LabelUtility Document

Basic Data

LabelUtility is a collection of software tools for displaying printer features, and printer control and configuration.

Software function

1) Support all barcode printers based on BPLA and BPLZ instruction set.

2) Communication interface support USB, Serial port, Ethernet (wired/wireless).

3) Support Port, Eeprom Set, Command, Update, Printer Set, Logo, Status, Logging, Help Document, Language change, Skin change and other functions.

Supported operating environment

32-bit and 64-bit Windows operating systems

- Windows XP
- Windows Server 2003
- Windows Vista
- Windows 7
- Windows 8
- Windows 10
- Windows 11

Linux operating system

- Fedora 14
- Ubuntu 12.04
- Ubuntu 16.04
- Ubuntu 18.04
- Deepin 15.5 (Loogson-3A R3)
- Kylin 4.0.2 (PHYTIUM)

Version Information

Version :V1.0.3

Release time : May 23, 2023.

Change :

1) BPLZ instruction set, modified TTF font download to printer name character length limit..

Version :V1.0.2
Release time :March 17, 2023.
Change :
    1) Modify the TTF font download crash problem.

Version :V1.0.1
Release time :February 3, 2023.
Change :
    1) Add the specified printer support.

Version :V1.0.0
Release time :November 30, 2022.
Change :
    1) First Release.
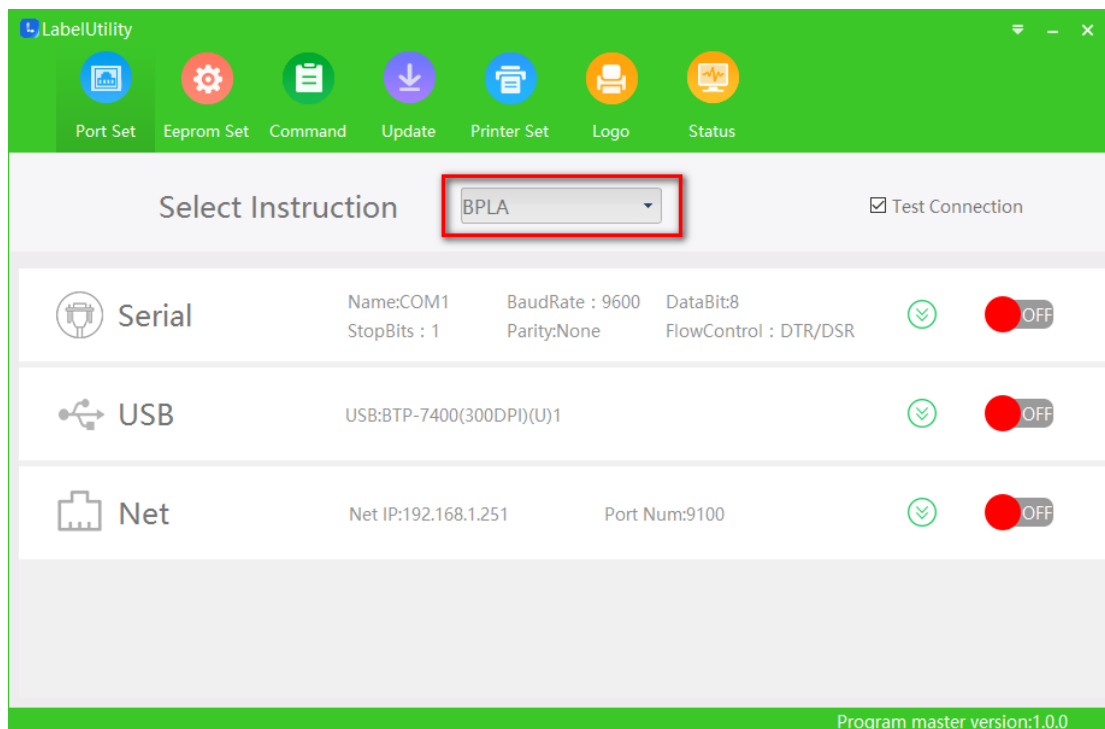
Port

The main function of this section is to select the instruction set type of the printer and set the connection mode of the printer.

Select Instruction Type

1. After the program starts, it first enters the port setting interface. If the USB device is connected, it will be automatically enumerated. The device name will be displayed on the interface, and you can directly select to open it.   the network port communication shows the default ip address and port number; When the communication is disconnected, a dialog box is displayed for you to switch other functions. You can also switch other functions.

2. Select the supported instruction set from the instruction set list, which is read from the configuration file.

Select communication

1. Windows and Linux support serial port communication, USB communication, and network port communication.

2. Select a communication from the supported communication methods.

- Serial communication: configure serial port number, baud rate, data bit, stop bit, check digit and flow control. The serial port number can be manually input into COM1-COM999 under windows and ttyS0-ttyS999 under linux.

- USB communication: Click the green down arrow button to enumerate the

connected USB device name, which is displayed in the drop-down list box and select a device.

- Network port communication: You can enter the IP address from the edit box, or you can click the search button to search for the printer IP and select it from the drop-down box.

3. The middle area shows the set port parameters.
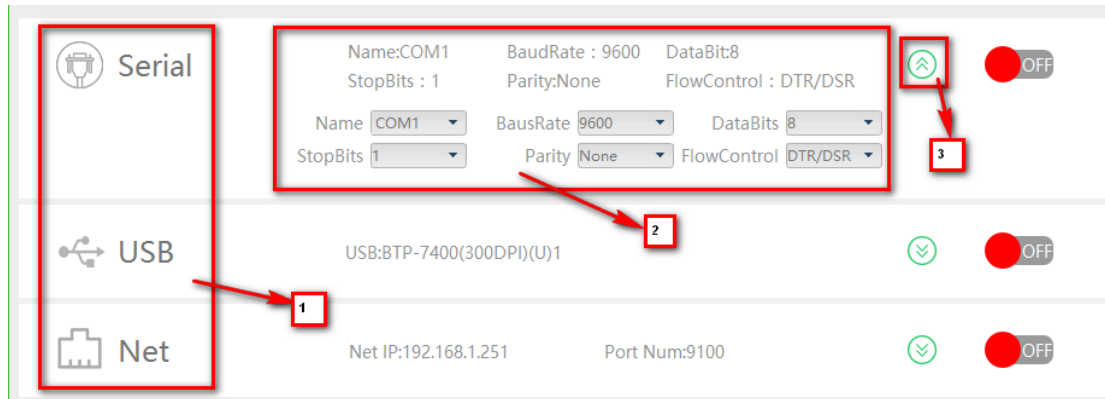
Open Device

1. Click the right switch button. If the switch is successful, the button corresponding to the current communication mode turns green, and the other buttons are grayed out; the open failure frame prompts the device to open the failure message. (The three color states of the button: red "OFF" is off, green "ON" is on, gray "NO" is disabled)

2. After the port is successfully enabled, check whether the other functions are supported according to the type of the instruction set. If yes, the function can be switched to the operational state normally. If no, the system displays a box reminding that the model does not support the function.

3. If opened the port check test link button, the program will send instruction to the printer (query printer status, used to match instruction set choice is correct, if the query to the type of printer instruction set and the user to select different, will prompt the user whether to need to correct, if not rectified in accordance with the user to select type of instruction set to display other interface feature, Problems in interaction with the printer are not handled).

