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SP320E

User Manual

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■ Statement

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1.0 Version

■ Warnings

This must be complied with in order to avoid damage to the human body and the equipment.

This shows the important information and tips for the printer operation.

■ Attention

Due to continuous improvement of the products, the specifications, accessories and procedures described in the manual are based on actual machines. And it may be changed without prior notice.

Important Safety Instructions

Before using the printer, please read carefully the following safety consideration in case of bodily injury or equipment damage.

1.Safety warnings

The print head will become very hot during printing, please do not touch the printhead and peripheral parts during printing and printing just finished.

Please do not touch the printhead and connectors, in case that static damages the printer head.

2.Instructions

Warnings: Violating following instructions may cause serious injury or death.

1) Do not plug several products in one porous power outlet.

- This may cause over-heat and a fire.
- If the plug is wet or dirty, dry or wipe it before using.
- If the plug does not fit perfectly to the outlet, do not plug in.
- Be sure to use only standardized porous power outlet.

2) You must use the supplied adapter.

- It is dangerous to use other adapters.

3) Do not pull the cable by pulling.

- This may damage the cable or cause a fire.

4) Do not plug in or unplug with your wet hands.

- You may be electrocuted.

5) Do not bend the cable by force or leave it under any heavy object.

- A damaged cable may cause a fire.

Note: Violating following instructions may cause slight damage of the appliance.

1) If you observe a strange smoke, odour or noise from the printer, unplug it before taking following measures.

- Switch off the printer and unplug the set from the mains.
- After the disappearance of the smoke, call your dealer to repair it.

2) Install the printer on the stable surface.

- If the printer falls down, it may be broken and you may hurt yourself.

3) Use the approved accessories only and do not try to disassemble, repair or remodel it by yourself.

- Call your dealer when you need these services.
- Do not touch the blade of auto cutter.
- If this happened, switch off and unplug the printer before calling your dealer.

Do not let water or other foreign objects drop into the printer.

5) Do not use the printer when it is out of order. This may cause a fire or an electrocution.

- Switch off and unplug the printer before calling your dealer.

6) Other considerations:

- Place the printer on a solid or base so that it cannot fall.
- Leave enough space around printer for operation and maintenance.
- Keep all liquids away from the printer.
- Do not expose the printer to high temperatures, direct sunlight or dust.
- Ensure the printer is connected to a socket with the correct mains voltage.
- Switch off the printer POWER supply when it’s not in use for a long time.
- To ensure the printing quality and reliability, suggest use the same quality or recommend paper supplier.
- Please switch off the POWER supply when connect/disconnect all the ports or it will cause damage to the printer control circuit.
- Never carry out maintenance or repair work yourself. Always contact a qualified service Technician.
- Keep this User Manual in a place which is always easily accessible.

3.Other Precautions

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4.WEEE (Waste Electrical and Electric Equipment)

This mark shown on the product or its literature indicates that the corresponding item should not be discarded at the end of its working life with other household waste. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate marked items from other types of waste and recycle them responsibly to promote the sustained reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office for details of where and how they can conduct environmentally safe recycling of such items. Commercial users should contact their suppliers and check the terms and conditions of purchase contracts. This product should not be combined with other commercial waste for disposal.

Caution: This is a Class A product. In a domestic environment, this product may cause radio interference in which the user may be required to take adequate measures.

Chapter 1 Introduction

1.1 Packing List

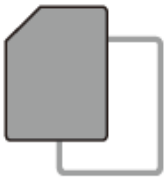
1. Unpack the printer and keep the packing materials in case you need to ship the printer in the future.

2. Any damages exist, please contact the iDPRT team.

Printer

USB Cable

Power Cord



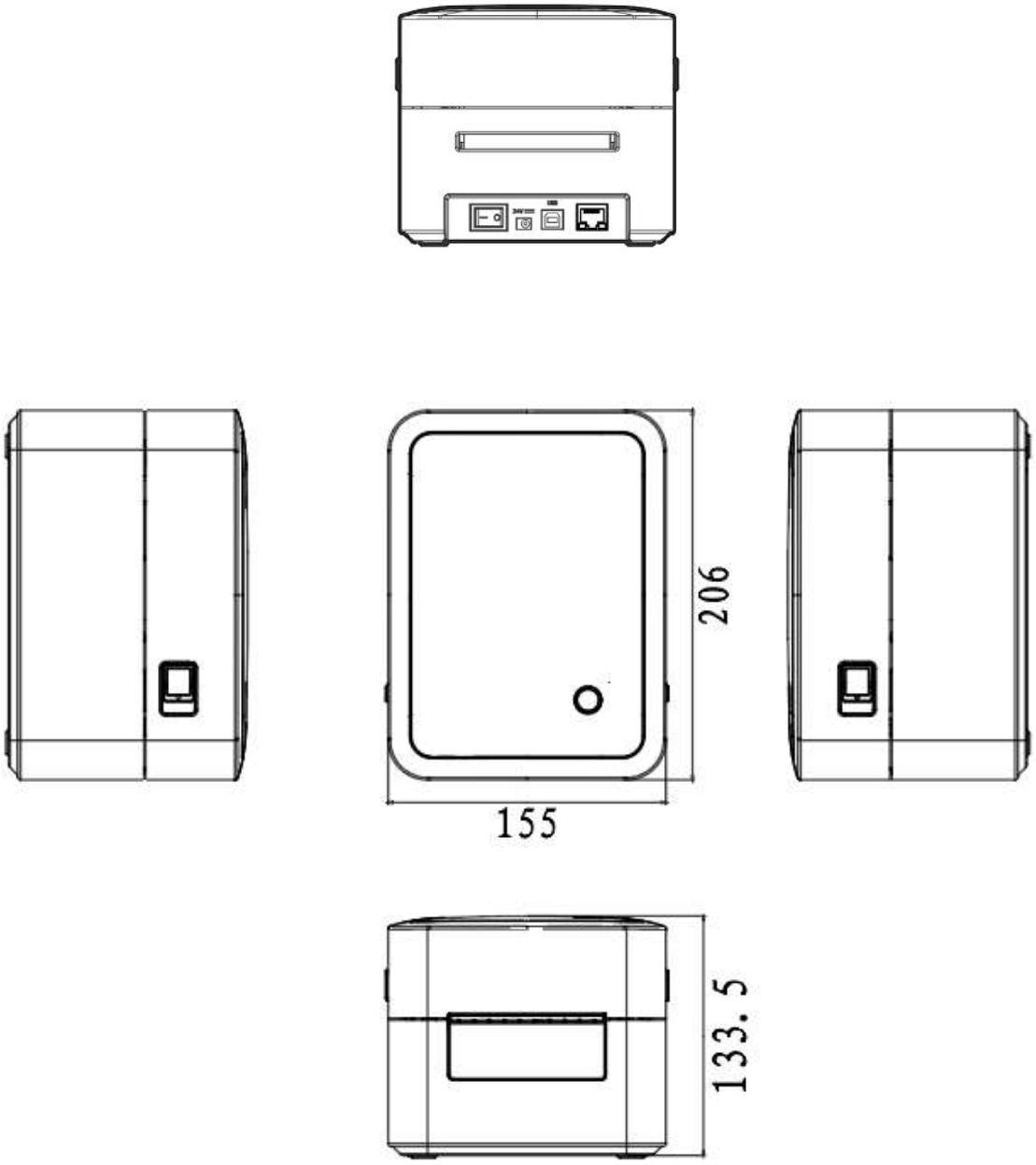
Quick Start Guide

CD

Thermal Label

Note: The packing items are based on the order.

1.2 Dimension



Unit: mm

Chapter 2 Specifications

Items		Parameter
Printing	Printing method	Direct thermal
	Resolution	203dpi(8dots/mm)
	Printing speed	4 levels, Max.180mm/s
	Printing width	Max.3.54 inches (80mm)
	Printing length	0.984 inch(25mm) ~11.8 inches(300mm)
Processor		32bits RISC CPU
Memory	RAM	16MB
	Flash	2MB
Detection	Sensors	Paper-out detection, black-marking detection, cover-opening detection, paper exit detection
Media	Types	Receipt, Label (Folded paper or roll paper, die-cut)
	Width	0.984 inch(25mm) ~3.15 inches(80mm)
	Thickness	0.003 inch (80um) ~ 0.007 inch (220um)
	Outside diameter	5 inches (127 mm)
	Core diameter	1 inch (25.4mm), 1.5 inches (38.1mm)
Programming Language		TSPL
Software	Label design	iDPRT Bartender Ultralite, iDPRT Label Designer
	Driver	Windows 2000/XP/Vista/7/8/8.1/10, Linux, macOS
Resident Fonts	Bitmap font	Chinse: GBK FontA 12x12dots, FontB 24x24dots English: ASCII 8×16, 12×24dots

