

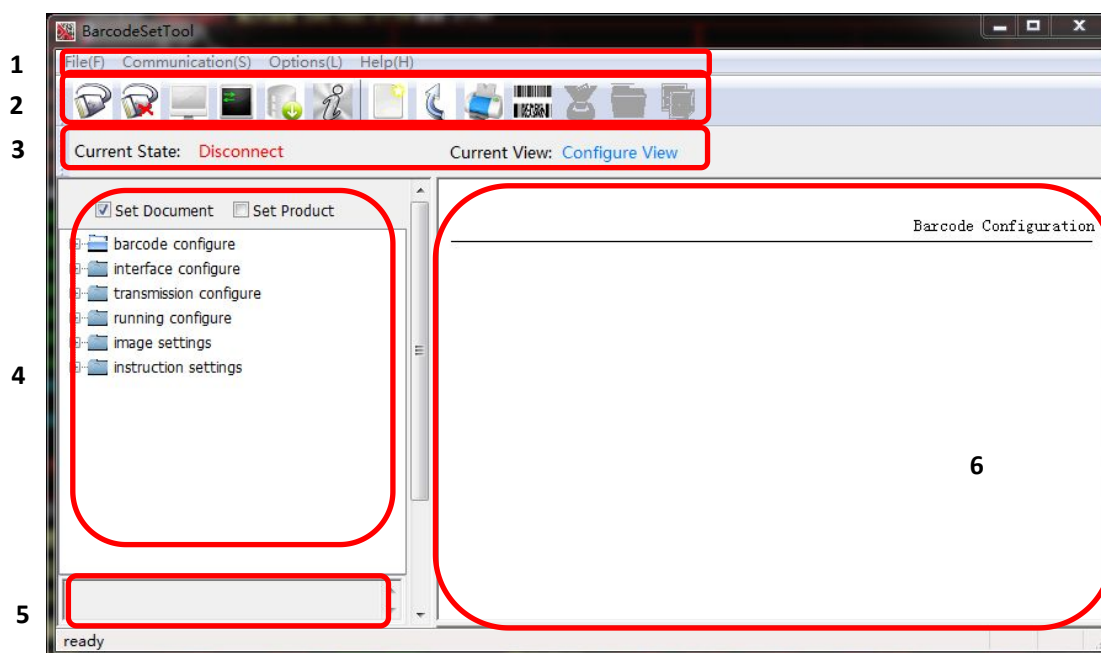
Configuration Tool User Guide

RT220

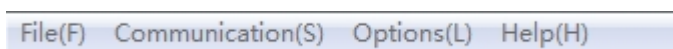
Version 4.5

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A. Configuration tool Summary



1. menu bar



2. Shortcut keys



(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)

- (1) Connect & disconnect
- (2) View Result
- (3) Debugging
- (4) Firmware upgrading
- (5) Product Version
- (6) New (to clear the displayed information in the area no.6)
- (7) Undo previous operation
- (8) Print
- (9) Merge setting codes (to merge several setting codes into one setting code)
- (10) Image capture
- (11) Image save
- (12) Result save

3. **Connect/ disconnect** status , Current View status

4. Setting codes (configuration) area

Select (tick) the **“Set document”** and choose the setting option from the left side column and then **double click it to generate a setting code** on the right area.

5. Configuration explanation

It explains the function of the selected setting code.

6. Display area

It displays the setting code or decoding result or the image.

B. Connection and configuration

Important attention:

① To setup the barcode scan engine, it's **unnecessary** to connect the scan engine with this configuration tool, just find out all requested setting codes from “setting code area” and scan them from computer screen directly then the configuration activates immediately.