4. After the printer is successfully opened, select the option in the drop-down box of instruction set type to switch the instruction set, and the current communication mode will be automatically closed.
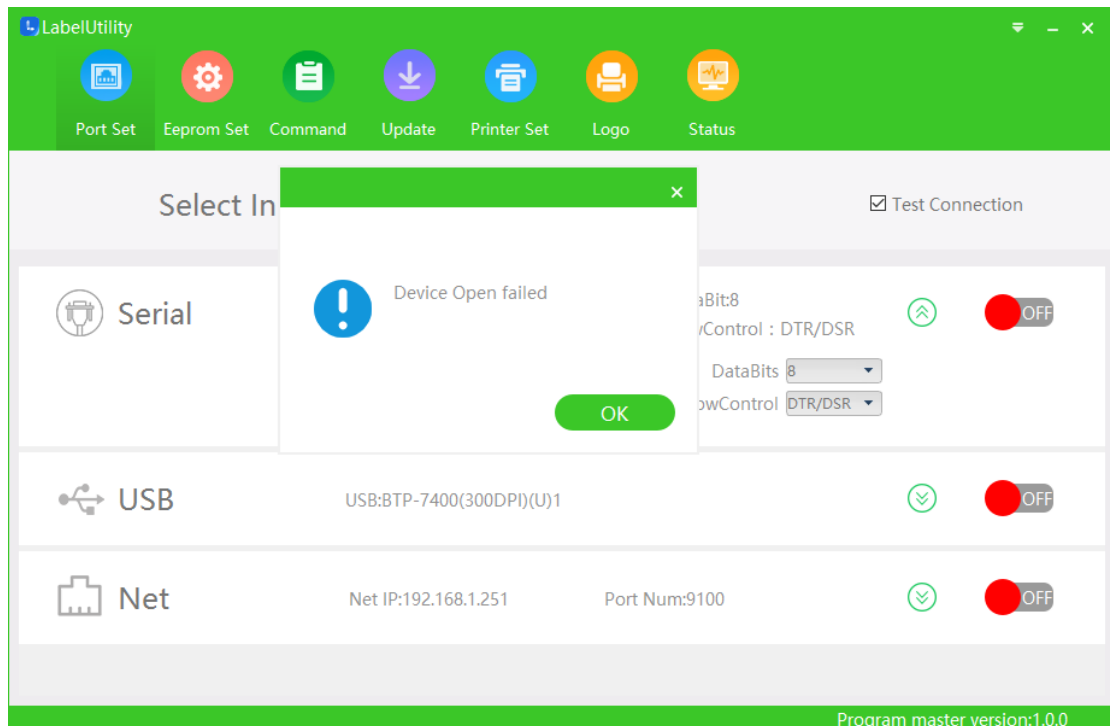
5. Switch function page: After the port is successfully opened, click to switch another function item. The system will judge whether this function is supported according to the current selected model and communication mode. If it is not supported, a message will be displayed indicating that this function is not supported. If you do not open the port to switch to other interfaces directly, you can only browse function items, and the part related to the interaction with the printer will remind the user to return to the port interface and open the port before performing corresponding operations.

Eeprom Set

The main function of this part is to set the relative parameters of the Eeprom of the printer.

Eeprom setting includes the following steps: Go to the eeprom setting page; Configure printer Settings; Save the Settings for the printer.

Precautions:

1. Before operation, make sure that the port parameters are set correctly and connected to the printer, otherwise the operation is prohibited. Please refer to the "Port Set" page for port settings.

2. The following section uses the BPLA instruction set as an example (interfaces of different instruction set types may differ).

Step 1: The Eeprom setting page is displayed

Click Eeprom Setting in the top toolbar to access the Eeprom setting interface.
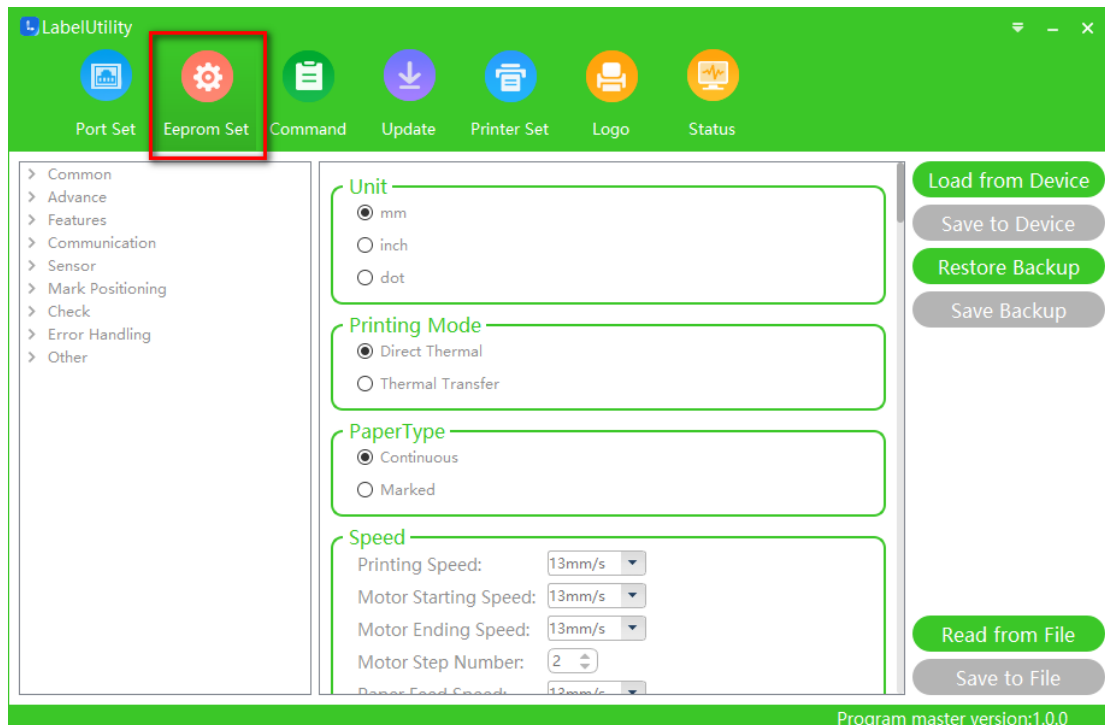
Step 2: Configure printer settings
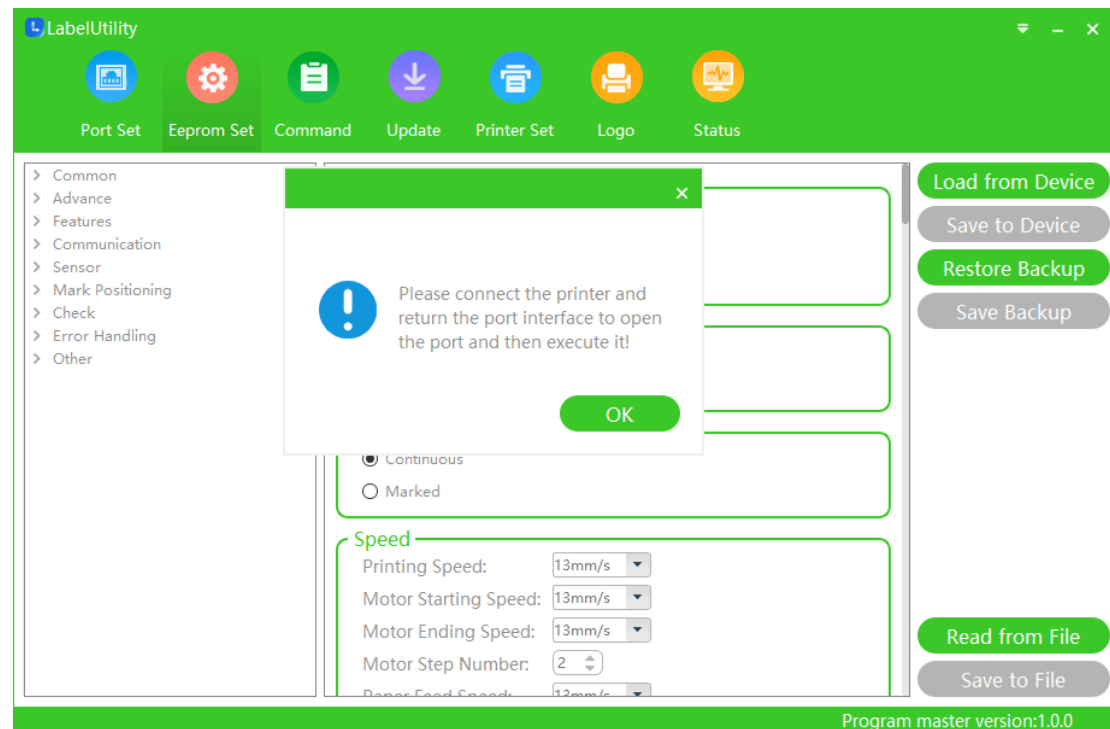
There are two ways to load the printer configuration:

1. Click the "Load from Device" button to read the current Settings of the printer and configure the

required Settings.

2. Click the "Read from File" button to import the printer Settings file of the current instruction set type.

Points to note:

1. Click "Restore Backup"to restore the Eeprom Settings to the last saved configuration.

2. If the current Settings of the printer cannot be obtained by clicking the "Load from Device" button in special cases, the obtaining failure dialog box will pop up after a period of time.

Step 3: Save the settings of the printer

There are two ways to save the printer configuration:

1. Click the "Save to Device" button to save the Settings to the printer, and a prompt box will pop up: Save the configuration to the device successfully! Click OK.

2. Click the "Save to File" button to save the Settings and export the file with the suffix "ini". You can directly load the configuration file next time.

Points to note:

You can click the "Save backup" button to save the current Eeprom Settings to the printer backup storage area, and you can directly restore the last saved configuration next time.

