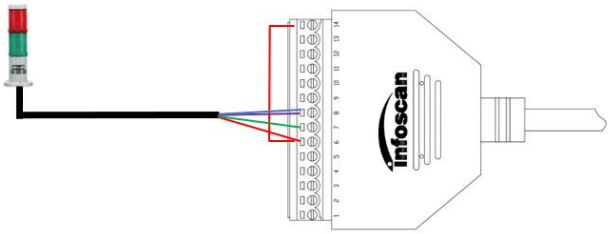
3.Relay trigger wiring;

The equipment defaults to the initial logic and the relay is connected to signal terminals 2 and 3. When the rated voltage is applied, the trigger takes effect. The corresponding line sequence is shown in the table below:

Relay	Terminal
Open node 1	2（GND）
Open node 2	3（IN1）

2-5 Output Wiring Diagram

1.Alarm lamp wiring；



The device defaults to the initial logic and connecting pin 14 (24V) of the 14pin terminal to the com-in terminal. Meanwhile, the positive pole of the load (taking the NPN alarm lamp as an example) is connected to the com-in terminal and the negative pole is connected to the out1 or out2 in output terminal. When reading is successful, the green light is on, and when reading fails, the red light is on and the alarm sounds. The corresponding table of line sequence is as follows：

Alarm lamp	Terminal
+ （Power input line）	6 （COM-IN）
- （Green light）	7 （OUT1）
- （Red light/Buzzer）	8 （OUT2）

Note: The standard working current of output load is 350mA, and the maximum working current is 400mA.

2.External load relay feedback wiring；

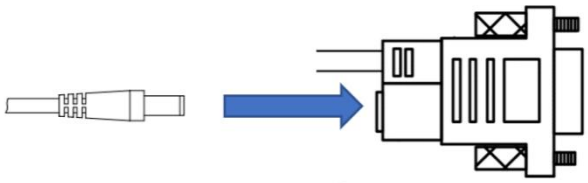
The device defaults to the initial logic and connecting the pin 14 (24V) of the 14pin terminal to the com-in terminal. At the same time, the relay coil end 1 is connected to the com-in terminal and the coil end 2 is connected to the out 2 of the terminal. When reading fails, the relay is actuated.

Relay	Terminal
Coil end 1	6 （COM-IN）
Coil end 2	8 （OUT2）

2-6 Power Input Diagram

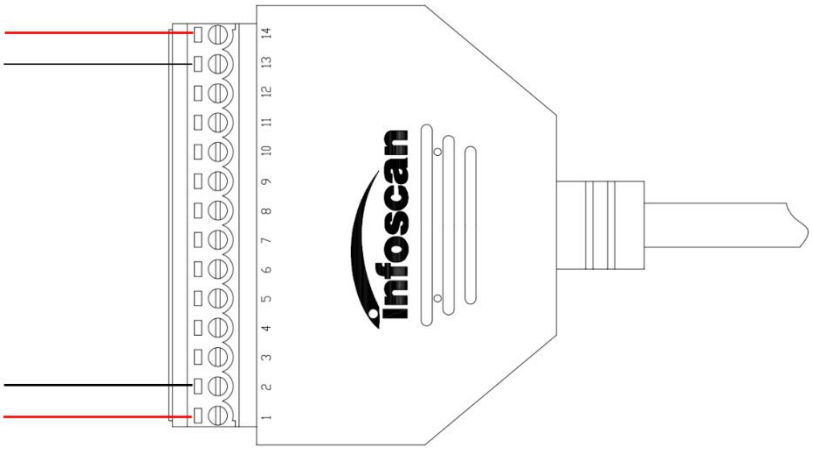
1.Adapter power supply wiring;

The power supply interface is located on the serial communication cable DB9 (female), connecting the adapter output end to the power supply interface of cable DB9.



2.Terminal power supply wiring;

Power supply can be wired in via serial port communication cable 14pin terminal strip. In the terminal, No. 1 and 2 or No. 14 and 13 can be used as power supply interface. See 2-3 IO terminal diagram for pin No. and definition.



3 Installation and Adjustment

3-1 Before Installation

Before installation, please pay attention to the following items and check the installation conditions:

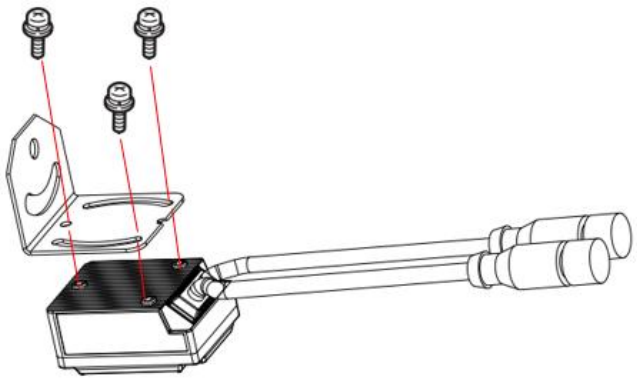
1. No influence of ambient light;

Please avoid sunlight, other lighting, photoelectric sensors and other ambient light from entering the FV5X light receiving window, otherwise it may cause reading instability or reading error.

2. Check whether the light source of the code reader is blocked;

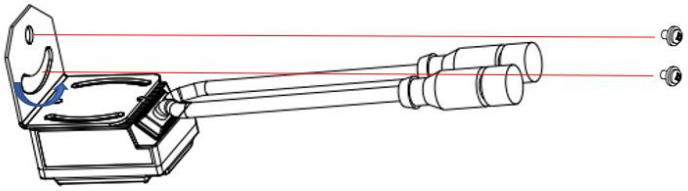
If the light source is blocked, the barcode may not be detected. If there are other devices emitting strong light (direct light and reflected light) on site, please set up a shading plate to avoid that such strong light may damage the code reader or cause code reading failure.

3-2 Installation Diagram



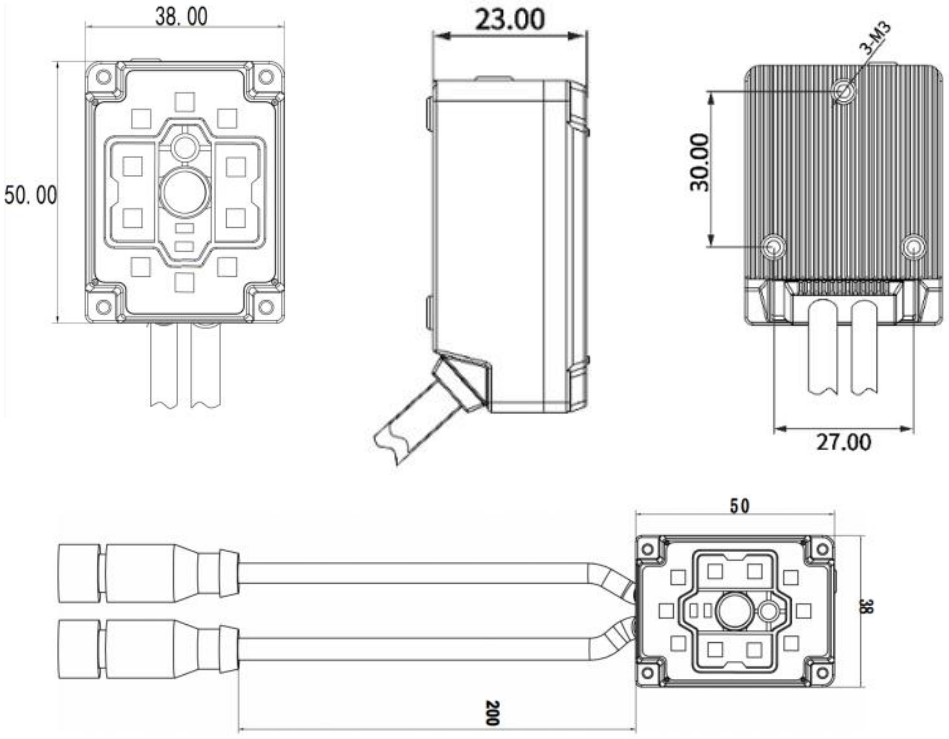
Use the mounting bracket to obtain the most appropriate reading position. The figure shows the most common installation configuration. The installation position of L-type metal fixing plate can be adjusted according to the actual needs.

3-3 Angle Adjustment



As shown in the figure, adjusting the angle of the equipment to the appropriate angle position, and fixing the L-shape firmly with screws.

3-4 Product Dimensions



Unit: mm

3-5 Reading Performance Chart

FV5X

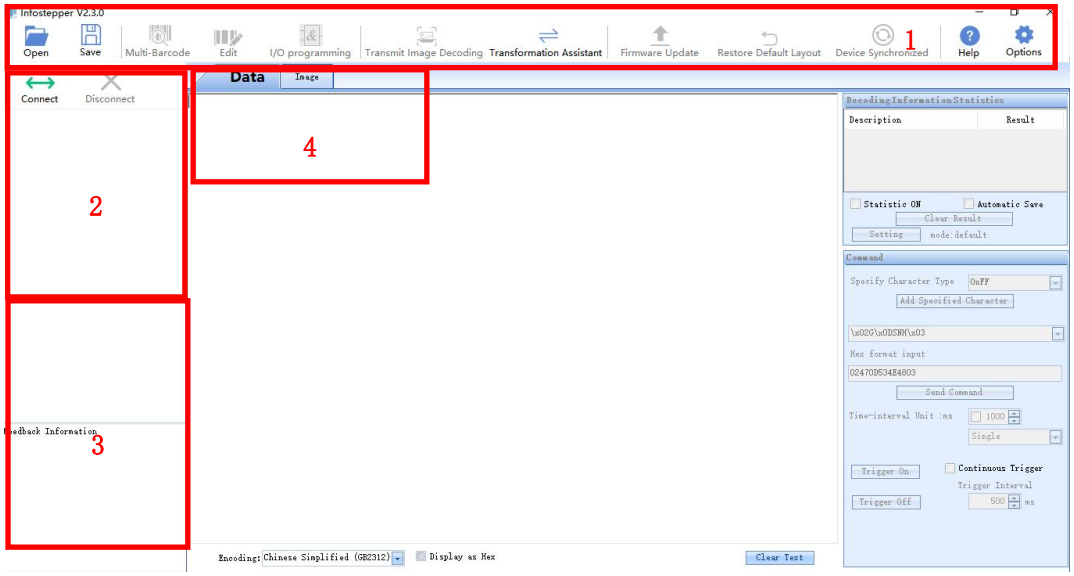
unit: mm

Bar code specification	FV51N		FV51L		FV53	
	Nearest reading distance	Maximum reading distance	Nearest reading distance	Maximum reading distance	Nearest reading distance	Maximum reading distance
3.34mil Code 128 10bit	45	122	80	155	38	130
5mil Code 128 10bit	40	170	75	180	35	190
6.67mil Code 128 10bit	28	220	60	200	35	250
10mil Code 128 10bit	28	260	45	235	35	330
15mil Code 128 10bit	35	339	50	270	60	400
20mil Code 128 10bit	45	430	60	310	80	500
5mil DataMatrix 10bit	57	85	88	120	35	70
6.67mil DataMatrix 10bit	40	115	80	150	35	95
10mil DataMatrix 10bit	32	188	60	175	35	170
15mil DataMatrix 15bit	30	230	55	200	30	270

Installation distance	FV51N		FV51L		FV53	
	X-axis	Y-axis	X-axis	Y-axis	X-axis	Y-axis
35	25	19	/	/	26	30
45	33	24	25	28	30	23
50	33	27	27	21	35	27
100	67	53	52	41	70	55
150	103	80	76	61	105	82
200	136	108	104	81	140	110

4 Connecting FV53 to infostepper

4-1 Introduction to infostepper

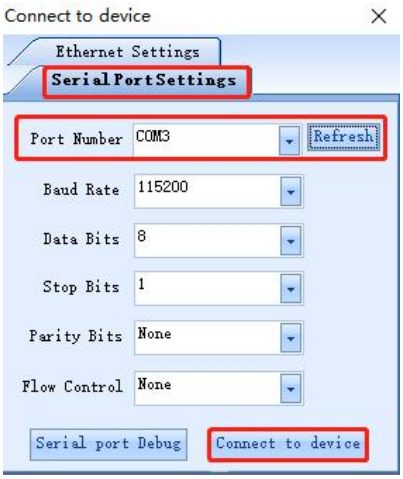


Serial number	Instruction
1	Common Toolbar
2	Connection mode and information display
3	Online feedback information display
4	Once online, set the class

4-2 Connecting FV5X to infostepper

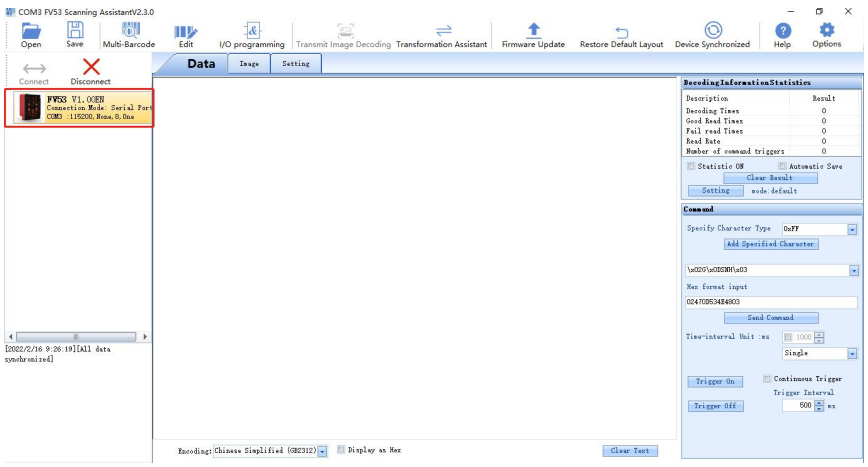
4-2-1 RS-232 Connection

After the device is directly connected to the computer serial port, check "Device Manager→""Port", confirm the port number and click "Connect" .When successfully connecting to the software, then the "Connect to device" window will pop up, selecting "Serial Port Settings", then click "Port Number" Select the corresponding COM number below. If the COM number is not displayed, you can click the "Refresh" button to search; the baud rate, data bit, stop bit, etc. are consistent with the device; as shown in the figure:



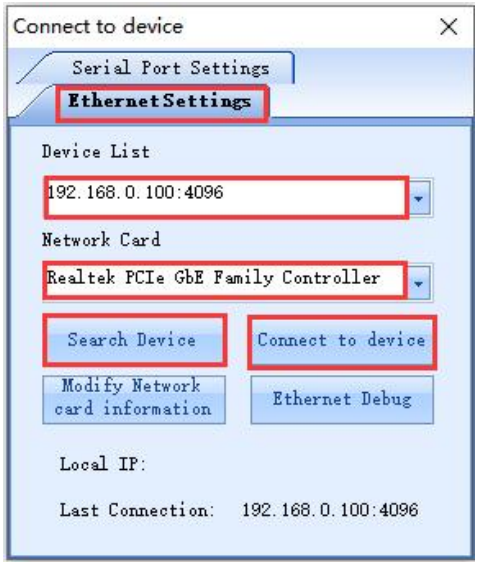
Click "Connect to device" after the connection is successful, the device will have a buzzer prompt, as shown in the figure:

Note：The image can only be viewed under the Ethernet connection

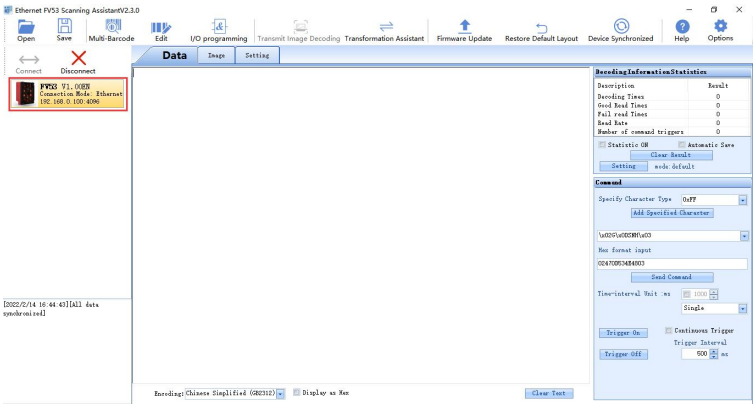


4-2-2 Ethernet（TCP/IP）Connection

After the device is directly connected to the computer, go to "Control Panel" → "Network and Internet" → "Network Connections" → "Ethernet Properties" → "TCPIPv4 Properties" → "Use the following IP address" to modify the computer's IP address parameters, so that the IP of the computer and the device (default 192.168.0.100) are in the same network segment.
Click "Connect" to pop up "Connect to device", select "Ethernet Settings", select the computer network card, and click "Search Device", as shown in the figure:



Click "Connect to device" after the connection is successful, the device will have a buzzer prompt, as shown in the figure:

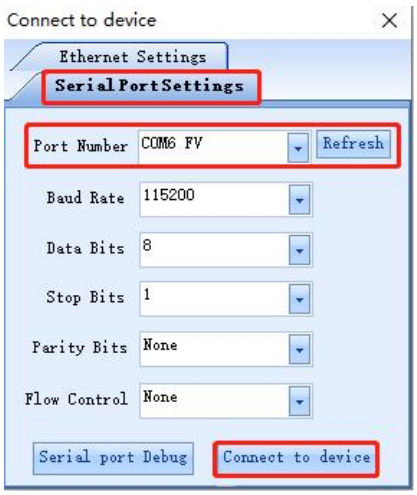


Note: Display online device model and version information and connection method, device IP address and port number information; the feedback information part displays the date and time of the connection and other related information; after the connection is successful, the interaction is successful, you can click "Image" or "Setting" ”Make relevant detailed settings for the barcode reader.

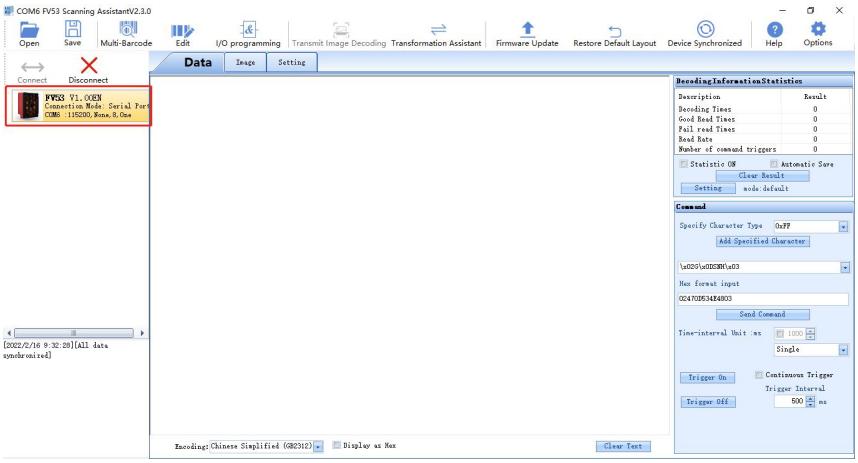
4-2-3 USB Connection

Note: This connection needs a cable that shall be ordered.

After the device is directly connected to the computer, first check the "Device Manager" ---, "Port" (under the premise of installing the USB serial port driver), click "Connect" when connecting to the software, then the Device connection window will pop up, select "Serial Port Settings" , select the corresponding "COM Number FV" under "Port Number", if "COM Number FV" is not displayed, you can click the “Refresh” button to search.

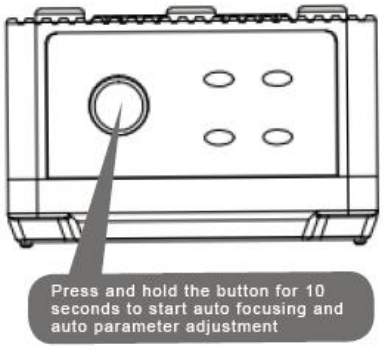


Finally click "Connect to device", The USB connection screen is as shown in the figure:



5 How to quickly Setup FV5X without infostepper

FV53 provides quick setting function. Place the barcode sample you need to read within the field of view. Press and hold the button for 10 seconds to perform auto focus first. After the auto focus is successful, it enters the automatic parameter adjustment process .The success or failure of auto focus and auto tuning are indicated by buzzer and indicator light. The success of automatic parameter adjustment is closely related to the quality of the sample barcode label read. When the quality of barcode assignment is good, the success rate of automatic parameter adjustment is high and the process is faster.



Note: In the image window of the setting software infostepper, auto-focus and auto-adjustment can also be completed, see Chapter 6.

6 How to Set up FV5X with infostepper

6-1 Focusing-on adjustment

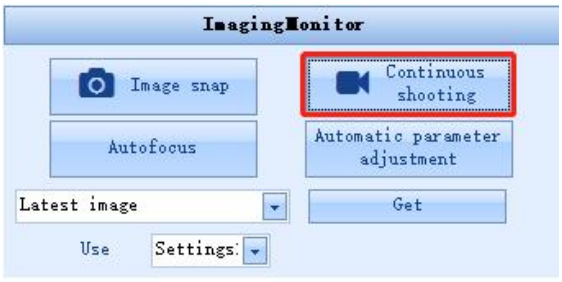
1. Click on “Image” and enters into ImagingMoniter window;

2.Method 1, click “Image snap”;

3.In the main window of "Image", you can view the captured images;

The sample captured image is blurry, which affects decoding, then the focus parameters of the code reader need to be adjusted.
Display area can be adjusted according to need.

4.Method 2, click "Continuous Shooting" to view the captured images in real time (this method is recommended).

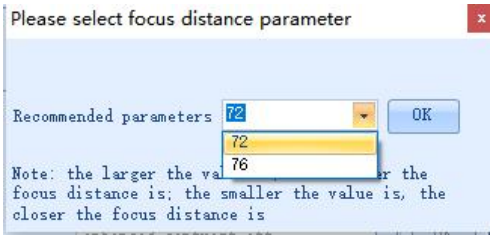


6-2 Getting a Clear Image

1. Method 1, select the monitor, click "Auto Focus".

2. Enter the auto focus prompt dialog box.

3. After the auto focus is successful, a dialog box will pop up, click OK, the code reader will select the recommended parameters; there may be multiple recommended parameters, you can click the drop-down to select;

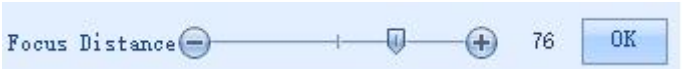


4. After the auto focus is successful, enter the continuous viewing mode directly. As shown in the example, the barcode area of the image is blurred before auto-focusing. After successful auto-focusing, the barcode area of the image is clear, and the barcode area of the image shows a green frame, indicating that the barcode of the image can be decoded normally;

Before focusing

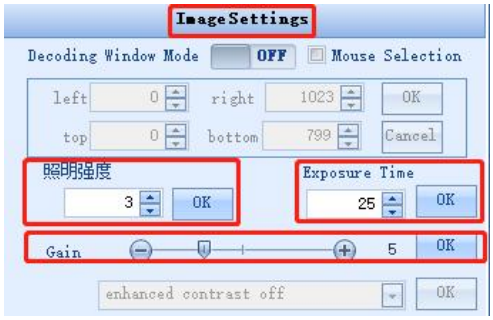
After focusing

5. Method 2, you can select "Continuous Shooting", in "Image Setting", by adjusting "Focus Distance", you can check the image sharpness in real time and you can adjust the sharpness flexibly.

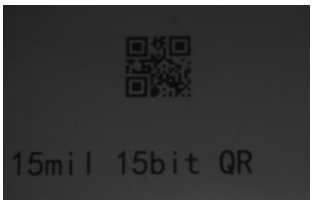


6-3 Image Parameters Setting

Select "Continuous shooting", check "Image Setting".



2.Adjust "照明强度", "Exposure Time" and "Gain" to view the image changes in real time, as shown in the example. When the illumination intensity is set to 0, the image is dark, while the illumination intensity is set to 2, the image is obviously brighter and the sample barcode is displayed in a green frame, which can be successfully decoded;



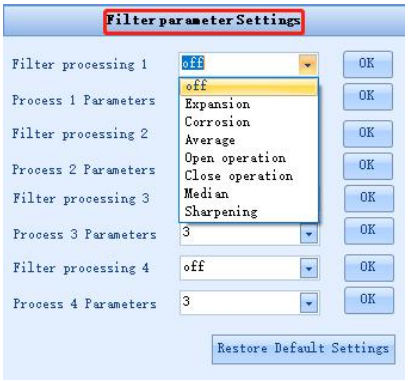
Lighting intensity is set to 0

Lighting intensity is set to 2

3. Adjust the "exposure time" to view the image changes in real time, the image brightness will also change significantly, the image contrast will change significantly. For static barcode reading applications, the "exposure time" has little effect on the reading success rate; if the mobile reading application "exposure time" has a greater impact on the reading success rate, the exposure time parameters can be calculated according to the barcode size and other parameters;

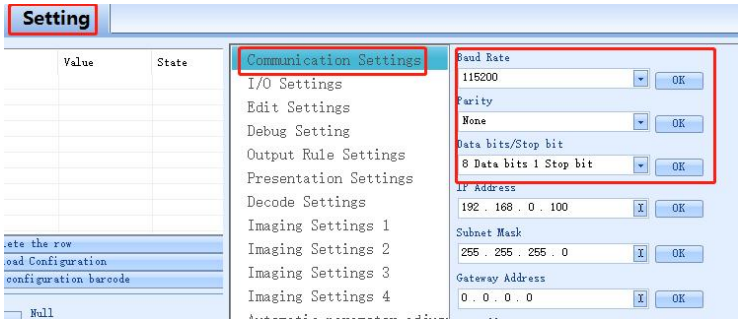
4. Adjust the "Gain", check the image changes in real time, the image brightness will also change significantly and the image contrast will change significantly;

5. For special barcode reading applications, the filtering algorithm needs to be adjusted.

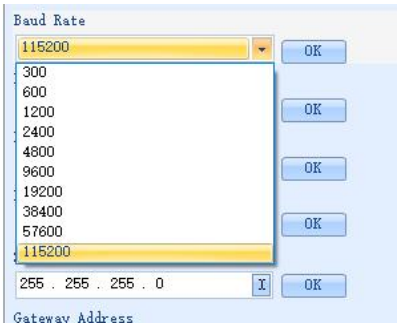


6-4 RS232 Parameters Setting

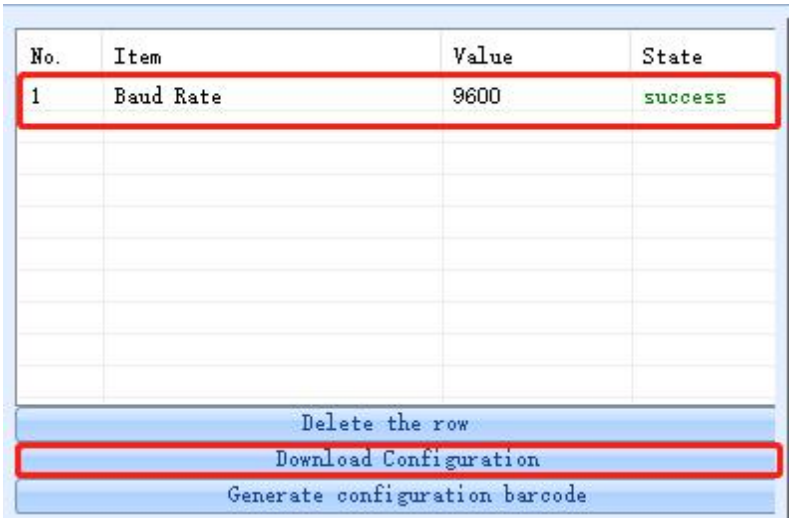
Click "Setting", then click "Communication Settings".



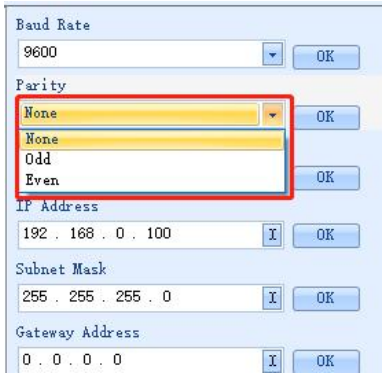
2. "Baud Rate", "Parity" and "Data bits/Stop bits" can all be set according to requirements. Take the baud rate setting as an example, set the baud rate to 9600, select "9600" and click the OK button.