② Two situations needing to connect the scan engine with this tool :

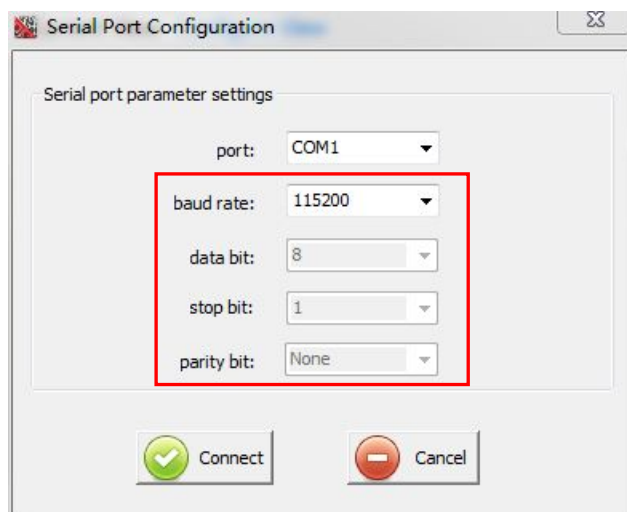
(a), When the scan engine works under the interface of USB virtual com or RS232.

(b), To upgrade the firmware of the scan engine.

1. Connect & disconnect

(a), When the scan engine works under the serial port or USB virtual COM port, click the connected icon  and select the corresponding Com port to connect it.

The default parameter as shown below: 115200-8-1-n



(b), To disconnect the scan engine, click the disconnect icon .

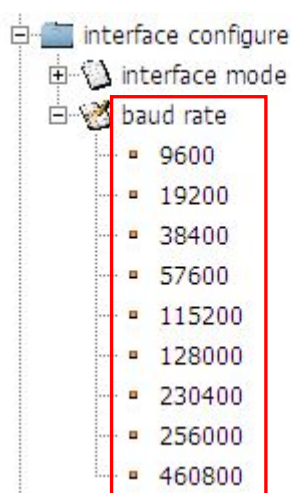
2. Scan engine configuration

(a). Barcode enable/disable (Barcode configure)

Scan the enable/disable setting code to enable/disable a corresponding type of barcode.

(b). Interface configuration

- a). Interface mode: Used for setting up / switching between USB-HID and USB- Virtual Com.
- B). Baud rate setting: the scan engine can be set in different baud rate as below.