Command

The main functions of this part are user instruction delivery, data reading and file printing.

Precautions:

1. Before operation, make sure that the port parameters are set correctly and connected to the printer, otherwise the operation is prohibited. Please refer to the "Port Set" page for port settings.

2. The following section uses the BPLA instruction set as an example (interfaces of different instruction set types may differ).

The user command interface is divided into four functions: input; receiving; printing;

Input

1. Add multiple edit areas:

a. Click the "+" button to create a tab page and add an editing area. A maximum of 6 pages can be created and at least 1 page should be reserved.

b. Click the "Open File" button to create the edit area of the teb page with the file name called the title. You can create multiple or none of them.


2. Open file: Users can click the "Open file" button and select open text file (.txt) or any file.
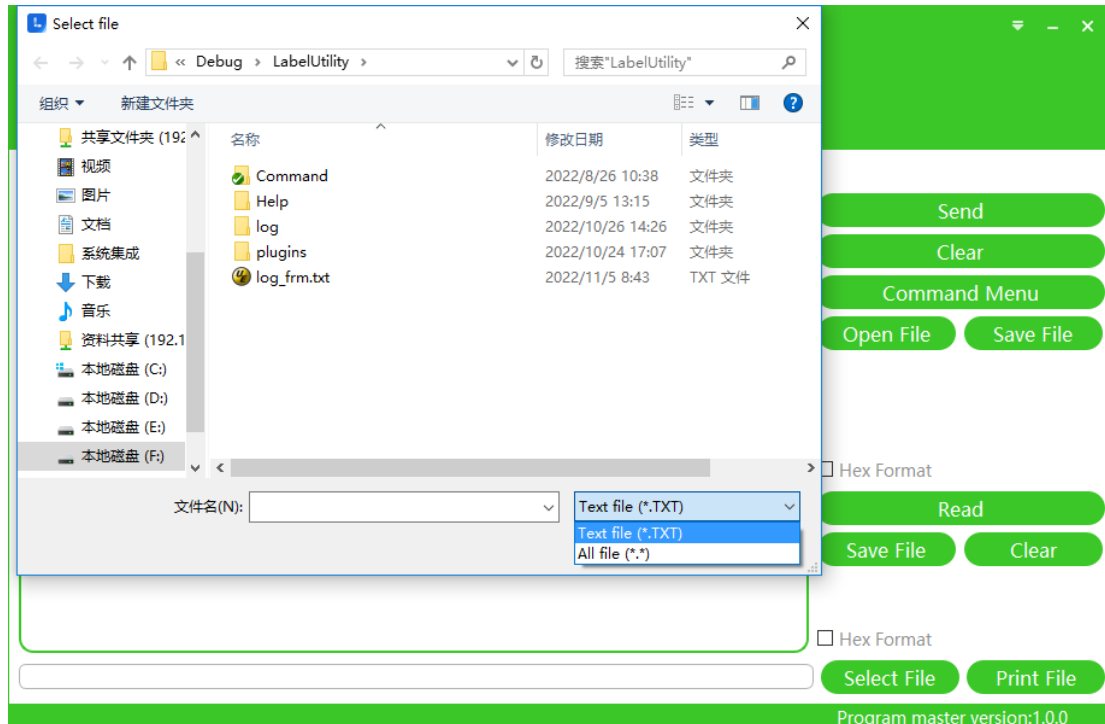
3. Save file: Users can click the "Save file" button to save the content in the current editing area as a text file (.txt) or any file to the local.

4. Predefined buttons<SOH><STX><CR> : Each edit area provides three predefined buttons, which can be inserted into the edit box to display hexadecimal 01, 02, 0d, and character format <\x01>, <\x02>, <\x0d>.
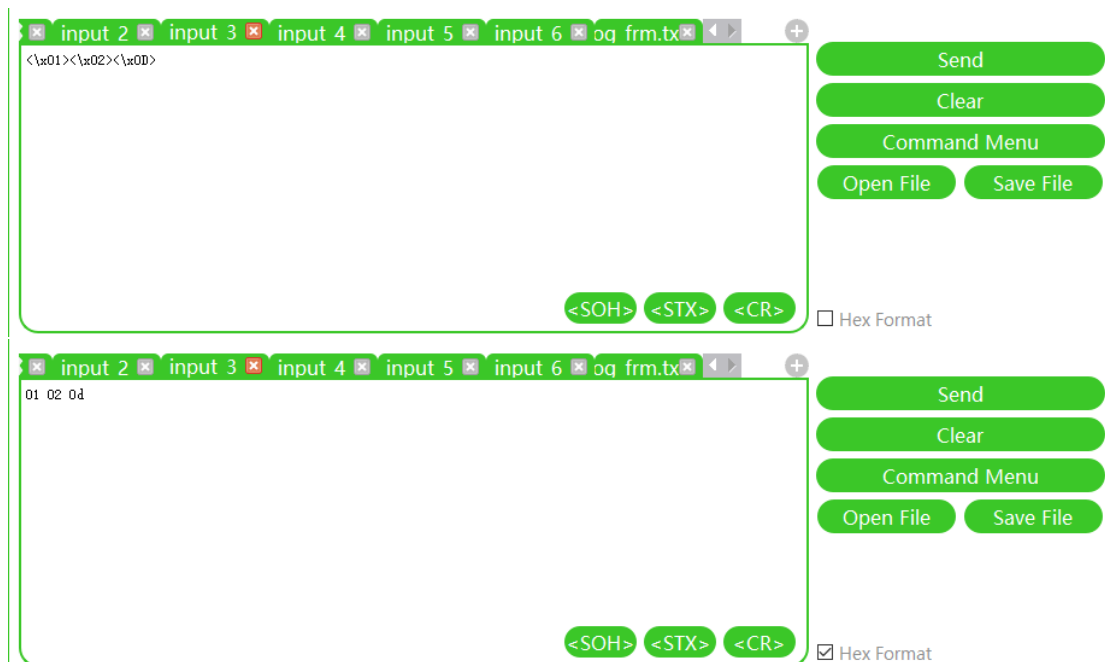

5. Send: Click the "Send" button to send the content in the current editing area to the printer, and the printer will perform corresponding actions according to the input content.

6. Clear: Click the "Clear" button to clear all content in the current editing area.

7. Hex Format switch: This option toggles whether the content in the input box is displayed in hexadecimal.

8. Shortcut command menu: Click the "Command Menu" button to display the predefined shortcut commands. After clicking the button, the printer performs the corresponding operations. (Predefined shortcut menu options vary for different instruction set types and are configured in the configuration file)
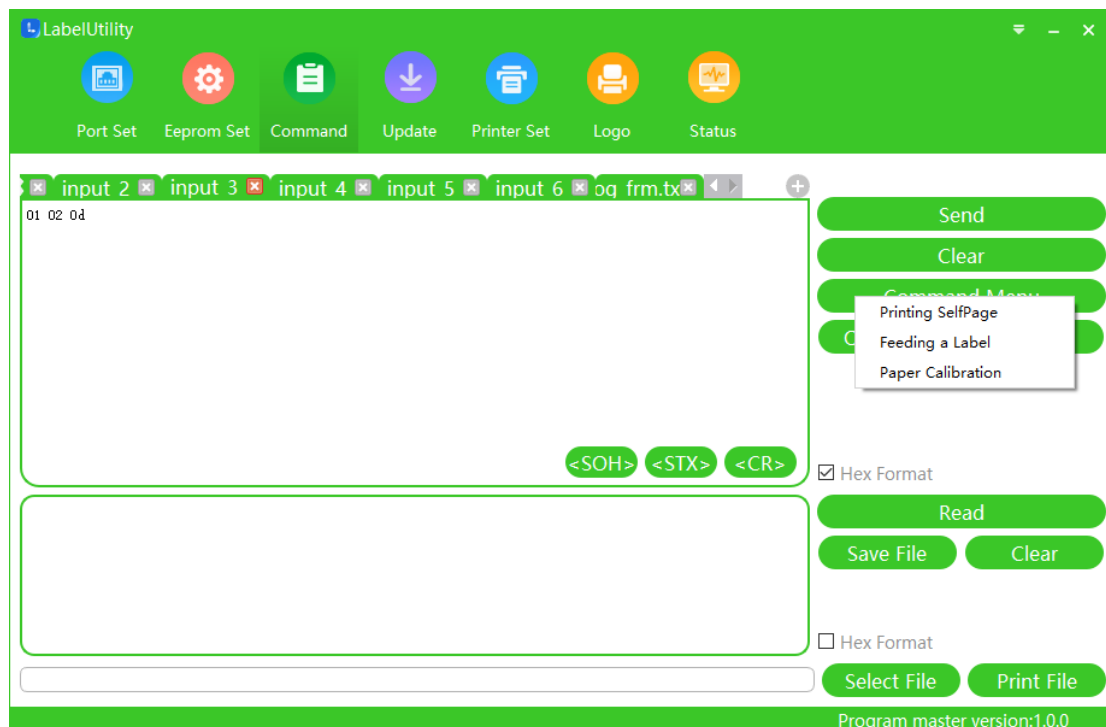
Receive

1. Read: Click the "Read" button, and the text of the button will change to "Stop". At this time, every time you click the send command, the read data will be displayed in the receiving box in real time. Click the "Stop" button again, and the text of the button changes to "display". At this time, click the send command, and the data read cannot be displayed in the receiving box

2. Save the file: click the "Save file" button to save the content in the left receiver box as a text file (.txt) or any file to the local.

