# LP423A / LP433A USER MANUAL


User Manual：LP4 series

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Version 2.0

## Declaration

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## Compliances

CE Class B

FCC Part 15, Class B

CCC, CB

Comply with RoHS regulation

# Safety Instructions

Please read the following instructions carefully.

1. Install printer on the flat and stable place. To avoid printer exposed in the high temperature or high humidity or polluted place.
2. Do not disassemble the printer and adapter under any circumstances.
3. Please check the voltage before printer is connected with power outlet; If printer is deemed to idle for a long time, please pull out the power cord to avoid voltage instability to cause printer damage.
4. If printer gets water or conductive material, please shut off the power immediately to ensure the safety of personnel and equipment.
5. To avoid printer to start printing while there is no label paper installed; otherwise the print head and platen roller would be damaged.
6. The print head is a thermal part, please do not touch it or its peripherals during printing or after printing.
7. Shut down the printer when connecting or disconnecting interfaces to avoid any damage happened.
8. Please choose designated adapter model of Wincode to connect printer accordingly.

# Contents

# 1. Product Introduction

Thank you for purchasing Wincode's LP4A series label printer, this desktop label printer with reasonable price has reliable quality to provide user highly-efficient printing performance. The LP4 series printer not only can print label in text or graphic formats, but owns basic function and convenient operation interface.

In addition, LP4N series label printer with elegant bright black enclosure has cover open buffer design to avoid hand clamped in operation; The maximum 5" outside diameter label loading space; Dual ribbon loading design enables user to use 100m or 300m ribbon; It is also equipped 32 bit processor with highly efficient relevant configurations to make printing action smoothly and clearly so it can be applied in the different fields such as retailing, health care, manufacturing, logistics, warehousing and so on.

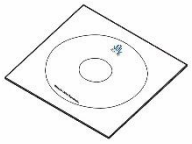
The bundled label design program as "WinLabel" provides completed label design tools and barcode resource for user to design ideal label format; Free database function can be connected with Excel, Access, Text file…etc and get required information in the specified positon of label. Standalone function can support advanced models LP4A series to produce standalone format label.

# 2. Getting Started

## 2.1 Unpacking and checking

Unpacking the package, and refer to the below packing list to check whether any part is damaged or missing in transit. If this incident has been happened, please contact with local dealer or distributor for further assistance.

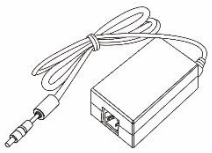
Label Printer



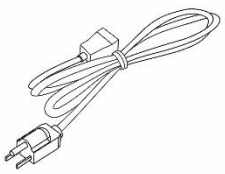
CD Disc


Quick Installation Guide

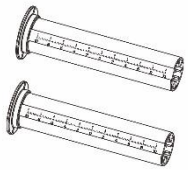
USB Cable



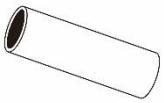
Adapter



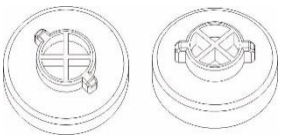
Power Cord



Ribbon Supply Spindle
Ribbon Take-up Spindle

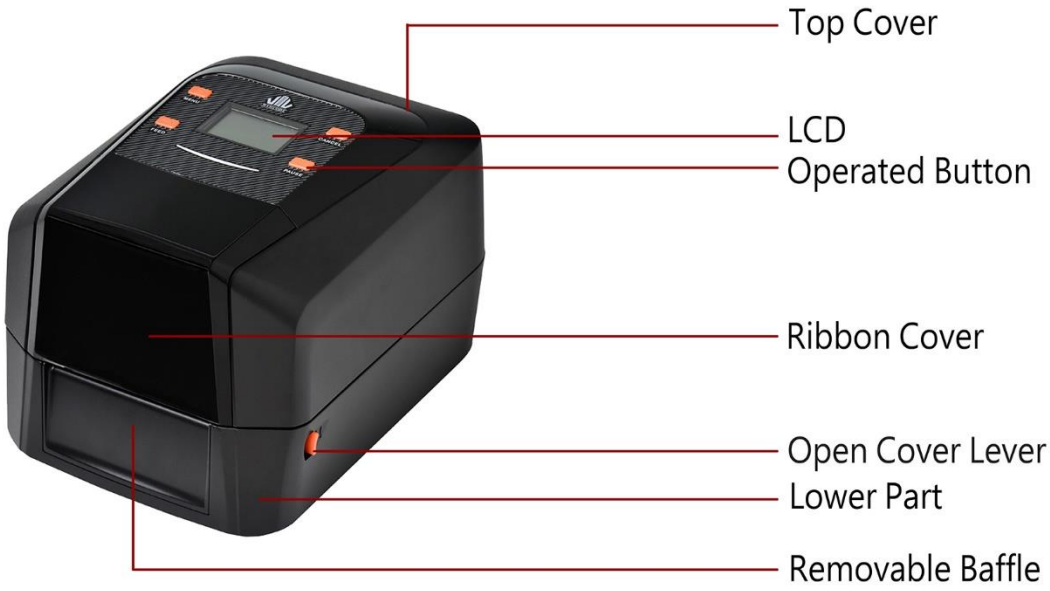


Empty Paper Core (1” core)

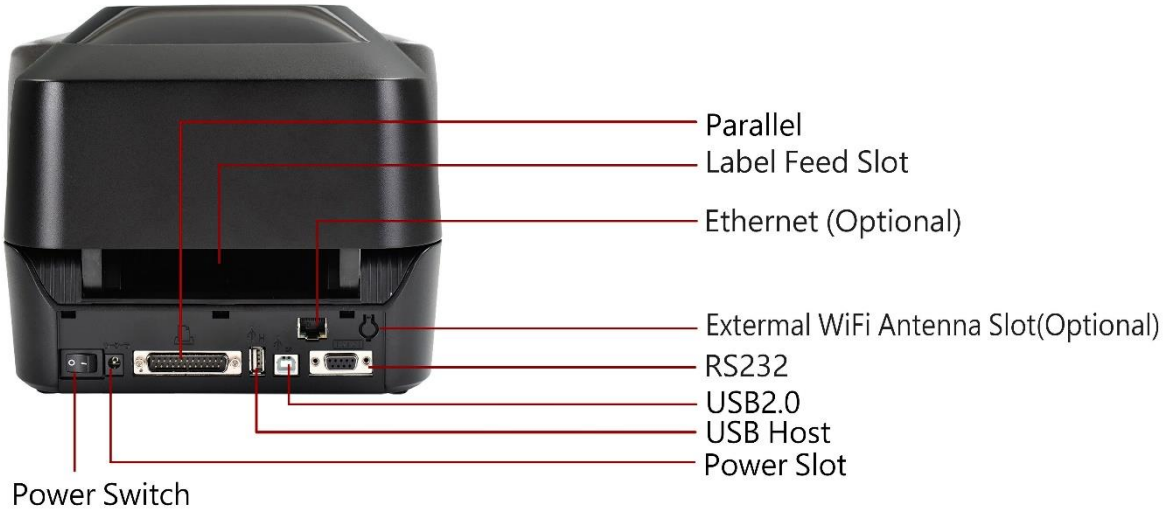


0.5” ribbon cap

## 2.2 Appearance




(Figure 1: Front View)

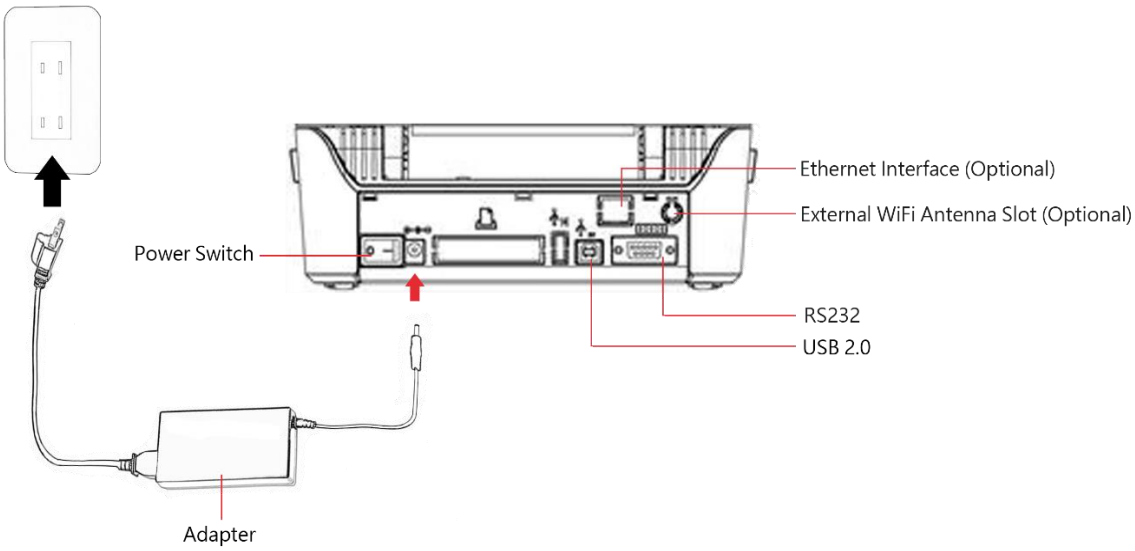



(Figure 2: Rear View)


(Figure 3: Inside View)

# 3. Setup

## 3.1 Setting up the printer




1.) Place the printer on the flat surface.

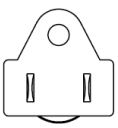
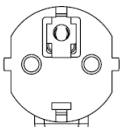
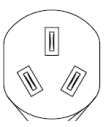
2.) Make sure the power switch is OFF.

3.) Choose corresponding cable (RS232 or USB 2.0) to connect printer with computer.

4.) Plug the DC power cord into the power slot and plug the AC power cord into a socket on the wall.

Note: Power Cord instruction

1. To use 100-125 Voltage, please choose minimum rating power cord. (125V, 10A)
2. To use 200-240 Voltage, please choose minimum rating power cord. (250V, 10-16A)
3. Please select the power cord length less than 2 meter.
4. Power cord is connected with adapter and have to plug in the jack as ICE-320-C13 as right figure.

| Country/ Area | North America/Taiwan | Europe | China |
|---|---|---|---|
| Power cord Voltage and Electricity Spec. | 125V, 10A<br>SVT 18AWG | 250V,10A<br>H05VV-F | 250V,10A<br>RVV H05VV-F |
| Plug (Refers to the local plug standard) |  <br>125V, 10A |  <br>250V, 16A |  <br>250V, 10A |

# 4. Ribbon Loading

1. 1” core (300m length ribbon)

   Open the ribbon cover and top cover; Install an empty paper core onto the ribbon take-up spindle; Install a ribbon onto the ribbon supply spindle.

2. 0.5” core (100m length ribbon)

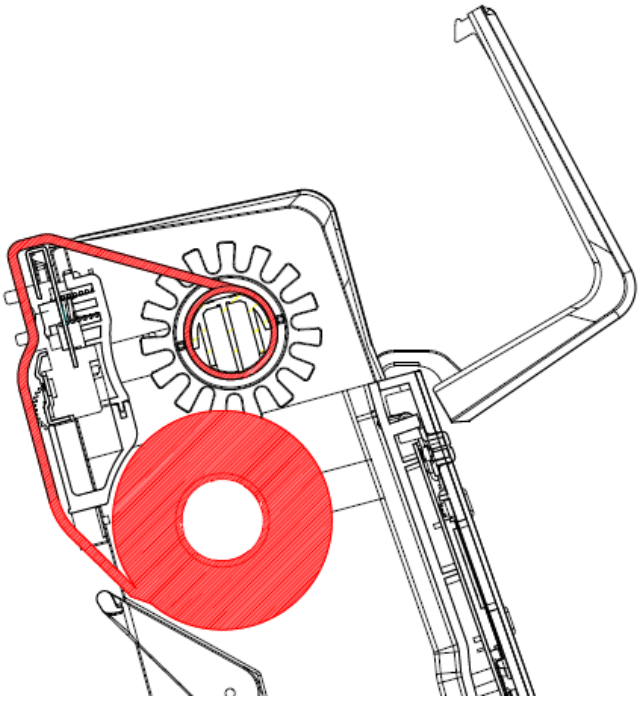
   Open the ribbon cover and top cover; load the 0.5” ribbon cap into the right of the top inner cover.

3. Pull back the pressing lever, then load the right side of ribbon first into the ribbon supply mechanism.
   The left side of ribbon supply spindle needs to be connected with bulge part of left supply mechanism completely (Turn the gear until the bulge part in the notch of spindle).

4. Load the right side of paper core first into the ribbon take-up mechanism.
   The left side of ribbon take-up spindle needs to be connected with bulge part of take-up mechanism completely. (Turn the gear until the bulge part in the notch of spindle).

5. Pull the ribbon to bypass print head and then attach the ribbon leader on the empty paper core with tapes, then rotate the ribbon rewind wheel until ribbon surface has no wrinkle; Close the ribbon cover to finish ribbon installation.

## 4.1 Ribbon Installation Path

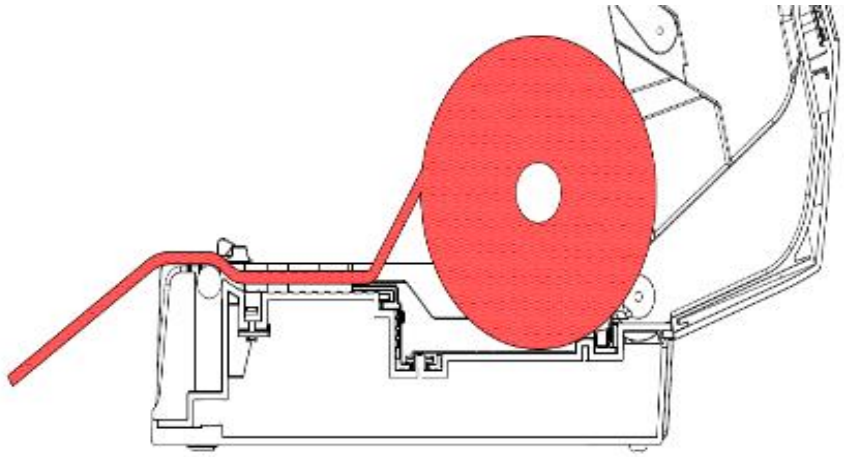


# 5. Label Loading

1. Press the label holder button to fit the width of the label, and then place a label roll into the holders.

2. Pull the label paper through the rubber roller and push the both sides of label under the label guides. Close the top cover to finish label installation.

## 5.1 Label installation path

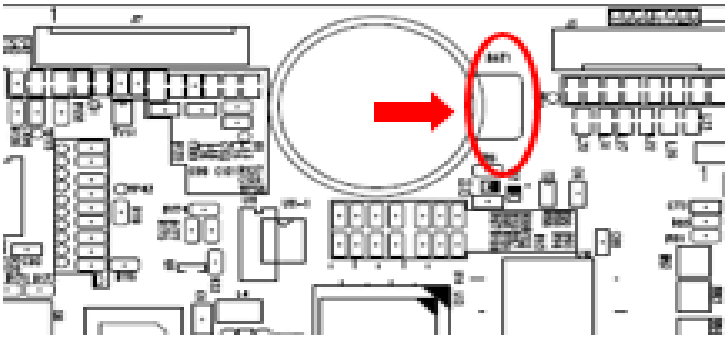


## 5.2 Real Time Clock Battery installation

1. Shut down the power, and then remove the power cord and relevant connected cables. Open the chassis cover to see the inside motherboard.

2. Push the button located beside battery as below Figure, the battery will be separated from the motherboard.
3. Place a new battery (model no. CR2032 is recommended) on the original place and press it until battery fixed in the installation mount.