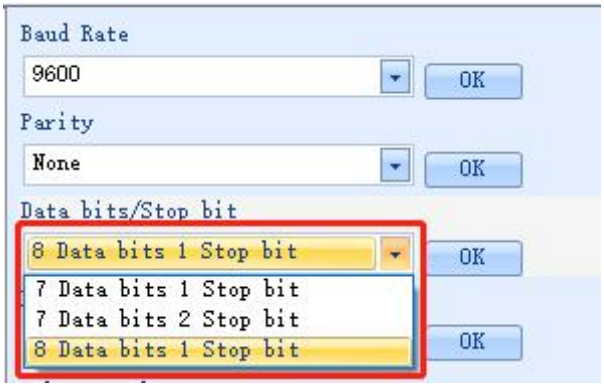
3.Click "Download Configuration", if the setting is successful, the barcode reader buzzer will give feedback, then the setting status in the list will display "Success", indicating that the baud rate setting is successful.



4. Likewise, select "Parity" according to your needs, then click the "OK" button. The selected "Parity" setting appears in the setting list, just click "Download Configuration".



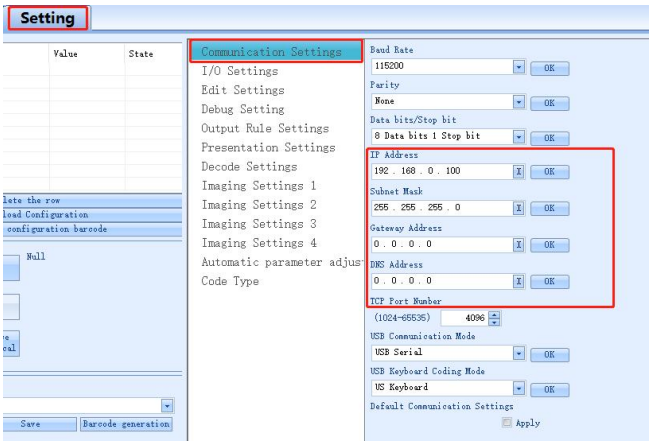
5. select "Data bits/Stop bits" according to your needs, then click the "OK" button. The selected "Data bits/Stop bits" type setting appears in the setting list, just click "Download Configuration".



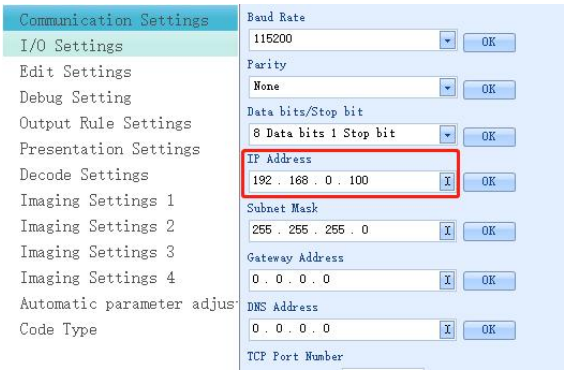
6-5 Ethernet Parameters Setting

The FV53 barcode reader supports TCP/IP, Profinet and Modbus protocols.

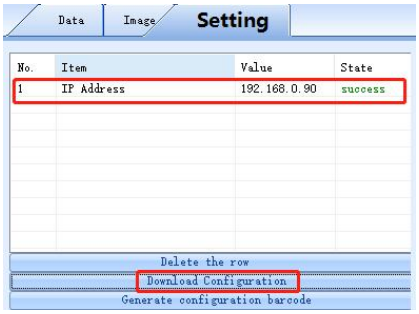
1. Click "Setting", then click "Communication Settings";



2. "IP address", "subnet mask", "gateway address", "DNS address" and "TCP port number" can be set according to requirements. Take the IP address as an example, the IP address can be directly entered by keyboard according to requirements;



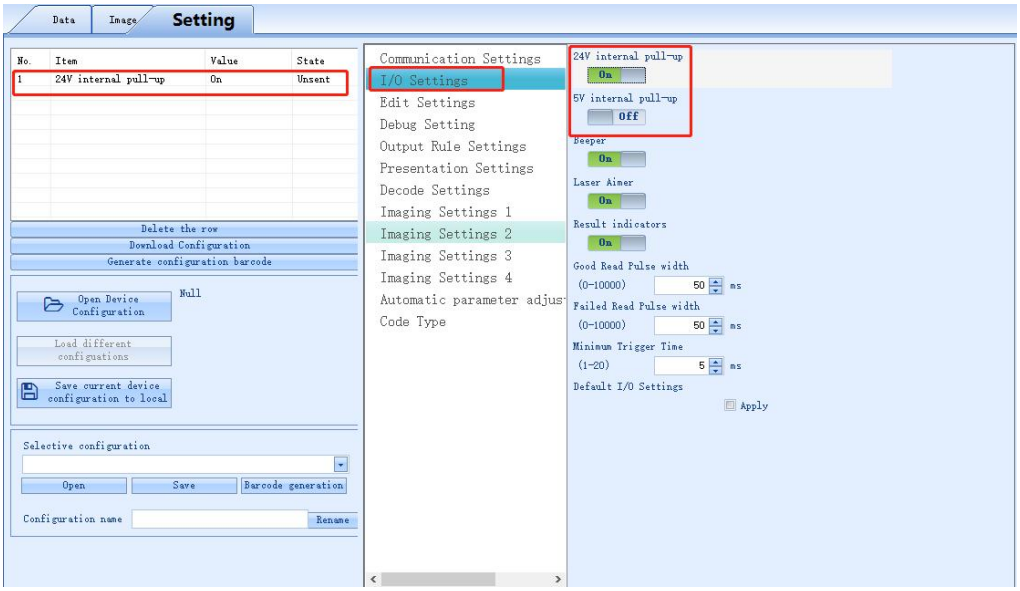
3. After the IP address input is completed, click the "Confirm" button, the set IP address will be displayed in the list, click the "Set Download" button, the buzzer of the code reader will prompt that the setting is successful, and the setting status is displayed successfully, that is, the setting is successful;



4. "Subnet mask", "Gateway address", "DNS address" and "TCP port number" can be set according to the IP address setting method.

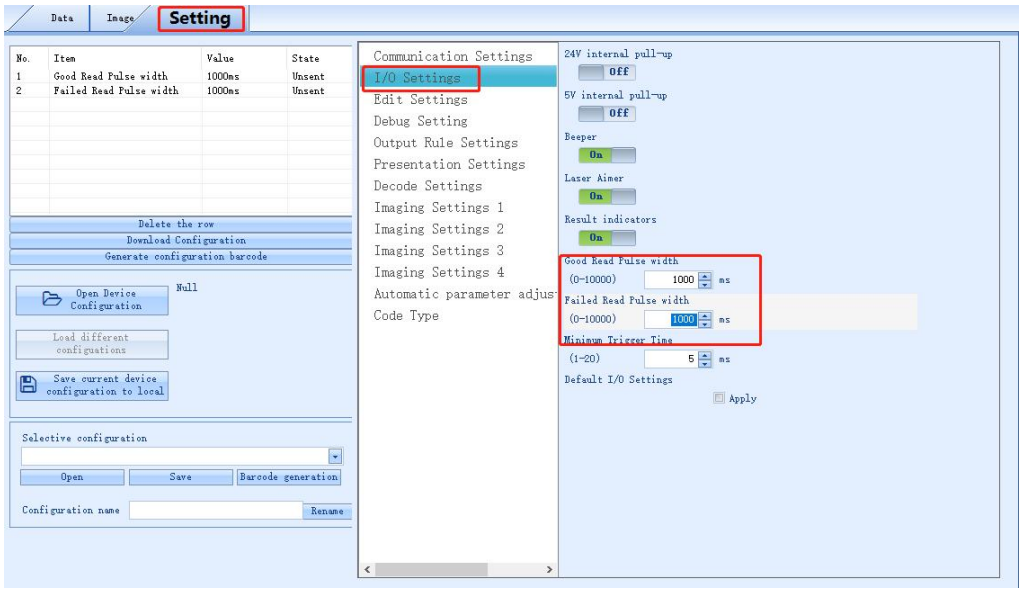
6-6 Setting the Output Signal Level, Duration Pulse Width

1. The FV5X code reader provides two specifications of output level signal settings. If "24V pull-up" is set to on, the output signal level is 24V。



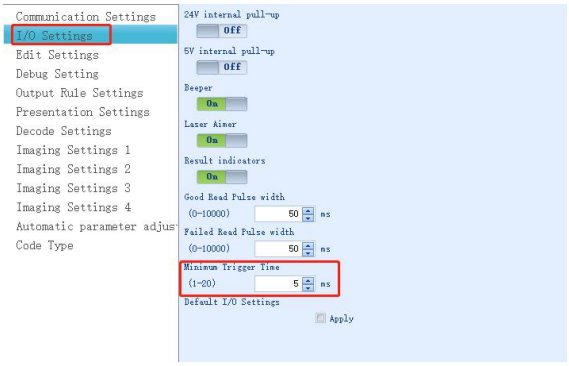
2.IO output logic, OUT1-OUT2 output level signals are all 24V.

3. The default IO output logic, OUT1 is success, OUT2 is failure, the output level signal pulse width of reading success and reading failure are both 50ms, the signal pulse width can be set according to needs, the maximum can be set to 10000ms, After setting, "Download Configuration" must be clicked to download the set configuration to the scanner.



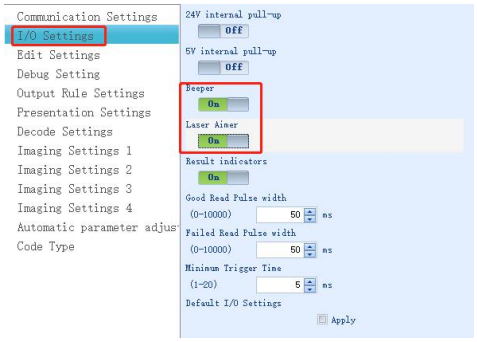
6-7 Setting the Minimum Valid Trigger Time

1. The validity of the external trigger signal to the FV5X code reader can be set as required, and the default "minimum effective trigger time" is 5ms;

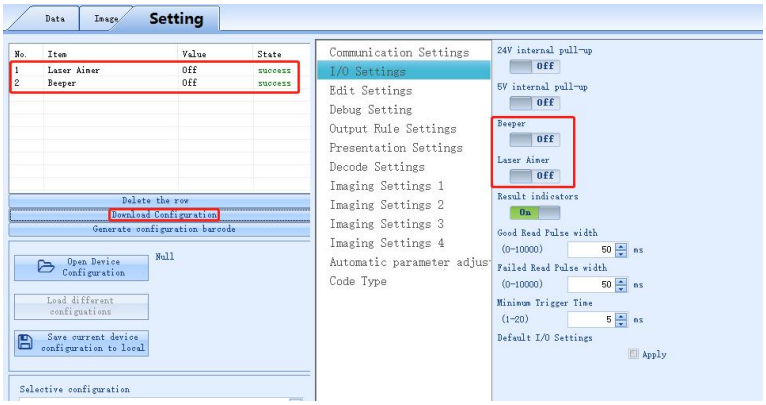


2. Click "Download Configuration" to complete the setting.

6-8 Setting the Buzzer and Laser Aiming Function while Good or Failure Reading

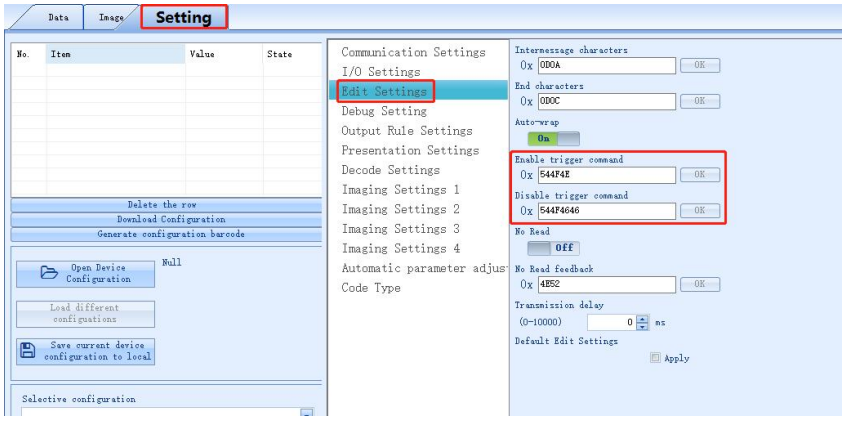


1. When the FV5X code reader succeeds or fail in reading the code, the buzzer and the laser aiming functions are open by default;
2. The FV5X code reader has a buzzer for successful or failed code reading, and the laser aiming function can be set to on or off according to requirements. Click "Download Configuration" to complete the setting.