3. Clear: click the "Clear" button to clear all contents in the left receiver box.

4. Hex Format switch: This option toggles whether the contents of the receiver box are displayed in hexadecimal.

Print

1. Browse files: Click the "Select File" button to select any type of file, and the file path will be displayed in the text box.

2. Print the file: click the "Print File" button to send the file to the printer.

Update

The main function of this section is to choose to download files to the printer for firmware upgrade.

Download and upgrade include the following functions: Download and upgrade with and without the interface version; Select download firmware file. Select download font character file; Query the printer existing font file list; Delete font files in the printer; Select the EEP file to download; Choose to download any other files to the printer.

Precautions:

1. Before operation, make sure that the port parameters are set correctly and connected to the printer, otherwise the operation is prohibited. Please refer to the "Port Set" page for port settings.

2. Do not perform other operations during the upgrade. Wait until the upgrade is complete.

## Interface version

Firmware file

1. Supported file format: Firmware file (*.jk)
2. Upgrade the JK file:
   - Select the JK file and send the file
   - Displays the firmware version of the current printer
   - Reconnect the printer after the file is successfully delivered
   - The firmware version of the upgraded printer is displayed
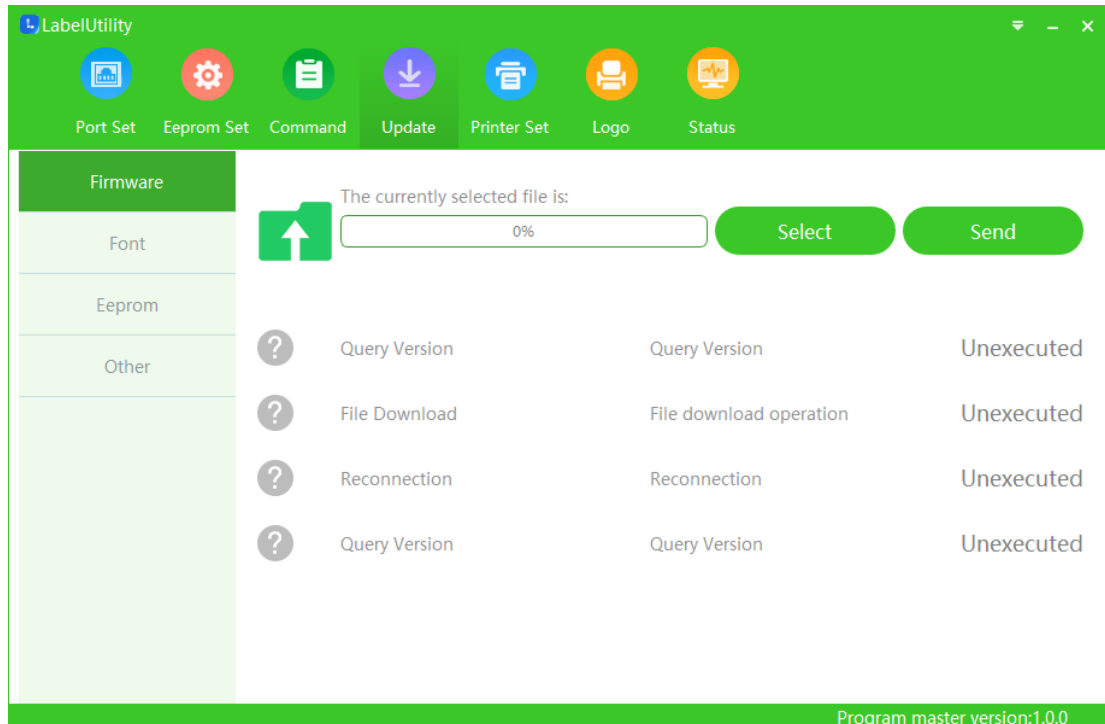
Character file

1. After entering the font download interface, the list of downloaded font in the printer will be automatically queried, updated to the interface display, and the remaining available space of the printer will be displayed.

2. Supported file formats: character file (*.zk), font file (*.fnt), any file (*. *)

3. Upgrade font files:
- Select the file and send it
- Automatically reconnect the printer

4. After the file is successfully downloaded, it is displayed in the list. Update the remaining free space of the printer

5. Click Delete on the file in the selection list to delete the file from the printer.

6. The BPLZ instruction set also supports TrueType font type download. After clicking the "Send File" button, the name of the file downloaded to the printer will be displayed.
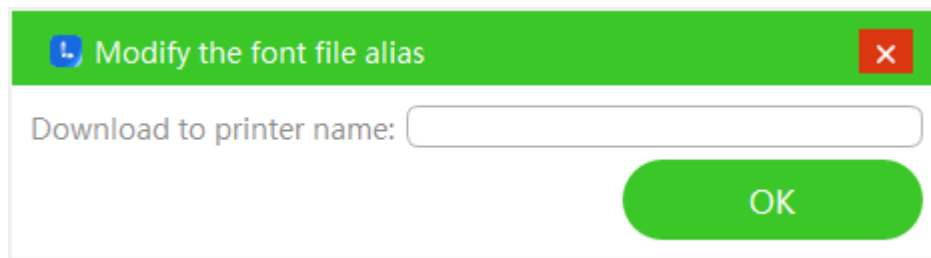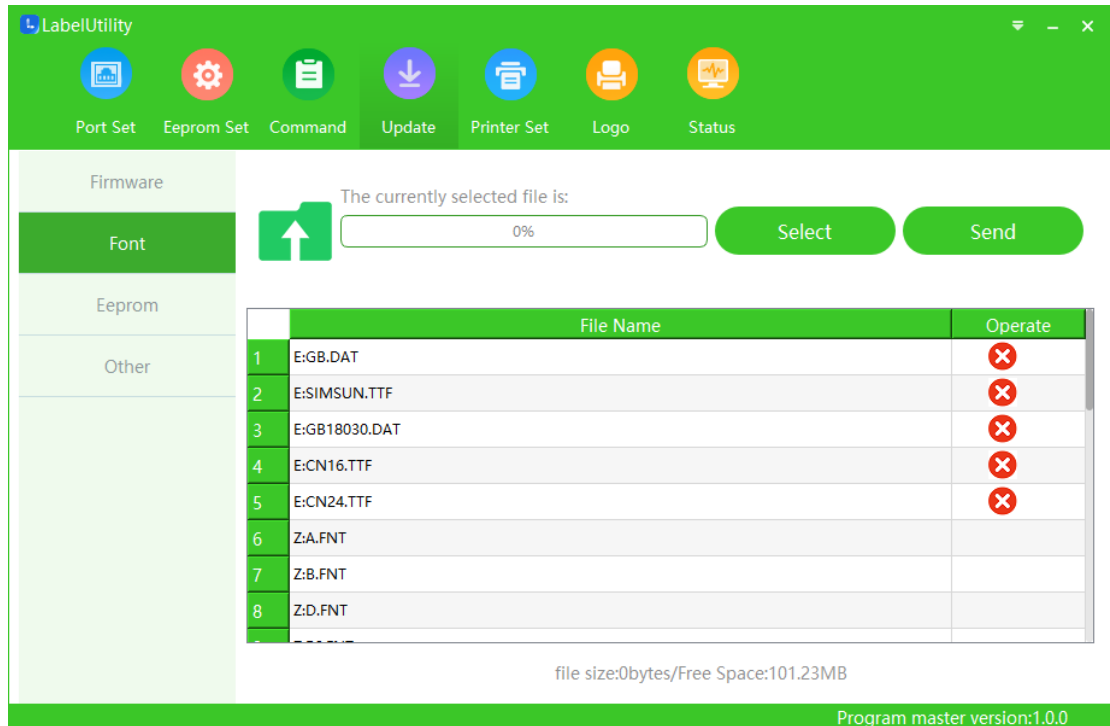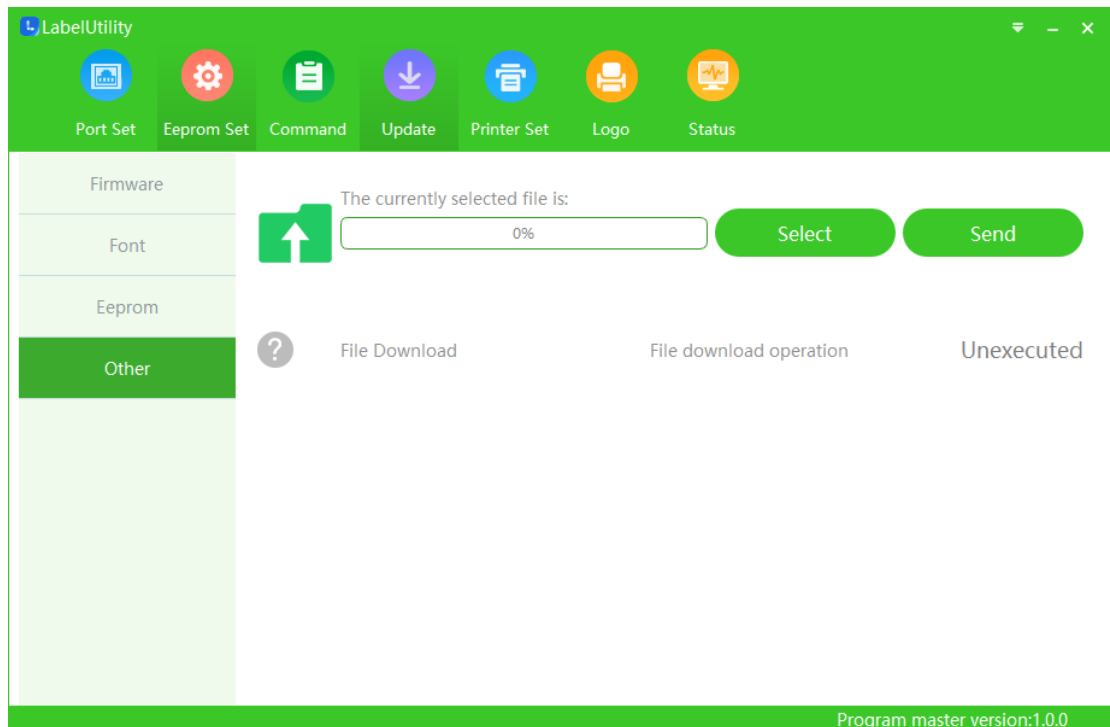
Eeprom file