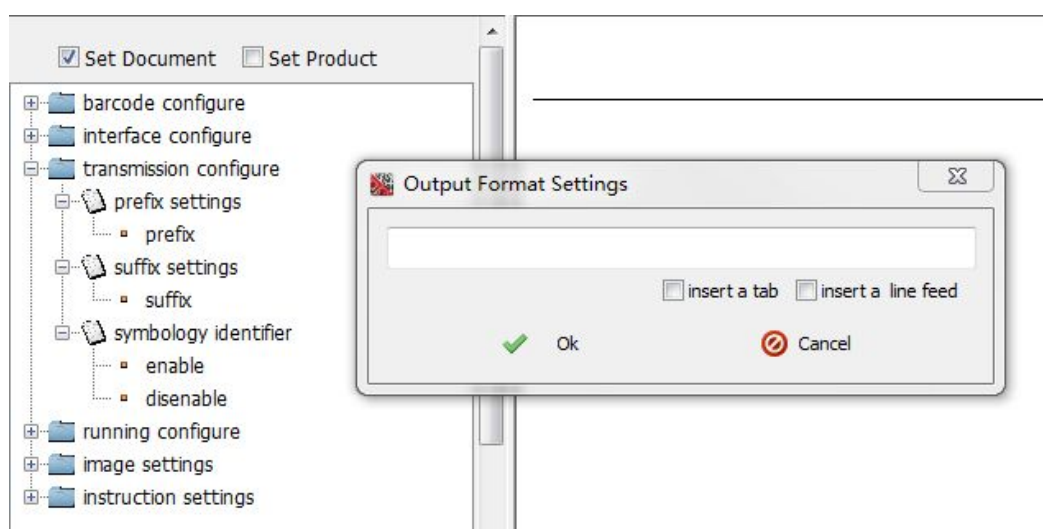


(c), Transmission configuration

- Prefix setting & suffix setting

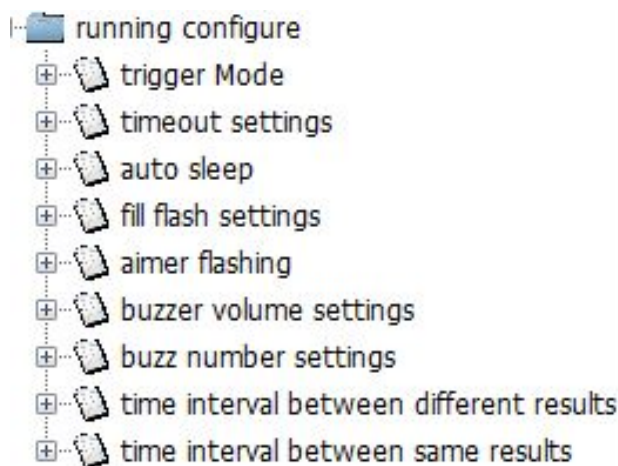
(1), Tick the “insert a tab” to insert a “tab” key as a prefix or suffix. Tick the “insert a line feed” to insert an “Enter” key. (if only for “tab” or “Enter”, no need to input any character on the space).

(2), Insert whatever character on the space as a prefix or suffix.



(d), Running configuration

It is used to setup the trigger mode, timeout setting, lighting setting, buzzer and time interval setting, etc.



● Trigger mode

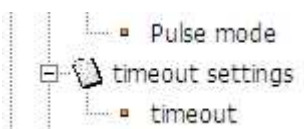
Button mode (key mode): The scan engine starts decoding when pressing button and it stops decoding when releasing the button. The scan engine stops automatically when it decodes successfully.

Continuous mode : The scan engine starts decoding continuously when the button is pressed the first time, it stops decoding when the button is pressed the second time.

Automatic mode : The scan engine keeps decoding automatically after power on. The button is invalid under this mode.

Sensing mode: The scan engine starts decoding once barcode detected and it keeps on standby when no barcode has been detected.

Pulse mode : When the button is pressed, the scan engine will keep decoding until it decodes successfully or the setting time is up (the setting time is defined by “time out setting” as below).



● Timeout setting

Set the duration time for above pulse mode.

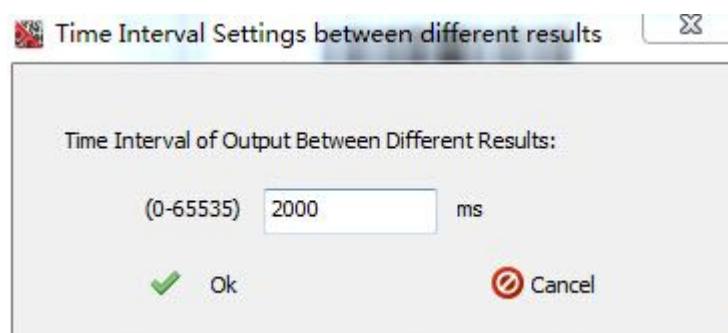
● Auto sleep

The scan engine enters into a sleep mode automatically.

● Fill flash setting

Set the status of fill flash.

- Aiming flashing
Set the status of aimer flash.
- Buzzer volume setting
Set the volume of buzzer.
- Buzz number setting
Set the number of times of buzzer ringing after decoding successfully.
- Time interval setting
 - (1), Set the time interval(count in millisecond) for decoding different barcodes.
 - (2), Set the time interval(count in millisecond) for decoding same barcodes.



(e), Image settings

The shutter speed(count in millisecond) can be set according to specific environment to improve the image quality.

(f), Instruction setting

(1), Scan the "start decoding" or "stop decoding" setting code to "trigger" a scan or stop decoding the barcode.