Items		Parameter
Barcode	1D	Code 39, Code 93, Code 128UCC, Code 128 subsets A, B, C, Codabar, Interleaved 2 of 5, EAN-8, EAN-13, EAN-128, UPC-A, UPC-E
	2D	PDF417, QR Code
Communication Interfaces		USB, Type-B, Ethernet
Power Adapter	Input	AC 220V, 50/60Hz
	Output	DC 24V/1.5A
Environment	Operation	41℉~104℉(5℃~40℃), 30%~85%, non-condensing
	Storage	-4℉~122℉(-20℃~50℃), 10%~90%, non-condensing
Physical Characteristics	Dimension	206*155*134mm (L*W*H)
	Weight	1.04kg
Options & Accessories		External paper roll bracket, external fan-fold bracket
Agency Approvals		FCC, CE

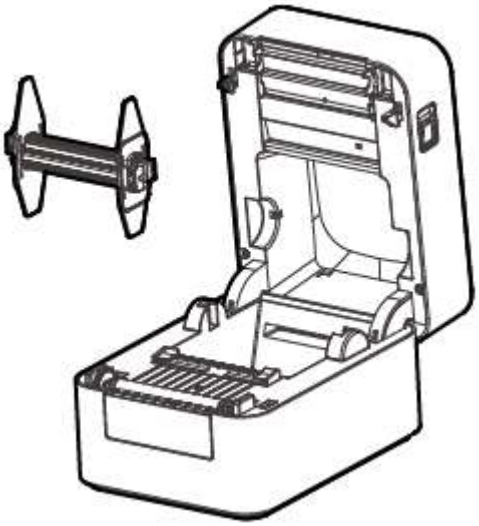
Chapter 3 Installation & Usage

3.1 Media Loading

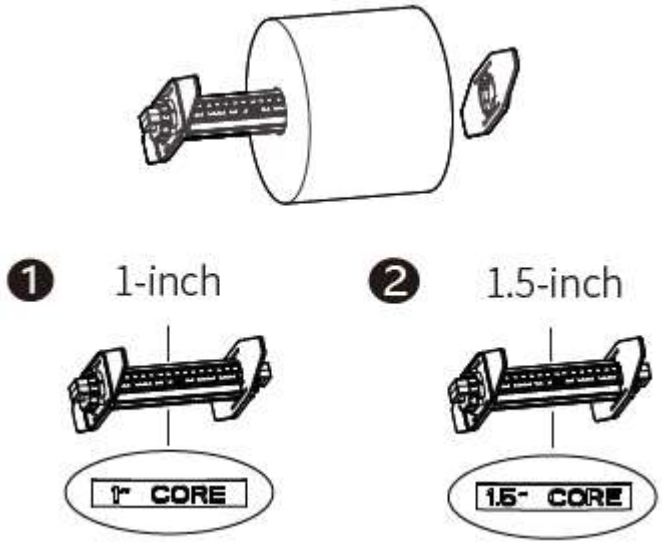
3.1.1 Paper Roll Loading

1.Push the cover open levers on the both sides with both hands to open the top cover upward.

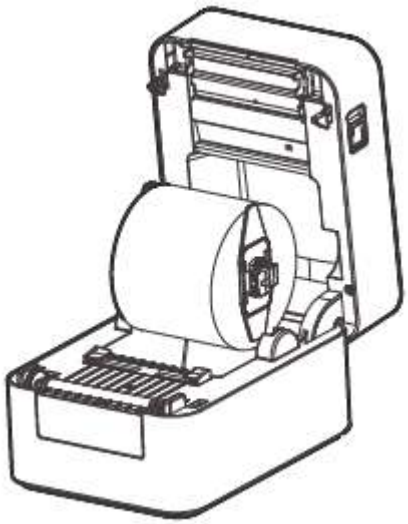
2.Take out the paper holder.



3.Load the paper roll to the paper holder according to the following appropriate size.

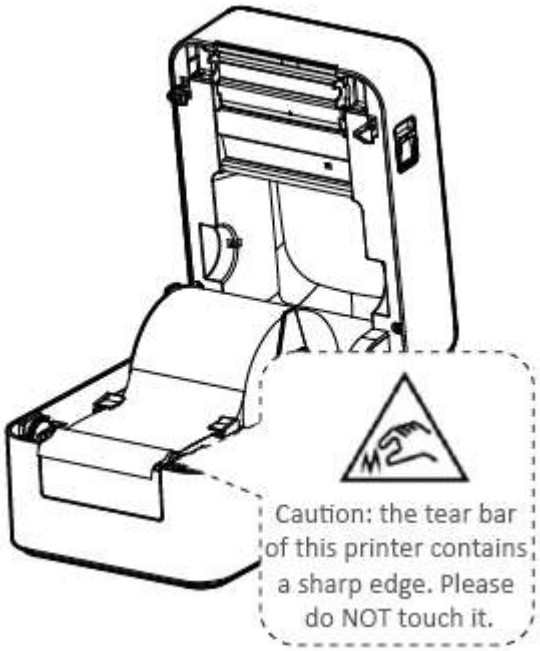


4.Load the paper holder back to the printer.

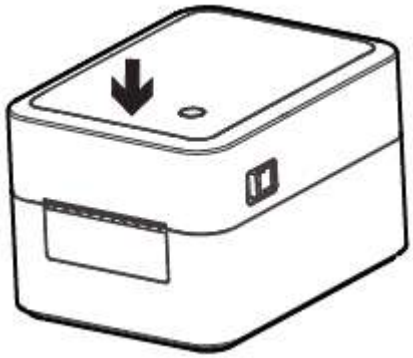


Note: When using the 1-inch paper roll, the font of "1-CORE" should be upward; when using the 1.5-inch paper roll, the axis should be turned 180 degrees and the font of "1.5-CORE" should be upward.

5.Pull out the paper roll, open the paper movable guides to the max-width and pass the paper through the paper movable guides, then adjust the paper movable guides to suit the paper width.



6.Press down the printer cover.



3.2 Power/USB Connection

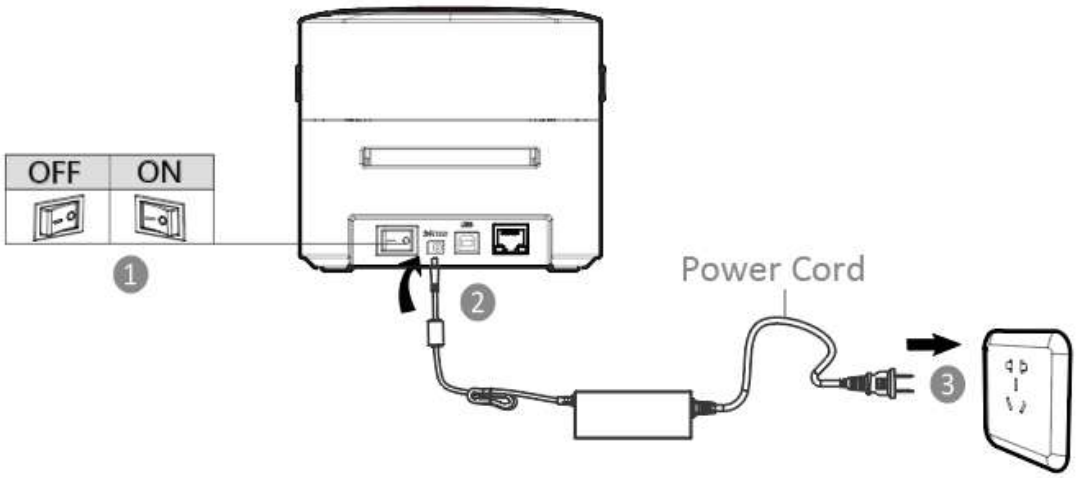
1. Make sure the printer's power switch is in the "off" position.

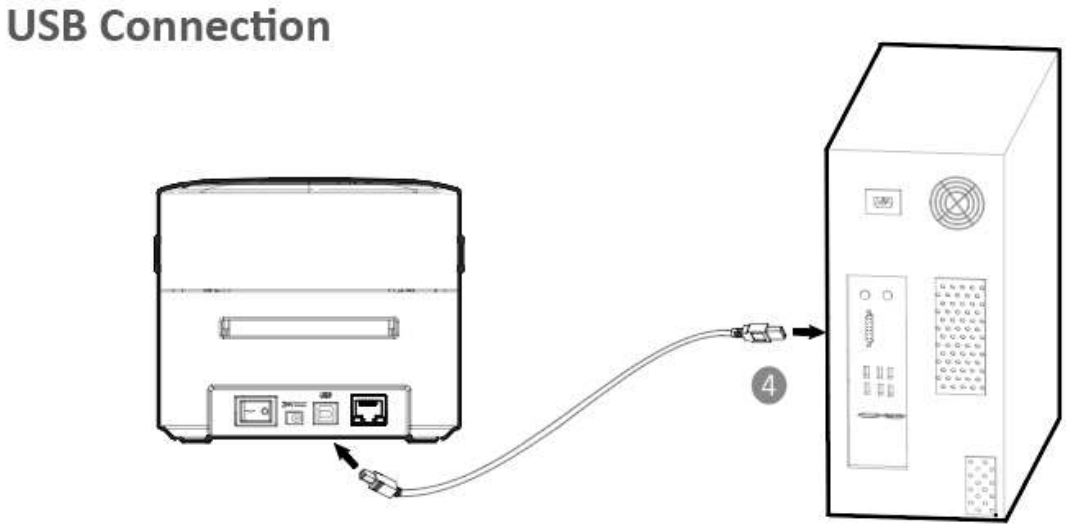
2. Connect the power cord to the printer.