1. Supported file format: Eeprom file (*.EEP)
2. Upgrade the EEP file:
   - Select the EEP file and send the file
   - After the file is successfully delivered, wait for the printer EEP to take effect and restart the printer
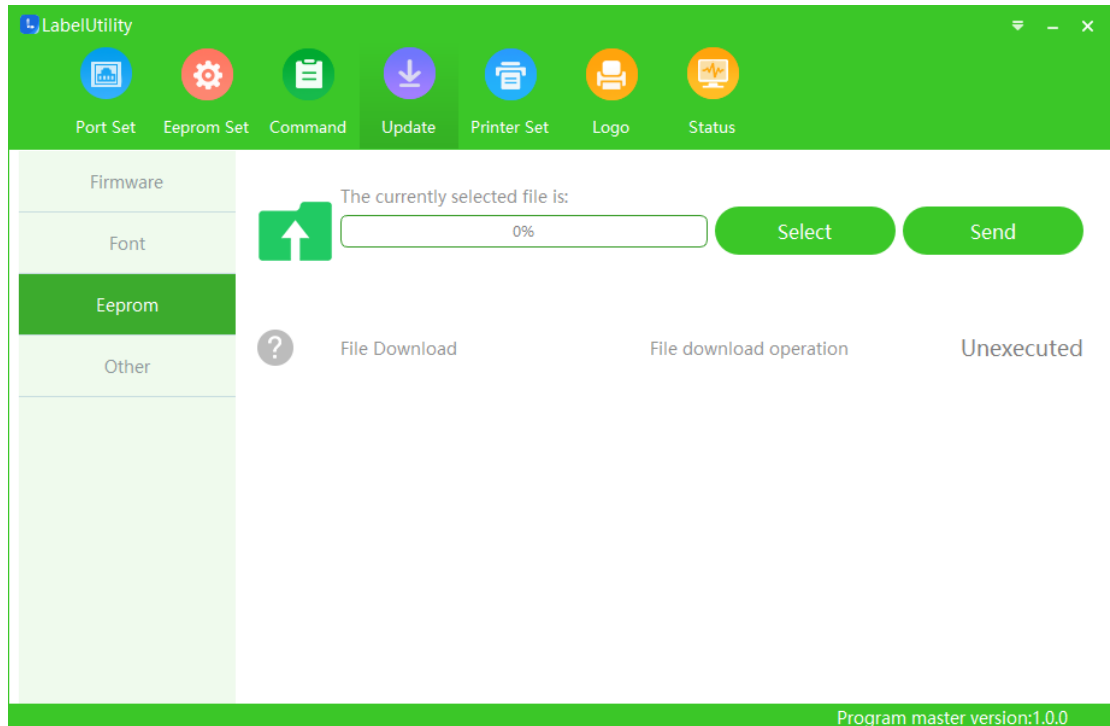
Other file

1. Supported file format: Any file (*.*)
2. Send files:
   - Select any file and send the file

No interface version

Call silent download upgrade

- Windows
  - o Open the CMD command window
  - o Go to the directory where LabelUtility.exe is located.
  - o Enter LabelUtility.exe + space + parameters (parameters are detailed below)
- Linux
  - o Open a terminal window
  - o Go to the directory where LabelUtility is located.
  - o Enter sudo ./ LabelUtility + space + parameters (parameters are detailed below)
- Parameter Description: -pname + space + model name + space + -port + space + port type + space + -para + space + port parameter + space + -file + upgrade file path (If the file type is.ttf, add the file path and alias of the file to the printer, separated by commas.)
  1. Serial port parameter
     - The port type is 0
     - Port Parameters Serial Port Name + Comma + Baud Rate + Comma + Data Bit + Comma + Stop Bit + Comma + Check Digit + Comma + Flow Control (among them Parity: 0 represents None, 1 represents Odd, 2 represents Even , 3 represents Mark, 4 represents Space; Flow Control: 0 represents DTR / DSR, 1 represents RTS / CTS, 2 represents Xon / Xoff, 3 represents None) **Note: Windows: StopBits 0 represents 1， 1 represents 1.5，2 represents 2;Linux: 0 represents 1，1 represents 2。** Example: Windows The port parameter is COM3, 9600, 8, 0, 0, 0 means that the serial port name of the host is COM3, the baud rate of the printer is 9600, the data bit is 8, the stop bit is 1, and the Parity is no parity. Control is DTR/DSR Linux The port parameter is /dev/ttyS1, 9600, 8, 0, 0, 0 means that the serial port name of the host is /dev/ttyS1, the baud rate of the printer is 9600, the data bit is 8, the stop bit is 1, and the Parity is no parity. Control is DTR/DSR
  2. USB parameters
     - The port type is 1

- Port parameter API mode is printer ID number + comma + 0 class mode is printer name + comma + 1 Example: BTP-L542 printer API mode port parameter is 640,0 **Note: The class mode print name and API mode printer ID number are enumerated by the interface version USB communication method, or provided by the manufacturer.**
3. Network port / WIFI parameters
  - The port type is 2
  - Port Parameters Printer IP Address + Comma + Printer Print Port Number
- Return Value: 0-Success 1-Invalid Parameter 2-Connect printer failed 3-Open file failed 4-Read file failed 5-Download file failed
- Silent download example The printer is BPLA communication mode is serial port
  0. Windows
    - Enter the CDM command window and enter it in the directory where LabelUtility.exe is located. (The specific communication port parameters and file path are subject to the actual environment.) LabelUtility.exe -pname BPLA -port 0 -para COM4,38400,8,0,0,0 -file F:\ BTP-2200E_PLUS_FV1020_BARAFV10_MAIN_T00_BPLA.JK
  1. Linux
    - Enter the terminal command window and enter it in the directory where LabelUtility is located. (The specific communication port parameters and file path are subject to the actual environment.) sudo ./ LabelUtility -pname BK-T680 -port 0 -para /dev/ttyUSB0,38400,8,0,0,0 -file /root/Desktop/ BTP-2200E_PLUS_FV1020_BARAFV10_MAIN_T00_BPLA.JK

Precautions:

1.If there are spaces in the parameters, please enclose the parameters with double quotation marks. All symbols in the parameters are English symbols. Use double slashes or backslashes in the file path.