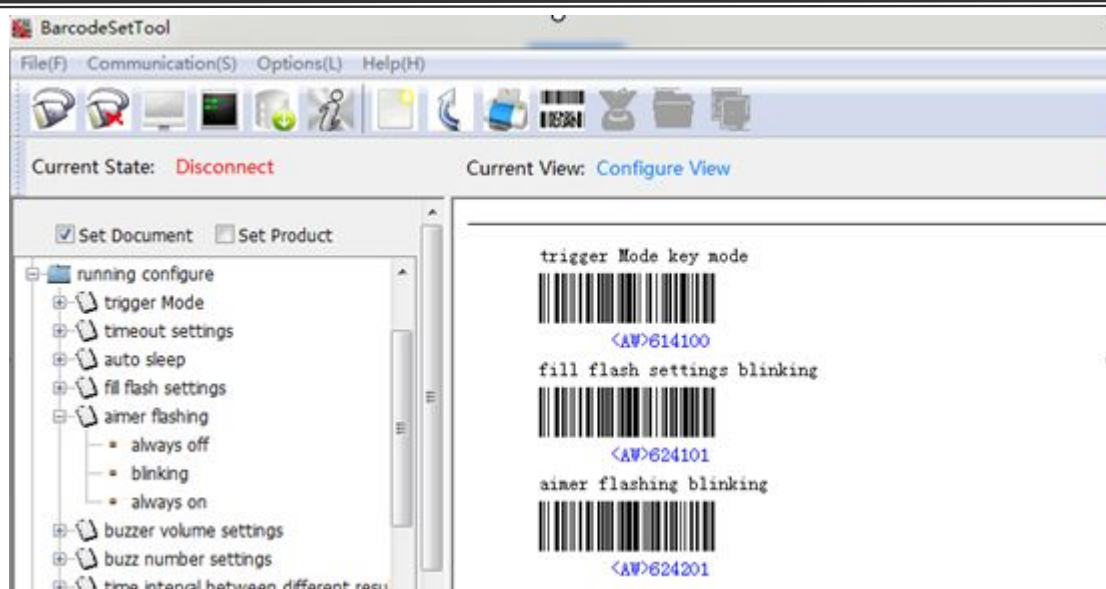
(2), Restore the factory setting

When the scan engine works with this tool under USB Virtual COM or RS232, all the factory default setting codes will be marked with a symbol star " * ". Please refer to the [page 12th for those factory setting](#) codes.

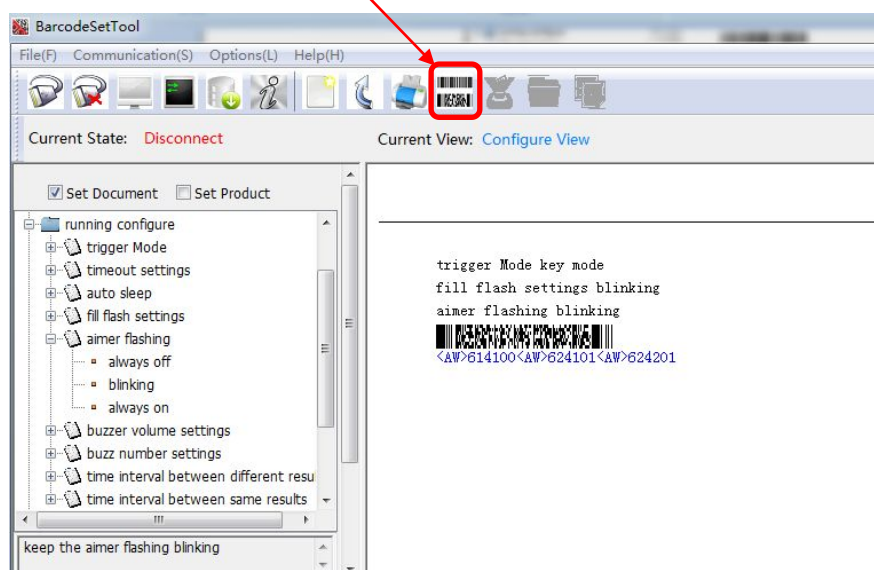
C. Multiple Setting Codes Merging

To merge several setting codes into one setting code, follow the below steps:

(1), Select required setting code and list them as below picture:



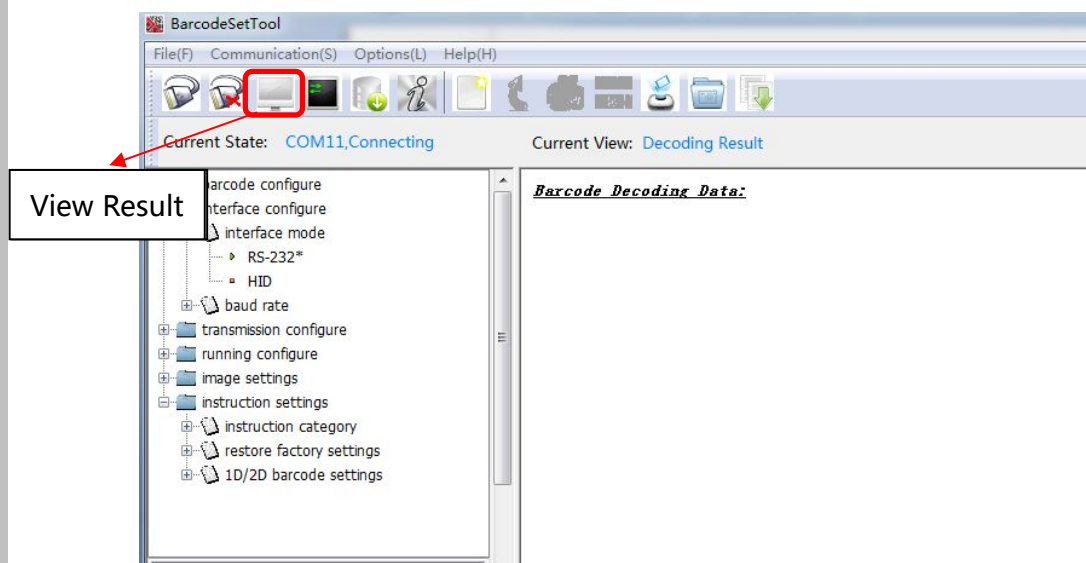
(2), Click the “Merge Setting Codes” button to generate a new setting barcode. Scan this only one new bar code to finish the setting of all the above listed bar codes.



D. Output and Pictures

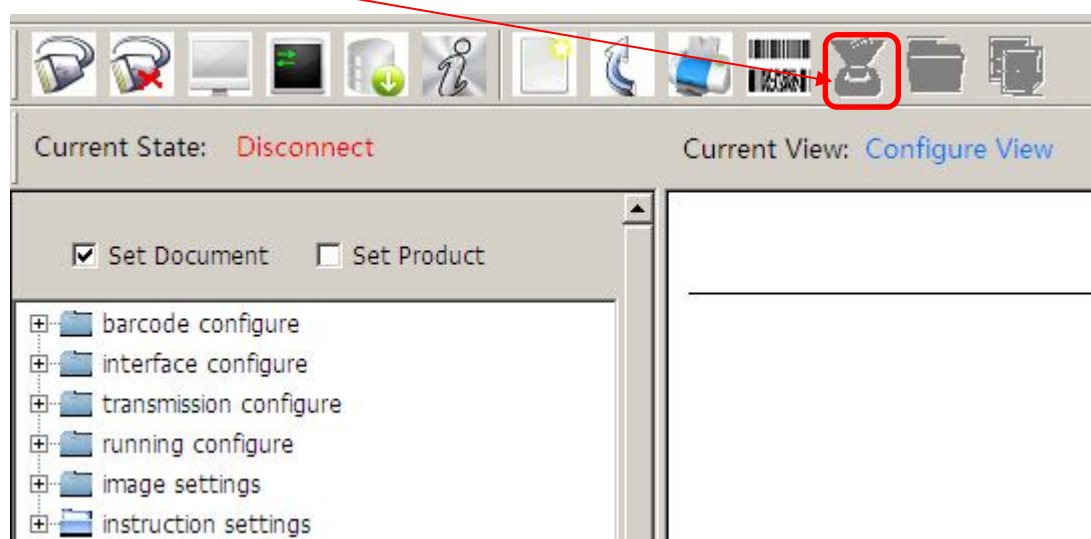
(1) Display decoding result.

When the scan engine works with this configuration tool under the RS232 or USB virtual com, press the “View Result” icon to display the decoding result.