Note：

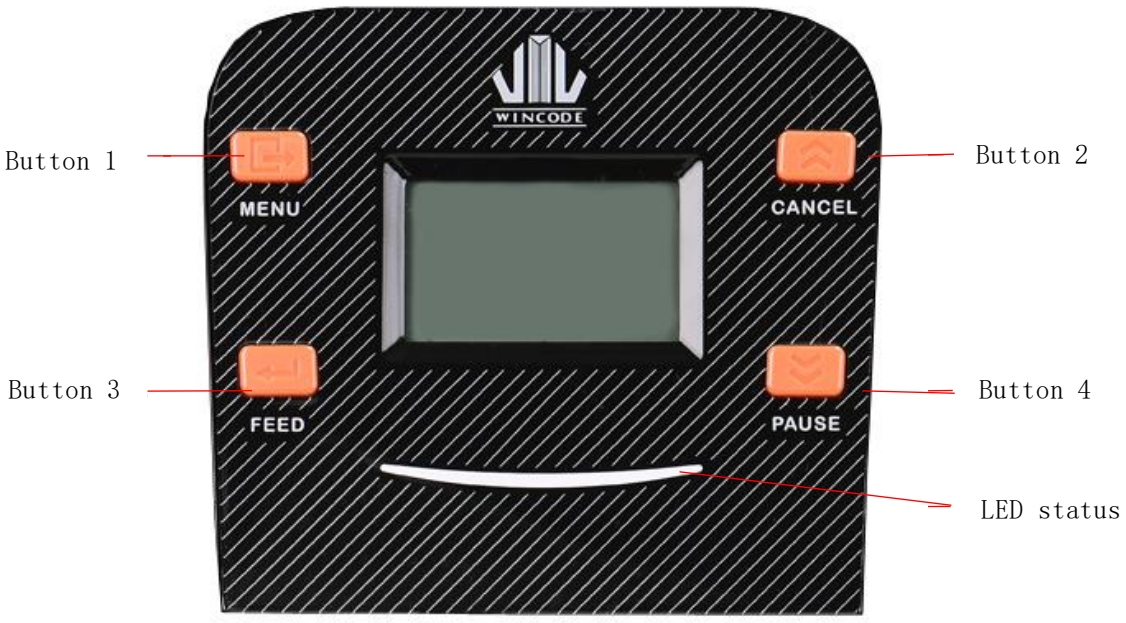


1.) Battery is not included in LP423N and LP433N models but is included in LP423A and LP433A models.

2.) For LP423A and LP433A models, an insulating piece is placed with battery to prevent battery consumption and also maintain the lifetime of battery.

3.) Replace battery with the equivalent battery model suggested by manufacturer.

# 6. LED indicators and button explanation




LP4A models has two color LEDs to show the status (red and blue color) and four functional buttons. Please see the below explanation.

## 6.1 LED and button description

Ready – LED shows the blue light, Error – LED shows the red light

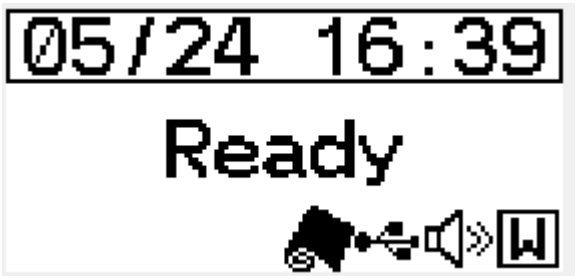
Press the Pause button to pause printing job. The red LED will be flash in the meanwhile.

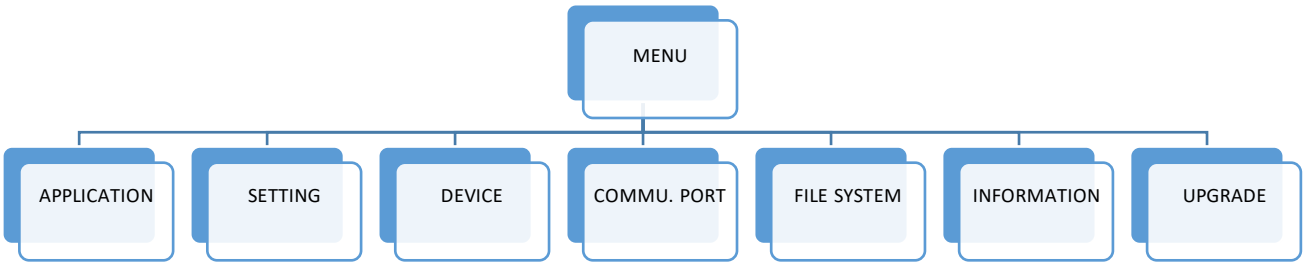
| | | | |
|---|---|---|---|
| Button 1<br>MENU/EXIT | Ready mode：Entering to the menu mode<br>Printing mode：No function<br>Menu mode：Leave menu mode | Button 2<br>CANCEL/UP | Ready mode：No function<br>Printing mode：<br>Press once, cancel this error<br>Press twice, cancel printing job to return ready status<br>Menu mode：Move up or forward |
| Button 3<br>FEED/ENTER | Ready mode：Feed a label<br>Printing mode：No function<br>Menu mode：Confirm option | Button 4<br>PAUSE/DOWN | Ready mode：No function<br>Printing mode: pause printing<br>Menu mode: Down or |

| | | | |
|---|---|---|---|
| | | | backward |
| Red LED<br>ERROR | Flash: Refers to all errors, please see the status on the LCD screen | Blue LED | Blue LED always on: ready status<br>Blue LED is flash: data transmission |

## 6.2 LCD menu description

### 6.2.1 Menu main framework




### 6.2.2 Application


| *Item* | *Description* |
|---|---|
| SD card | Need to insert a SD card in the printer firstly, and design the label on the WinLabel and then use“Download”function to download the standalone files to the SD cards<br>PS: Download function will be showed in the “Print”window. |
| Flash Disk | Design the label on the WinLabel and then use“Download”function to download the standalone files to the Flash Dish of printer. |

| | |
|---|---|
| | The file in the flash disk will not be deleted if printer turns off the power |
| RAM Disk | Design the label on the WinLabel and then use“Download”function to download the standalone files to the RAM Dish of printer.<br><br>The file in the ram disk will be deleted if printer turns off the power |

## 6.2.3 Setting


| *Item* | *Description* |
|---|---|
| Label | ➢ Label calibration: User can use this function to measure the label height and gap height.<br>➢ Sensor calibration: Please run the sensor calibration after the label material has been changed.<br>➢ Label Type: Gap, Black line, Continuous types of label<br>➢ Sensor Type: Transmissive or Reflective<br>➢ Start Line: Input -99 ~ +99 required parameters<br>➢ Feed Offset: Input -99 ~ +99 required parameters<br>➢ X Shift ：Input -99 ~ +99 required parameters<br>➢ Y Shift ：Input -99 ~ +99 required parameters<br>➢ Factory default：The parameters of printer will be factory default setting. |
| Printer | ➢ Density: Input required parameters 0-15<br>➢ Speed: Input required parameter 1-5 ips depended on the model type<br>➢ Thermal Mode: Thermal Transfer or Direct Thermal<br>➢ After Print: Tear off mode, Peeler mode, Cutter mode, Normal mode |
| UI | ➢ LCD：Choose the required language on the LCD<br>➢ Keyboard Language: Choose keyboard input language |

| | |
|---|---|
| | ➢ Contrast: Set up the degree of contrast on the LCD<br>➢ Beep Volume: Adjust the volume of buzzer |
| Emulation | ➢ Select the emulated printing language<br>WPL-suitable for standalone file only<br>ZPL, EPL, TSPL |

### 6.2.4 Device

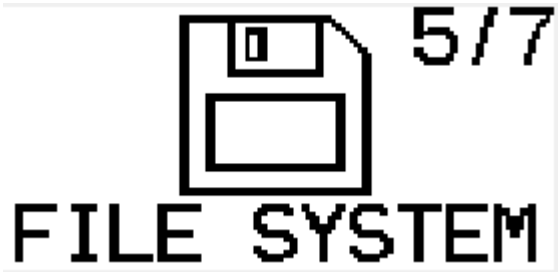

| *Item* | *Description* |
|---|---|
| Keyboard | Keyboard、Scanner connectivity testing status (Suitable for HID device) |
| Time&Clock | Press (FEED) button to choose (12HR/24HR)、Hour、Minute |
| Cutter | Select Forward cut or Reverse Cut mode |
| Peeler | Press FEED button to peel label for testing |
| Dump Mode | Enter to the dump mode (Press MENU button to return the ready mode) |

### 6.2.5 Communication Port


| *Item*<br>*RS-232* | *Description* |
|---|---|
| Baud Rate | Depends on the connected device to choose baud rate (1200/2400/ 4800/ 9600/ 19200/ 38400/ 57600/ 115200/ 230400 bps) |
| Data Bits | Select 7 or 8(default) |
| Parity Check | Select No Parity (default), Odd Parity, Even Parity |

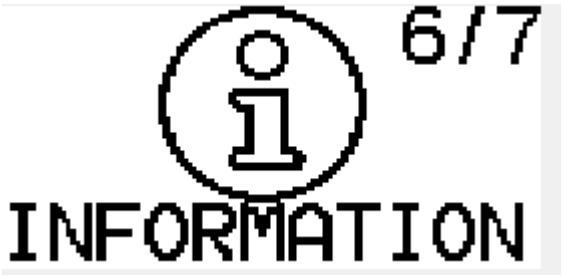
| | |
|---|---|
| Stop Bits | 1 bit (default) or 2 bit |
| RS232 Test | When device has been connected, user can transfer the parameters of device to the printer |

### 6.2.6 File System




Listing the file details in the SD card or Flash disk or RAM disk

### 6.2.7 Information




| *Item* | *Description* |
|---|---|
| Version | List the current firmware version |
| Serial Number | List the product serial number |
| Emulation | List the current printing language |
| Printed Labels | How many labels have been printed |
| Printed Distance | How many label length has been printed |
| Cut Count | How many cuts have been happened |
| Resolution | 203 Dpi or 300 Dpi in this printhead |

### 6.2.8 Upgrade


Place the updated firmware in the WPL_Stuff folder of SD card, and take this SD card inserting to the printer, then use this Upgrade option to click the selected file to confirm the updated procedure.

# 7. WinLabel tool suite

WinLabel tool suit is supported the below platform: Windows XP SP3, Vista, Windows 7, Windows 8, Windows 8.1, Windows10, Server 2003, Server 2008, Server 2012 and Server 2012R2 operation system (32 bit and 64 bit).

Note: The monitor resolution needs to have at least 1024 x 768 for normal use.

## 7.1 WinLabel program includes the below icons

| *Icons* | *Description* |
|---|---|
|  | WinLabel：Label editing software |
|  | Printer Utility：Printer tool |
|  | Install Driver：Driver installation |
|  | Firmware Driver：Firmware update tool |
|  | Check for Update：Version check |
|  | Uninstall WinLabel： Uninstall all installed software |

## 7.2 Software “WinLabel” installation

Click “WINLABEL_SETUP.EXE” file in the CD disc, and then choose a preferred language (traditional Chinese, simplified Chinese, and English) and input a stored path to finish software installation.


## 7.3 Driver installation

Open WinLabel software and switch the TOOLS page on the upper bar, and then click 

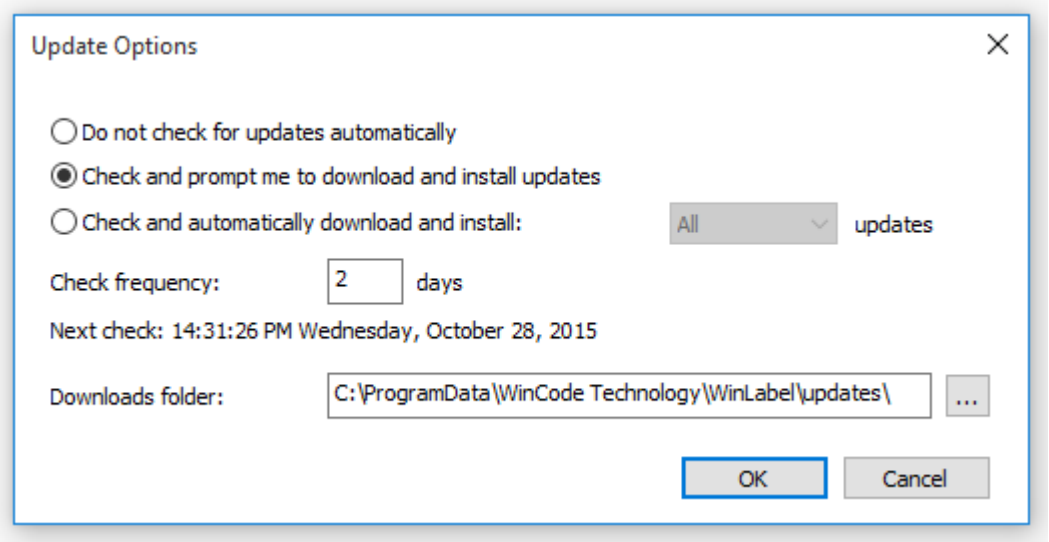
icon to start driver installation.

1. Before processing, please make sure the printer has been connected with computer.
2. Select a printer model from the model list and also check the driver version
3. The program will automatically select a connected port and name this Printer in the device list
4. Final check installation information. If OK, please click the “Next” button to start installation.
5. If installed successfully, the “Setup finished without error” will be showed. Click “Finish” button to exist installation.

## 7.4 Update settings and update check

After entering to the WinLabel program, click the “Check for Update” icon in the “TOOLS” page and check if it is the latest version. Then program can be updated automatically.

Besides, user can click “Update Settings” icon to adjust update settings (See below figure)



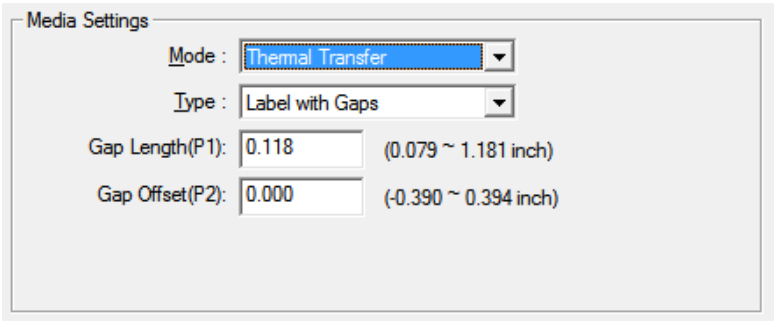
## 7.5 Driver Setup

### 7.5.1 Page Setup

| *Item* | *Description* |
|---|---|
| Paper/Layout | ➢ Name：Choose paper size (4 x 3 inch and 2 x 1 inch); User can also define frequently-used paper size by adding new label format.<br>➢ Directions：Portrait and landscape (rotate 90 degrees); 180 degrees rotation is accepted. |
| Settings | ➢ Copies：Each page quantity<br>➢ Speed：Printing speed<br>➢ Darkness：Adjust Printing darkness status.<br>**Caution**: If the value is higher, that would cause the temperature of print head higher, and would make ribbon melting and breaking easily. (Suggest value less than 8 for wax ribbon, value more than 10 for resin ribbon)<br>➢ Measurement：inch, cm, and mm options |

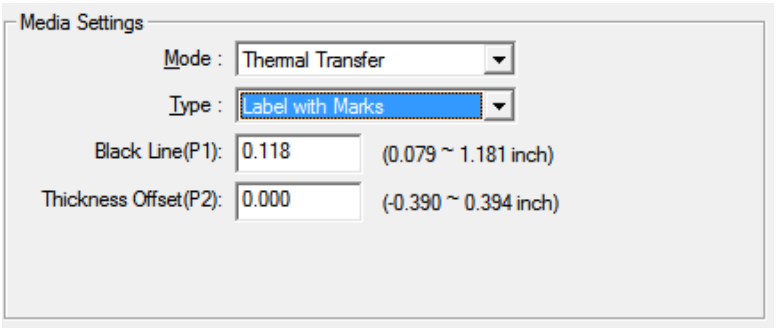
### 7.5.2 Media Settings

| *Item* | *Description* |
|---|---|
| Media settings | Mode: Thermal Transfer and Direct Thermal.<br>“Thermal Transfer” mode means that printer needs to be loaded ribbon for printing label.<br>“Direct Thermal” mode means that printer does not need to be loaded ribbon but need to load thermal paper. |
| Media type | Label with gaps ： |



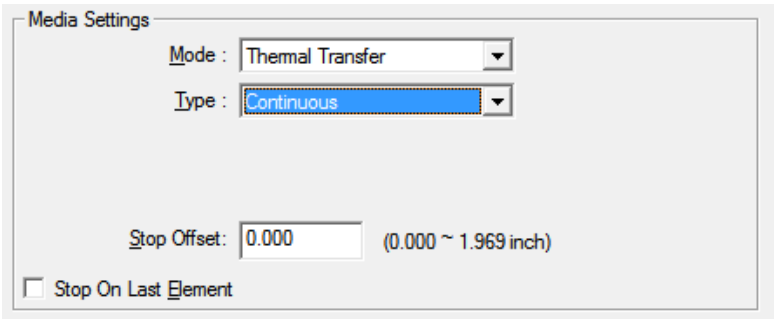

- "Gap Length" is the distance between two labels.
- "Gap Offset" means label will be moved an offset distance after moving a gap distance (This function is not open).