2. The download result is displayed in the LabelUtility.log file in the log folder where the program resides. Do not perform any operations on the printer when there is no result output in the log file during normal download.

3.The interface version program will open when the parameter input format is incorrect.

4.Other exception information results are also output to the log file.

Printer Set

This part mainly includes the following functions: printer clock Settings, WIFI Settings and sensor Settings.

Precautions:

1. Before operation, make sure that the port parameters are set correctly and connected to the printer, otherwise the operation is prohibited. Please refer to the "Port Set" page for port settings.
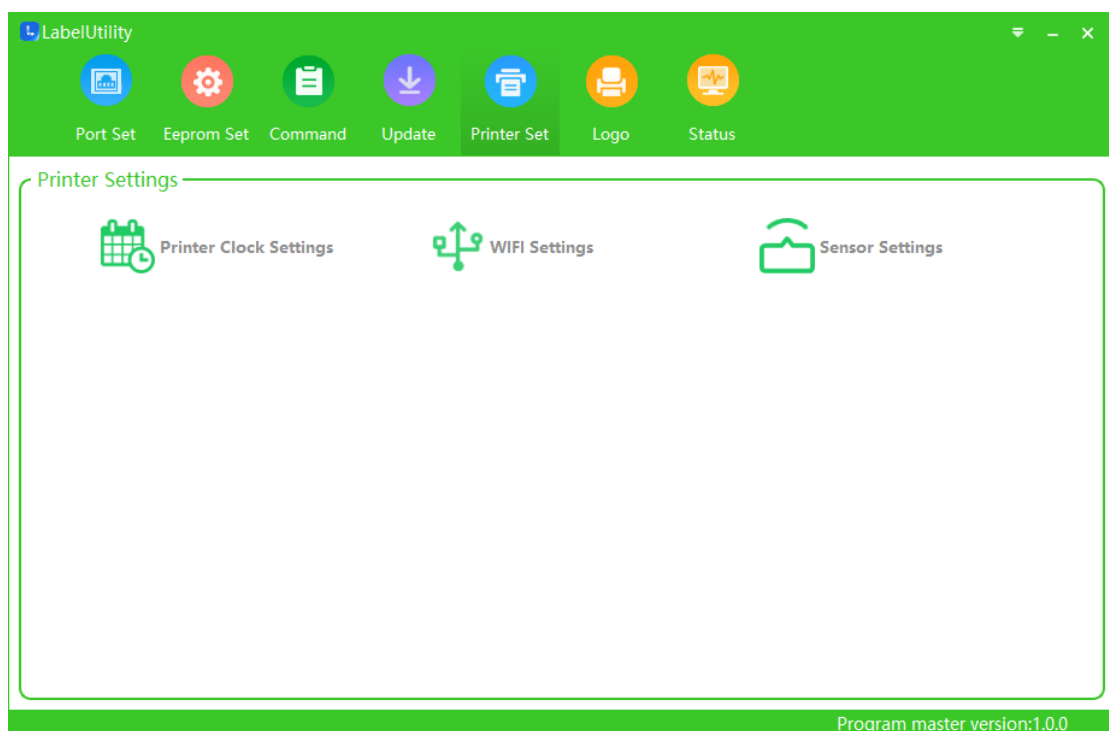
Printer Clock Settings

1. Click the "Printer Clock Setting" button to enter the clock setting interface;
2. The system time is displayed on the page.
3. You can select Automatic Obtain or Manual Input to set the printer clock.
4. Click the "Apply" button to set the printer clock Settings
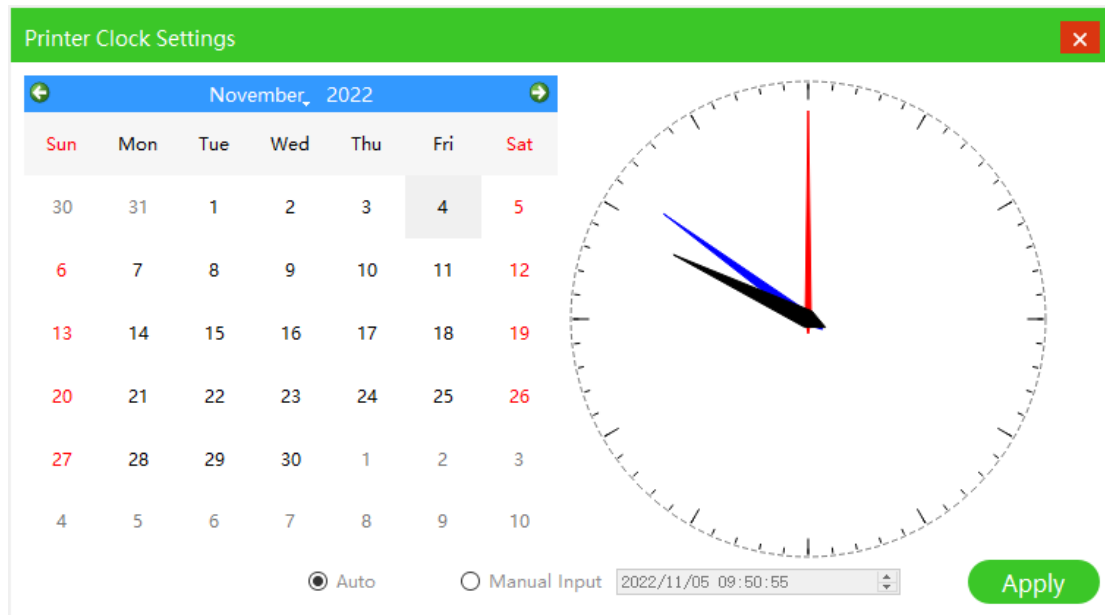
WIFI Settings

    1. Click the "WIFI Settings" button to enter the WIFI configuration interface;

    2. Obtain the current WIFI configuration parameters from the printer before entering the interface;

    3. Two modes of "base station" and "point-to-point" can be selected:

        a. Base station: All parameters are configurable and take effect after restart.

WIFI Settings ✕

Basic setting
WIFI Mode:　　　　◉ Infrastructure　　　○ Ad-Hoc

SSID :　　　　　　［   ］

Safety setting
Password:　　　　［   ］

☑ DHCP
Timeout(second):　［   ］

☐ Use the following IP
IP :　　　　　　　［   ］

SubnetMask:　　　［   ］
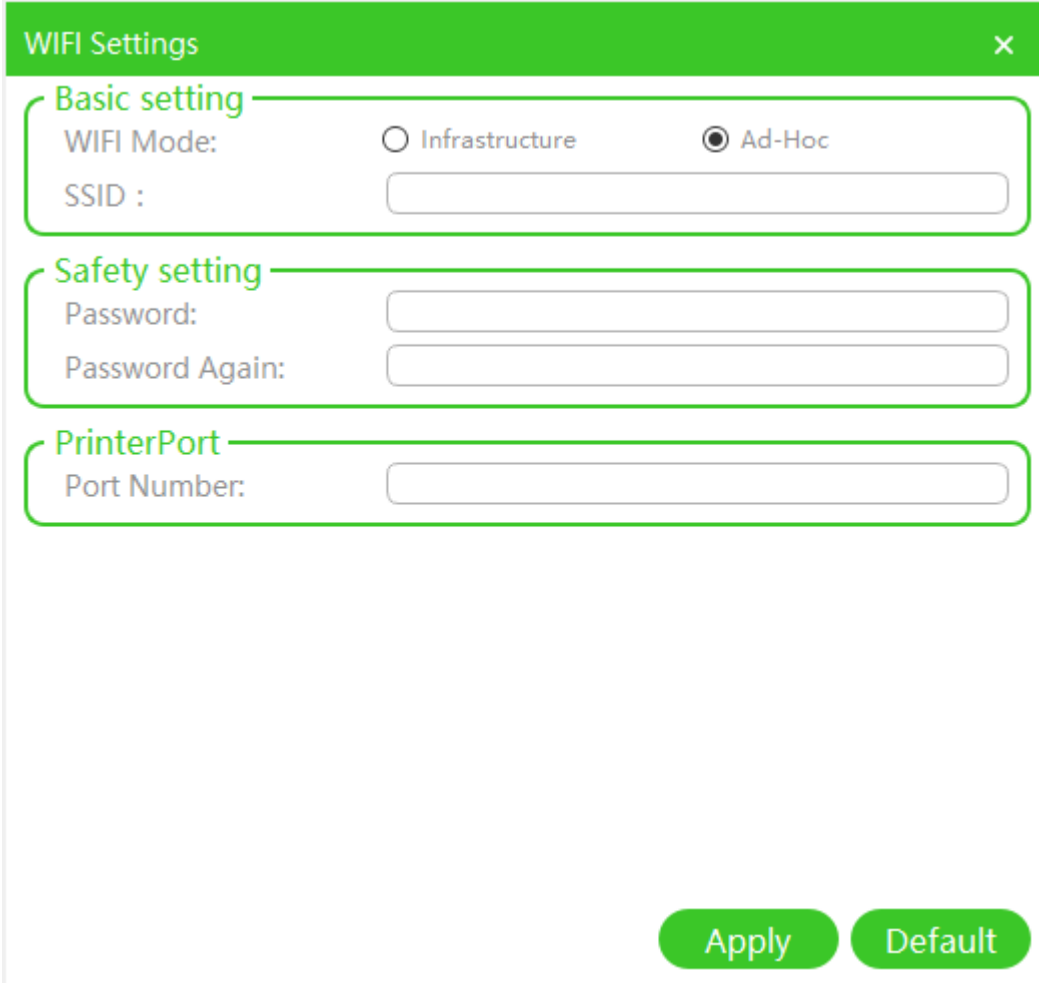
Default Gateway:　［   ］