(2), Capture picture

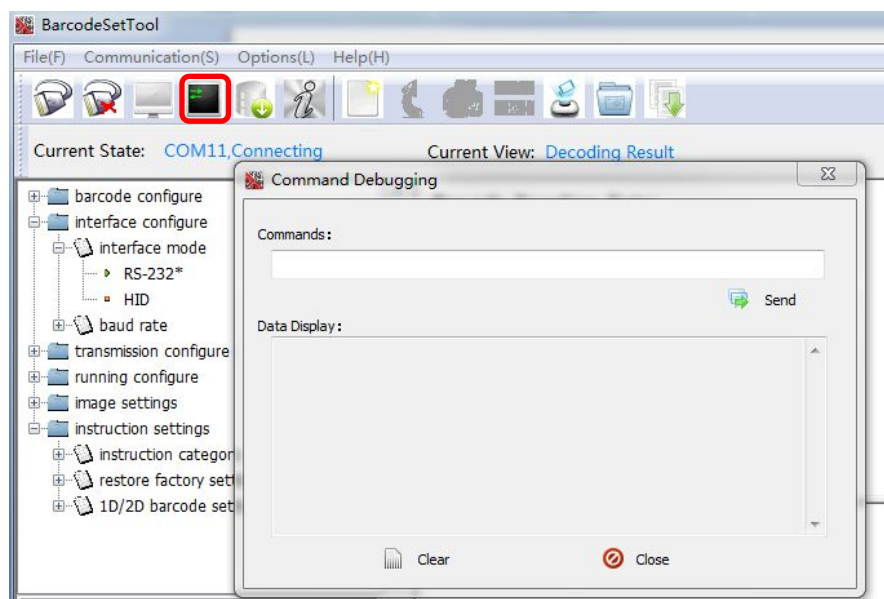
Click the image capture icon to get a picture.



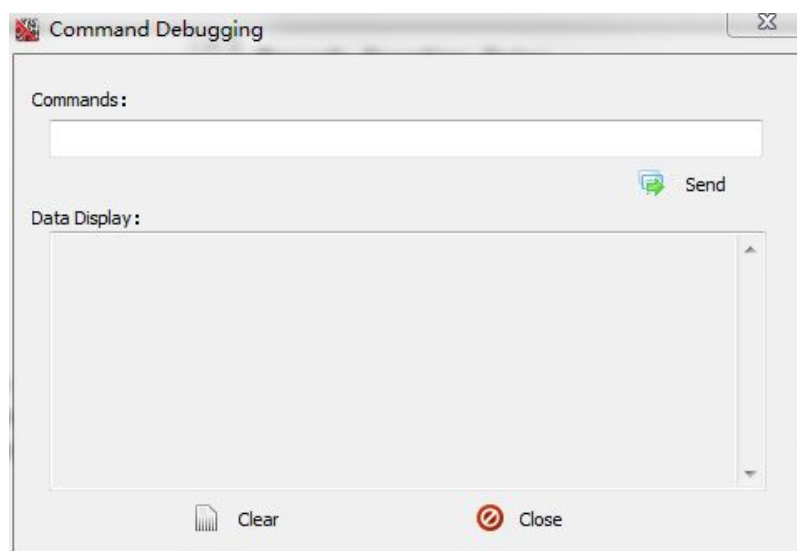
E. Command Debugging

We can setup / configure the scan engine via "command",

1. Connect the scan engine with this configuration tool under RS232 or USB virtual com mode, click the "Debugging" icon :



2. Input the command and click send button. (you can find the command list from [Protocol Map.xls](#) under the SDK package.)