3. Connect the other end of power cord to the outlet.

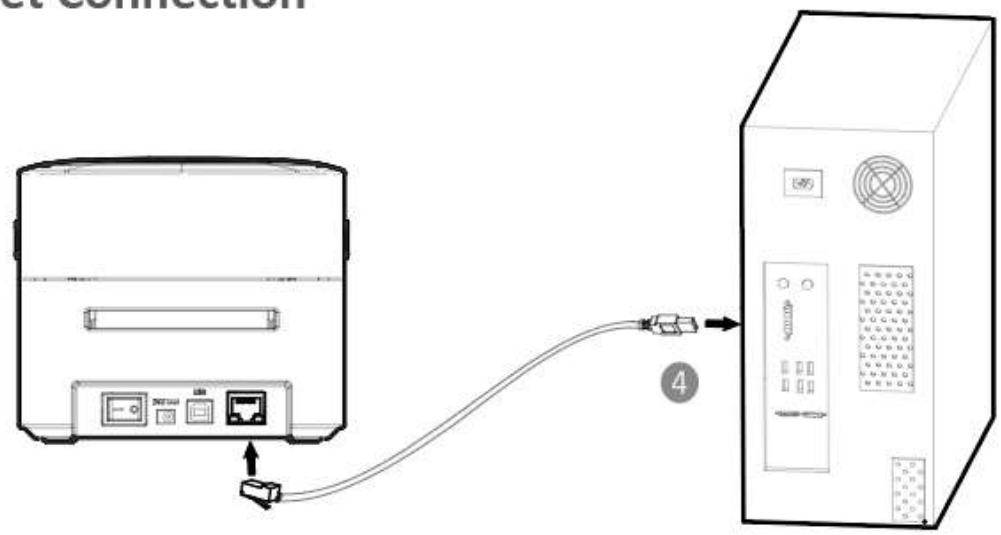
4. Connect the USB cable to the printer and PC or connect the Ethernet cable to the printer and PC.

(SP320E supports many various communicate interfaces,such as USB interface and Ethernet interface.)





Ethernet Connection



3.3 Operation Panel

3.3.1 Button Operation

Power On

When power off, turn on the power switch at the back of printer, then the indicator will light on.

Power Off

When power on, turn off the power switch at the back of printer, then the indicator will light off.

FEED Button

For more information, please refer to the **3.4.2 FEED Button.**

Printing Pause

In the printing state, short press the “Pause” button, then the printing stops.

In the pause state, short press the “Pause” button, then the printing starts.

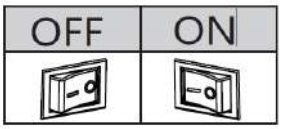
3.3.2 Indicator

Color	Action	Indication state
Green	Always on	Printing
	Flash rapidly	Receiving data
	Flash slowly	Printing pause
Blue	Always on	The printer is ready
Purple	Always on	The print head is over heat
Red	Always on	The cover is not closed
	Flash rapidly	Label learning is abnormal
	Flash slowly	Paper out
Orange	Always on	The printer is not ready yet
	Flash slowly	Paper jam, paper position is abnormal

3.4 Basic Operation

3.4.1 Power on/power off

Press “O” to power off the printer. Press “I” to power on the printer.



3.4.2 Feed Button

● ***Switch mode***

When the printer is in the ready status, press and hold the feed button until the blue indicator light or orange indicator light flashes twice, then release the button and the printer will start the black mark label learning. The label and black mark label can be switched to each other.

● ***Print the self-test page***

When the printer is in the ready status, press and hold the feed button until the blue indicator light flashes once, then release the button and the printer will print a self-test page.

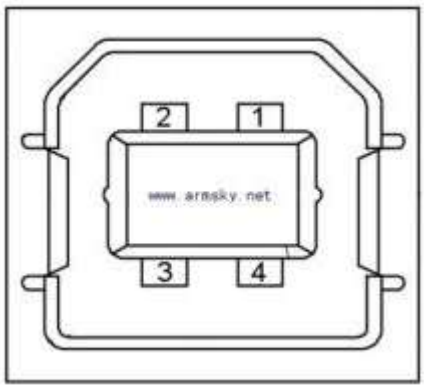
● ***Label calibration/learning***

When the printer is in the ready status, press and hold the feed button until the blue indicator light flashes twice, then release the button and the printer will start label learning.

● ***Pause printing***

When the printer is in printing, short press the feed button and the green indicator will flash slowly, and the printer will be in the pause status. After a short press again, the printer returns to the ready status and the green indicator will be always on.

Chapter 4 USB Interface



PIN	Signal Name
1	VBUS
2	D-
3	D+
4	GND

Chapter 5 Clean the Printer

Adhesives and coatings of the media can transfer onto the printer parts over time along the media path including the thermal print head and media sensor. This build-up can accumulate dust and debris. Failure to clean the print head, media path, and media sensor could result in print quality, worst more of inadvertent loss off labels, label jams and possible damage to the printer.

Caution：

1) Make sure to turn off the printer prior to cleaning.

2) As the print head gets hot during printing, if intending to clean the print head, turn the printer off and wait approximately 2~3 minute before commencement.

3) When cleaning the print head, take care not to touch the heated portion of the print head, prevent damage to print head due to static electricity, etc.

4) Take care not to allow the print head become scratched and/or damaged in any way.

5.1 Cleaning Print Head

1) Open the Printer Cover and then use the cleaning pen (or cotton stick with diluted alcohol, alcohol or isopropanol) to clean the head in the direction from the center of the head to two sides.

2) After cleaning the head, do not use the printer until the alcohol used for cleaning evaporates completely (1~2 min) and the printer has completely dried.

5.2 Cleaning Roller or Paper Path

1) Open the printer cover and then remove the paper.

2) Remove any dust or foreign substances using dry cloth or cotton swab.

3) Soak the cloth or cotton swab in alcohol for medical use and use it to remove adhesive foreign substances or other pollution materials.

4) After cleaning the parts, do not use the printer until the alcohol evaporates completely (1~2 min) and the printer has completely dried.

Note: Clean the parts when print's quality or label detection degrades.

Chapter 6 Label Printer Utility Installation

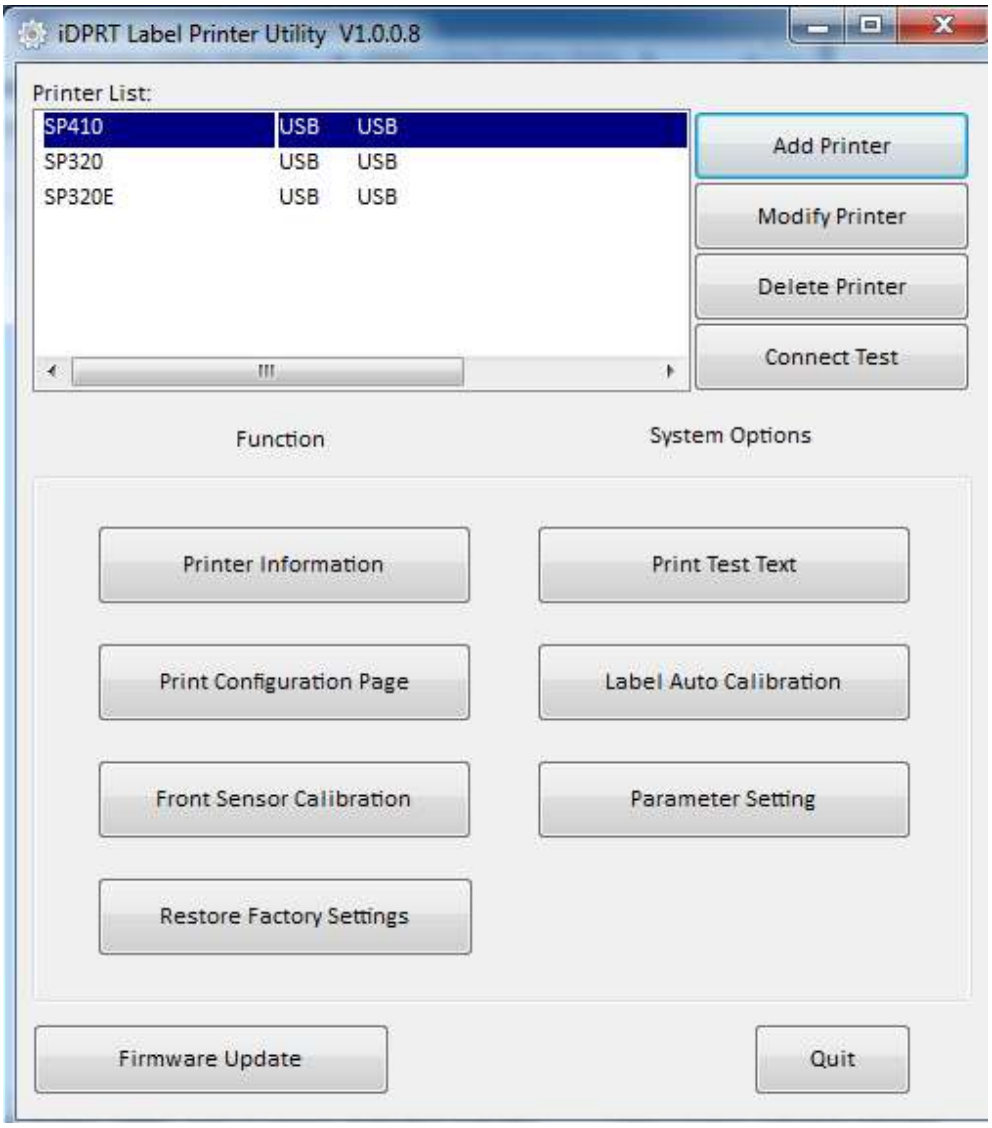
6.1 Installation Preparation

Download the Label Printer Utility application program in CD.