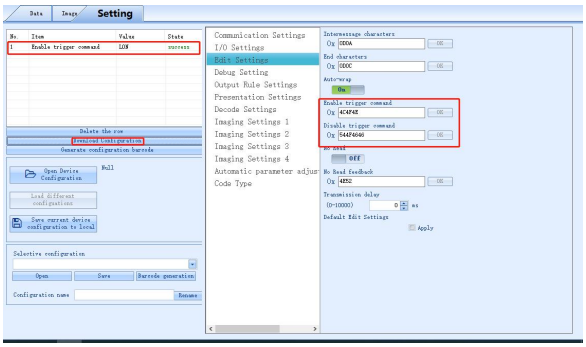
6-9 Trigger Command Generating and Cancelling

1. The FV5X can be controlled by the command from computer or PLC to read the code. The default trigger command (hex) is "544F4E", and the trigger cancellation command (hex) is "544F4646";



2. Set the trigger command, for example, set "LON" as the trigger command, select "Transformation Assistant", and input "LON" to convert "LON" to the corresponding hexadecimal;

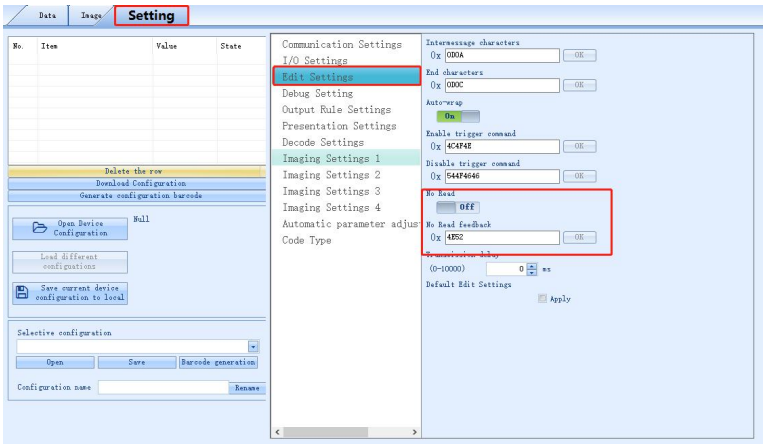
3. Copy the Hex content converted by "LON", paste it into "Enable trigger command", click "OK", you can view it in the setting list, click "Download Configuration" to complete the setting;



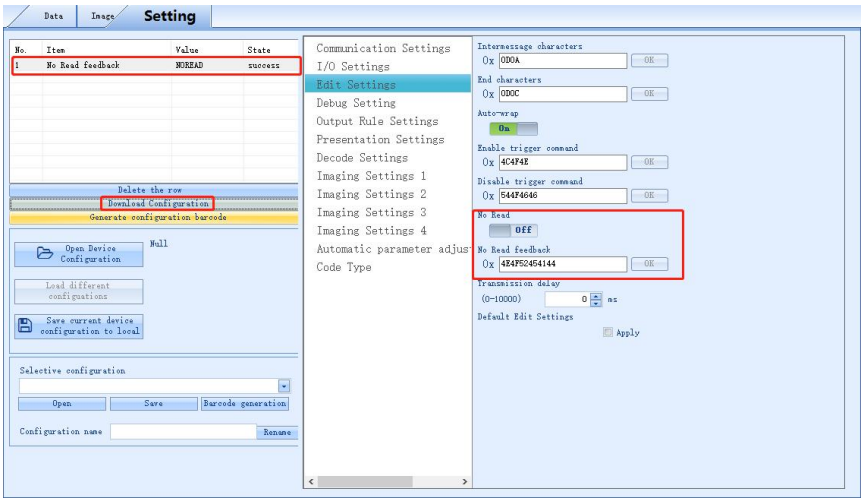
4. The custom trigger cancellation command is as the same set process as above.

6-10 Generating the Failure Feedback Command

1. The FV5X code reader can output reading failure characters, the default output character content (hex) is "4E52", and the reading failure feedback is closed by default.

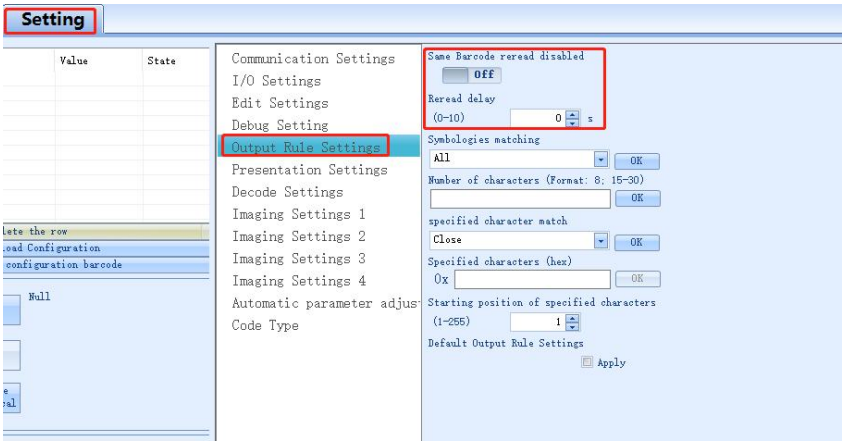


2. The read failure feedback switch is set to on, and the read failure character feedback character (hex) is set to "NoRead". Use the conversion assistant to convert "NoRead" to hexadecimal, paste the hexadecimal content into the read failure character feedback character, click "OK", view the list, click "Download Configuration" to complete the setting.

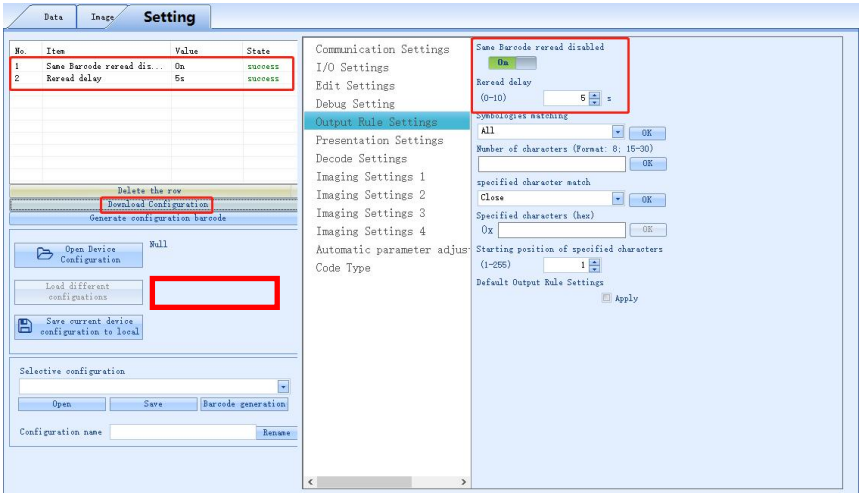


6-11 Rereading the Same Barcode

1. FV5X barcode reader repeat barcode reading function is off by default, and rereading time is 0 S by default.



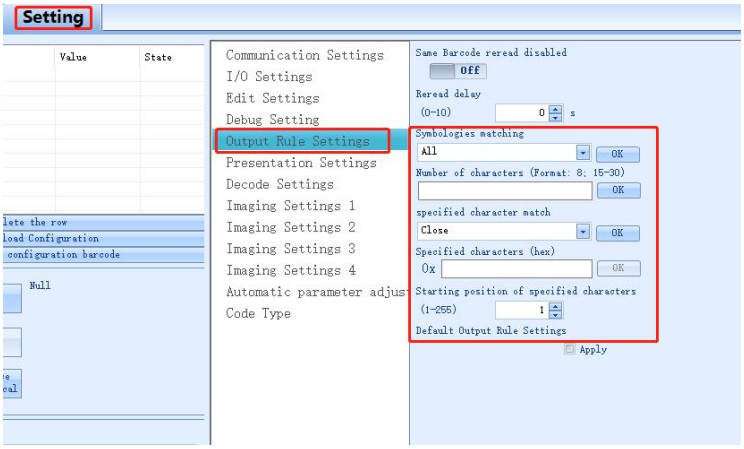
2. FV5X barcode reader repeat barcode reading is set active, repeat reading delay time is set to "5".



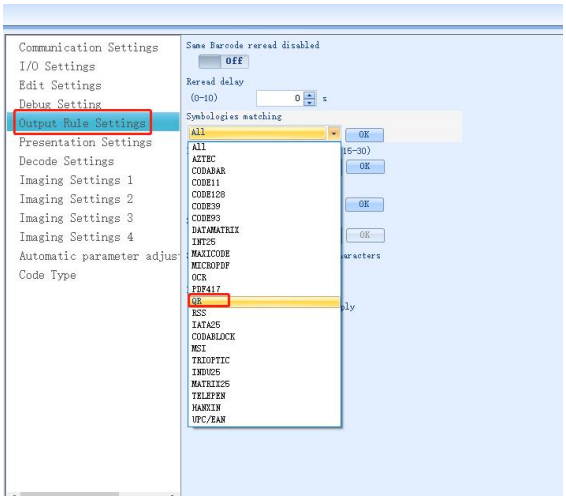
3. The repetition reading time is set to 5s, and the repetition barcode reading function is kept for 5s.

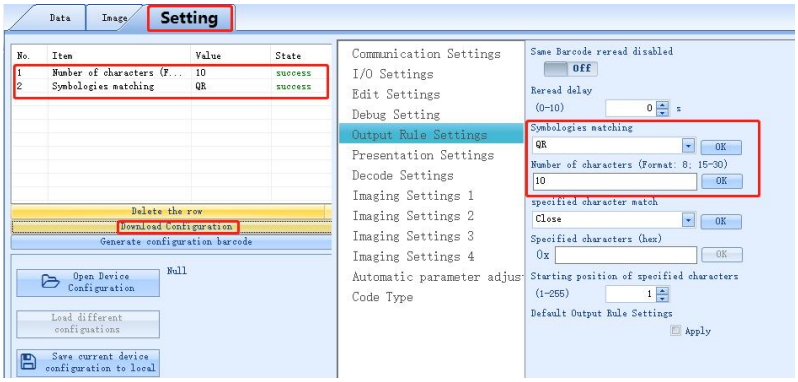
6-12 Setting the Barcode Filter Parameters

1. If the output barcode needs to be displayed, FV5X provides the barcode screening function, which can be set according to the code system, the number of characters, special characters, etc. to achieve screening;



2. For example, if the output code system is QR barcode, the number of characters is 10, and the settings are as follows.

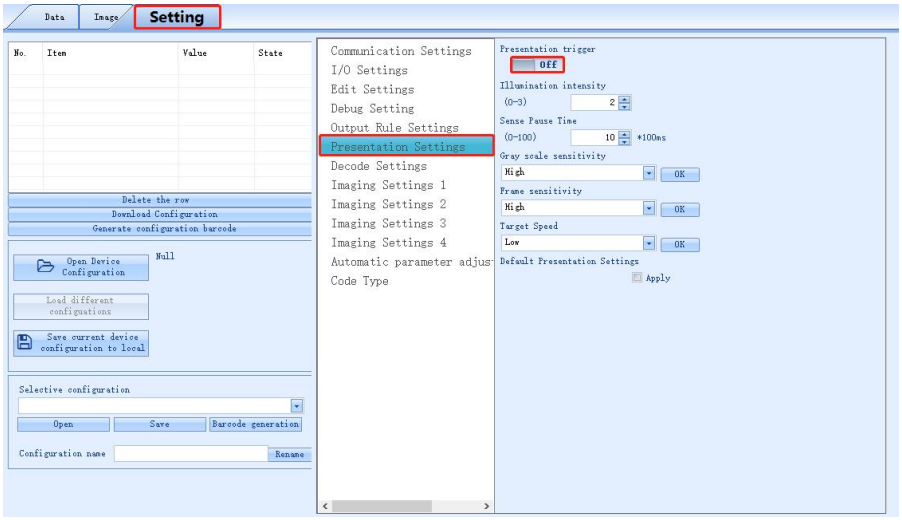




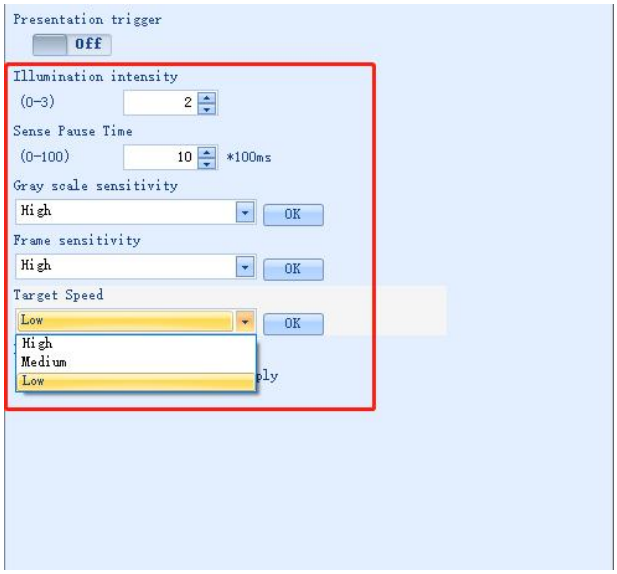
3. Special character matching can be set to filter.

6-13 Auto-induced Reading Mode

1. The inductive reading capability of FV5X code reader, the inductive reading mode is off by default.



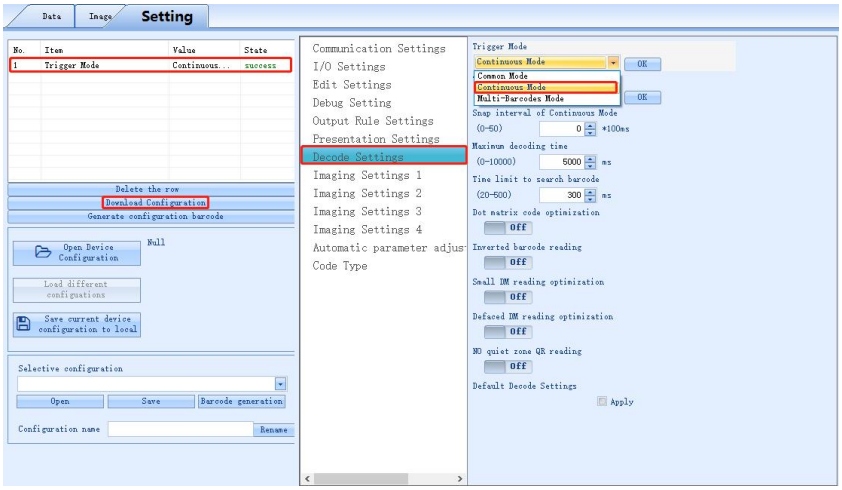
2. If the induction trigger is set to open, you can set the induction trigger lighting intensity, induction pause time, grayscale, frame, moving speed, etc.



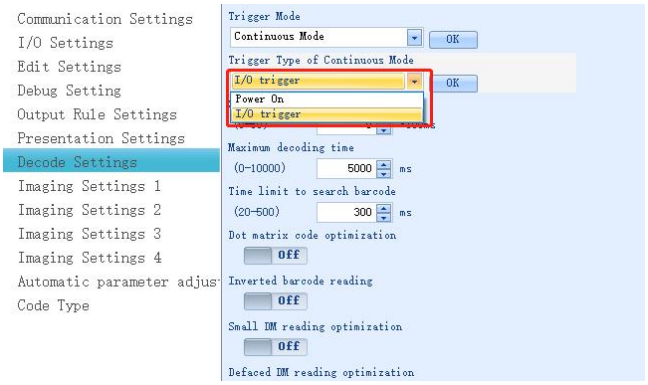
3. The induction reading mode of the FV5X code reader is suitable for a specific environment.