Label with marks：




- "Black Line" is the thickness in each black line.
- Thickness offset means that the paper needs to be moved a distance after each black line movement (This function is not open).

Continuous：




- Continuous label type: Ignoring the gap and mark of label
- Stop Offset: The paper will be moved a distance after each printing action stops (This function is not open).
- Stop On Last Element: Printing action will stop while printing the last label

| | |
|---|---|
| Sensor settings | Sensor type:<br>➢ Use Current Printer Setting (by previous setting)<br>➢ Reflective sensor (Recommend)<br>➢ Transmissive sensor<br><br>Start Position Offset: (recommend to input number when the printing position has a little bit shift up or shift down)<br>If selected, user can fill up how many dots to adjust the start printing position. |

## 7.5.3 Sensor Calibration

| | |
|---|---|
| Sensor Calibration Settings | ➢ Please run the sensor calibration after the label material has been changed.<br>➢ Each time of sensor calibration will feed 15 inches long label for usage. |
| | ➢ Label Type: Label with Gaps, Label with Marks, Continuous (same setting from Media Settings page)<br>➢ Sensor: Use Current Printer Settings, Reflective sensor, Transmissive sensor (same setting from Media Settings page) |
| Auto Detection (Recommend) | ➢ The printer will start to run the sensor calibration automatically and will feed 15 inches long label out. |
| Manual Set | ➢ Sensor Strength: Normal, High Sensitive, Ultra Sensitive<br>➢ Reflective Sensor Value: 15 (default value is 15)<br>➢ Transmissive Sensor Value: 15 (default value is 15)<br>➢ The value range of sensor is from 5 to 100, less value is more sensitive |

## 7.5.4 Options

| *Item* | *Description* |
|---|---|
| After Print | Use Current Printer Settings: see previous setting<br>Remove tick option would have below several options |

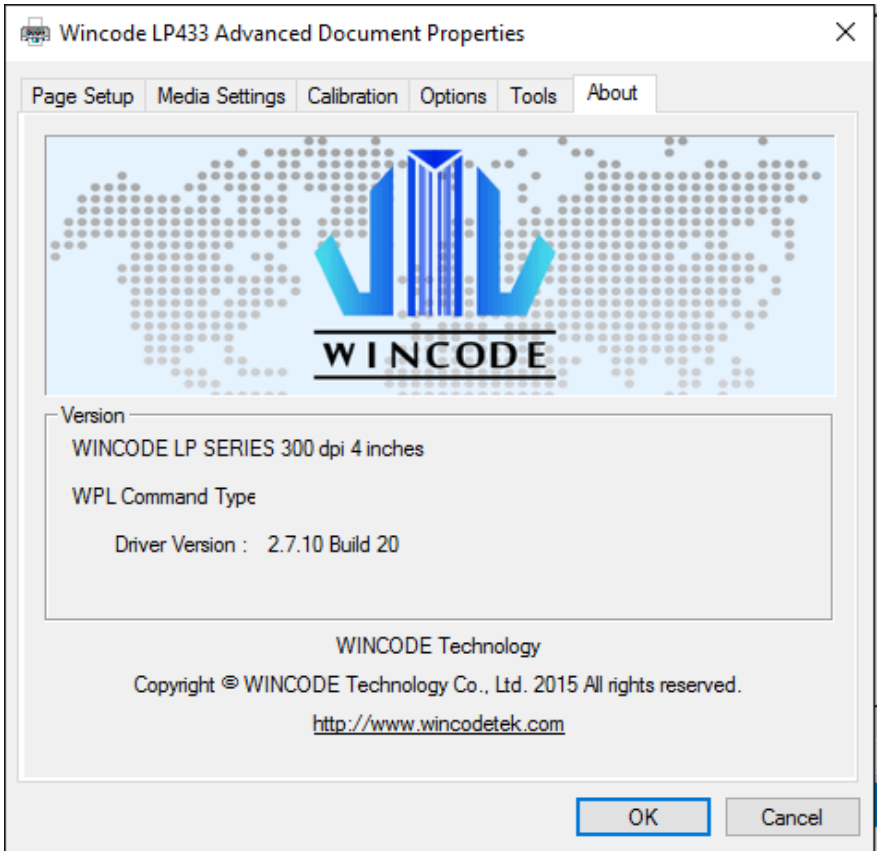
| | |
|---|---|
| | ➢ None: The label is stopped after printing last label.<br>➢ Tear off: The label gap is stopped at the tear off position to let user easily tear off label.<br>The tear off position is adjustable as long as ticking “Tear Off Position” option.<br>➢ Peeler: Peeler module can peel labels continuously while printing.<br>The printer will run the next label after removing peeled label.<br>Peer position can be adjustable as long as ticking “Peel Off Position” option.<br>➢ Cutter: The cutter will run after printer ends each label printing.<br>“Every Cut” option means that how many pages come out to run the cutter once.<br>“Cut Position” is ticked, the cutting position can be adjustable. |
| Press a button to print | If this option is ticked, user needs to press “Feed” button to execute label printing action every time. |
| User Commands | User can fill up printer commands in this dialog. |

## 7.5.5 Tools

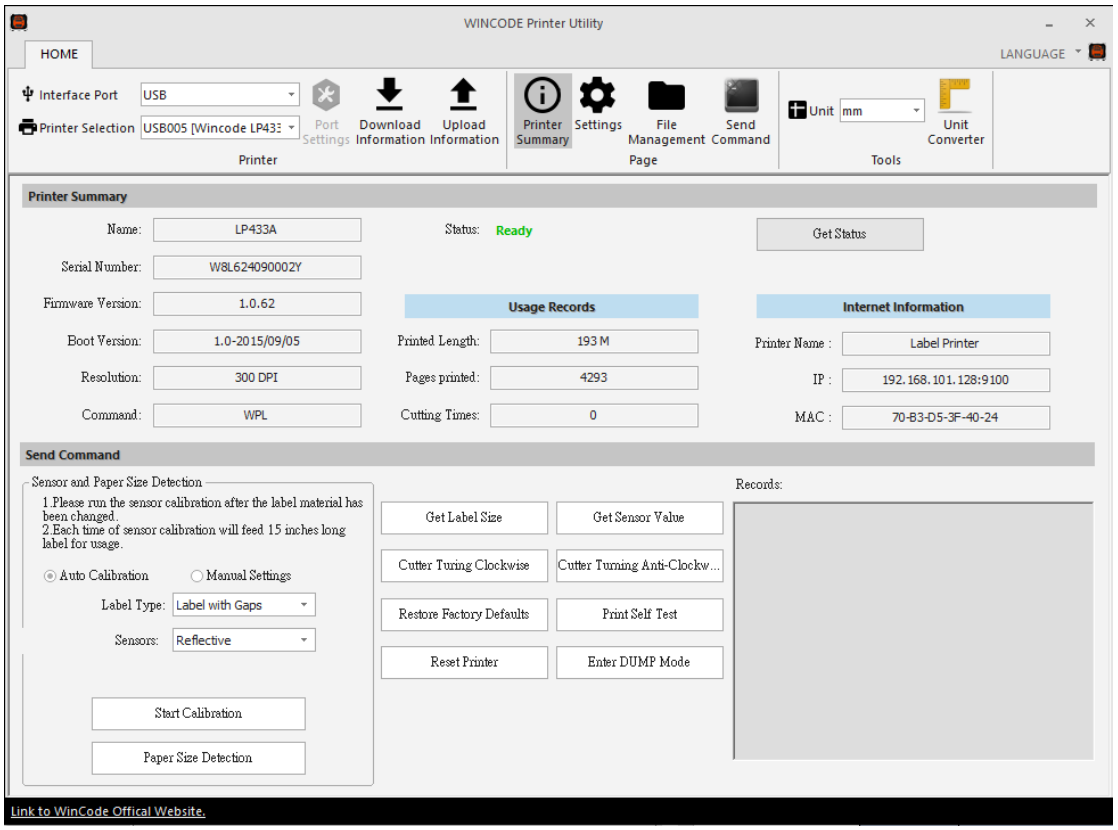
| *Item* | *Description* |
|---|---|
| Print | ➢ Generic Test: Order printer to print a label with texts for testing purpose.<br>➢ Self Test: Order printer to print a label with inside parameters of printer. |
| Action | ➢ Reset Printer：Restart printer.<br>➢ Factory Defaults：Inside parameters to be default<br>➢ Label Feed：Order printer to deliver a label come out |

| | |
|---|---|
| Send to Printer | ➢ Printer Command: Send commands to the printer, please refer to the Wincode's Command Manual.<br>➢ Files：Select a command file (*.prn) from the stored space of computer |
| Display Prompt Message | ➢ If not ticked, the prompt message will not be showed after pressing each button. |

## 7.5.6 About：WinLabel driver version



## 7.6 Printer Utility

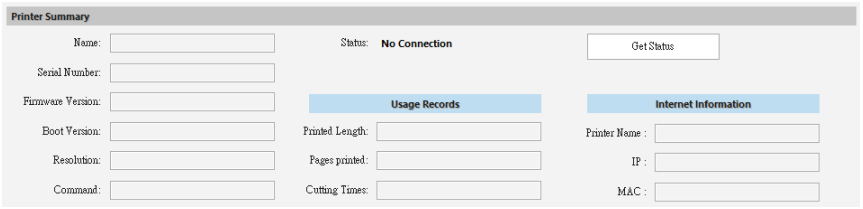



| *Item* | *Description* |
|---|---|
| Interface port | Interface port selection: USB, RS232, LPT (Centronics) |
| Printer selection | While printer has been connected with computer, the program can automatically detect printer equipment. Then user can select a printer from a pulldown list. |
| Port settings | Only for RS232 interface settings<br>• Bits Per Second<br>• Data Bits<br>• Parity Check<br>• Stop Bit<br>• Flow Control |
| Download information | The current printer setting information can be showed in the Printer Summary area. |
| Upload information | The setting information in the Printer Utility will be uploaded to the printer. |

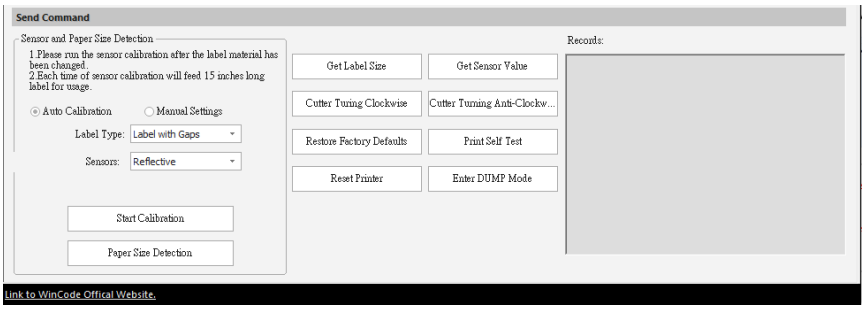
Printer Summary

Printer Summary

- Listing printer information




Send Command window



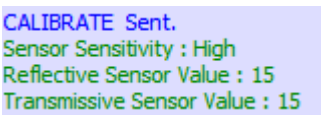

Sensor and Paper Size Detection

1. Please run the sensor calibration after the label material has been changed
2. Each time of sensor calibration will feed 15 inches long label for usage

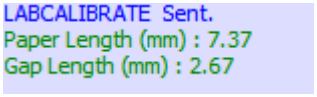
- Auto Calibration: Choose below Label and Sensors types to run this detecting action. (Recommend)
- Manual Settings: Manually select the sensor strength, and also adjust each sensor value (The value range of sensors is from 5 to 100, less value is more sensitive), please use this setting when you cannot detect label gap by Automatically Detect option.

- Label Type: Label with Gaps, Label with Black Line, Continuous
- Sensors: Reflective (Recommend) and Transmissive

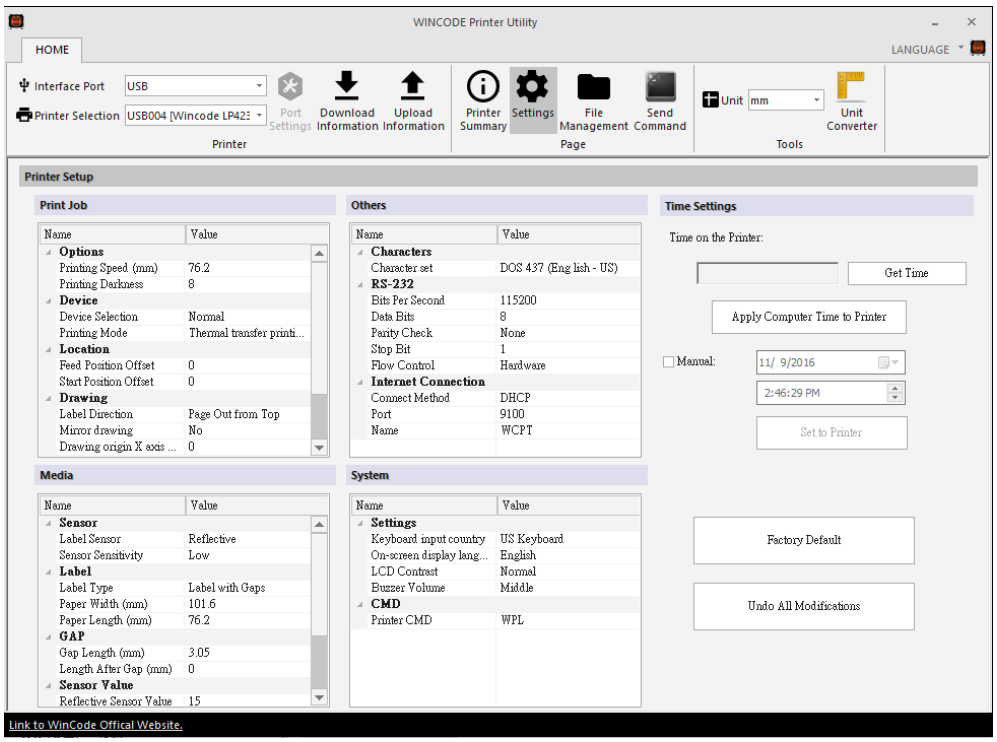
- Start Calibration: Please run this calibration after the label material has been changed, the detect result will be showed in the right table as below Figure




- Paper Size Calibration: Printer will detect the paper size and get detecting result in the right table as below Figure

| | |
|---|---|
| |  <br>• Get Label Size: The detecting value of label size will be showed in the right table<br>• Get sensor value: The detecting value of sensors will be showed in the right table<br>• Cutter Turning Clockwise： Cutter cuts label from up to down (Fully cut)<br>• Cutter Turning Anti-Clockwise：Cutter cuts from down to up (Not completely cut-off)<br>• Restore Factory Defaults: The parameters of printer will be factory default setting.<br>• Printer Self Test: Printer will print the inside settings on the label<br>• Reset Printer：Restart the printer<br>• Enter DUMP Mode: Entering to the DUMP mode, so printer will printer the ASCII code of objects on the label |
| Settings | Please refer to the 8.7 Settings |
| File Management | Send the selected file from stored spaces to the printer (Ram Disk, Flash Dish, and SD Card) and also can manage these files in these spaces. |
| Send command | Send printer's command to printer, please refer to the Printer Command Manual. |
| Unit- Tools page | Printing unit: millimeter (mm), centimeter (cm), inch (in.) |

## 7.7 Settings page in the Printer Utility




Note: This settings page would suggest user for reviewing the current settings in the printer only. Please be noted that if same settings on the driver settings, the printer will use driver's settings as printing priority.