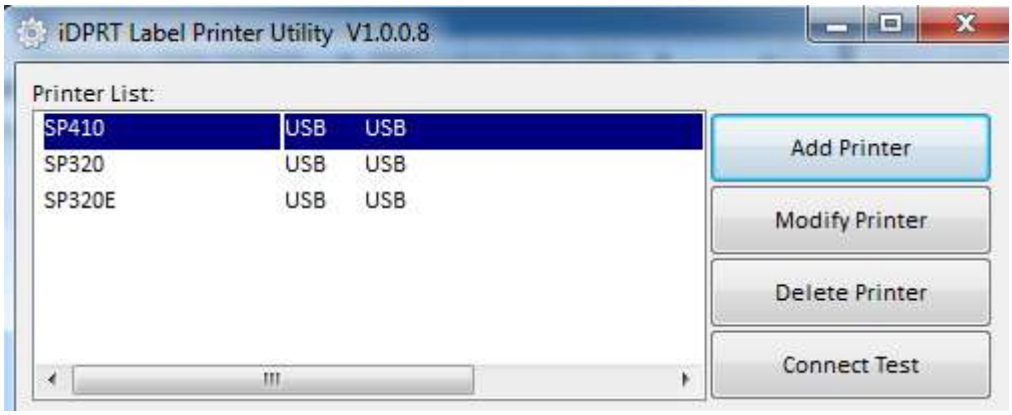
6.2 Usage

Note: The screen has a slightly difference by operating systems and models. Following takes SP320E (Windows 7) for an example.

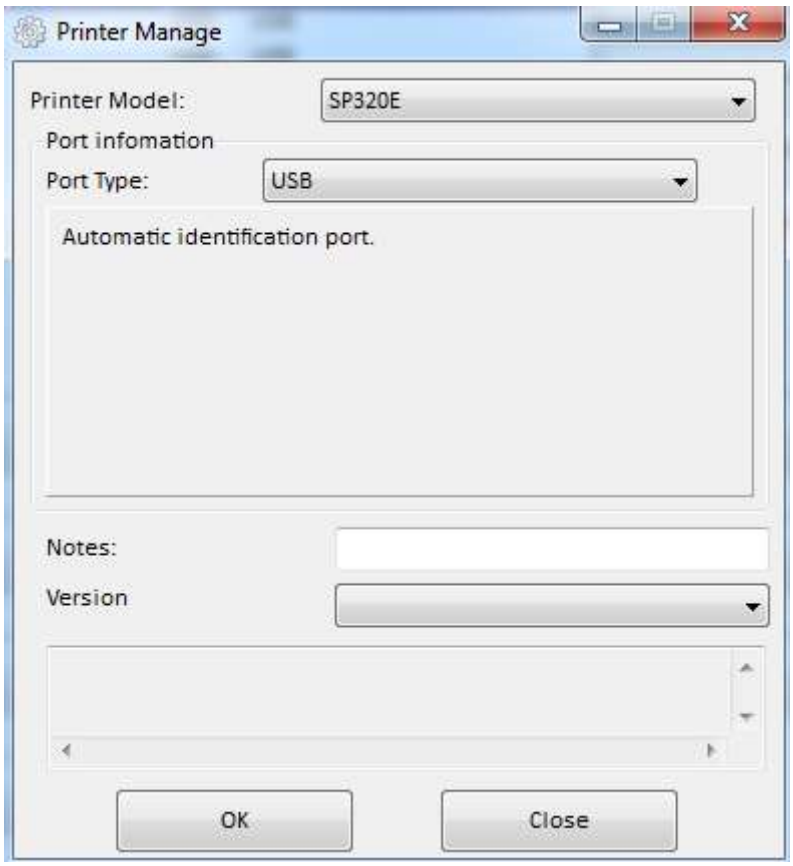
1.Install “iDPRT Label Printer Utility.exe” and then open the “iDPRT Label Printer Utility”.



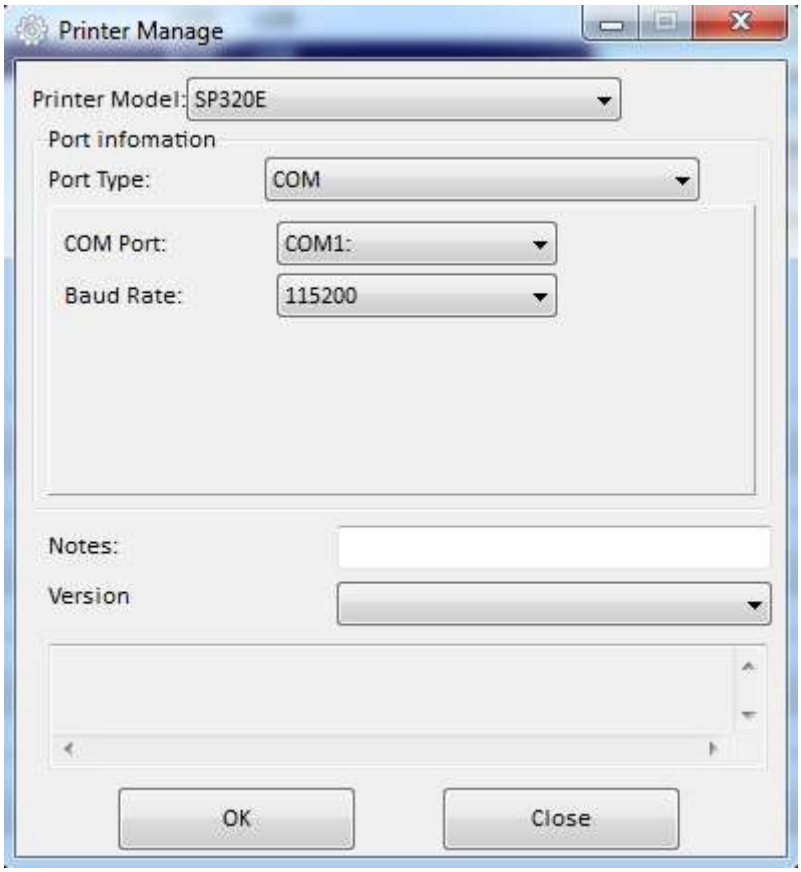
(2) Select Add/Modify/Delete Printer/Connect Test.