6-14 Continuous Trigger Mode

1. In the trigger mode, the continuous trigger mode can be selected.

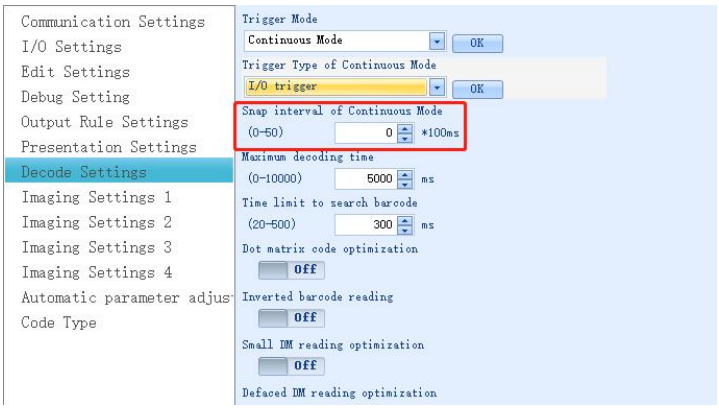


2. The startup mode of continuous trigger mode is divided into boot startup and I/O trigger. The default is I/O trigger.



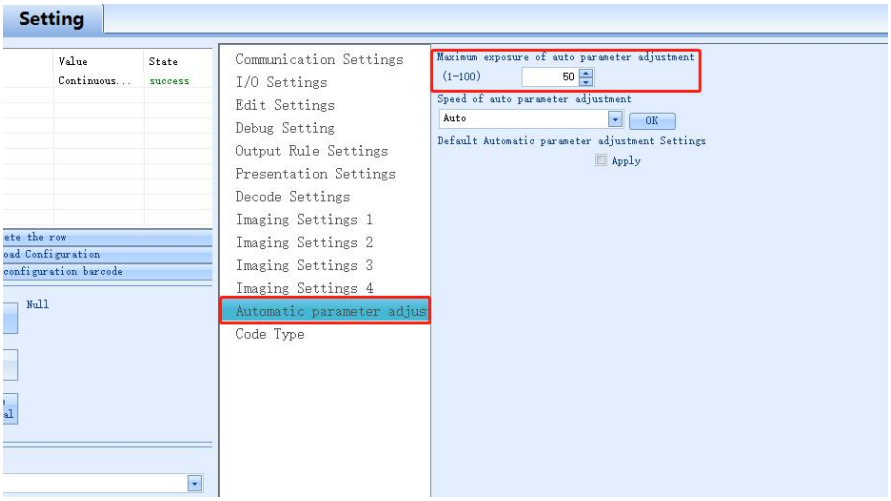
3. Continuous trigger mode shooting interval time.

The default value is 0*100ms, optional 0-50, which can be set according to actual application requirements.

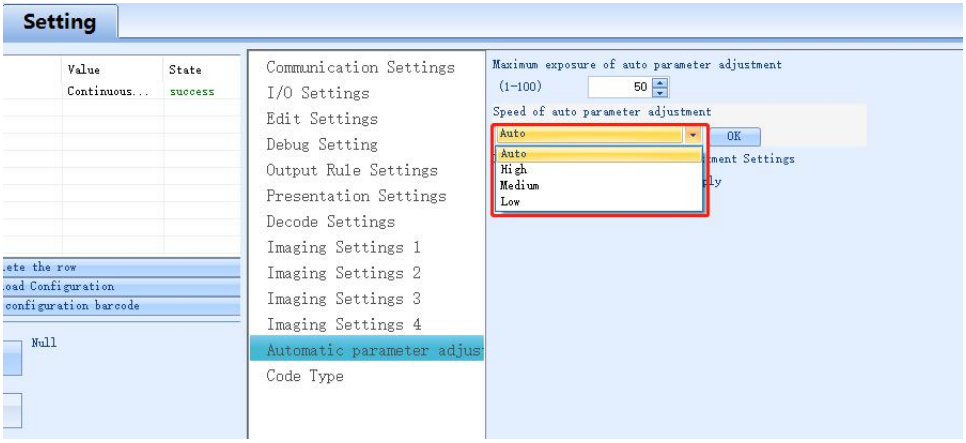


6-15 Auto-tuning Function

1. Automatically adjust the maximum exposure time: control the maximum amount of light entering.
The default value is 50, and the value range is 0-100, which can be adjusted according to actual application requirements.

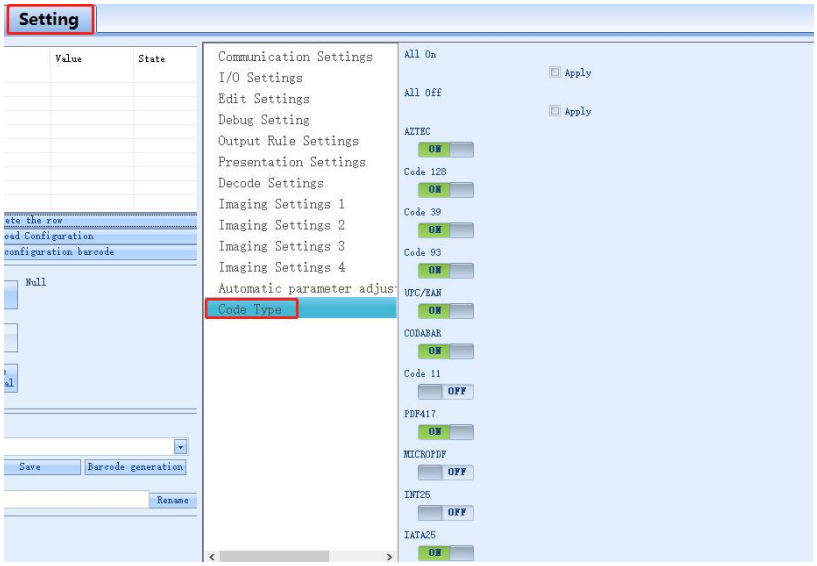


2. Automatic parameter adjustment speed: The default is automatic (self-adaptive), Automatic, high-speed, medium-speed, and low-speed can be selected.



6-16 Selecting the Readable Symbologies

1. The setting window___ Code type information can be set.



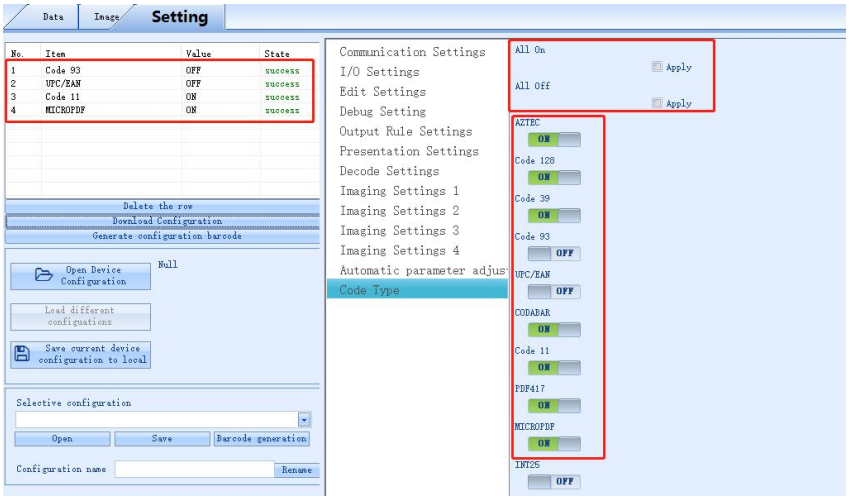
2. Symbology setting.

Full code system on: After checking, click the download, you can open all code system.

Full code system off: After checking, click the download, you can turn off all code systems.

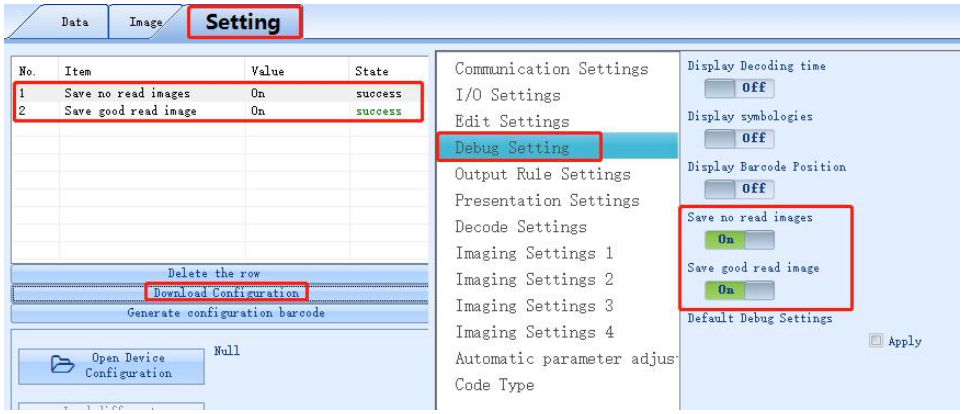
A code symbology can be turned on or off separately, and each has a corresponding switch button.

In applications, unnecessary code systems can be turned off, which can improve decoding efficiency.



6-17 How to Get the Pictures of A Barcode

1. Setting window - save decoding success images and save decoding failure sets in “Debug Setting”.

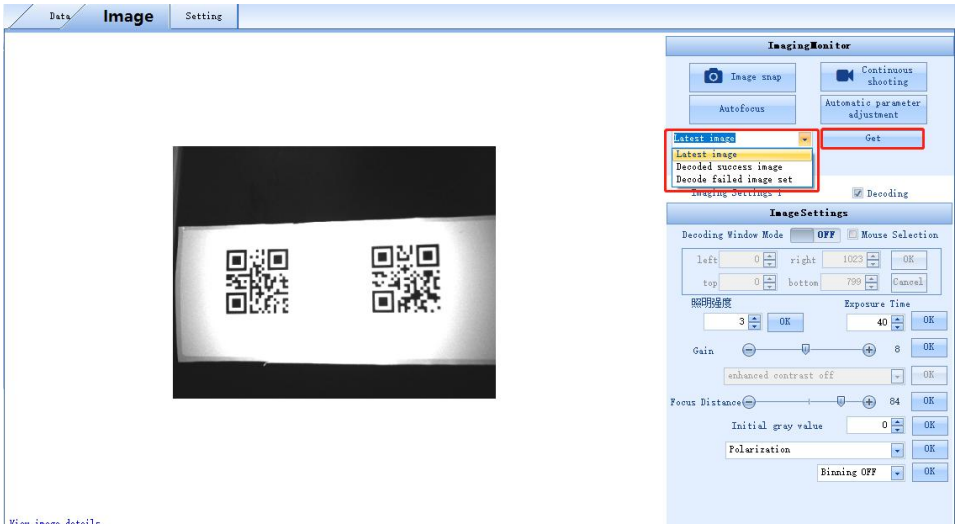


2. Image window—obtain, you can view the latest image, successfully decoding image and failed decoding image set.

Last Image: The last image taken by the reader (success/failure).

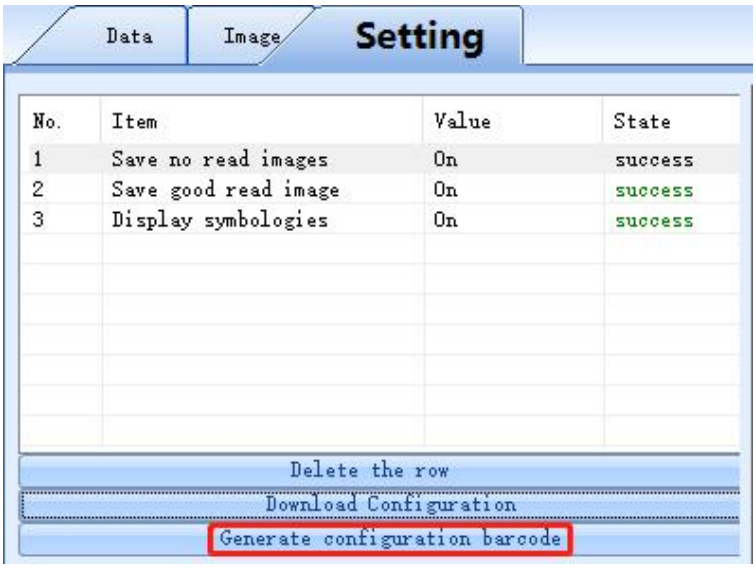
Decoding success image: last time the barcode reader successfully decoded the barcode.

Decoding Failed Image Set: The image set that the barcode reader failed to decode last time.



6-18 How to Generate Setting Codes for the Selected Parameters for Cloning Other Scanners

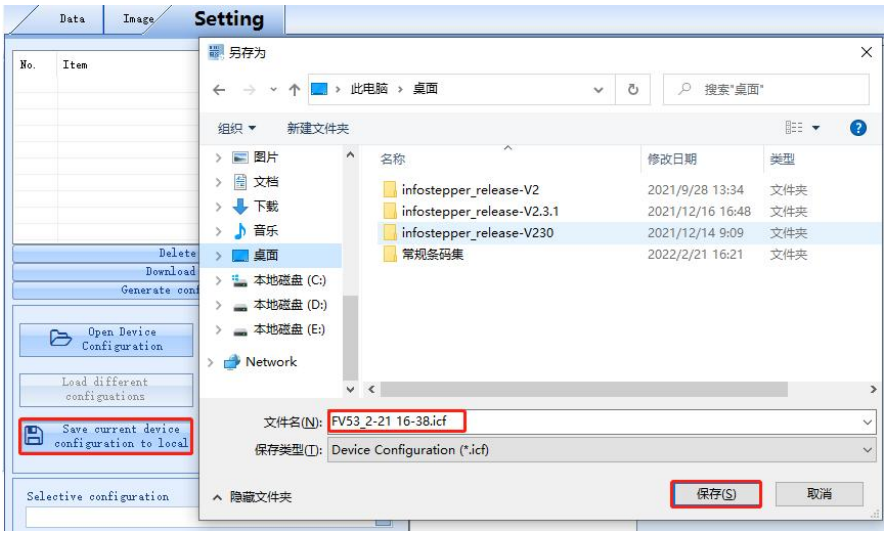
1. After selecting some download items with successful settings, click “Generate configuration barcode”.