- User can use 

icon to download printer's settings for review
- User can use 

icon to change the printer's settings if something has been revised in the below tables.
    - Print Job

| *Item* | *Description* |
|---|---|
| Printing Speed(mm) | Select required speed |
| Printing Darkness | Select required parameters from 0 to 15; adjust the printer head temperature (8 is recommended for wax ribbon) |
| Device Selection | Normal, tear-off, peel-off and cutter modes are selectable. |
| Printing Mode | Direct Thermal and Thermal Transfer modes are selectable |
| Feed Position Offset | Input required parameters. (If printer is connected cutter/peeler, |

| | |
|---|---|
| (After printing) | user may use this offset settings. Otherwise, the default is 0) |
| Initial Position Offset (Before printing) | Input the required parameters (plus value is feeding more distance; minus value is back feeding more distance) |
| Label Direction | Label-out from top or Label-out from bottom |
| Mirror Drawing | No effect or mirror reflection (Not available now) |
| Drawing origin X axis offset | Input the required parameters (Not available now) |
| Drawing origin Y axis offset | Input the required parameters (Not available now) |

- Media

| *Item* | *Description* |
|---|---|
| Label Sensor | Which sensor is using; Reflective and Transmissive |
| Sensor Sensitivity | Normal/Middle/High are selectable |
| Label Type | Label with Gaps, Label with Black Line, and Continuous label are selectable |
| Paper Width (mm) | The settings of paper width in the printer |
| Paper Length (mm) | The settings of paper length in the printer |
| Label Type: Label with Gaps<br>Gap Length (mm) | The settings of gap length in the printer |
| Length after Gap | Input the required parameters (default is 0)<br>PS: This will be suitable for special shape label |
| Label Type: Label with Black Line<br>Black Line Thickness | The settings of black line thickness in the printer |
| Length after Black Line | Input the required parameters (default is 0)<br>PS: This will be suitable for special shape label |
| Reflective Sensor Value | The value of reflective sensor in the printer |
| Transmissive Sensor Value | The value of reflective sensor in the printer |

- Others

| *Item* | *Description* |
|---|---|
| Characters | Character Set: Select required character set (DOS 437 English- US is default) |
| RS-232 | Please make sure the listed settings are the same as above Port settings. |
| Internet Connection | Internet basic setting (Not available) |

- System

| *Item* | *Description* |
|---|---|
| Keyboard Input country | The default is US Keyboard |
| On-screen display language | English, traditional Chinese, and simplified Chinese are selectable; review the language displayed in the printer's screen |
| LCD Contrast | Only for LP advanced series; review the LCD contrast settings in the printer |
| Buzzer volume | Close, Low, Middle, High; only for LP advanced series; review the Buzzer volume settings in the printer |
| Printer CMD | Change printer's language to be compatible with other printer's language. After selection, please use "Upload Information" button to change the printer's language.<br>WPL: Wincode<br>WEPC: EPL (Zebra)<br>WZPC: ZPL (Zebra)<br>WTSPC: TSPL (TSC)<br>Note: Standalone function for advanced model will be only suitable in the WPL mode |

# 8. Standalone printing

## 8.1. Feature

This function provides a standalone operation without use the computer. Eliminating the burden of the PC to complete the requirement to print labels after a simple data input.

This function has the following characteristics：

- No need to connect computer for label printing
- SD card can easily store thousands of standalone files
- Connecting keyboard to input the variable data
- Built-in Real-time clock for date coded labelling
- The diversity of external device connection (keyboard, scanner, and scale…etc.)
- Simplify the processes, printing label anytime and anywhere
- No need to write computer codes to create file
- Store thousands of standalone programs in different multiple language file names in the printer
- Provide a string combination from the multiple information and do arithmetic
- Free bundled labeling software for making standalone program file

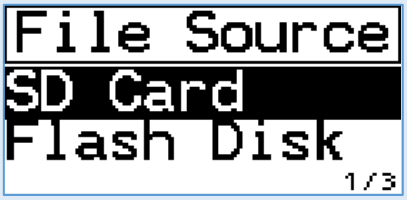
**Diagram：**

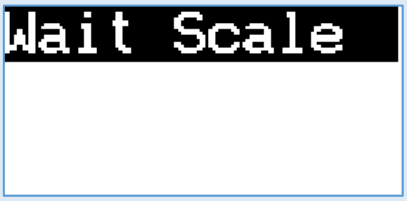
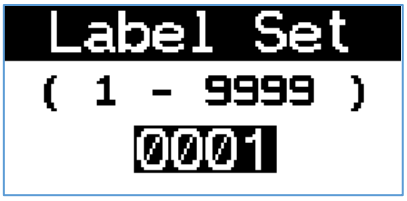

**Bundled labeling software for making standalone program file：**

- Provide a string combination from the multiple information (ex. Serial number + data + external input weight…etc.)
- Provide a variety of dynamic data processing for each variable field (ex. Discard text from left, keep numbers only, to upper case…etc.)
- Provide a variety of device input for each variable field (ex. Scale, RS232 interface, date, keyboard, scanner…etc.)
- External input data can execute arithmetic directly (+ - x / %, round off, kilogram into pound…etc.)
- Standalone program file can be easily done by setting parameters on the Winlable. No need to write computer codes to create file anymore


**WINLABEL**

## 8.2. Application

| LCD screen | Description |
|---|---|
|   | Main menu：Display the built-in Real-time clock. if time are incorrect, it can change the battery or the insulating strip doesn't remove. ：the printer is already connecting with keyboard or scanner. ：the SD card is inserted in the printer. |
|   | Press the button 1 to enter to the menu mode. The first item is "APPLICATION". It's the entry point of standalone operation. |
|   | Standalone file has 3 sources. There are SD card, Flash disk, and RAM disk. Depending on the size of the memory space to decide the number of store files, currently support 512 filed. |

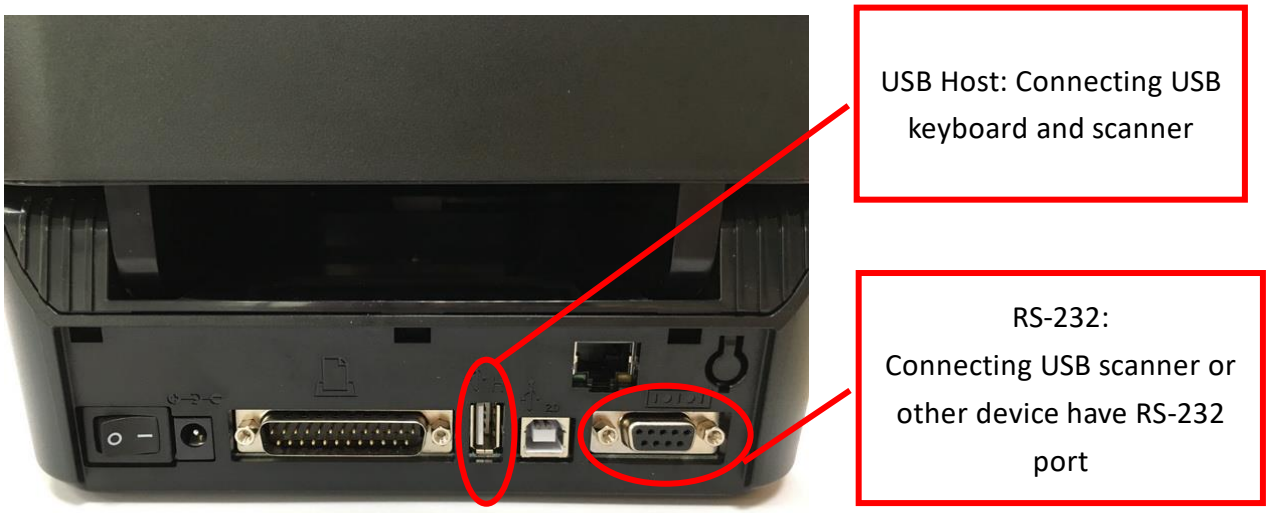
| | |
|---|---|
|  | Display the file list when enter the source. User can use keyboard or scanner to search the file name. |
|  | This is the “keyboard input” standalone operation interface. The black part is the prompt text, it supports multiple language, the input section currently supports English and numbers. |
|  | This is the “number series” standalone operation interface. The black part is the prompt text, it supports multiple language, the input section currently supports English and numbers. |
|  | This is the external device standalone operation interface; it can enter data by RS232. The black part is the prompt text, it supports multiple language. |
|  | Label set: when use serial number, it will ask user to enter. |
|  | Label copies: It will display before the software download the file, select “prompt to enter quantity when print”. |

## 8.3. Hardware notice

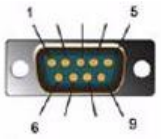
### 8.3.1. Equipment Introduction

| Equipment | Application |
|---|---|
|  | Label printer: As the reception or internet RS-232 USB Host interface, so that the operation is no longer using a computer to complete the data collection, and print the label after edit the data. |
|  | The electronic scale has RS-232 port, and can input the weight. |
|  | Numeric keyboard connects to printer by USB port for enter variable data. |
|  | DB9: connect the scale to printer. |
|  | Null Model: Convert the data line, electronic scale and printer can pass. |
|  | SD card: It can save thousands of standalone file and other related document. The file system must be FAT32 and saving menu is “WPL_Stuff”. |

### 8.3.2. Printer Ports Introduction



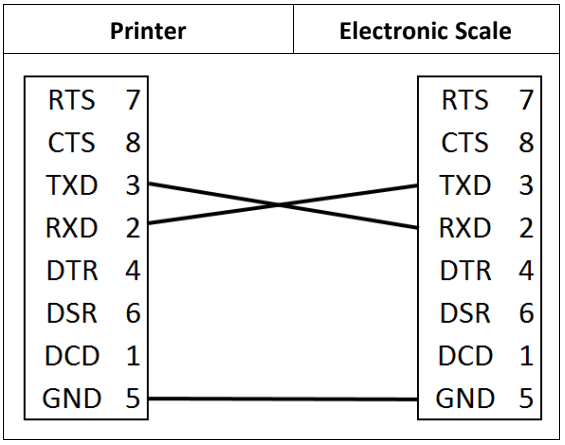

### 8.3.3. RS-232 pin assignment




DB-9

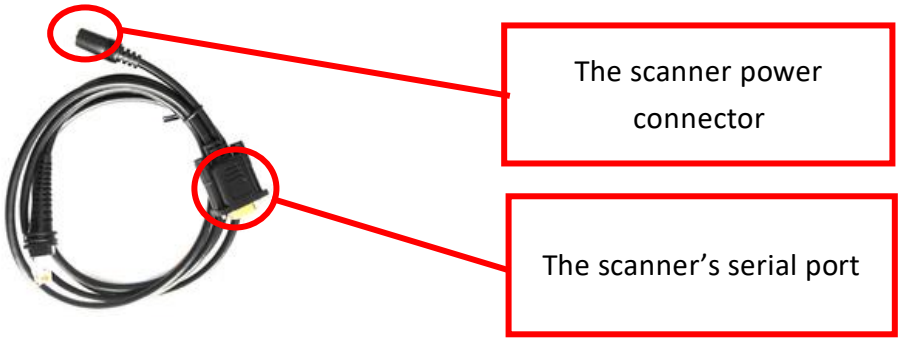
| Pin | Define | Description |
|---|---|---|
| **1** | DCD | Data Carrier Detected |
| **2** | RXD | Receive Data |
| **3** | TXD | Transmit Data |
| **4** | DTR | Data Terminal Ready |
| **5** | GND | Signal Ground |
| **6** | DSR | Data Set Ready |
| **7** | RTS | Request to Send |
| **8** | CTS | Clear to Send |
| **9** | RI | Ring Indicator |

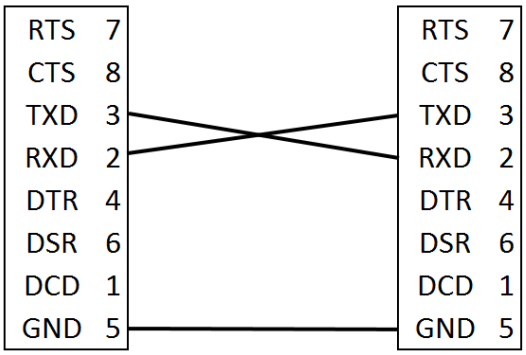
### 8.3.4. Printer serial port with electronic scales pin assignment




Printer connect to external device is RXD and TXD connect each other and have the same Baud Rate in generally.

### 8.3.5. Printer serial port with RS-232 scanner pin assignment




Connected printer to RS-232 by Use printer in pin 9 DC+5V and set same Baud Rate. If the scanner pins 9 is DC+5V input, it doesn't need external power.

## 8.4. External device

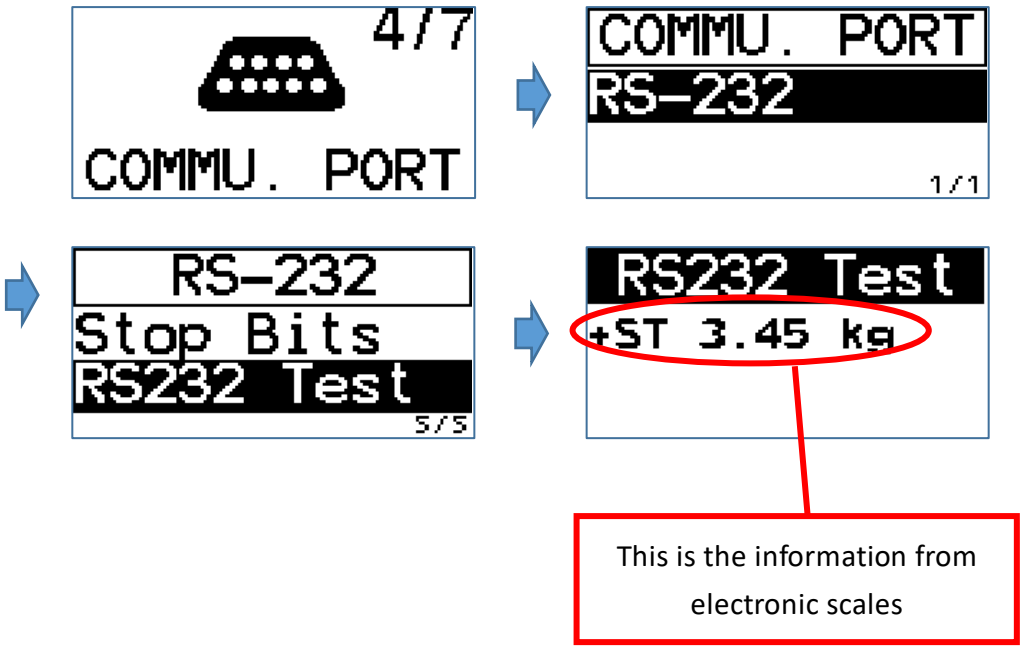
| Keyboard | Numeric keyboard | Scanner |
|---|---|---|
|  |  |  |
| Counter | Length measuring meter | Mechanical arm |
|  |  |  |
| Pricing scale | Scale on the ground | Table Scale |
|  |  |  |
| Paint tinting machine | Chromatic aberration machine | PLC |
|  |  |  |

## 8.5. How to contact printer electronic scales

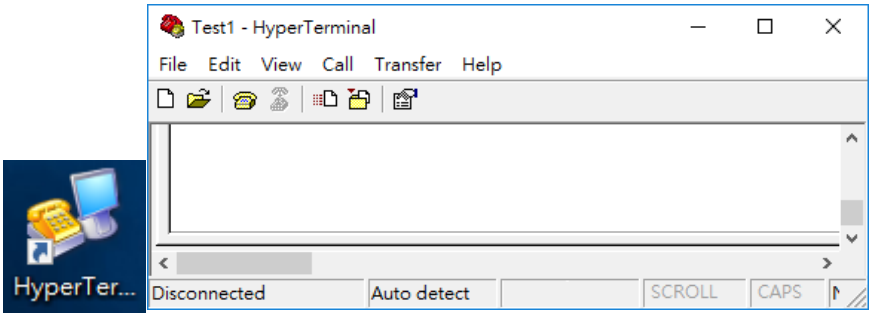
- Prepare the printer, electronic scale, cable, and null model.