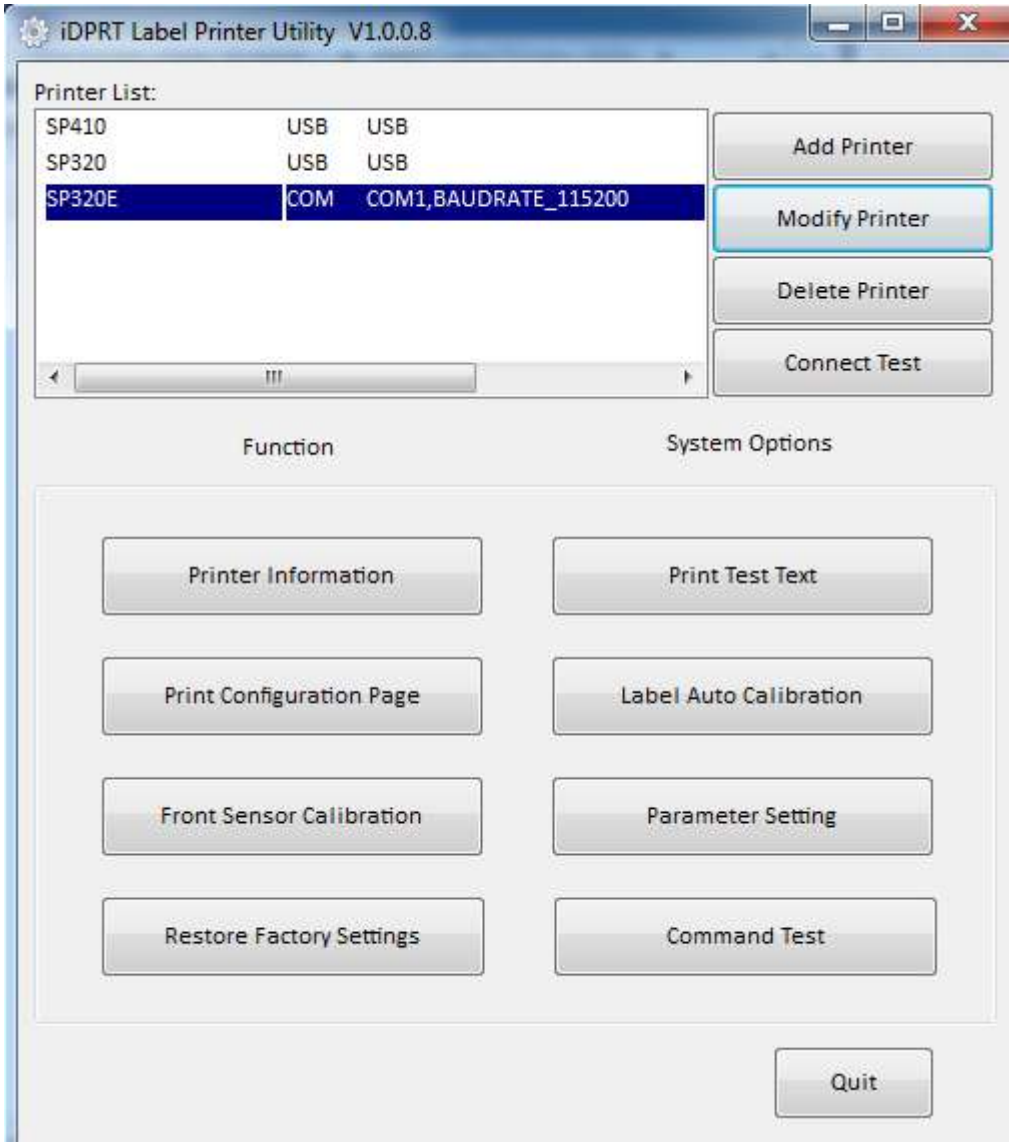


●Click “Add Printer” to select the printer and the port type (take USB as an example), click “OK”, check in “Printer List”.

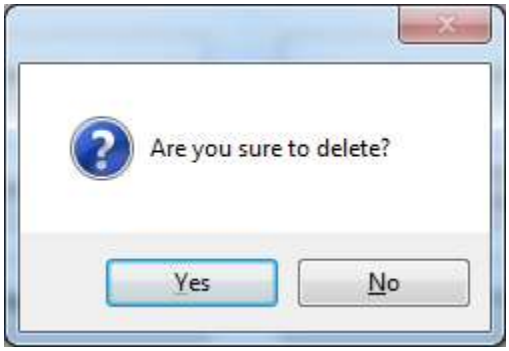


●Click “Modify Printer” to select the printer and the port type (take COM1 as an example), click “OK”, check in “Printer List”.




iDPRT Label Printer Utility V1.0.0.8
Printer List:
SP410 USB USB
SP320 USB USB
SP320E COM COM1,BAUDRATE_115200
Add Printer
Modify Printer
Delete Printer
Connect Test
Function
System Options
Printer Information
Print Test Text
Print Configuration Page
Label Auto Calibration
Front Sensor Calibration
Parameter Setting
Restore Factory Settings
Command Test
Quit

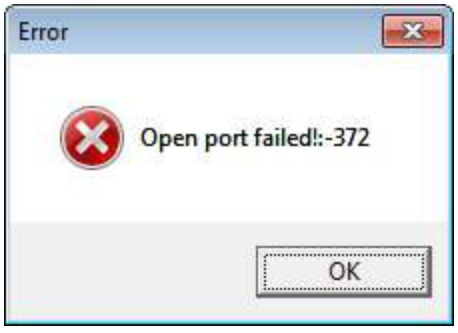
●Click “Delete Printer”, click “Yes” to delete the printer, click “No” to cancel delete printer.



●Select the printer you currently use and connect it to the computer; Click “Connect Test” to test if the is connected.

If connection is OK, the icon below will come out.

If connection fails, normally shows following icon.

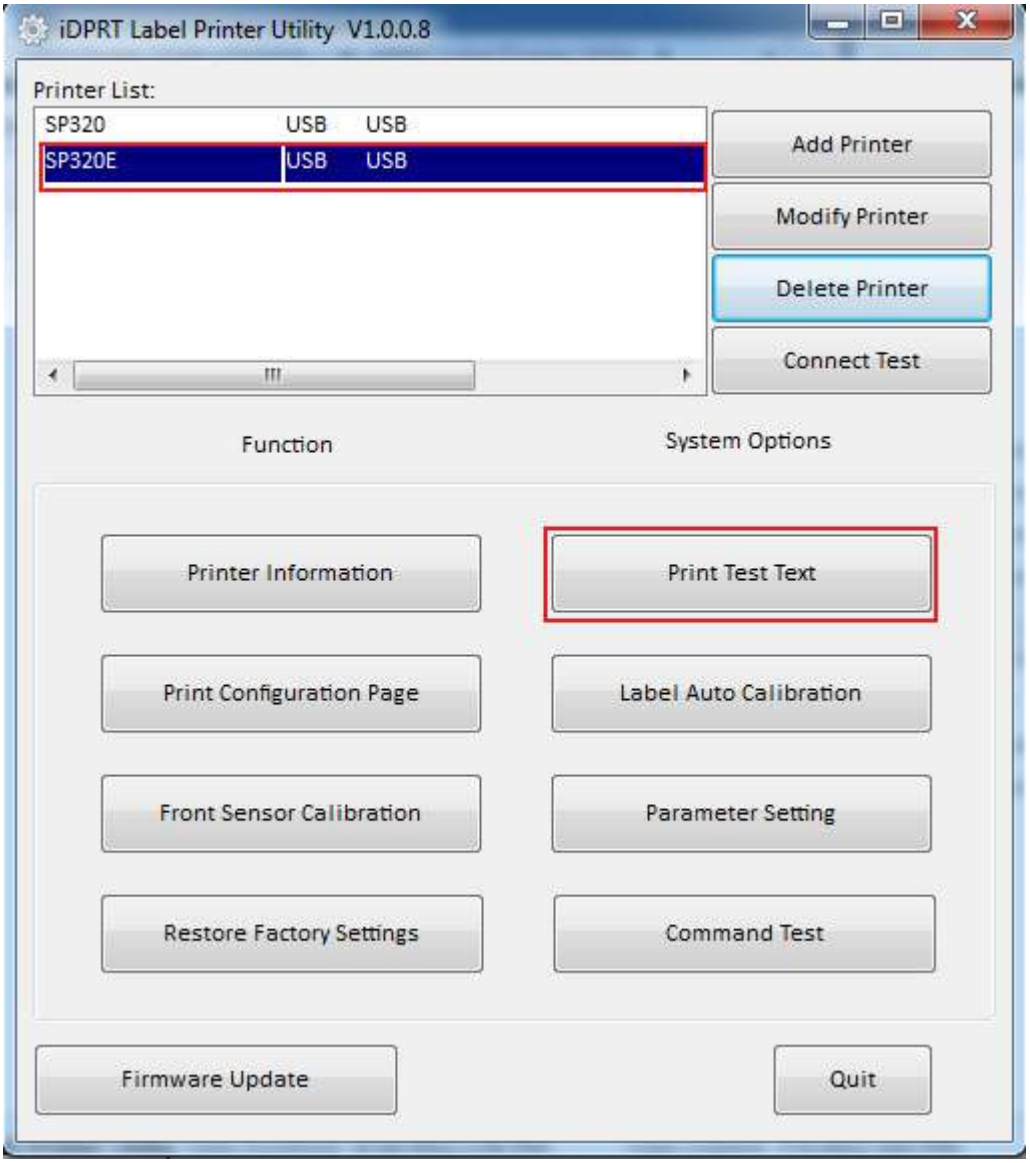


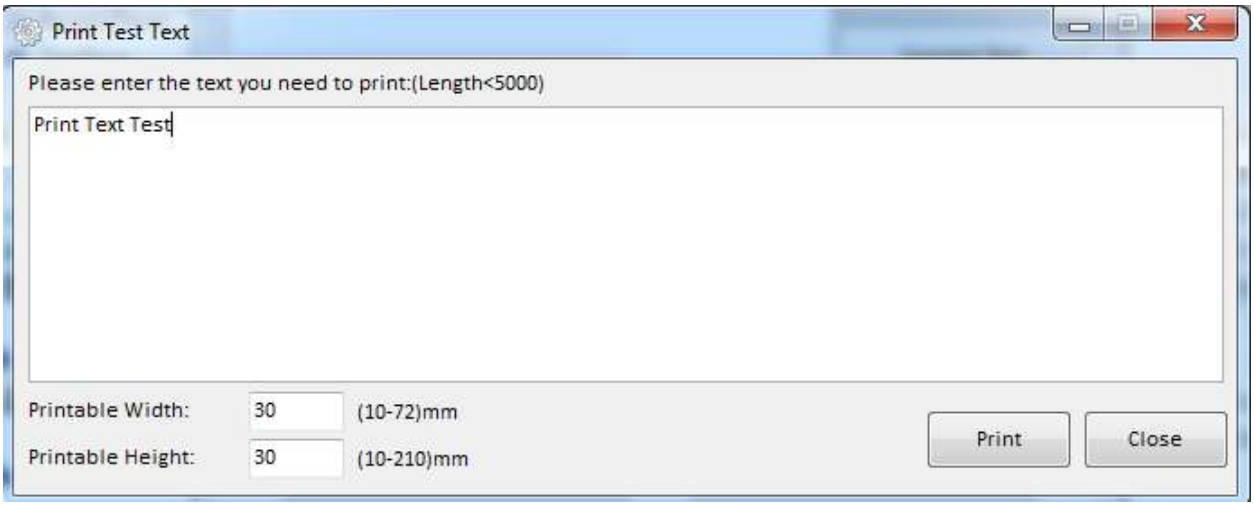
1) Turn on the printer firstly, then select one port (depended on the printer you bought) to connect to the PC. Much more information of connecting method is contained in “*3.3 Peripherals Connection*”.