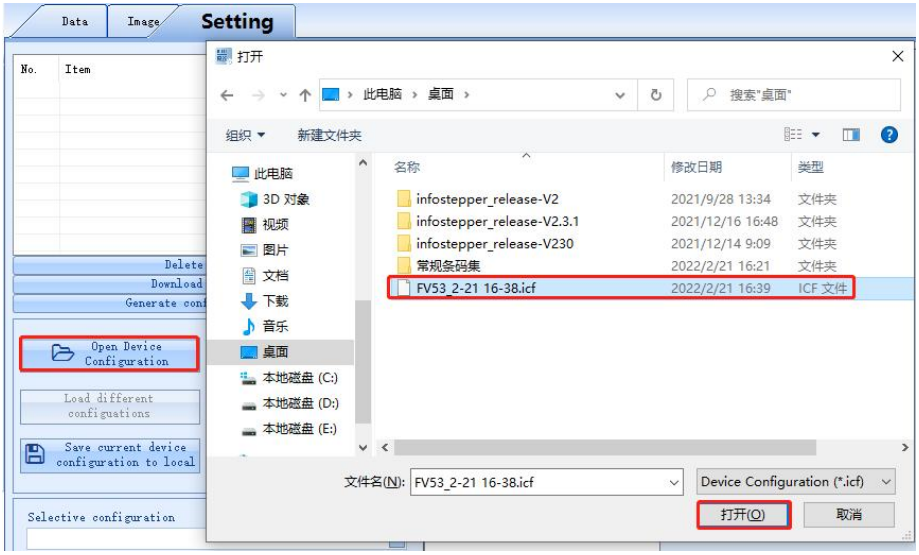
2. According to the prompt, it can be pasted into the word file or viewed in the image window (the picture is viewed in the image window), and the current parameter settings can be set by reading the setting code with the code reader.

6-19 How to Save and Operate the Configuration File

1. In the setting window, click to save the current device configuration to the local storage.



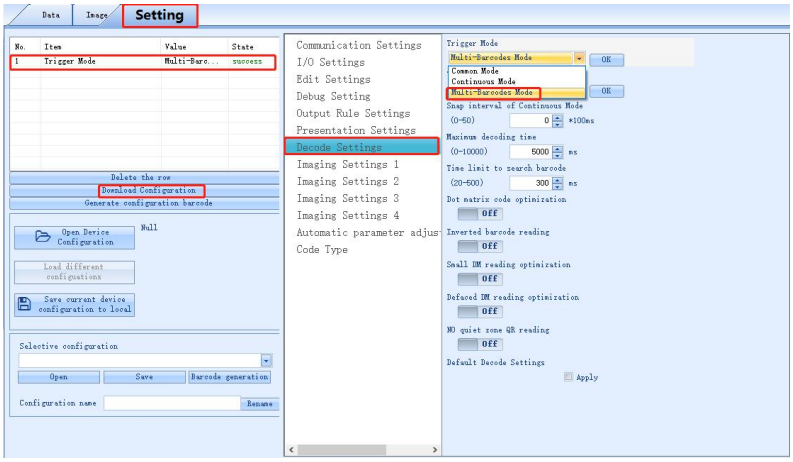
2. Click “Open Device Configuration”, and select the corresponding configuration file, then the parameters of the saved configuration file will be imported into the device.



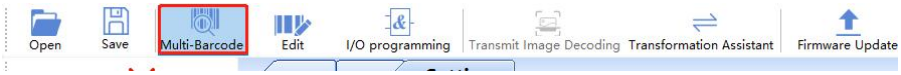
7 Settings for special applications

7-1 How to read multiple barcode in the same time

1. The multi-barcode mode of FV5X barcode reader needs to be set in Settings-Decoding Settings-Trigger Mode.



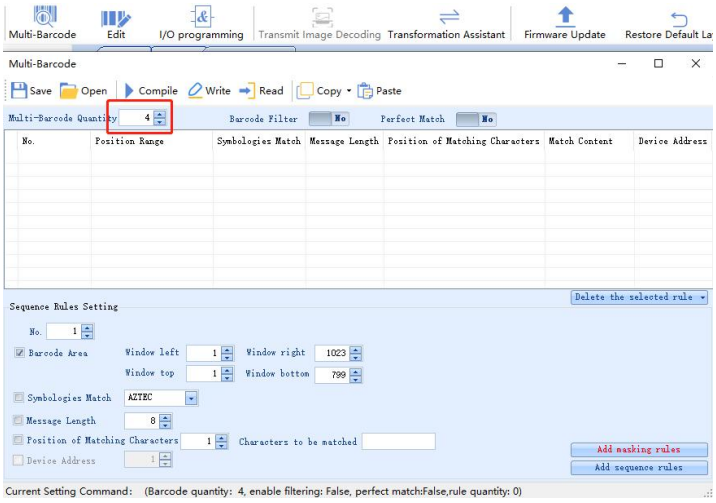
2. Open “Multi-Barcode” rules, you can set multiple barcode rules.



Number of barcodes read: The number of read barcodes can be set according to specific application requirements.

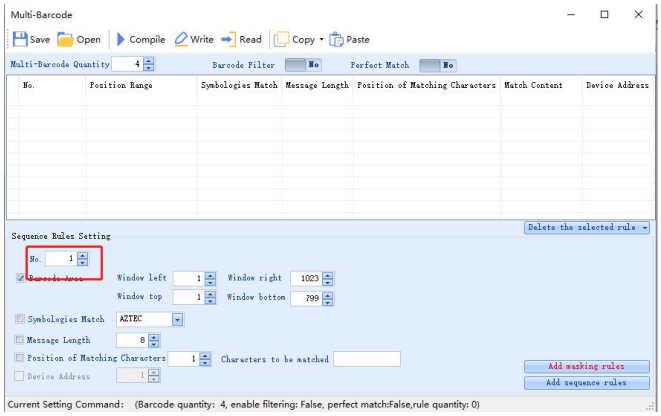
When the quantity is set to 0, all barcodes recognized by the reader will be decoded and output.

The number is set to non-0, and the set number of decoded information is output. If set to 3, 3 barcode information will be output.

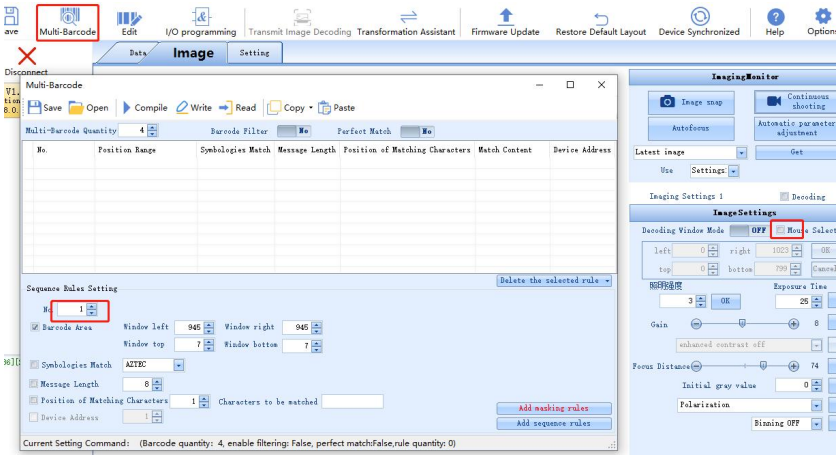


7-2 How to position and sort the barcodes

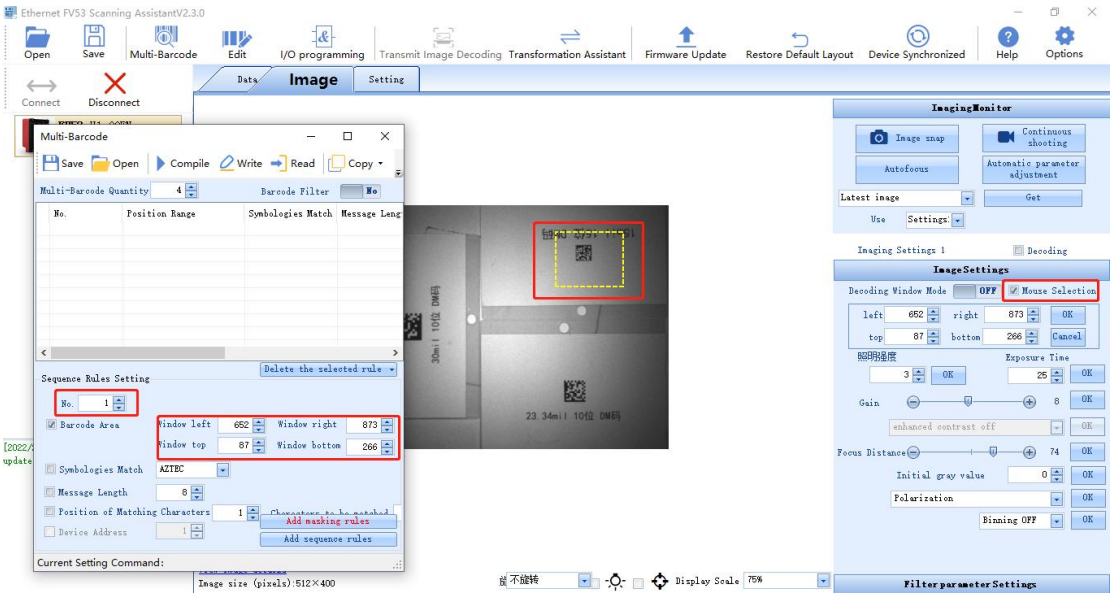
When multiple barcode rules are enabled, you can set the number of output barcodes currently in the output sequence.



Pull the multi-barcode rule window to one side, and check the mouse box in Image Decoding.



After selecting the box with the mouse selection function, the current address information will be automatically updated to the multiple barcode rules, as shown in the figure:



To set the second barcode, set the output sequence to 2, and re-select the box to select a new address.

And so on, set the third output barcode, set the output sequence to 3.....

The above settings are completed, compiled, and written. You can set the output barcode sorting function in the frame selection area.

The sorting can also be set by the following rules:

Code system matching: you can choose different code systems (one of the barcode rules);

Barcode length: According to application requirements, you can choose different lengths of barcodes (one of the barcode rules);

match characters

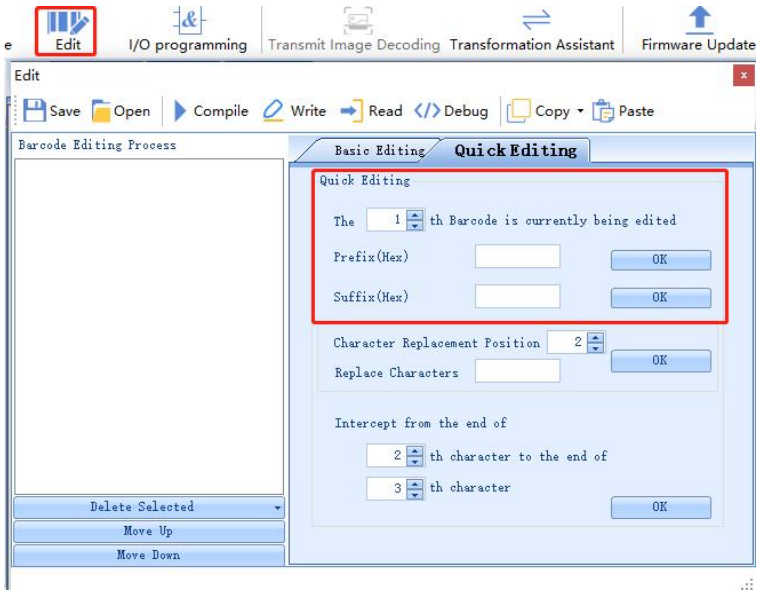
Position: Select the position of a barcode, such as barcode ABC23, if you need to find the position of C, the position is 3.

Characters to be matched: Select the characters to be used as barcode rules.

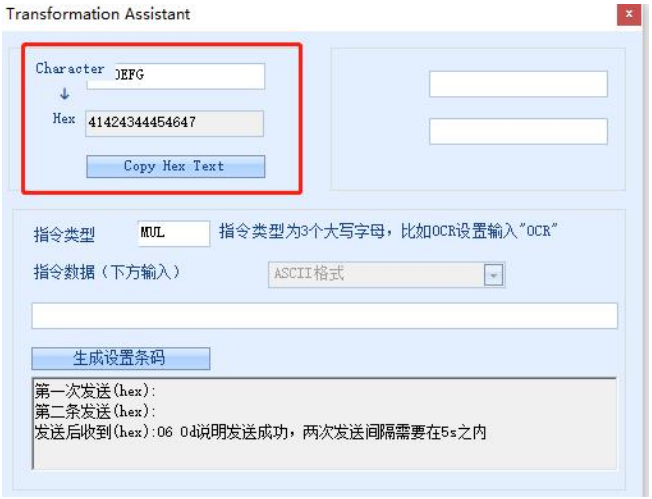
Note: There are new rules that need to be added to the rule table, compiled and written, after this taken the matching rules will take effect.