- The electronic scale connected to printer by cable and null model.

- Enter printer menu, select “COMMU. PORT ” to perform data transmission test. The preset Baud Rate of printer is 115200 bps; electronic scale is 9600 bps. Please change printer baud rate to 9600 bps.




- If electronic scale output data are too much or include special characters, it can use HyperTerminal to capture RS-232 port data.




**HyperTerminal official website ：**

**http://www.hilgraeve.com/hyperterminal/**

**HyperTerminal trial version website ：**

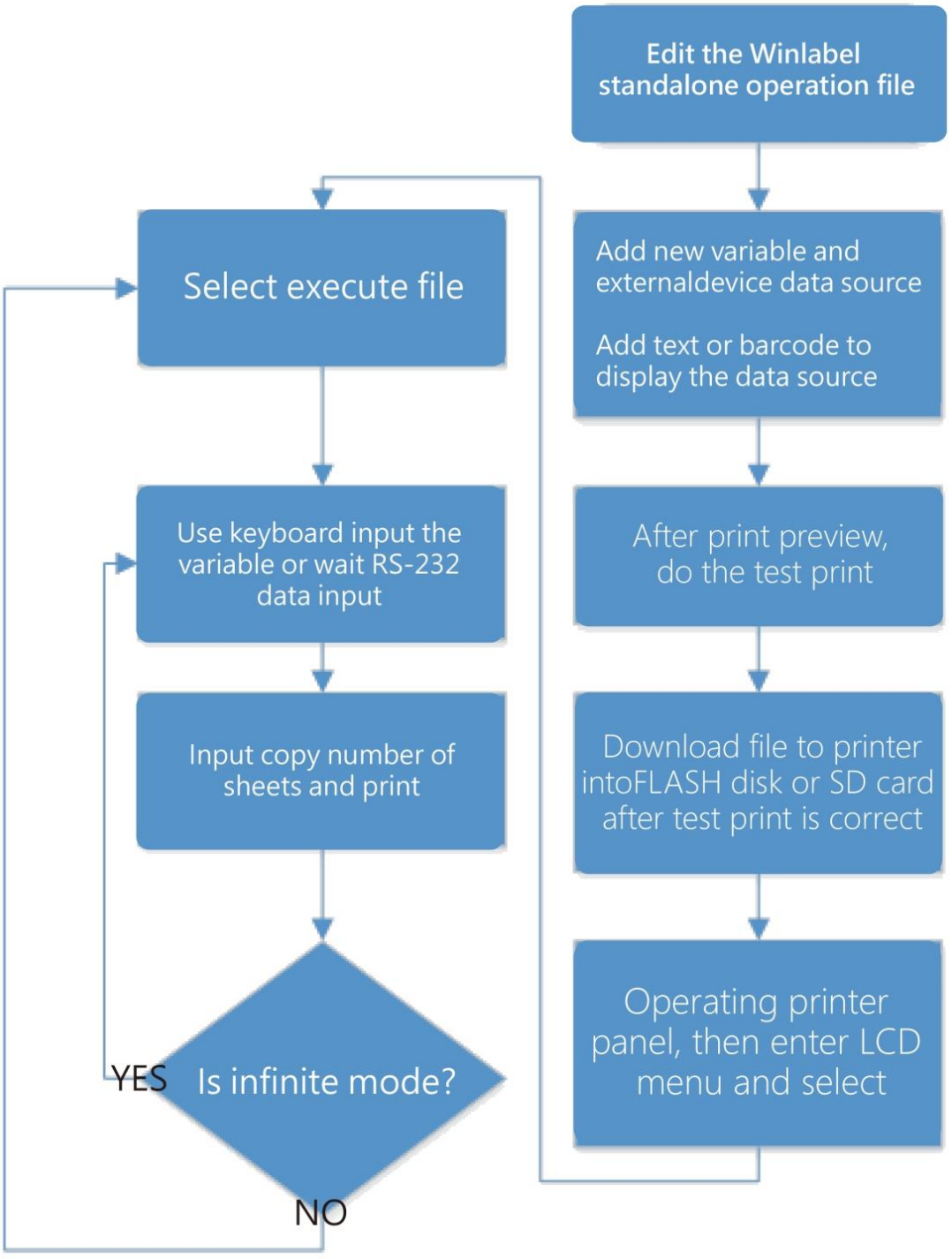
**http://www.hilgraeve.com/hyperterminal-trial/**

**HyperTerminal video ：**

**https://www.youtube.com/watch?v=n8p2zb3KRO8**

### 8.5.1. Operating procedures

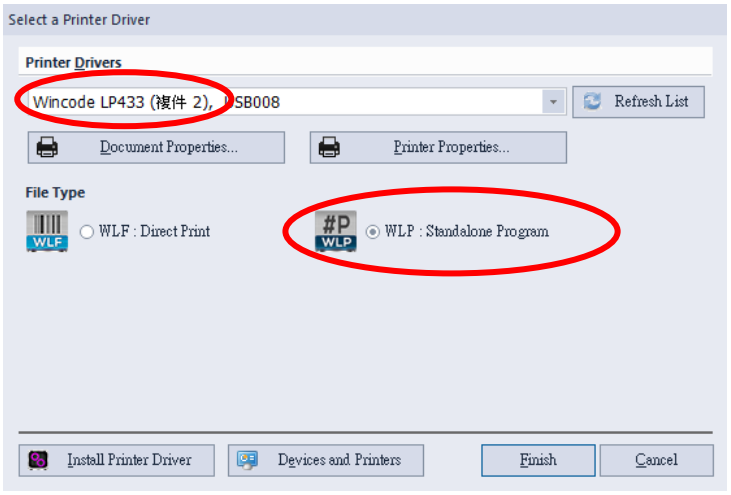
- **Standalone operating procedures diagram**



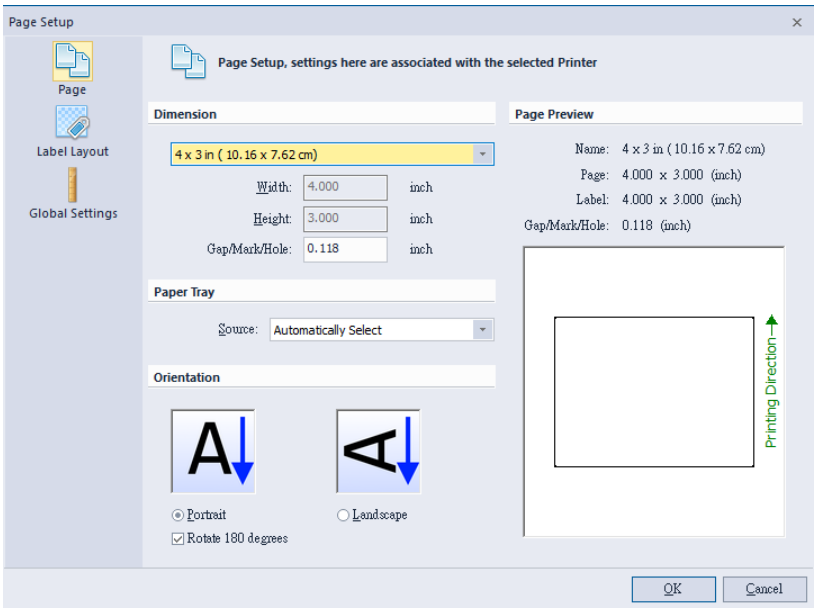
## 8.5.2. How to make a standalone file

- Please install the new Winlabel software and driver. Then open Winlabel program. 

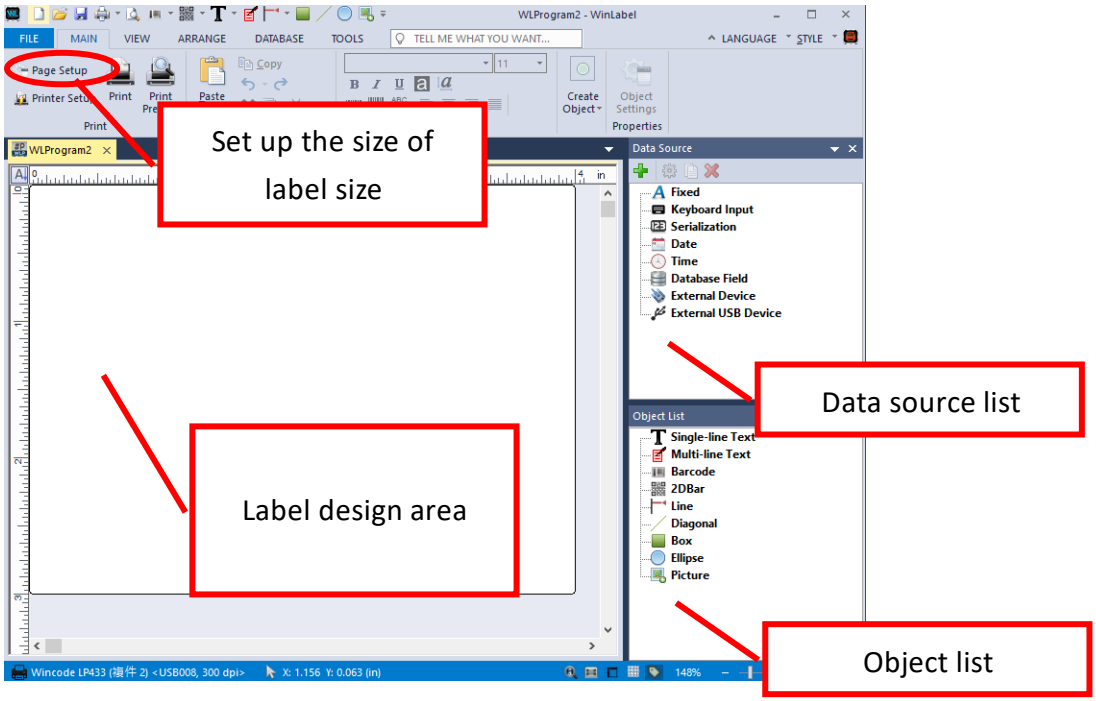
- Click the new label, then select a printing method and WLP format.



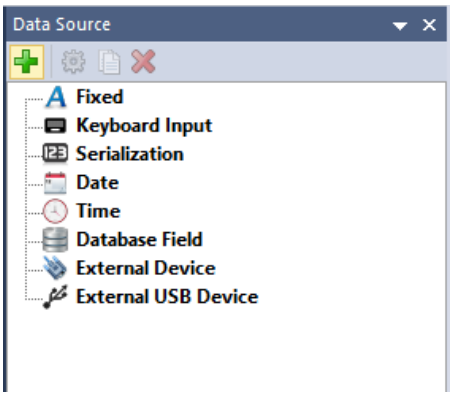

- Measure the label size first, and setup in “page setup”. Please note the size of gap and black mark.



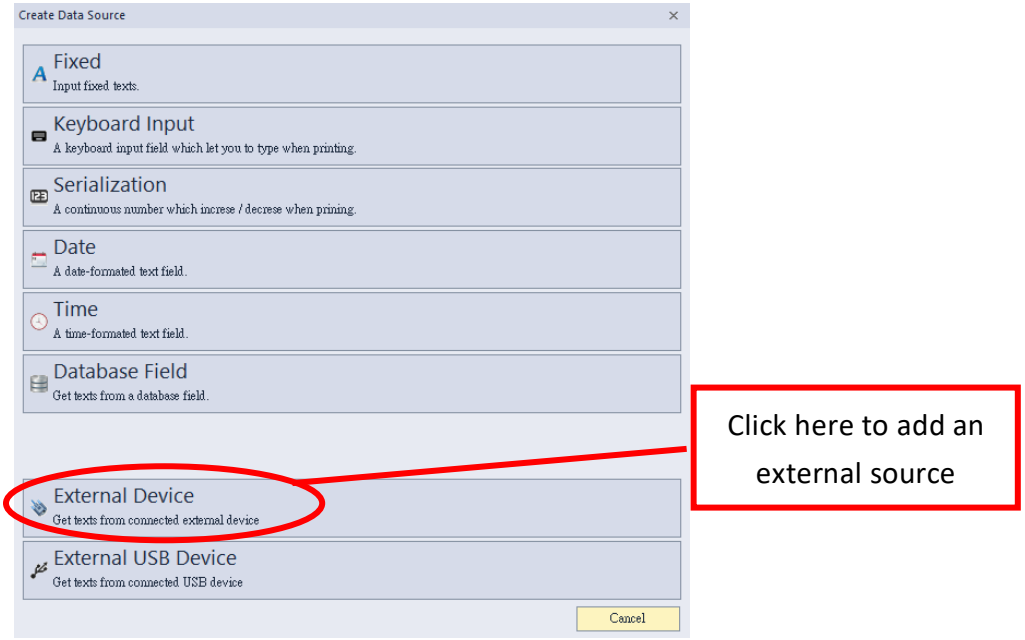
- Then appears operating interface.



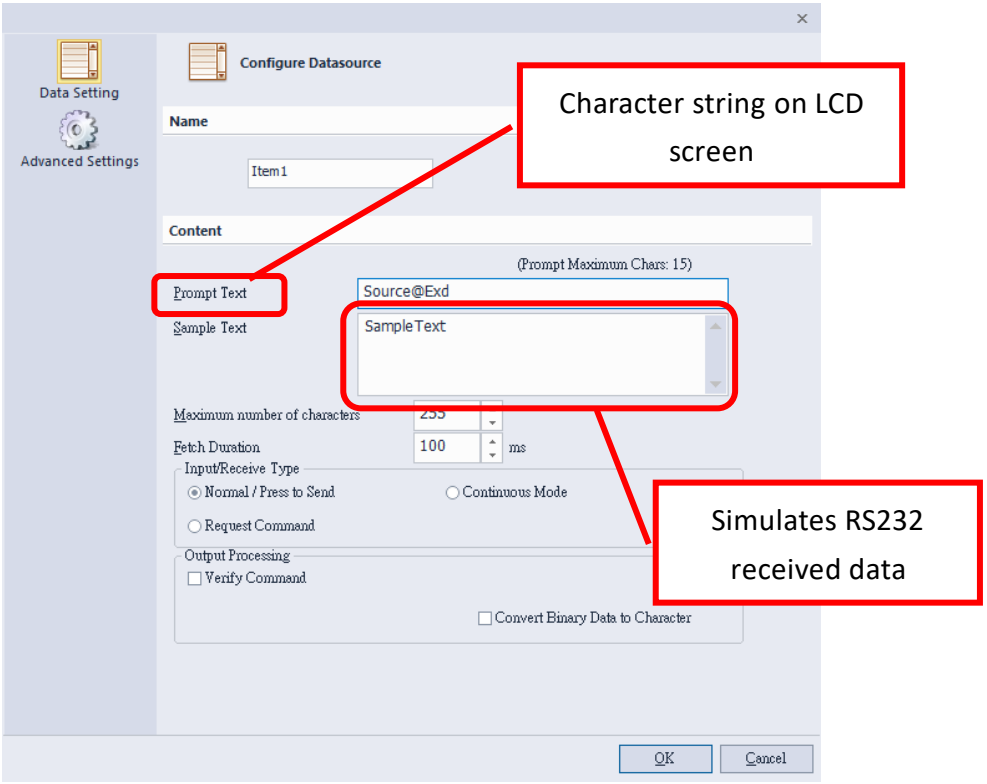

- The variable data, we use in standalone operation will show in the "Data Source".