2) When connection fail, please check if the connection and the port are matched. (When USB port is used, it is better to make sure only one printer is connected)

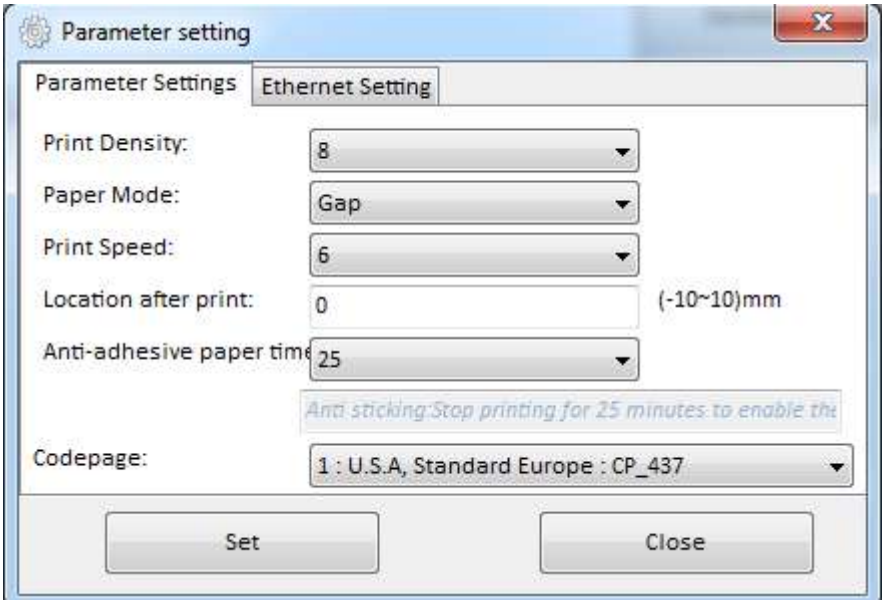
(3) Function.

● Click “Print Test Text”, edit the text→ Set up the printing range (printable width & height) →Click “Print” printer start to print printer test text.

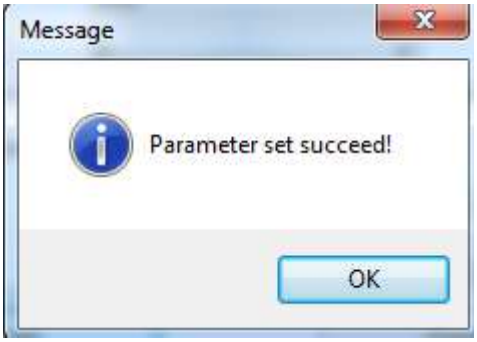



Print Test Text
Please enter the text you need to print:(Length<5000)
Print Text Test
Printable Width:
30
(10-72)mm
Printable Height:
30
(10-210)mm
Print
Close

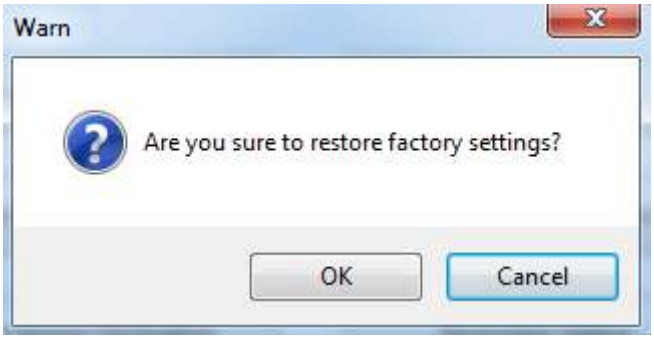
●Click “Parameter Setting” to set the print density,paper mode,print speed, language, and print according to your needs.



●Click “Set” save all the above settings, then click “ok” back to the main menu.



(5) Click “Restore Factory Settings”, click “OK” to restore factory settings, click “Cancel” to cancel restore factory settings.



Chapter 7 Windows Driver Installation

7.1 Introduction

This chapter provides information on installation according to the PC operating system (OS).

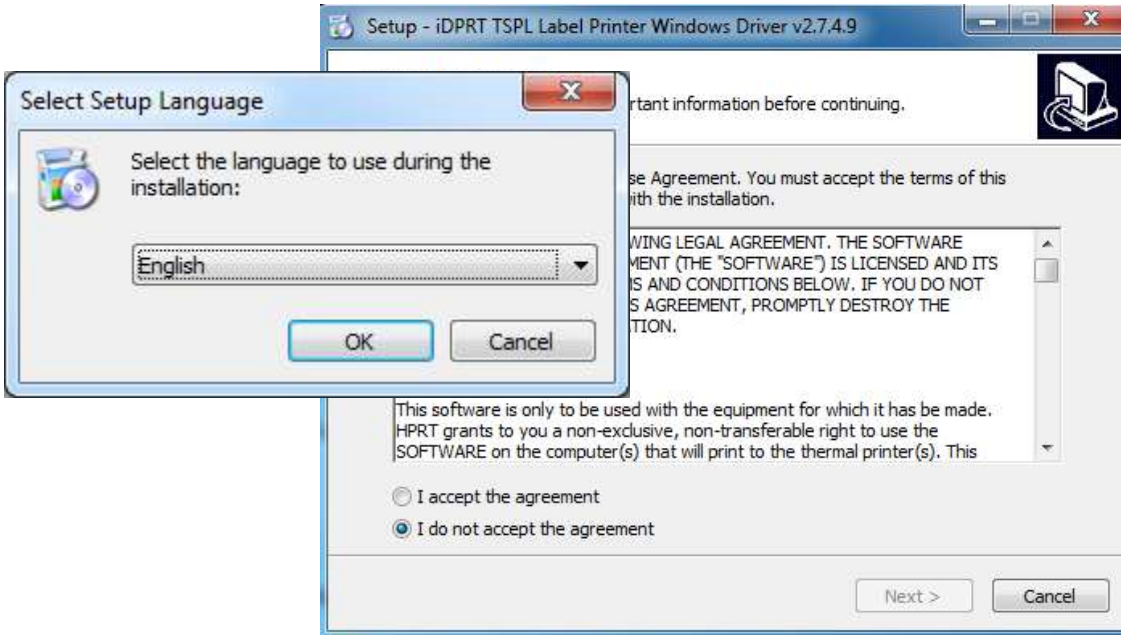
This driver support for these following operating systems:

- ☐ Microsoft Windows 10 (32 bit/64 bit)
- ☐ Microsoft Windows 8 (32 bit/64 bit)
- ☐ Microsoft Windows 7 SP1 (32 bit/64 bit)
- ☐ Microsoft Windows Vista SP2 (32 bit/64 bit)
- ☐ Microsoft Windows Server 2012(64 bit)
- ☐ Microsoft Windows Server 2008 R2
- ☐ Microsoft Windows Server 2008 SP2 (32 bit/64 bit)
- ☐ Microsoft Windows Server 2003 R2 SP2 (32 bit/64 bit)

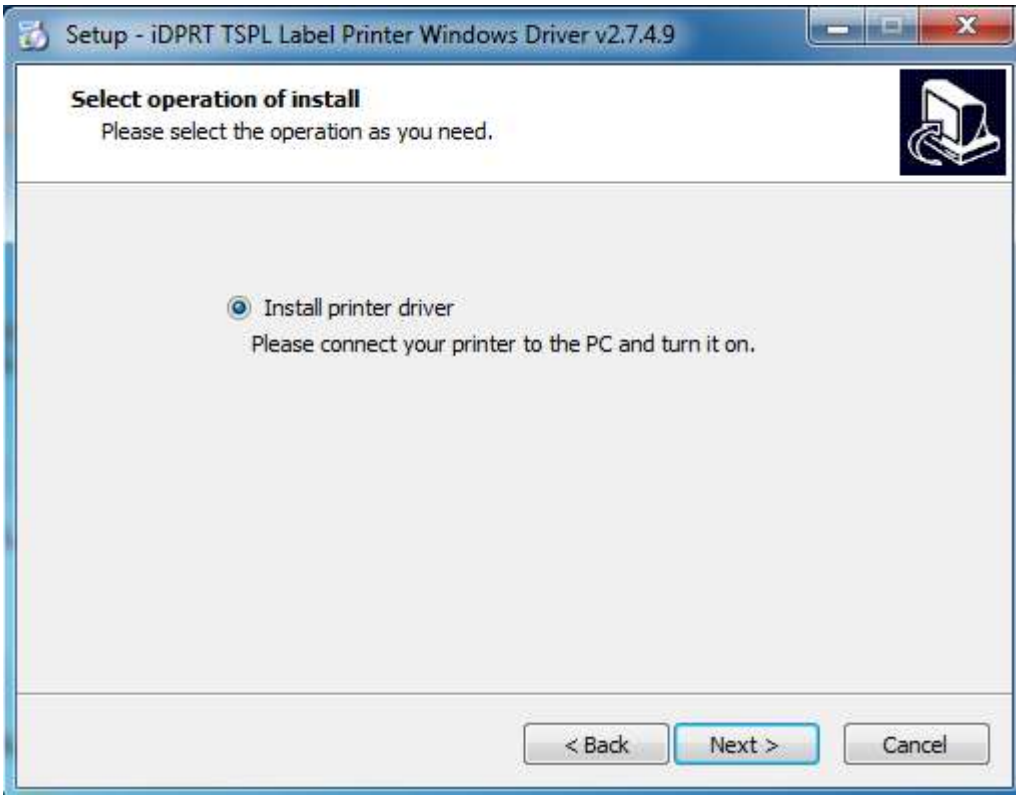
7.2 Installation

Note: Under different operating systems, the screen has a slight difference. Please operate it according to the tips. Take SP320E (Windows 7) for an example.