7-3 Defining the Prefix or Suffix

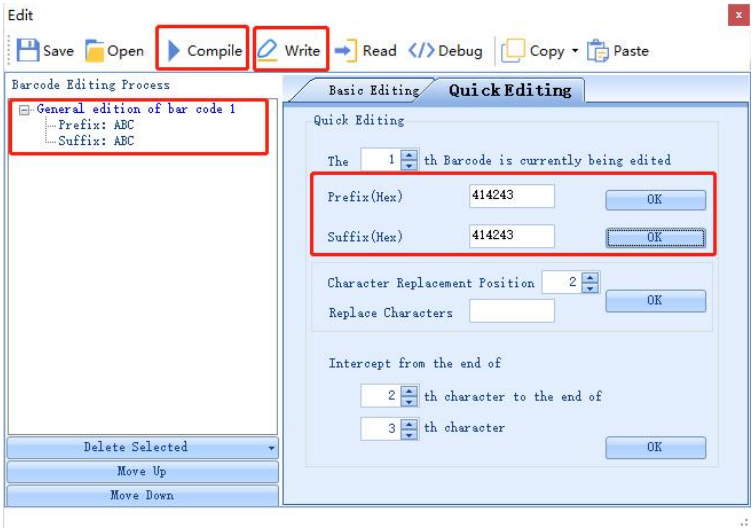
Open Edit



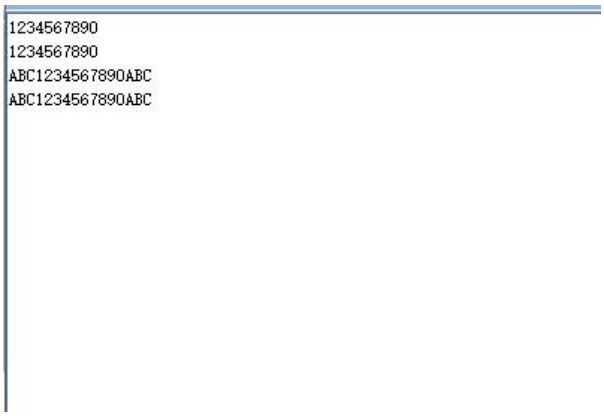
You can enter the required characters in the text boxes after the prefix and suffix. The input text is in hexadecimal, which can be converted by the conversion assistant.
If you want to add "ABC" characters before and after the barcode, open the conversion assistant, enter "ABC", it will be automatically converted to hexadecimal, click to copy the hexadecimal text.



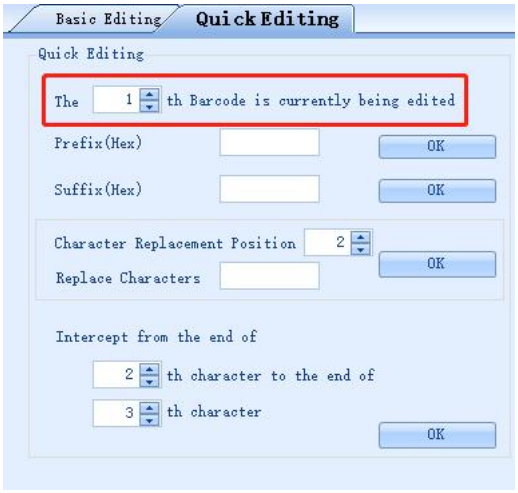
Paste the copied hexadecimal text into the corresponding prefix character input box in the barcode editor. Confirm, compile, write.



As shown in the figure, the barcode information prefix and suffix are "ABC".



In the multi-barcode mode, suffixes can also be added to multiple different barcodes. On the barcode editing page, you can select the number of barcodes currently being edited.



7-4 the Logic Diagram of IO Output

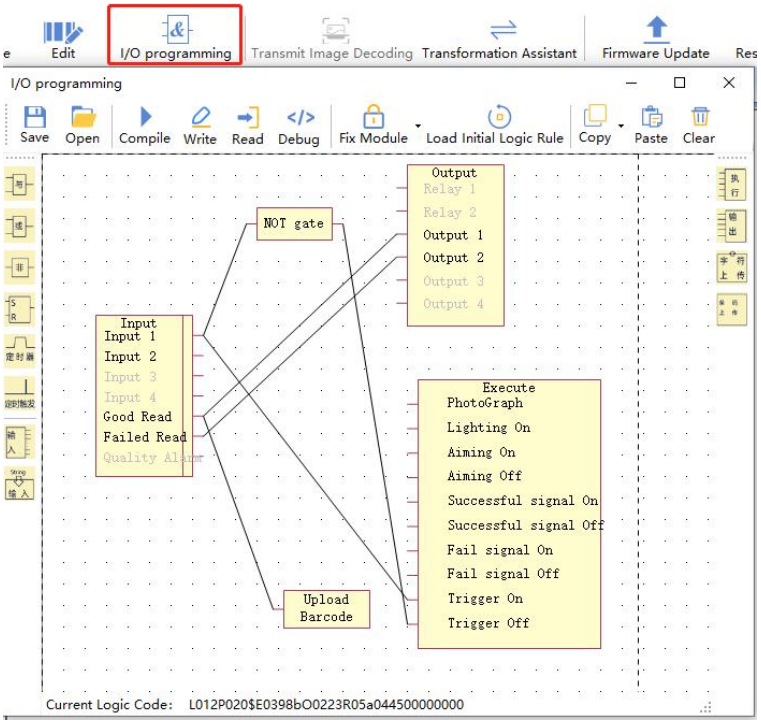
Open I/O programming

Save：save the current I/O logic.

Open：Open I/O logic.

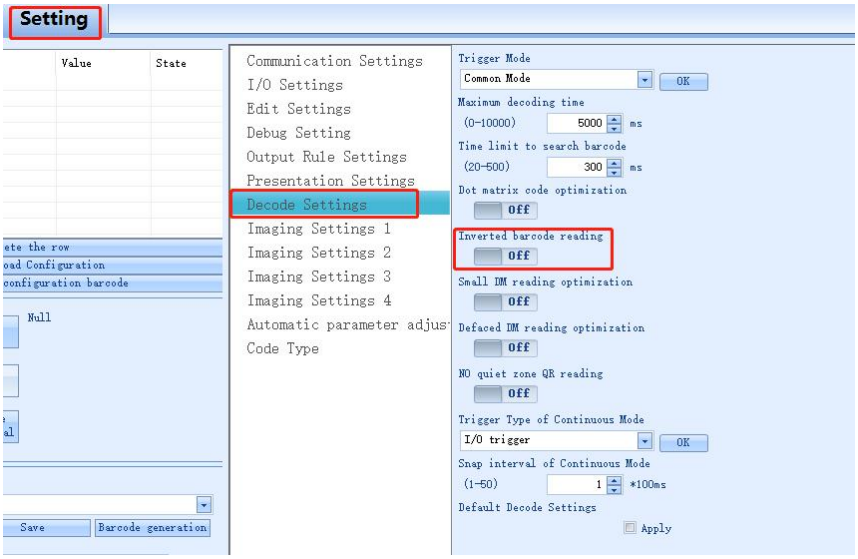
Compile, Write：The modified I/O logic needs to be clicked to compile, then it will take effect after writing.

Load Initial Logic Rule：Restore Factory.



7-5 How to read a color-reversed barcode

In the settings-Decoding settings, turn on the Inversed barcode reading and set the download.

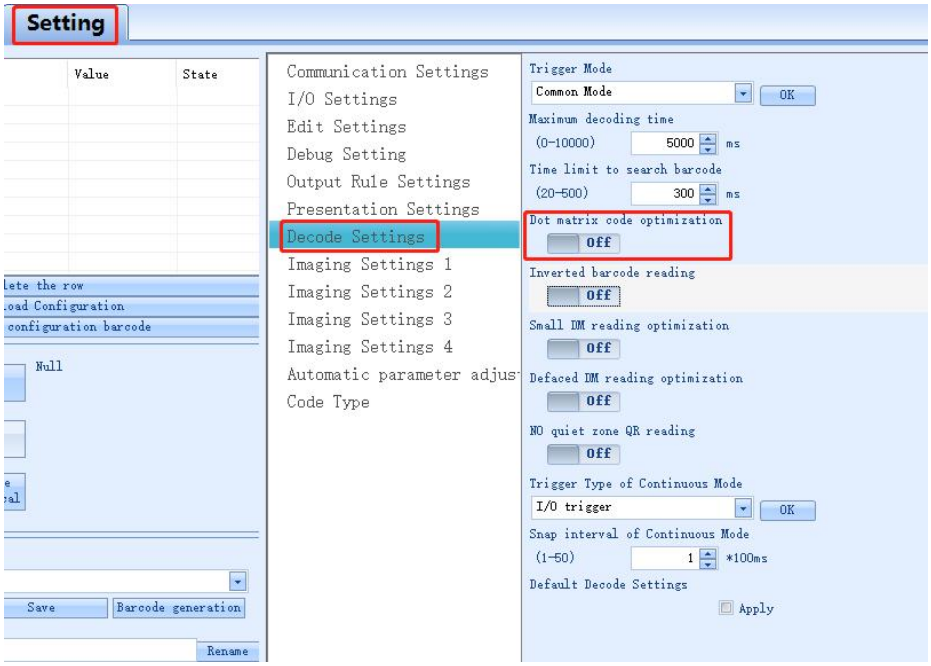


Inversed barcode reading close

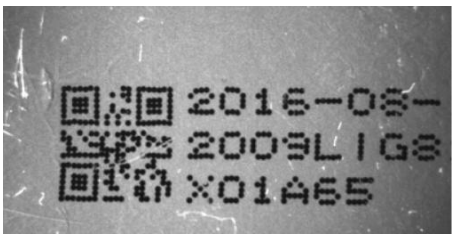
Inversed barcode reading open

7-6 How to Read Dot-matrix Barcode

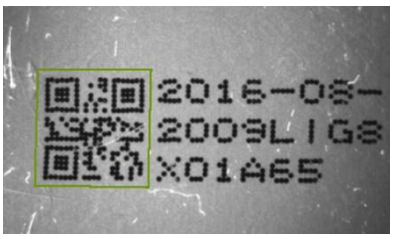
In the settings-Decoding settings, turn on the Dot-matrix code optimization and set the download.



Dot matirx code optimization close



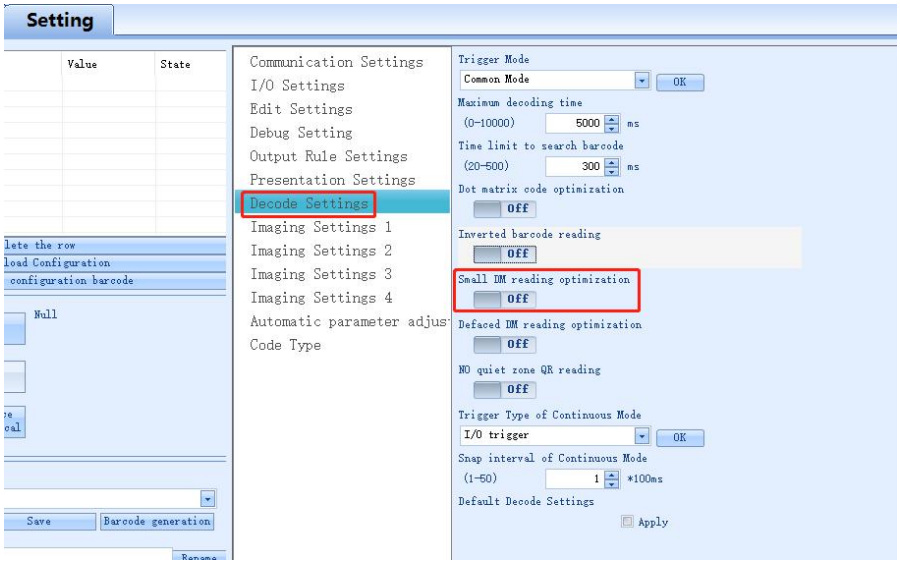
Dot matirx code optimization open



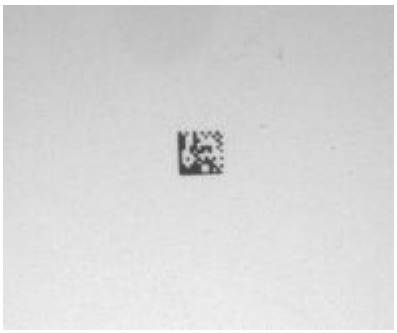
7-7 How to Read Small-sized or Defaced DM Barcode

Small DM reading optimization

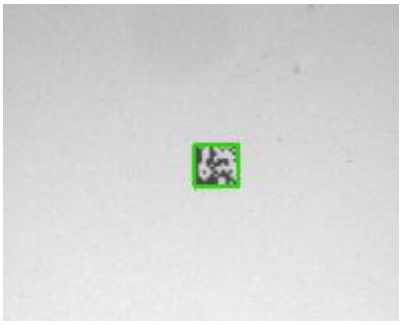
In the settings-Decoding settings, turn on the Small DM reading optimization and set the download.



Small DM reading optimization close

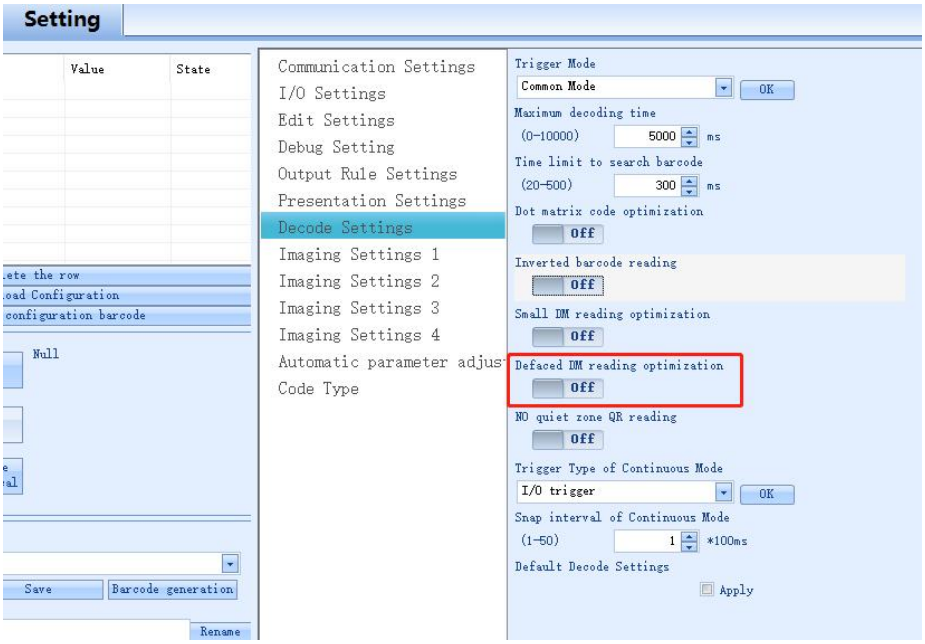


Small DM reading optimization open

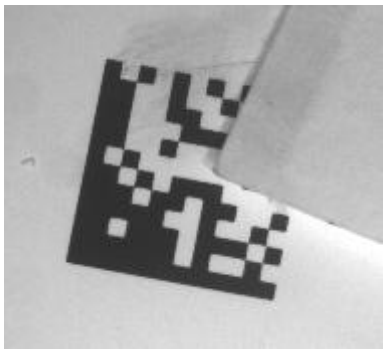


Defaced DM reading optimization

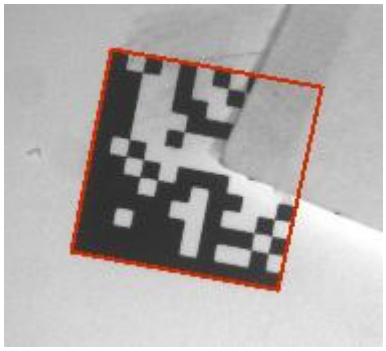
In the settings-Decoding settings, turn on the Defaced DM reading optimization and set the download.