PrinterPort
Port Number:　　　［   ］

Apply　　**Default**

b. Ad-Hoc: Only SSID and password can be configured. After the Settings take effect, restart the system.

WIFI Settings ✕

Basic setting
WIFI Mode: ○ Infrastructure   ◉ Ad-Hoc
SSID :

Safety setting
Password:
Password Again:

PrinterPort
Port Number:

Apply   Default

4. Click the "Default" button to restore all WIFI parameters to their default factory values.

Sensor Settings

1. You can set the printer reflection sensor and transmission sensor according to the consumables currently in use.

2. Input different target voltage values and click the "Automatic Regulation" button to adjust the sensor; The image behind the button shows the adjustment result of the sensor.

3. Click the "Paper Check" button and the printer will verify the paper;

4. Click the "Print Waveform" button, and the printer prints the current paper label sensor detection voltage waveform.

Logo

The main function of this section is to download bitmaps.

It mainly includes the following functions: Add preview bitmap; Edit the bitmap; Download the bitmap; The printer bitmap list is displayed

Precautions:

1. Before operation, make sure that the port parameters are set correctly and connected to the printer, otherwise the operation is prohibited. Please refer to the "Port Set" page for port settings.

Add and Preview Bitmaps

1. Click the plus sign in the bitmap list to add a bitmap in bmp, png, or jpeg format.

2. After each bitmap is added, the size of the files in the list of the selected bitmap will be counted and displayed;

3. Select the bitmap in the list for preview. The printer only supports the download of black and white bitmaps, so the preview area displays monochrome bitmaps;

4. Click the cross in the upper right corner of the thumbnail to delete the current bitmap from the list;

Edit bitmaps

1. Select a bitmap to edit the name of the bitmap to be stored in the printer;

2. You can edit the dithering algorithm of the bitmap to change the preview effect;

3. The contrast and brightness of the current bitmap can be adjusted to change the preview effect;

4. Click the "Delete All" button to clear all the bitmaps added in the left list.
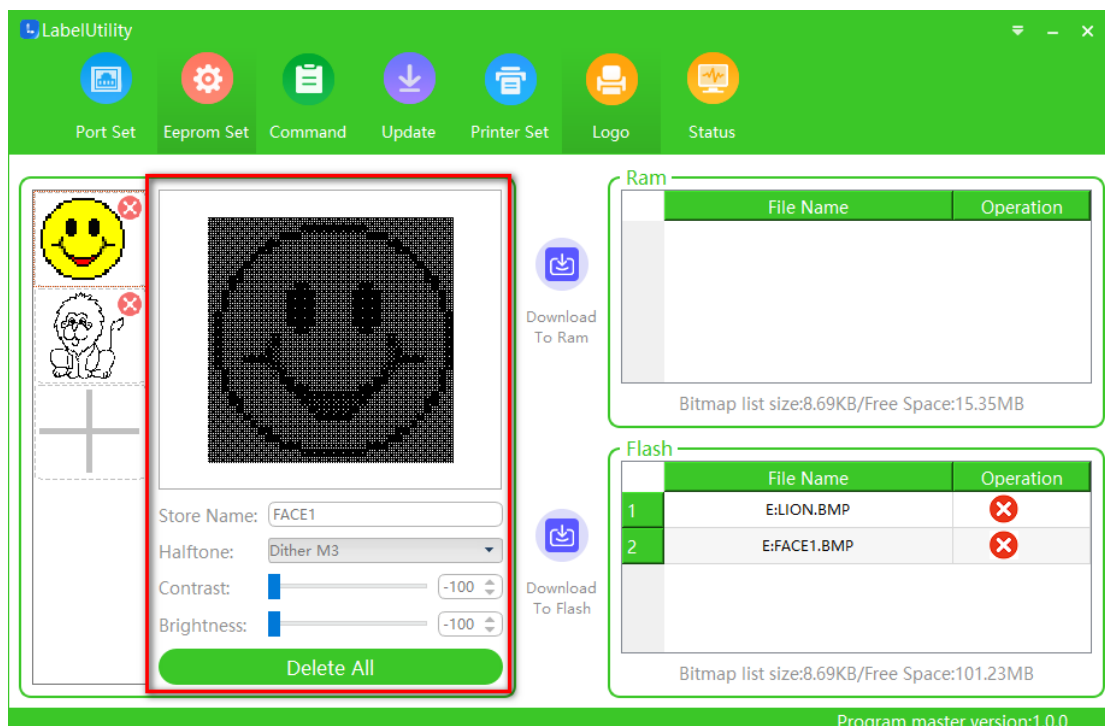
Download bitmaps

1. Click the button in the middle area to download all the bitmaps in the left list to the RAM or FLASH area of the printer;

2. After successful download, the bitmap will be updated to ram or flash list; At the same time, the remaining free space of the printer will be updated;

The printer bitmap list is displayed

1. On the "Logo"page, query the list of downloaded bitmaps in the printer and update it to the page.

2. After the bitmap is successfully downloaded, the ram and flash list will be refreshed;

3. Click the cross of the bitmap in the ram or flash list to delete the downloaded bitmap from the printer;
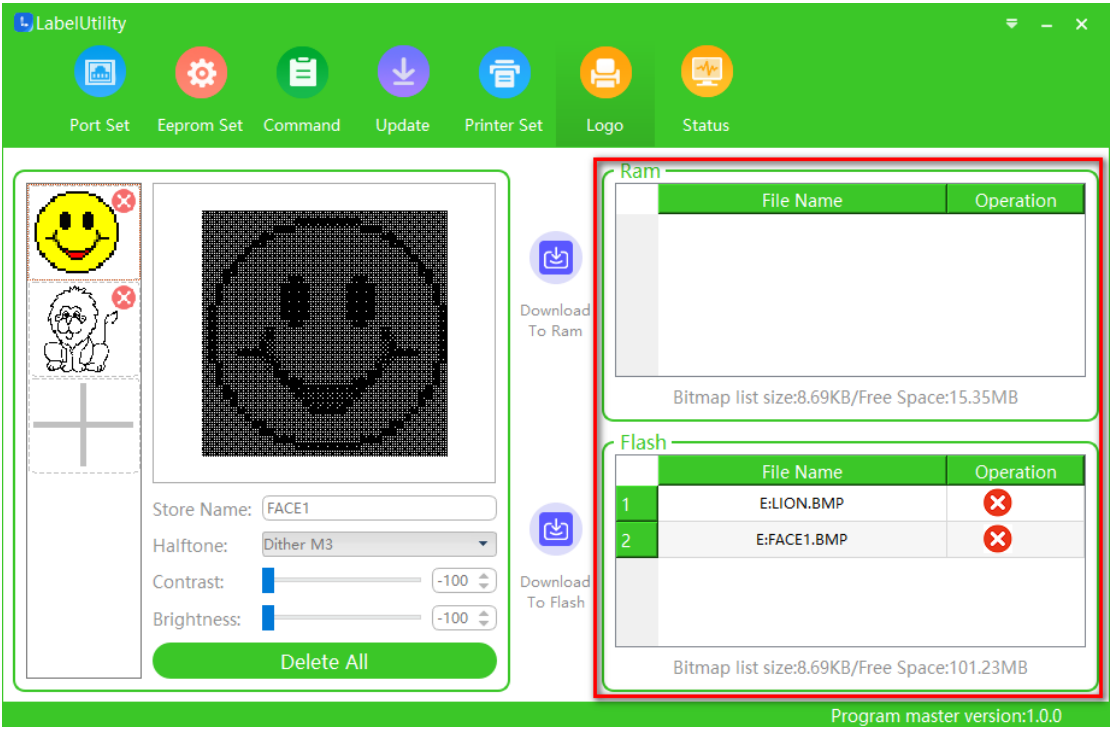
Status

The main function of this section is to get the current state of the printer.