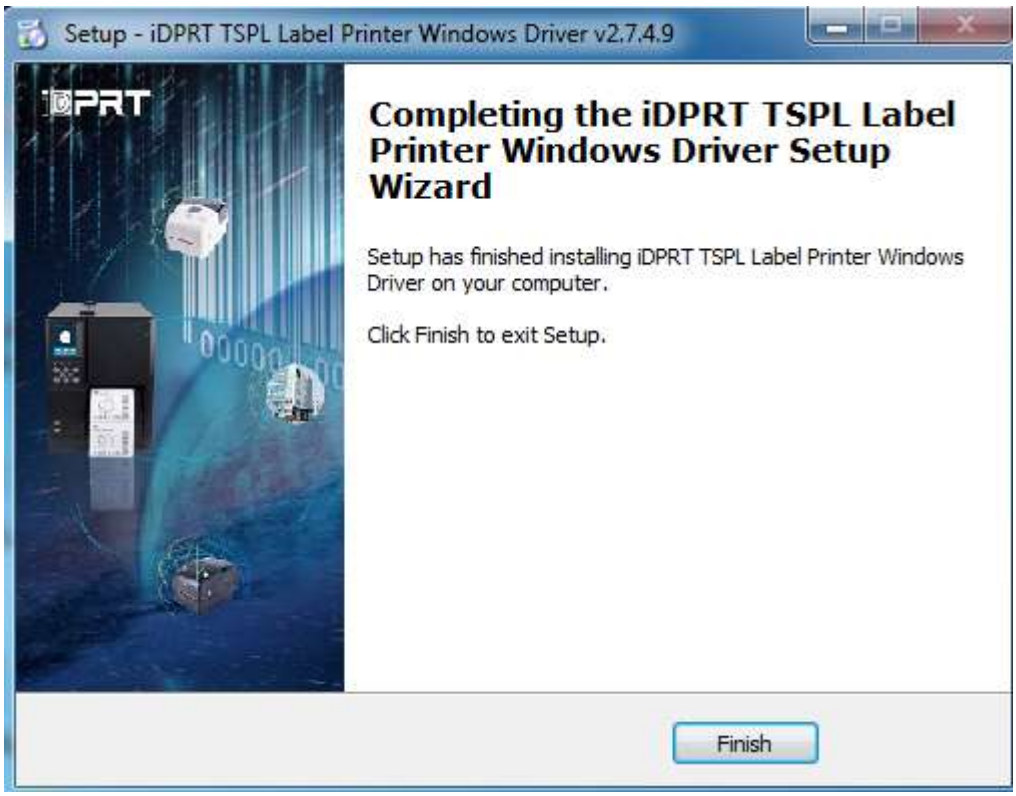
1. Select one interface to connect your printer to the computer.
2. Turn on the printer check if it is connected successfully.
3. Double-click Seagull Driver.
4. Read and agree with the EULA, click “Next”.



5.Click “Next”.


Setup - iDPRT TSPL Label Printer Windows Driver v2.7.4.9
Select operation of install
Please select the operation as you need.
Install printer driver
Please connect your printer to the PC and turn it on.
< Back
Next >
Cancel

6.Click “Finish”.



8.After installation, view the icon in “Start” → “Devices and Printers”.

Note:

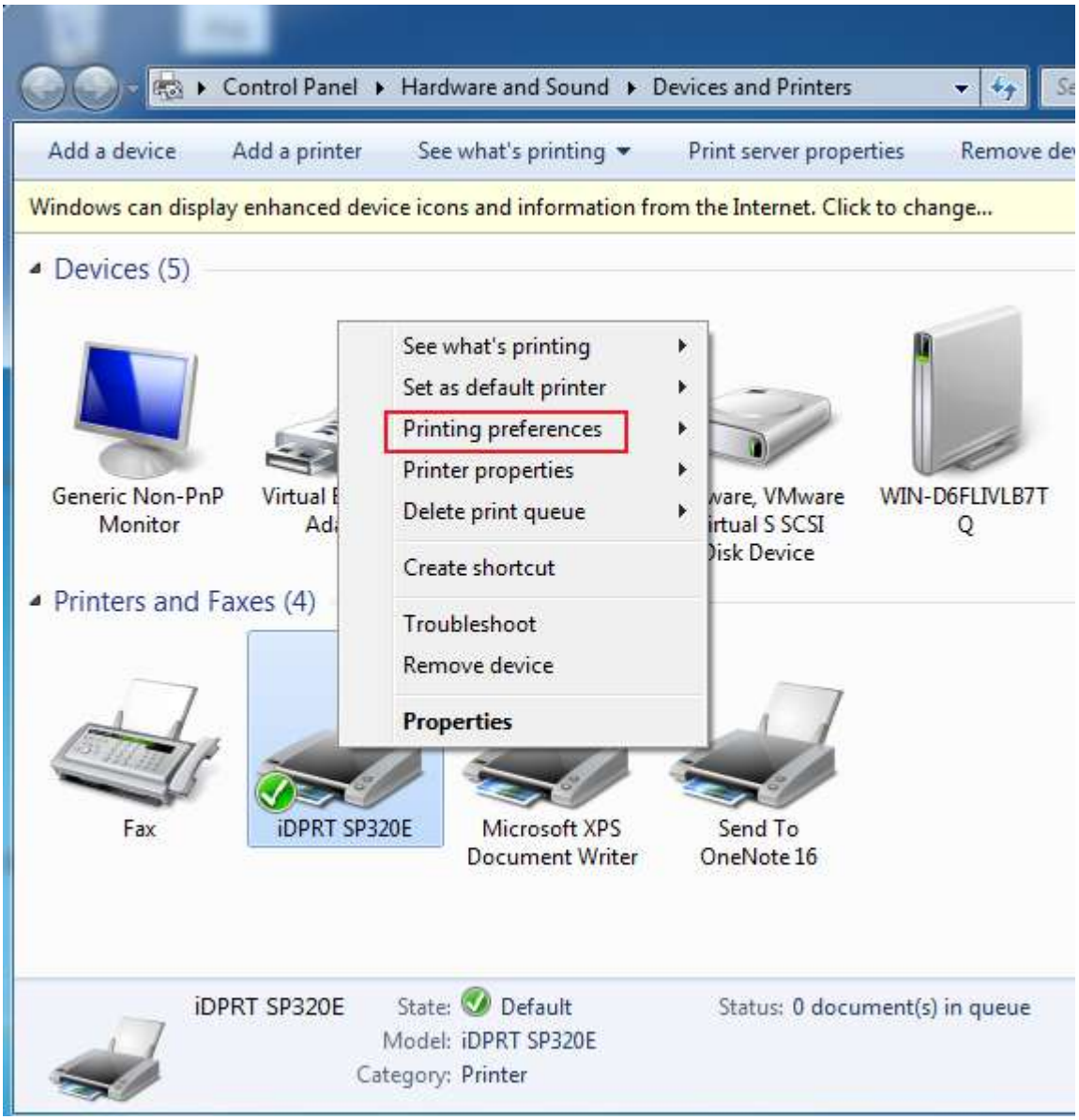
1) If you have already installed the driver (No matter what kind of ports), it will generate a USB port automatically when connecting the printer to the computer.

2) Any problems exist, please use our utility tool in CD.