Defaced DM reading optimization close



Defaced DM reading optimization open

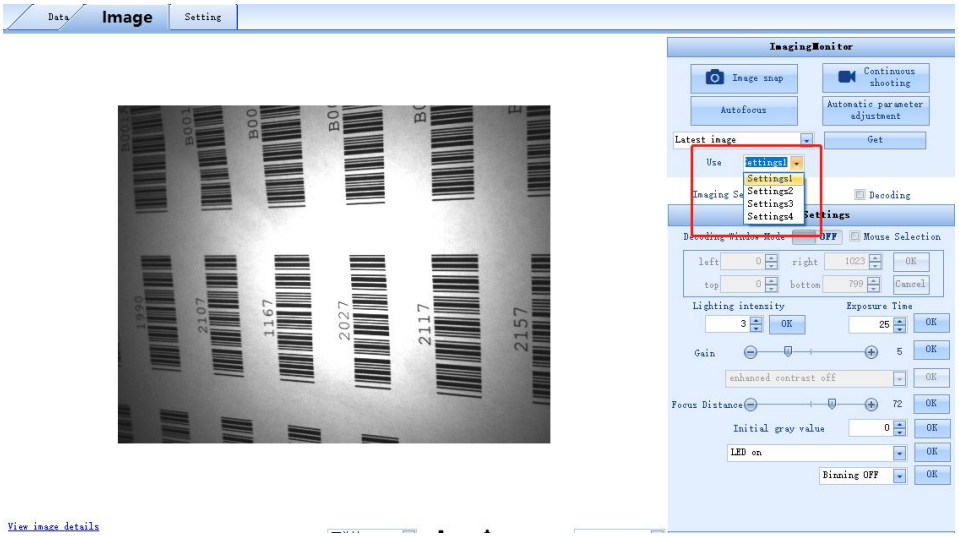


7-8 How to use the polling algorithm for complicated reading

Multiple sets of parameter settings are mainly used in the case of different code symbology, coding media, barcode quality, positions, etc., polling and decoding through different setting parameters.
It can be set through the image interface setting and setting interface.

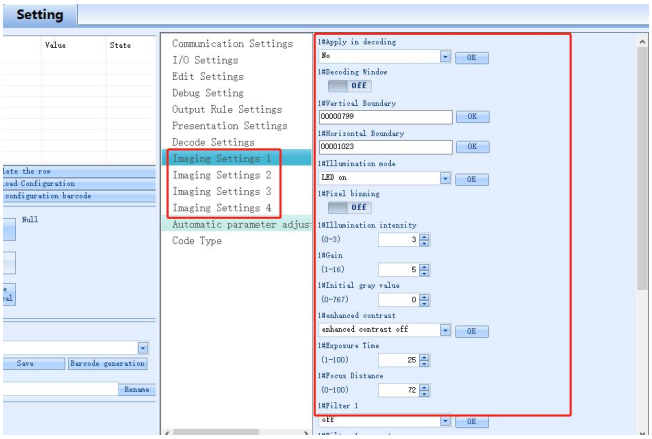
Image window

4 sets of parameters can be set. When setting, you need to confirm the setting of the corresponding imaging parameter group. The parameter group is 1-4. The default is a set of parameter groups, that is, the parameters currently being used. After the setting is completed, you need to tick before "Decoding".



Setting window

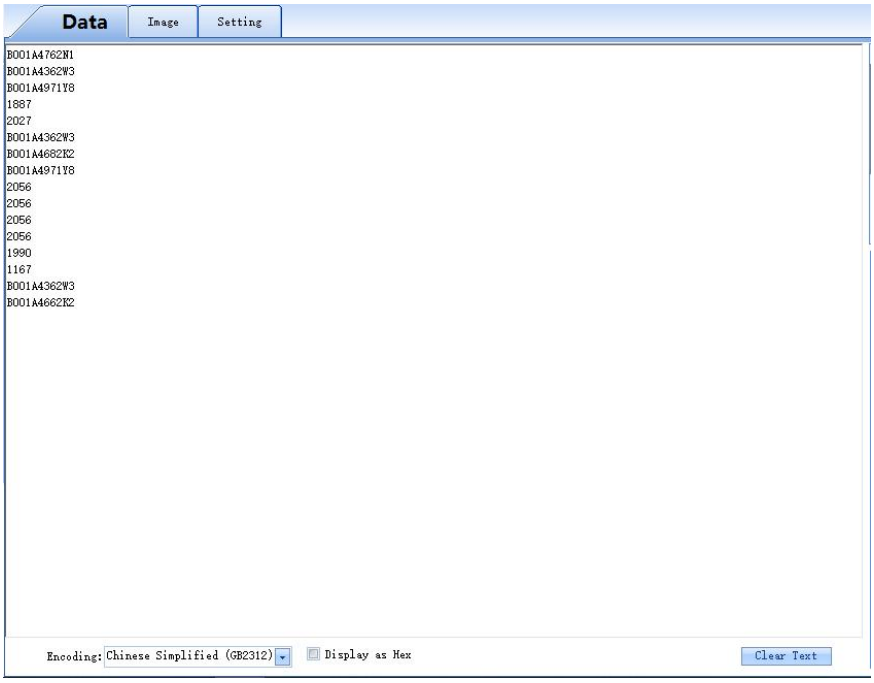
Set the parameters required by the application in the corresponding imaging parameter group. After setting, if you want to participate in decoding, select Participate in decoding and set download under whether to participate in decoding.



8 Other settings

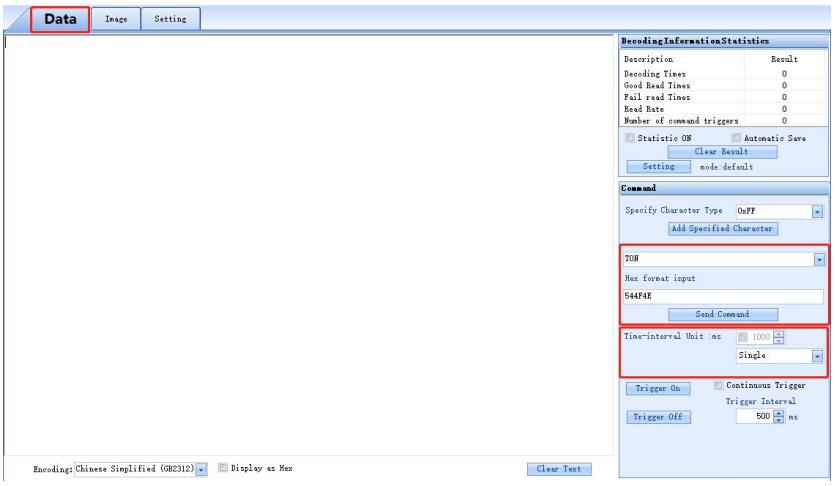
8-1 To View Decoded Data after Settings

In the data window, after the device is triggered, if the decoding is successful, the barcode information will be displayed. As shown in the figure:

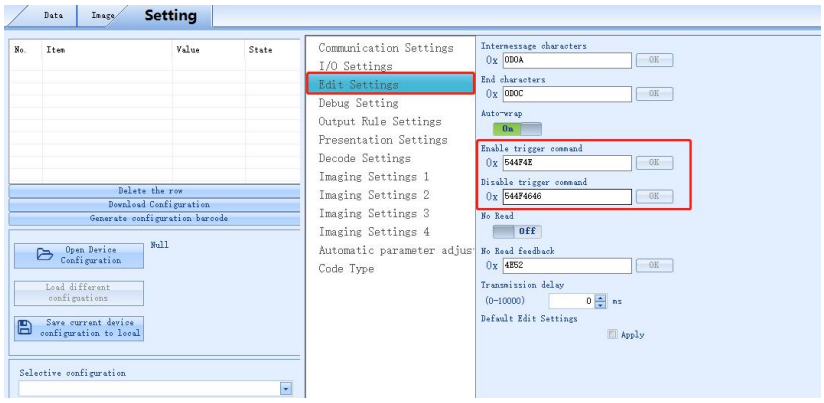


8-2 How to Trigger the Scanner by Computer Command

In the data window, select the corresponding command, and click Send Command to trigger the device. The device trigger command is "TON" by default, and the cancel trigger command is "TOFF". The command trigger interval can be set, and the timing setting needs to be checked. The default is 1000ms/time.



If you want to change the trigger or cancel the trigger, you can change it in Settings - Edit Settings.

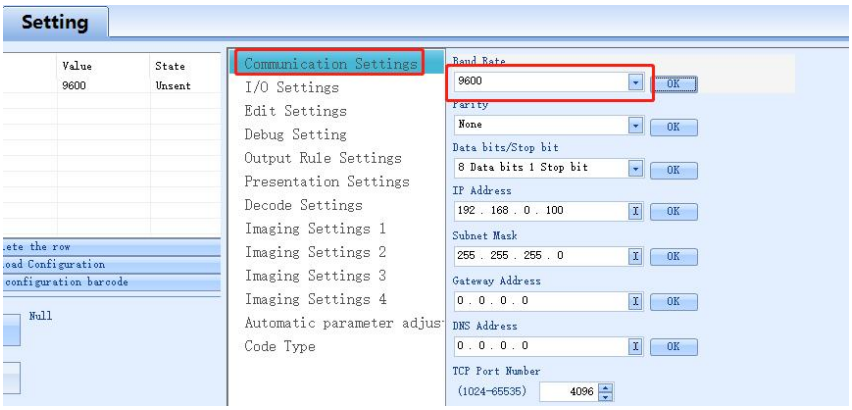


8-3 How to simulate keyboard input

Method 1, through the QHQ line

Connect the DB9 (male) end of the QHQ cable to DB9 (female) of the serial communication cable, and the USB end to the PC end.

In the communication settings, the baud rate is set to 9600, and the download can be set. Data output is keyboard input, and data can be viewed in a text file (English mode).

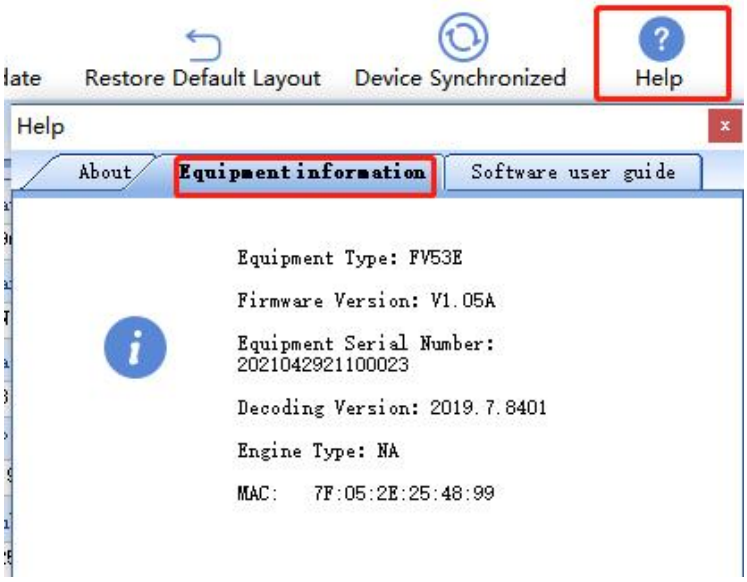


Note: QHQ line is optional, if needed, please consult with our sales or technical person to purchase.

Method 2: A converting cable needed
Change the communication mode of the USB port to the USB keyboard port, and the keyboard port output can be realized through the built-in USB cable.

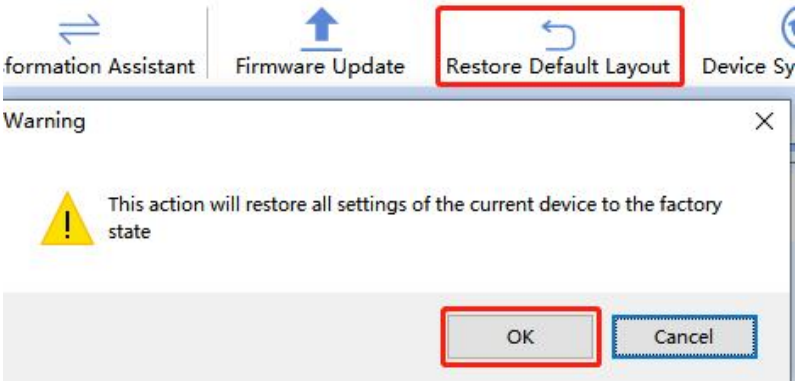
8-4 How to Check the Reader Firmware Version Information

Click the Help button and click Equipment Information to view the current device model, firmware version number, etc.

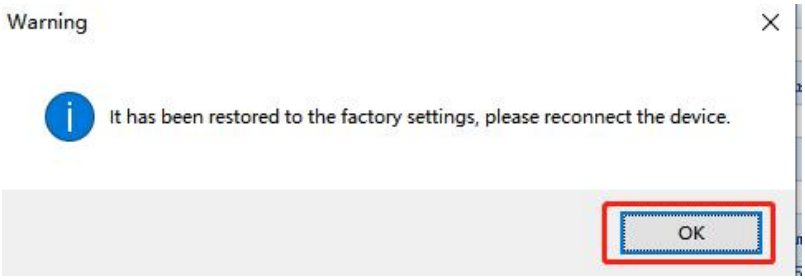


8-5 How to Reset the Scanner to Factory-default Settings

Click the Restore Default Layout button，click the OK。



After hearing the device beep and seeing the success message, the device has been restored to the factory state successfully.



8-6 How to convert characters to Hex code

Click the Transformation assistant, enter the required characters, it will be automatically converted to hexadecimal, copy the content, and paste it.