Precautions:

1. Before operation, make sure that the port parameters are set correctly and connected to the printer, otherwise the operation is prohibited. Please refer to the "Port Set" page for port

settings.

2. The following section uses the BPLA instruction set as an example (interfaces of different instruction set types may differ).

Query Status

1. The Status page is displayed, showing the queriable printer status supported by the current instruction set type.

2. Click the "Query" button to query the current status of the printer;

3. If the printer is in normal state, the "green light" will be on, and the text content will be displayed in normal state; The printer status is abnormally red, and the text content display status is abnormal. The printer is paused and lights up yellow.
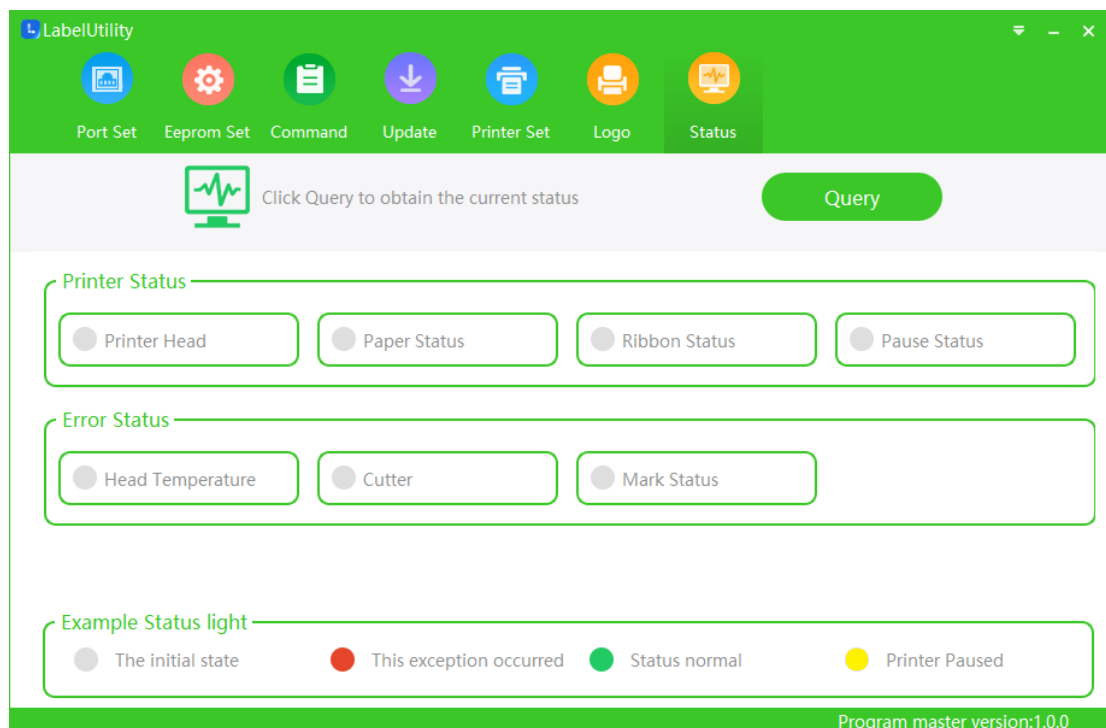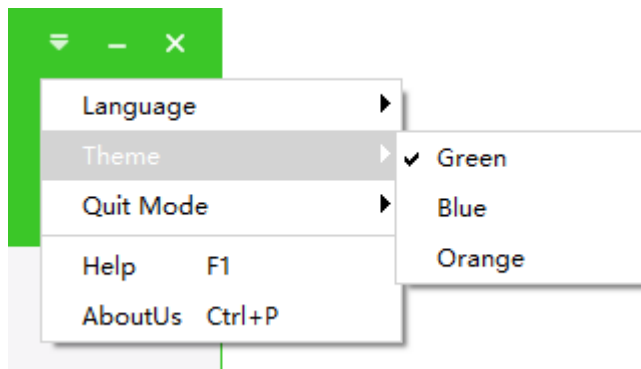

Other Functions

Change Language

Click the main menu button in the upper right corner of the program and select the l anguage switch between Chinese and English.
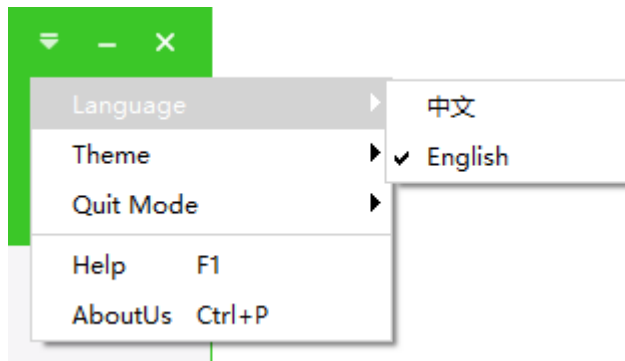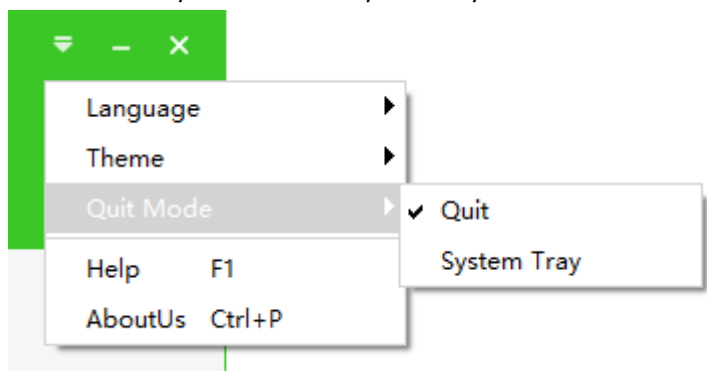
Change Skin

Click the main menu button in the upper right corner of the program and select Theme switching.

Choose exit method

Click the main menu button in the upper right corner of the program and choose Exit mode as exit directly or hide in the system tray.
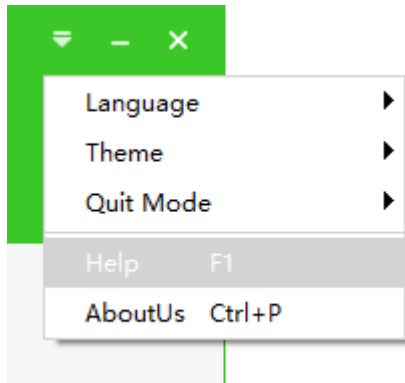

System tray

Right-click the program in the system tray and choose Enter Home screen or Exit.
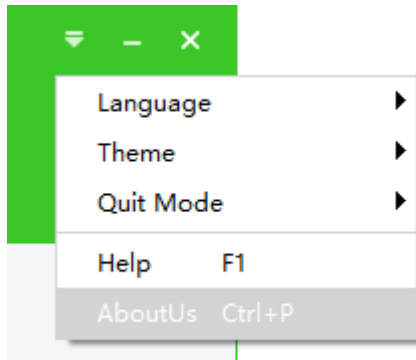
Help Document

Click the main menu button in the upper right corner of the program and select Help, or press the F1 shortcut to view the help document.

About

Click the main menu button in the upper right corner of the program, select About or press Ctrl+P shortcut to enter the About interface.

FAQ

1. Why the port cannot be turned on in USB mode on Windows?

First, make sure that the USB device driver has been installed successfully:
Connect the printer to the host, check the device manager in computer management, and if "other equipment" appears "unknown device" or printer model, you

need to install the usb device driver.

Installation method:

1）Right click "unknown device" and select "update driver software".

2）Click "browse computer for driver software".

3） Click the "Browse" button to find the driver through the browser. The default directory of 32-bit system is: "\USBDrv\USBDriver_x86", and the default directory of 64 bit system is: "\USBDrv\USBDriver_x64", and then click next.

4）Click "close" to complete the installation of USB device driver.