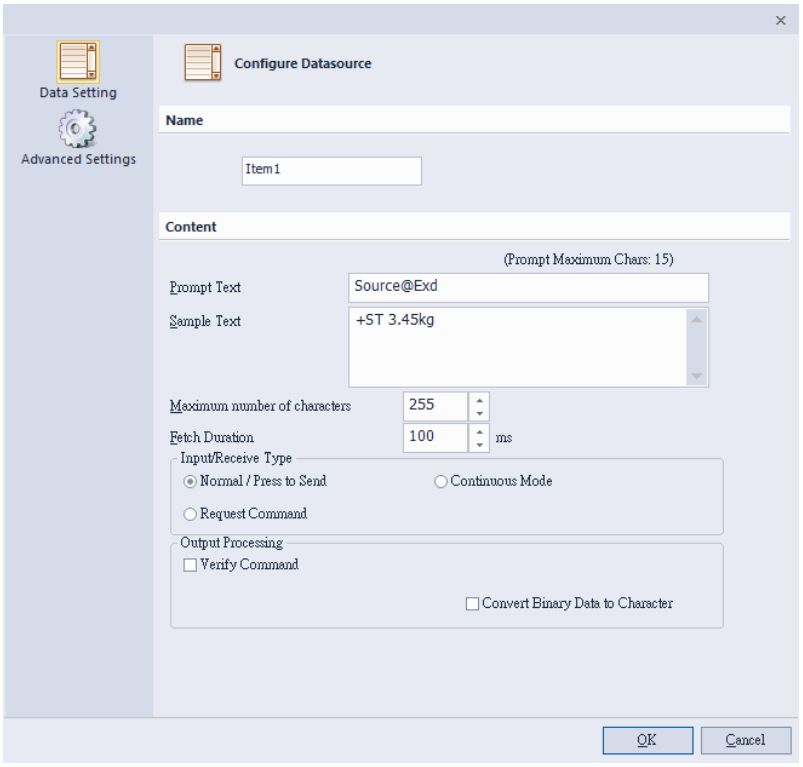
- We demonstrate an external input device example.



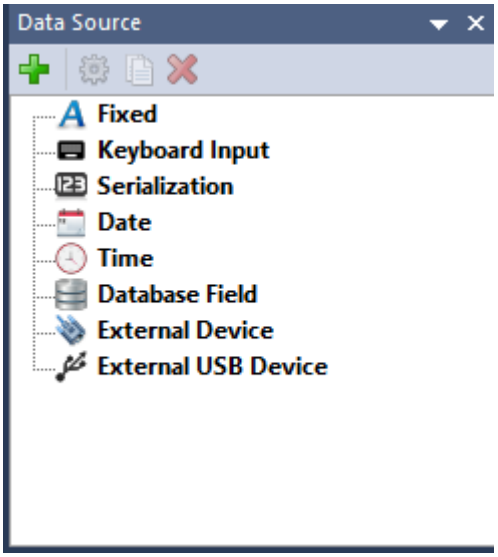

- Click “External Device” and then appear the dialog as below.
  1. Prompt Text: It will display on the LCD screen when use standalone operation and can be any language.
  2. Sample Text: Simulates RS232 received data, which will facilitate to confirm the information you want when typesetting.



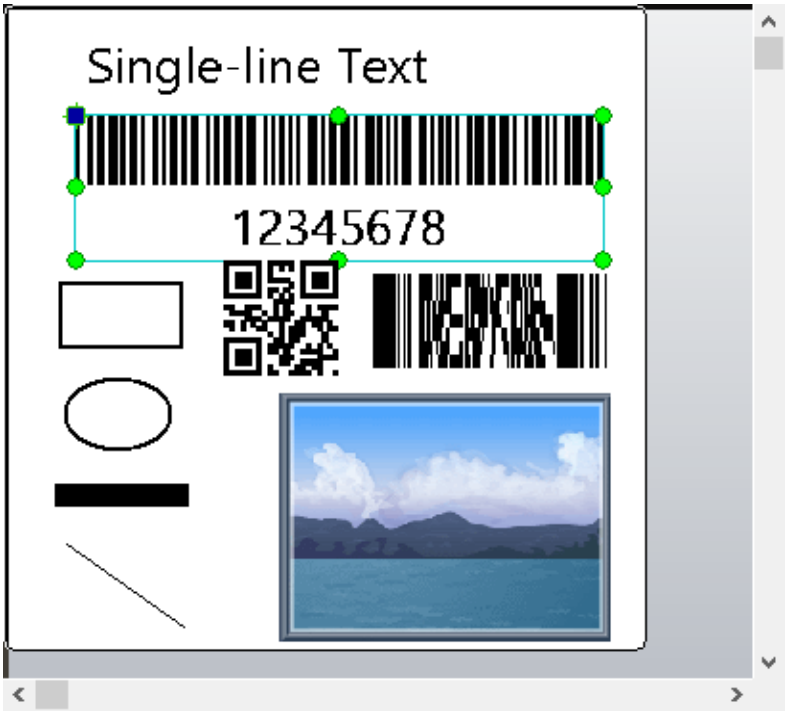
- For example, RS-232data input's 3.45 kg", LCD screen display "Wait Scale" ◦



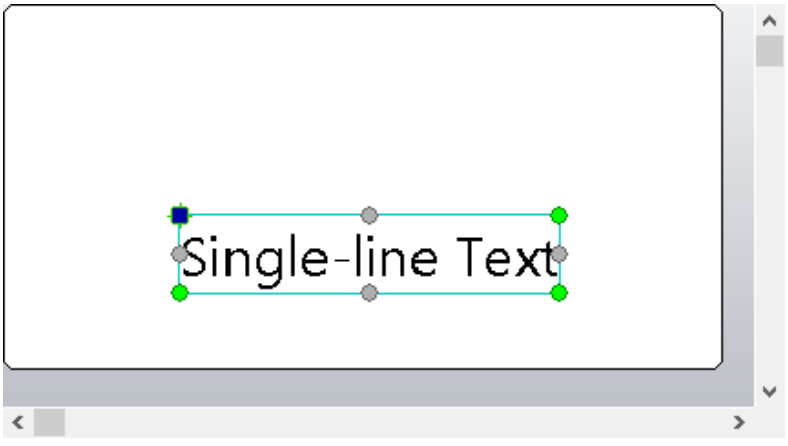

- Then make typesetting object to take the data source.
  1. Object list as below
  2. Currently only supports "Single-line Text", "Barcode", and"2DBar".



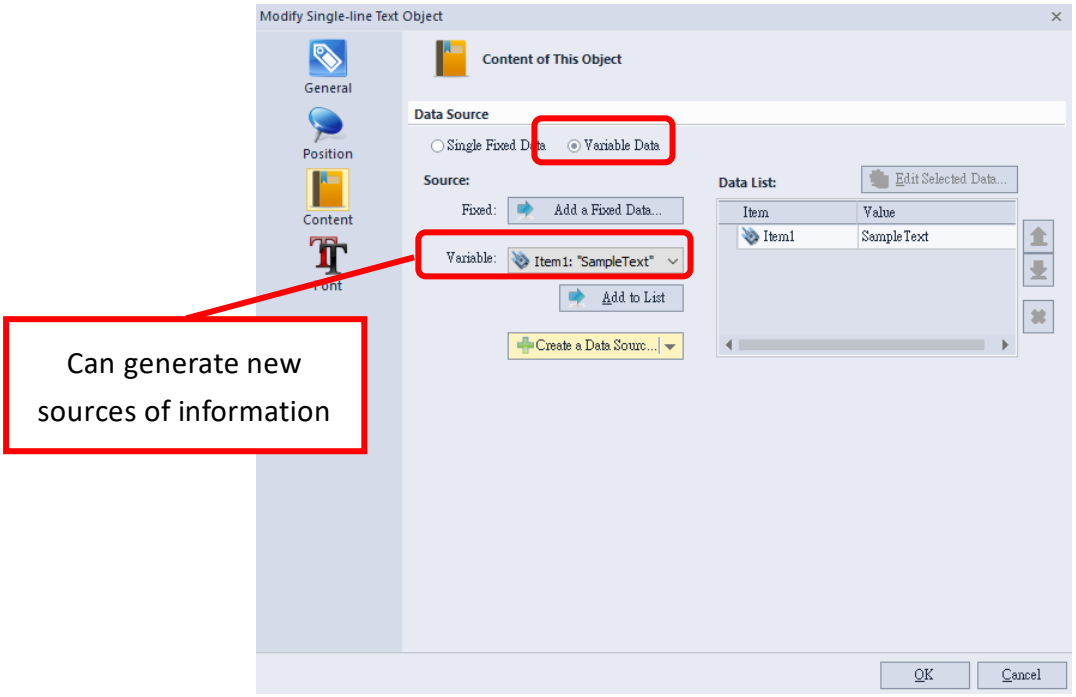
- User can produce the object by using functional zone.

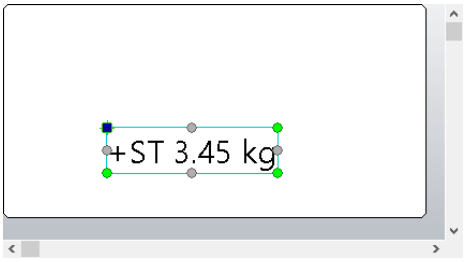

- First select “Single-line Text”



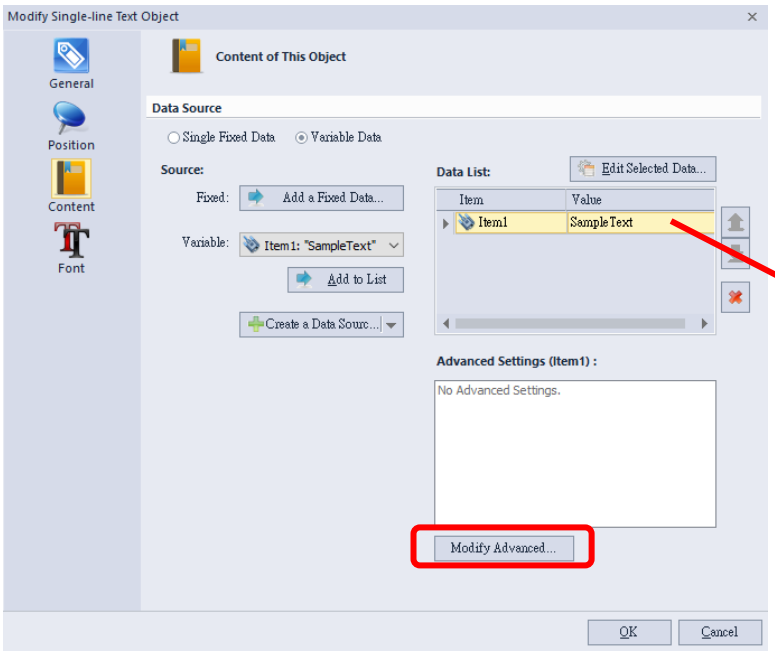
- Click the object twice to enter the dialog as below. Select “Variable Data” and choose variable to add to data list. Data list can add multiple source as a result of a string of sequential combination.




- After confirm the data sources, the object data will change to the select sources immediately. If the data doesn’t we want, ex.” +ST 3.45 kg” change to”3.45”, it must conduct “Advanced Settings”.



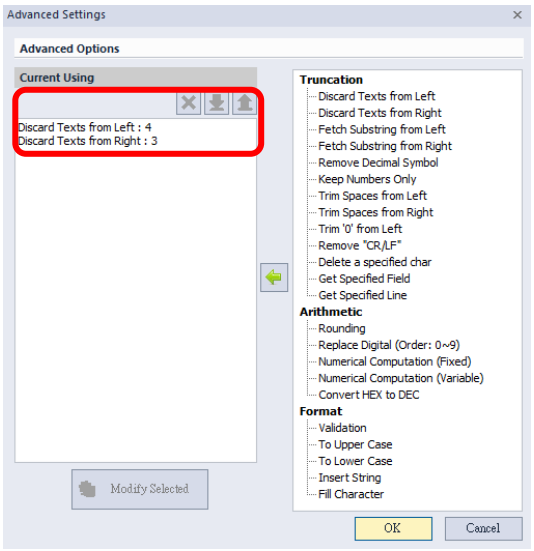
- Click object twice, enter the dialog as below. Select the item in a “Data List” and then click the “Advanced” button.



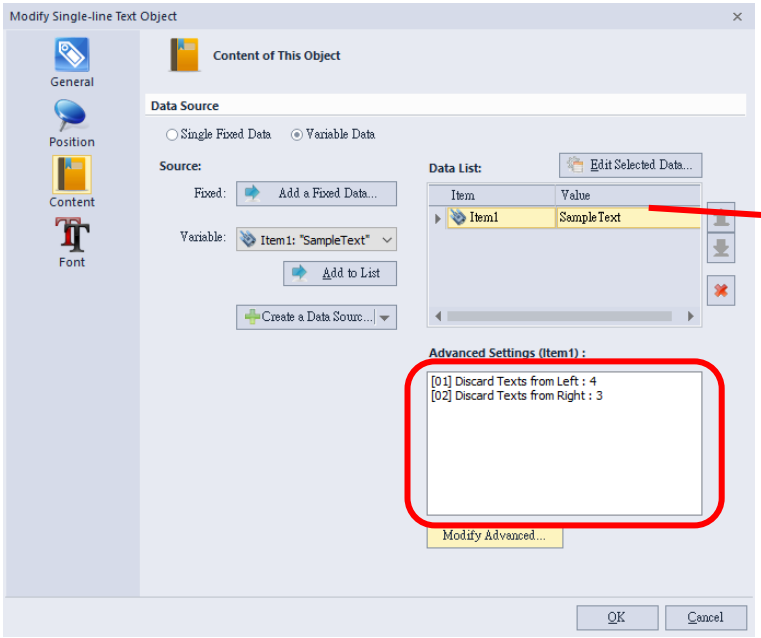

Click the item first and appear the button beneath the dialog.

- This is “Advanced Option” dialog as below. We will add two truncation order, respectively “Discard texts from left:4” and “Discard texts from right:3”.

1. Currently divided into three categories, “Truncation”, “Arithmetic”, and” Format”. Every category has a number command functions. It will continue to increase command functions in the feature.
2. The list can freely add or delete items, and you can adjust the order of execution. The top one excusive first.

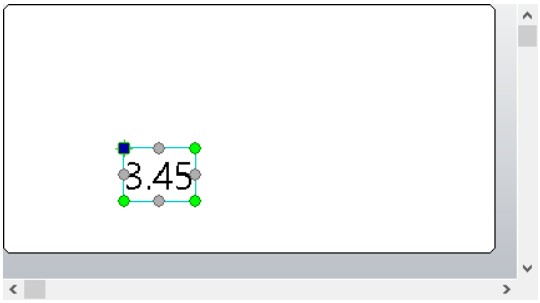


- Finish setting “Advanced Option” and then see the “Advance settings” list the item. It is easy to use with queries; it will be based on the contents of the source object transformation.