Example :

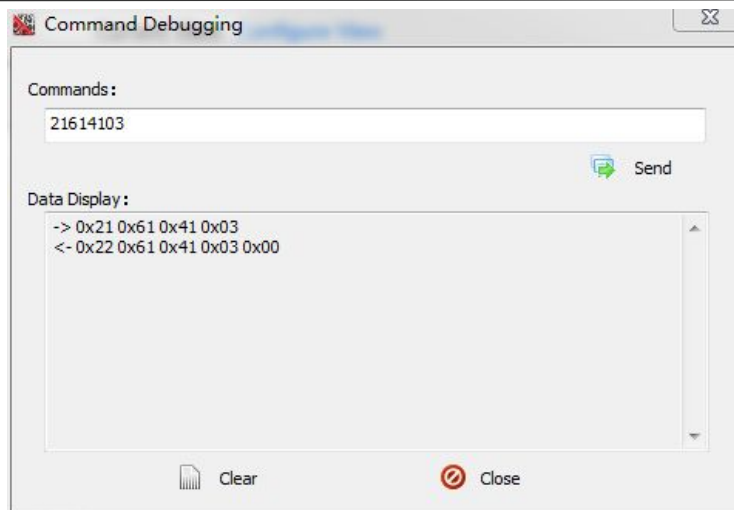
We want to set the scan engine in sensing mode:

a、 We get the below command from the “Protocol Map.xls”:

21	61	trigger	41	trig mode	00 key mode	22	61	41	XX	01
					01 continuous mode					
					02 automatic mode					
					03 Sensing mode					
					04 wave mode					

It is : 21614103

b、 We enter the command in the space.



- c、 The data after the symbol -> is sent by hex; And the data after the symbol <-is the returned data from the scan engine. Then the scan engine is set well in sensing mode.

F. Firmware upgrade

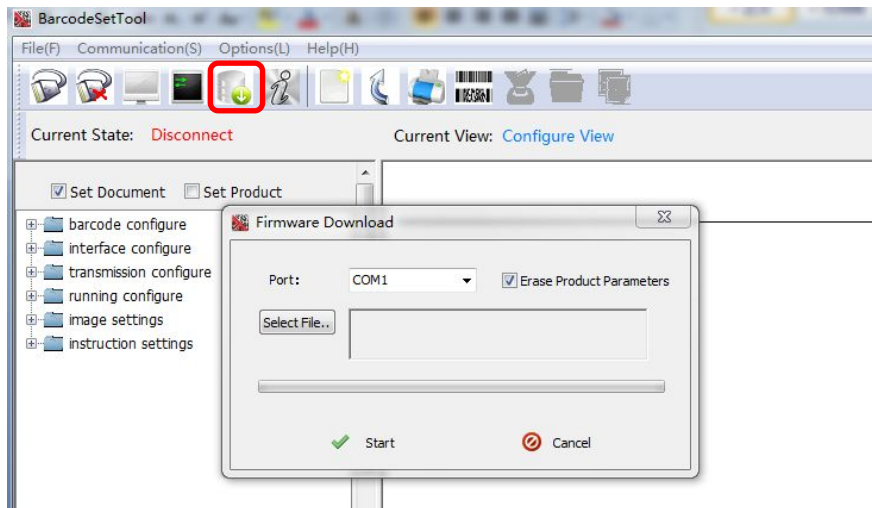
1、 Then follow the below steps:

- ① Keep the circled button pressed (do not release) and connect the scan engine with computer.

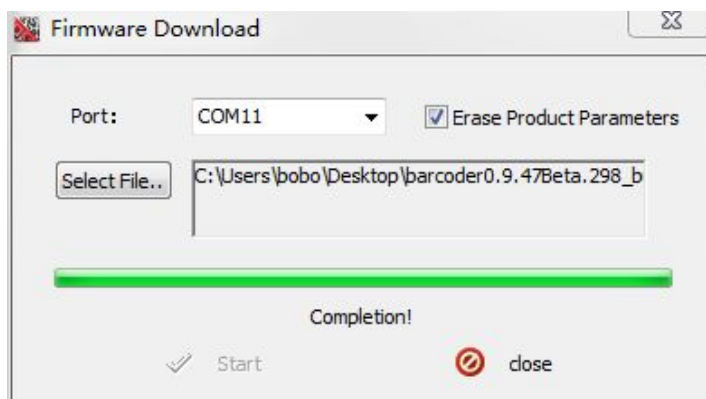
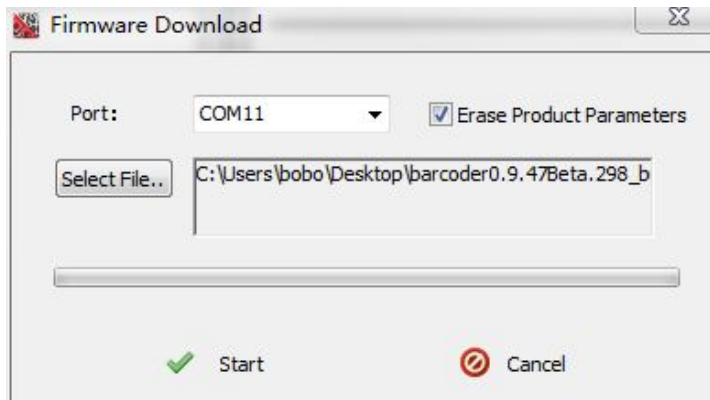