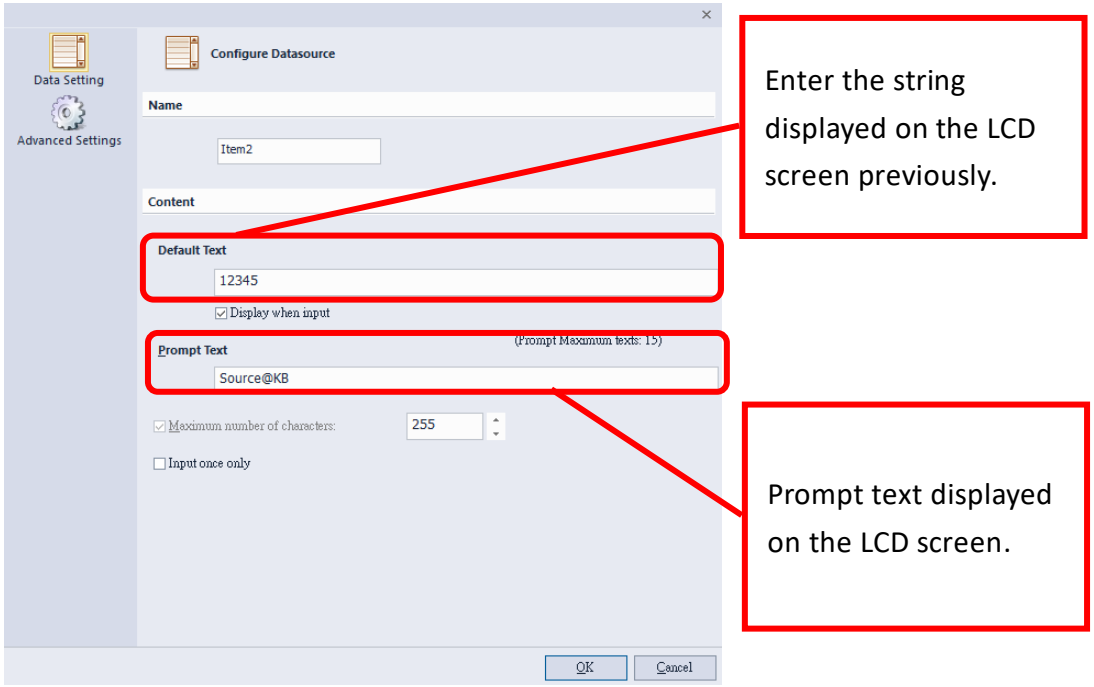



Click item and “Advance settings” will automatic replacement content

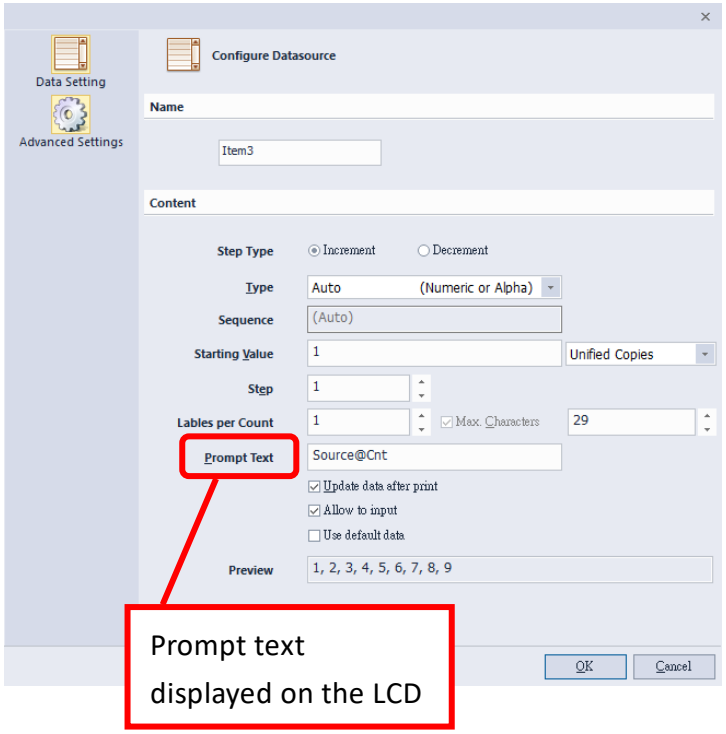
- After finish setting “Advanced Option”, the result consistent as we need, if not correct, you can use the advanced process adjusted to the desired requirements.



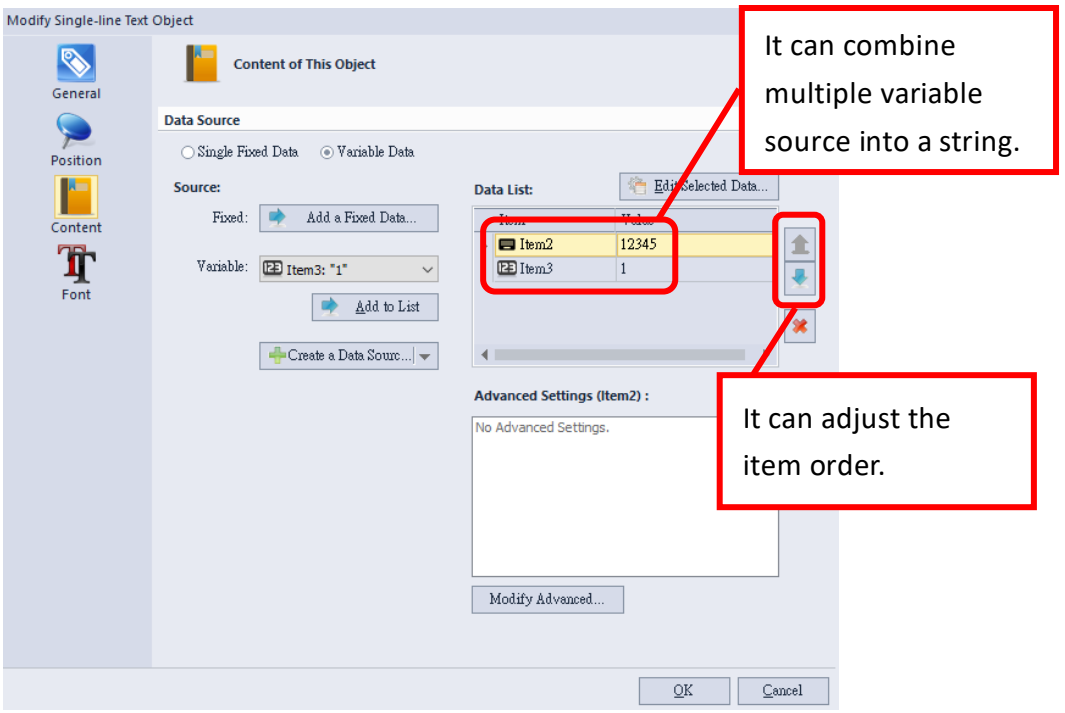
- Then we make “keyboard input” variable.



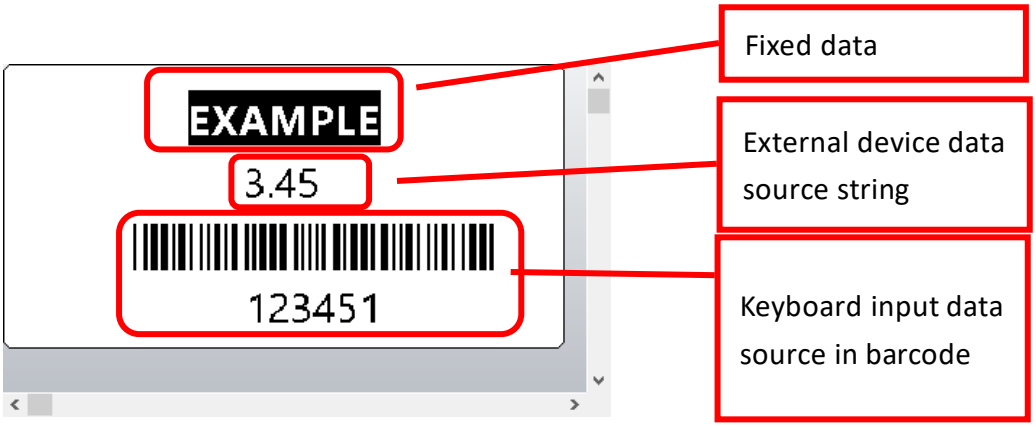

- Then we make the “serial number” variable.



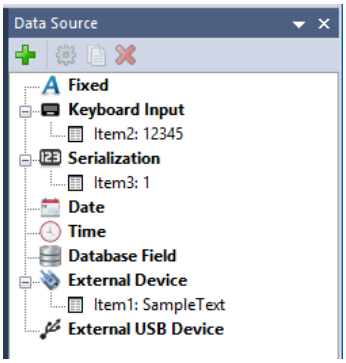
- We make a “Barcode” object, the data source is “keyboard input” and” serial number”. It is “barcode” setting as below.




- Follow the above procedure and finish the below example.

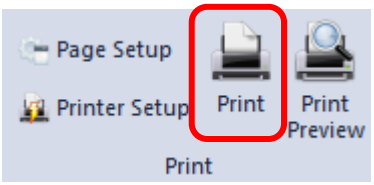



- Finally, we produce the following sources of information。

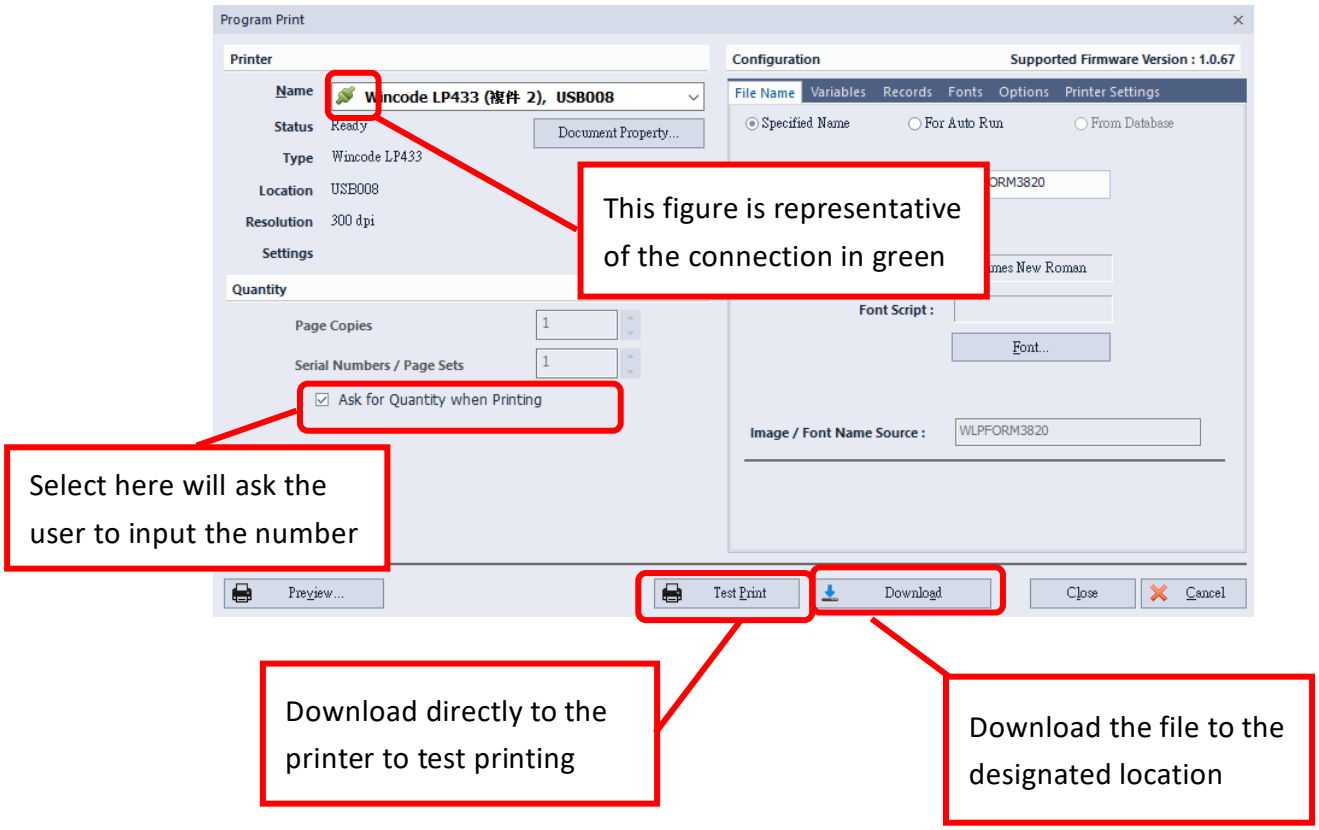


### 8.5.3. How to download the file to the printer

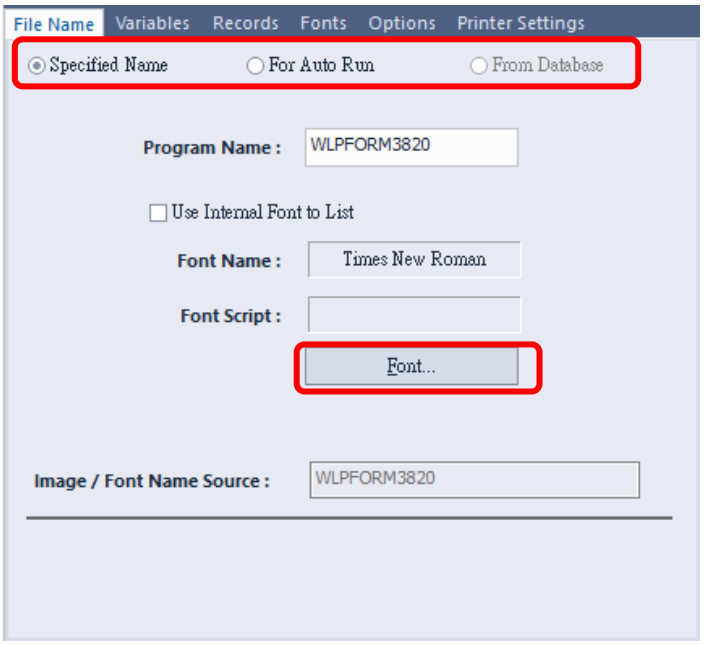
- Click “Print” in the print function.



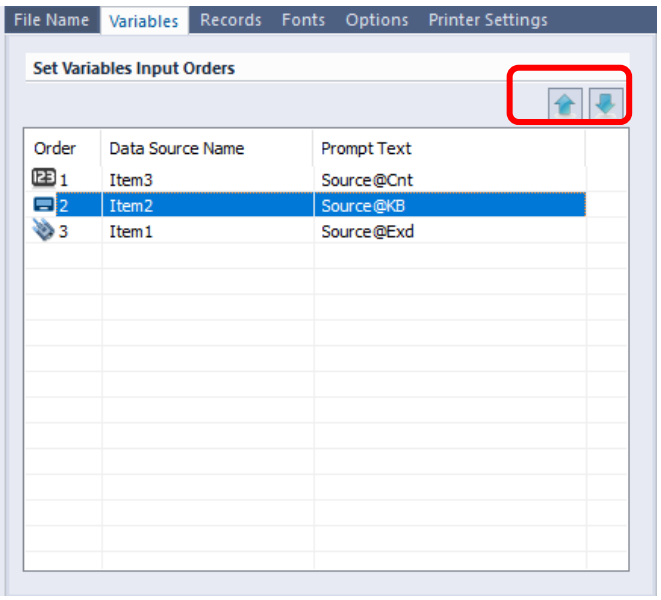

- The dialog set forth various information needs to be set, and the way which is downloaded to the printer.



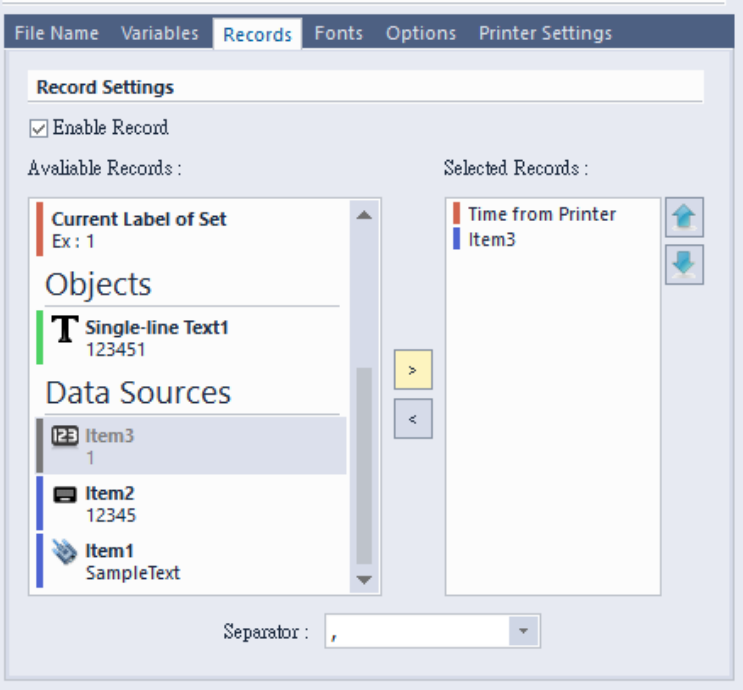
- File name: set the output file name.
  1. There are three types of file name, first is specify the name, second is automatically perform the name after boot up, the last is if the objection have database, you can output files through the database, and as a file name basis.
  2. Users can modify the font and language of the file name, such as Thai output in Chinese.