② After it's connected, release the button.

③ Then run the :**Configuration Tool.exe** , and press the 'firmware upgrade' icon, see below:



2、 Select the corresponding Com port and firmware, press ‘start’:



When it is completed, you need to re-connect the scan engine with computer.

Upgrade done.

G. Factory default Setting as below, labeled with symbol: *

☒ Set Document ☐ Set Product

- barcode configure
 - QR code
 - Enable *
 - Disable
 - PDF417 code
 - Enable *
 - Disable
 - Chinese-sensible code
 - Enable *
 - Disable
 - DataMatrix
 - Enable *
 - Disable
 - Aztec
 - Enable *
 - Disable
 - MicroQR
 - Enable
 - Disable *
 - MicroPDF
 - Enable
 - Disable *
- Code93
 - Enable/Disable
 - Enable *
 - Disable
 - Full ASCII extended
 - Enable *
 - Disable
 - Code128
 - Enable *
 - Disable
 - UPC-A
 - Enable/Disable
 - Enable *
 - Disable
 - Check character output mode
 - Output*
 - Not output
 - UPC-E
 - Enable/Disable
 - Enable *
 - Disable
 - Check character output mode
 - Output *
 - Not output
 - Not output *
 - China Post
 - Enable *
 - Disable
- Code11
 - Enable/Disable
 - Enable*
 - Disable
 - Decoding check digit
 - no parity*
 - 1 digital
 - 2 digital
 - Auto calibration
 - Output mode
 - Output*
 - Not output
 - Code39
 - Enable/Disable
 - Enable *
 - Disable
 - Decoding check mode
 - No check mode*
 - Code32 check mode
 - Modulo 43 mode
 - Full ASCII extended
 - Enable
 - Disable*
 - Start/Stop character output mode
 - Output
 - Not output*
 - Check character output mode
 - Output
 - Not output*
- EAN-13
 - Enable/Disable
 - Enable *
 - Disable
 - Check character output mode
 - Output *
 - Not output
 - EAN-8
 - Enable/Disable
 - Enable *
 - Disable
 - Check character output mode
 - Output *
 - Not output
 - Codebar
 - Enable/Disable
 - Enable *
 - Disable
 - Decoding check mode
 - Check mode
 - No check mode *
 - Check character output mode
 - Output
 - Not output *
 - Start/Stop character output mode
 - ABCD mode ouput
 - abcd mode output
 - Not output*
 - Standard 2 of 5
 - Enable/Disable
 - Enable *
 - Disable
 - Decoding check mode
 - No check mode*
 - Modulo 10 mode
 - Check character output mode
 - Output
 - Not output*
 - MSI
 - Enable/Disable
 - Enable *
 - Disable
 - Decoding check mode
 - No check mode
 - Modulo 10 mode*
 - Modulo 11 mode
 - Twice modulo 10 mode
 - modulo 11,modulo 10 mode
 - Check character output mode
 - Output *
 - Not output
 - GS1 DataBar
 - Omnidirectional
 - Enable *
 - Disable
 - Limited
 - Enable *
 - Disable
 - Expanded
 - Enable *
 - Disable