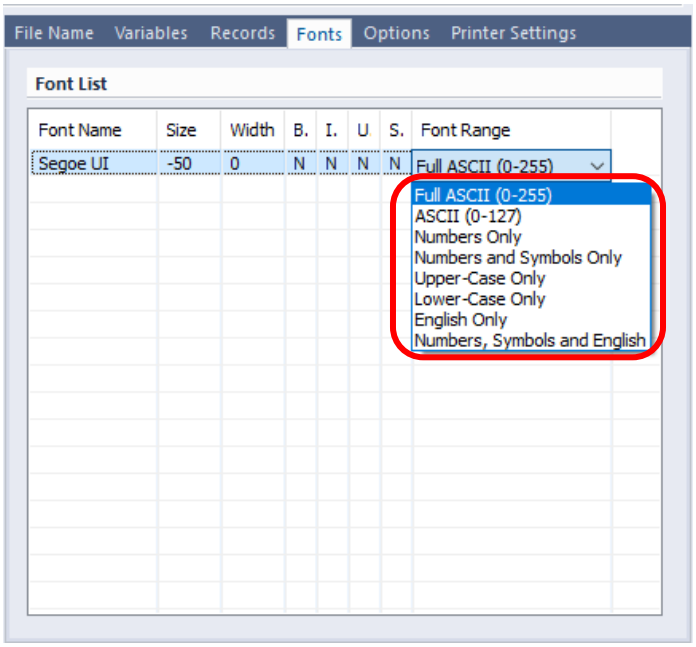

- Variables: List all the items have data source. It can adjust the input order.



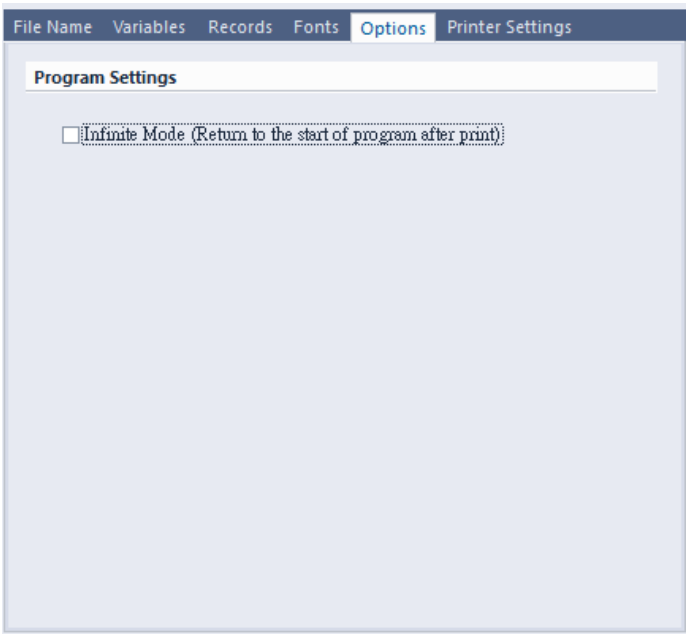
- Records: printing information can be saved in the SD card, and the information can be used as Big Data Analysis. Check “Enable record” and select item which you want to be record in the left column “Available Records”. The right column show the selected record.



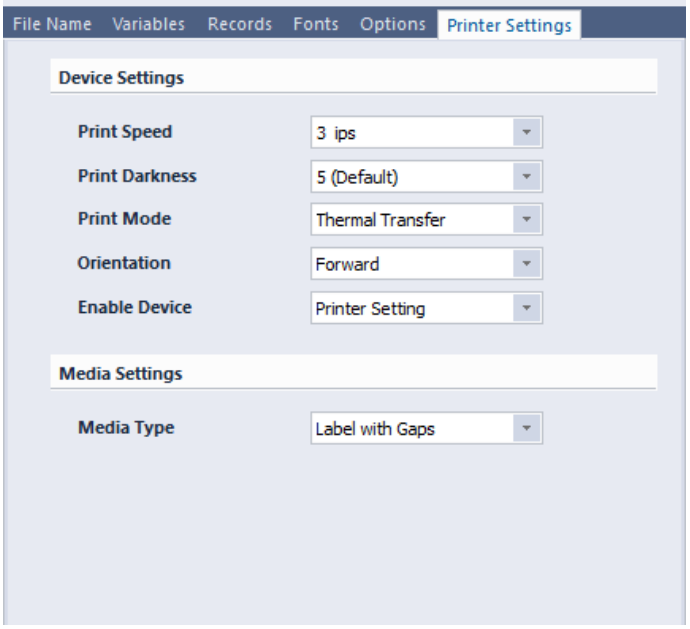

- Fonts: The system will automatically generate all the font sources when the layout object is variable data. Because of the limited memory of printer, it cannot download every font at the same time. It can adjust the font range, select the font to reduce the space of memory, so that the file can be loaded and executed smoothly.
The list of font ranges as below:



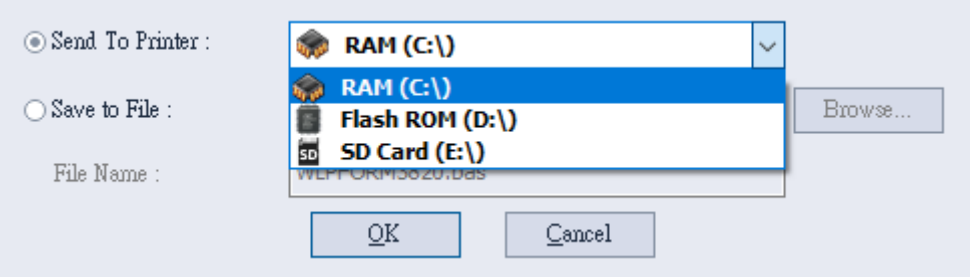
- Options: Provide stand-alone execution period will demand function. After printing, no longer return to the file list, it returns to the beginning of this file to continue.



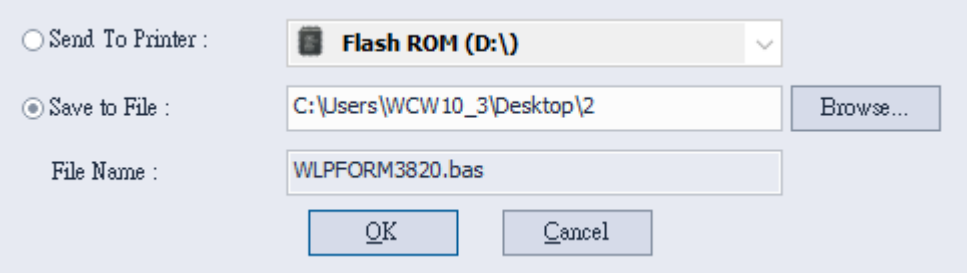

- Printer Settings: Users can set the printer depend on practical needs. The setting will save in the file.



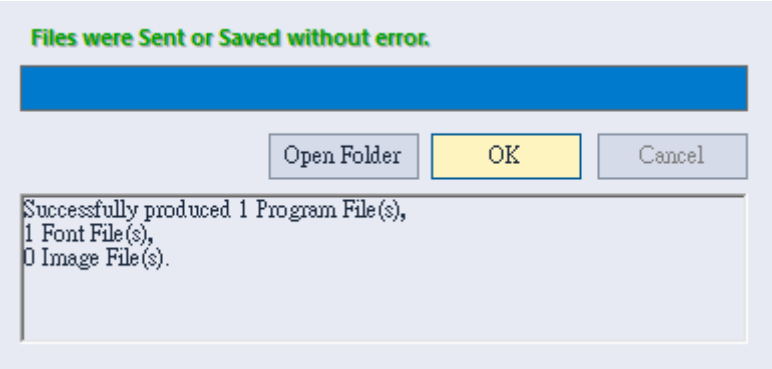
- Click the “download” button, it will ask users where the file output to the printer.
  1. RAM Disk: Typically used for testing. When the power off, the file will disappear.
  2. Flash ROM: The file won’t disappear when the power off. Typically used for small file and no need to use SD card.
  3. SD Card: You can store large number of files but the SD card needs to be FAT32 format and build a folder” WPL_Stuff” to save the files. It also can put in the printer, the printer will automatically create folders.



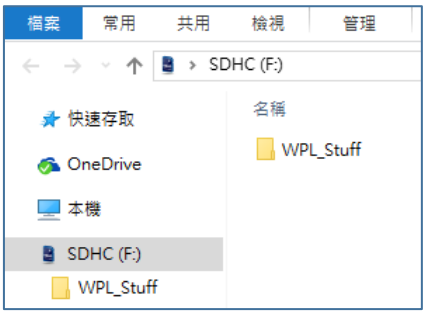

- Click “Download” button and select” Save to File”. It will output the file to the specified storage location.



- When the output or download is finished, it will be appeared the below dialog, to let the users know the output file destination information and queries.




- Searching SD card after processed by the printer. You can find a folder "WPL Stuff", this folder stores all the standalone files where all the stand-alone operation will be listed.




- The file type of standalone operation

| File extension | Application |
|---|---|
| ***.bas** | BASIC program file |
| ***.fnt** | Standalone font resource files |
| ***.pcx** | Standalone font graphics files |

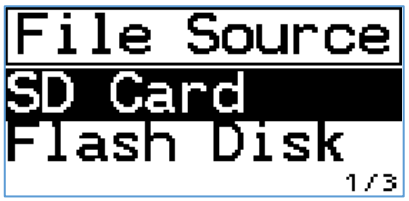
### 8.5.4. How to execute standalone file

The device is ready


SD card into the printer


Main menu: Check built-in clock, USB keyboard, and SD card.


Press menu button, enter "APPLICATION".

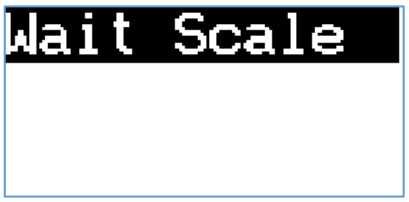



Select SD card.

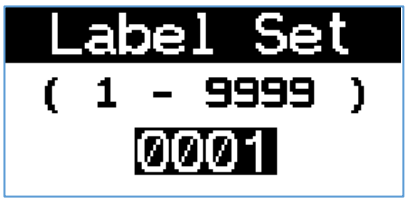

Select the file to execute.


"Keyboard input" input the data by USB keyboard.


"Serial number" input the initial value by USB keyboard.




"External device" input by RS-232 device.




Label set: when you use serial number, users will be required to enter.


Label copies setting: It will display before the software download the file, select “prompt to enter quantity when print


Print results

## 8.6. Actual cases using standalone operation

- Connect to keyboard: For baking industry, north-south goods… etc.

- Connect to keyboard and RS-232 scanner: For library complement label, online job labeling… etc.

- Connect numeric keyboard and electronic scale: For Agriculture, Fisheries and Livestock, Metal manufacturing…etc.

# 9. Maintenance

The followings are some steps and methods to suggest user to proceed simple maintenance on the printer.

1. Turn off the power firstly, and then open the top cover of printer.
2. Take out the ribbon and locate the print head. (If printing process is just finished, user needs to wait print head cooling before proceeding maintenance procedure)
3. If print head is adhibited label paper or some dirt, please use a head cleaning pen or a cotton swab with 100% ethanol to clean the print head surface. Repeat this procedure until the black marks left on the cotton swab are not increasing.
4. Keep regular clean on the rubber roller after printing for a period time. Otherwise, that would influence the printing quality or cause print head damage.
5. Use compressed air or vacuum to clean the dirt on the sensor.

Note:

1.) Suggest to clean print head once every week and clean sensor once every month.

2.) When using a cotton swab to clean print head, please make sure that there are no metal fragments or hard particles attached on the cotton swab as that would cause the damage of print head.

# 10. Appendix – LP4A series specification

| Model | LP423A | LP433A |
|---|---|---|
| **Printing method** | Thermal Transfer / Direct Thermal | |
| **Resolution** | 203 DPI | 300 DPI |
| **Max. print speed** | 127 mm (5”) / second | 102 mm (4”) / second |
| **Max. print width** | 108 mm (4.25”) | 110mm (4.32”) |
| **Max. print length** | 4572mm (180”) | 2032mm (80”) |
| **Enclosure** | Double-walled plastic | |
| **Physical dimension** | 220mm(W)x198mm(H)x288mm(D) | |
| | 8.7”(W)x7.8”(H)x11.3”(D) | |
| **Weight** | 2.5 KG | |
| **Label roll capacity** | 127 mm (5”)OD | |
| **Ribbon** | 300M length, max. OD 67 mm, 1” core | |
| | 100M length, max. OD 38.25 mm, 0.5” core | |
| **Ribbon width** | 25.4 mm ~ 110 mm (1” ~ 4.3”) | |
| **Processor** | 32-bit RISC CPU | |
| **Memory** | 8MB Flash memory, 16MB SDRAM, SD slot for expansion up to 32GB | |
| **Power** | External universal switching power supply, Input: AC 100-240V, 2.5A, 50-60Hz, output: DC 24V, 2.5A, 60W | |
| **Operation interface** | 4 buttons, 2 LEDs, 1 LCD (2.13” Resolution :128x64), 1 Buzzer | |
| **Interface** | USB 2.0, RS-232, USB Host, Parallel | |
| | Bluetooth(option), WIFI IEEE 802.11 b/g/n (option), Ethernet 10/100 Mbps (option) | |
| **Sensors** | Transmissive gap sensor (adjustable), Reflective gap sensor, Ribbon end sensor, Head open sensor, Paper near end sensor(option) | |
| **Internal fonts** | Seven kinds of bitmap fonts | |
| **Bar code** | 1D bar code：Code 11, Code 39, Code 93, Code 128, Codabar, EAN/JAN-8, EAN/JAN-13, Interleaved 2-of-5, ITF-14, MSI Pleassy, PostCode, Telepen, UPC-A, UPC-E, UCC-128, GS1-128 | |
| | 2D bar code：Code 16K, Code 49, Aztec Code, QR Code, PDF417, Micro PDF417, Data Matrix, Grid Matrix, Micro QR Code, MaxiCode | |
| | GS1 Barcode：GTIN-13, GLN, GTIN-8, GTIN-14(ITF-14), SSCC, GS1-128, GS1 DataBar, GS1 Composite | |
| **Printer language** | WPL (Compatible to the other printer languages) | |
| **Dealer options** | Cutter、Peeler Dispenser、External label stand | |
| **Media width** | 15 ~ 110 mm (0.59” ~ 4.3”) | |
| **Media thickness** | 0.06 ~ 0.19 mm (2.36 ~ 7.48 mil) | |
| **Media core diameter** | 25.4 mm (1”) | |
| **Label length** | 3 ~ 4,572 mm (0.12“ ~ 180“) | 3 ~ 2,032 mm (0.12“ ~ 80“) |
| **Real time clock** | RTC (battery is included) | |
| **Safety regulation** | CE Class B, FCC Class B, CCC, CB | |
| **Bundled software** | WinLabel labelling application, windows printer driver, printer utility, DLL SDK library, EXE executive AP for batch print.<br>Platform support: Windows XP SP3, Vista, 7, 8, 8.1, 10 and Server 2003, 2008, 2012, 2012R2 (32/64 bit) | |

Made in Taiwan. Features and specifications are subject to change without prior notice.