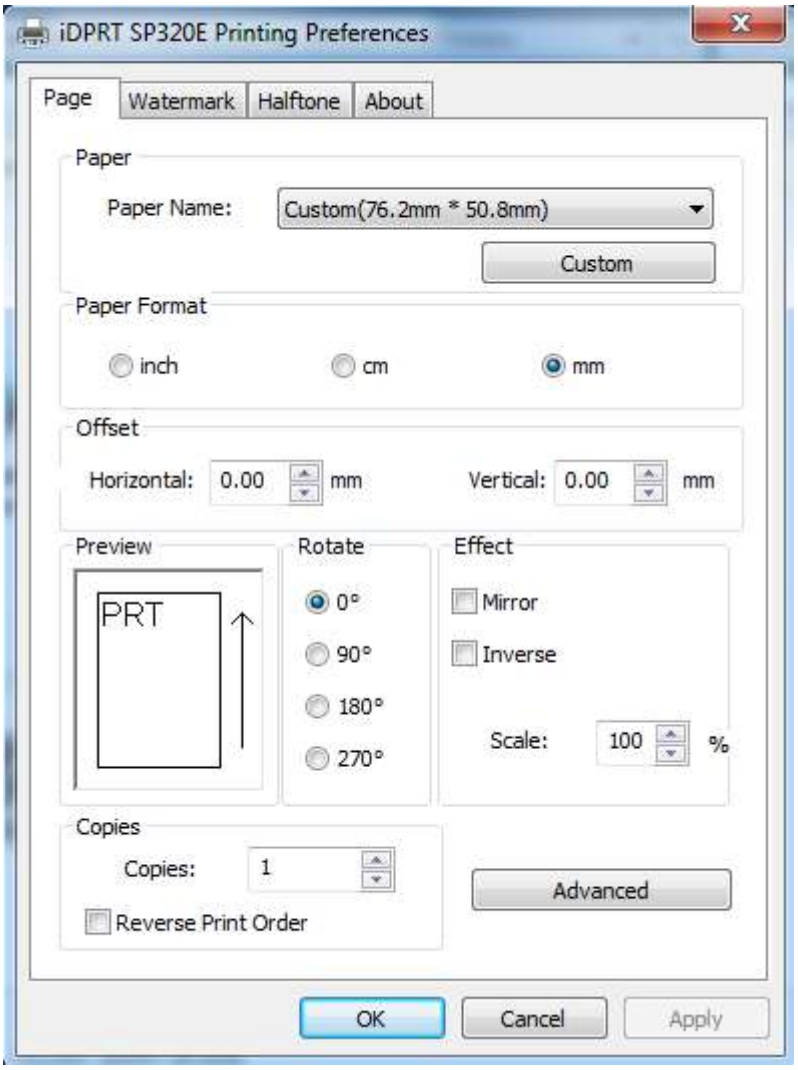
7.3 Usage

7.3.1 Printing Preferences

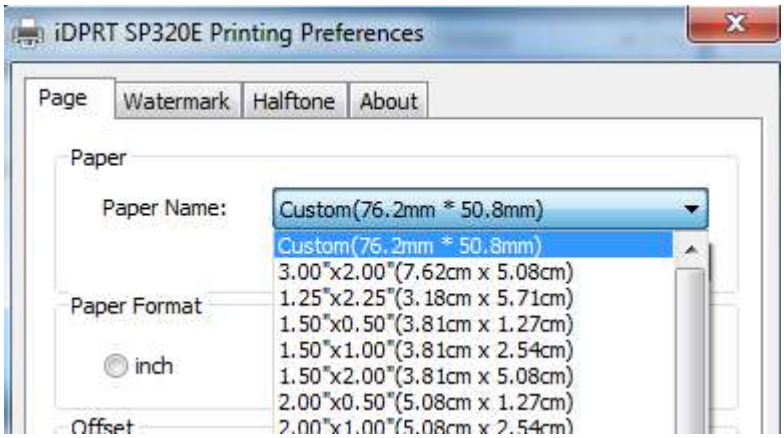
1.Click “Start” → “Devices and Printers”. Right-click the icon and select “Printing preferences”.



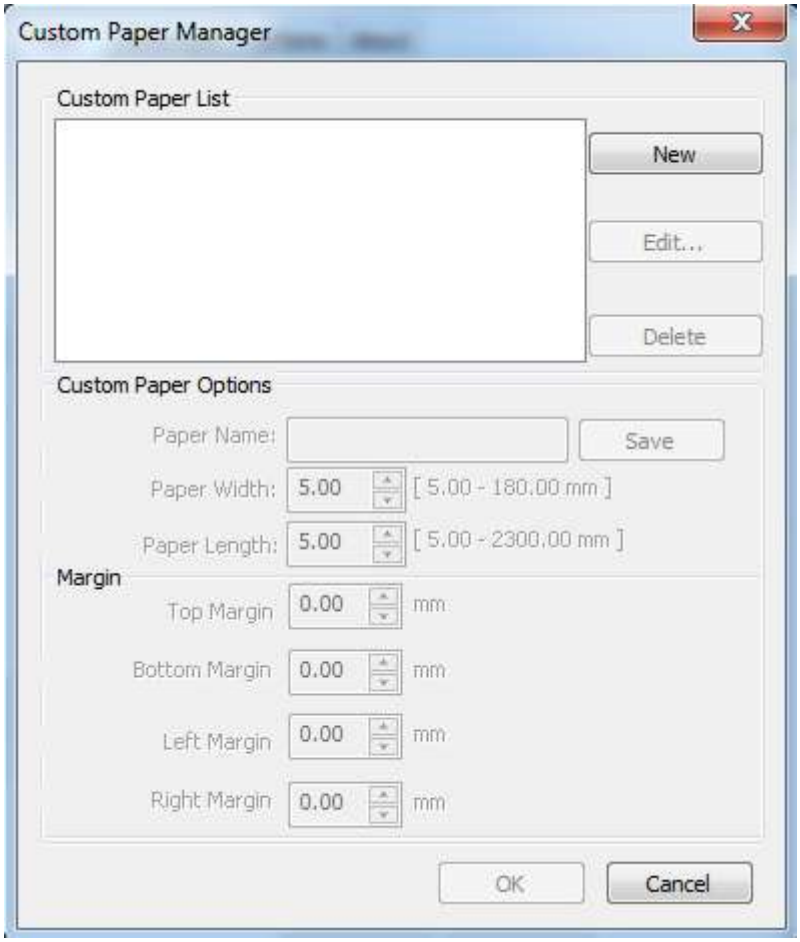
2.According to different needs, set the page.



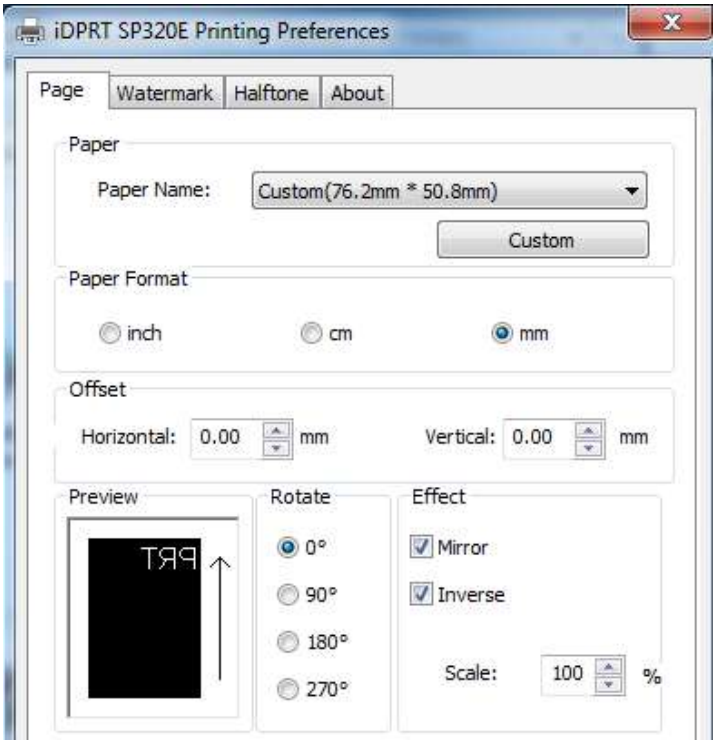
●Click “Paper Name”, then select the paper type.



●Click “Custom” to add a new stock.

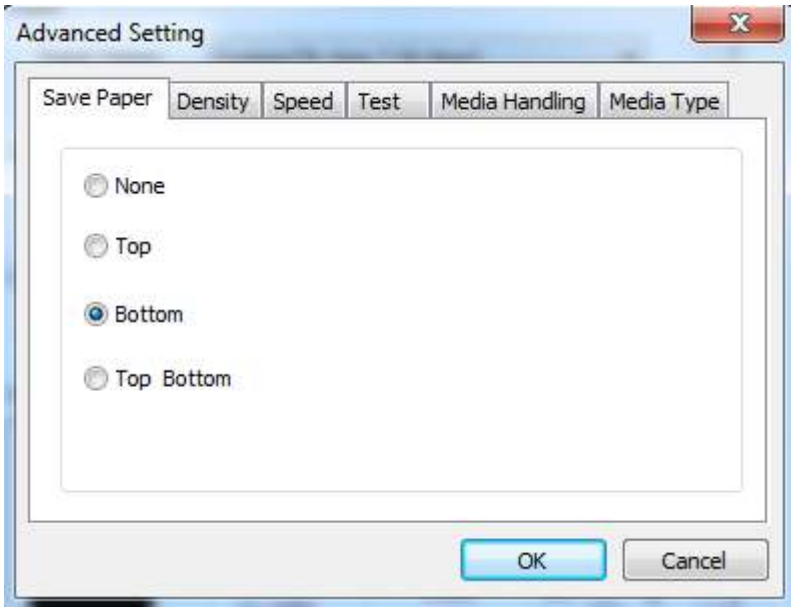


●Select “Rotate” or “Effect”, it will be shown in the “Preview”.

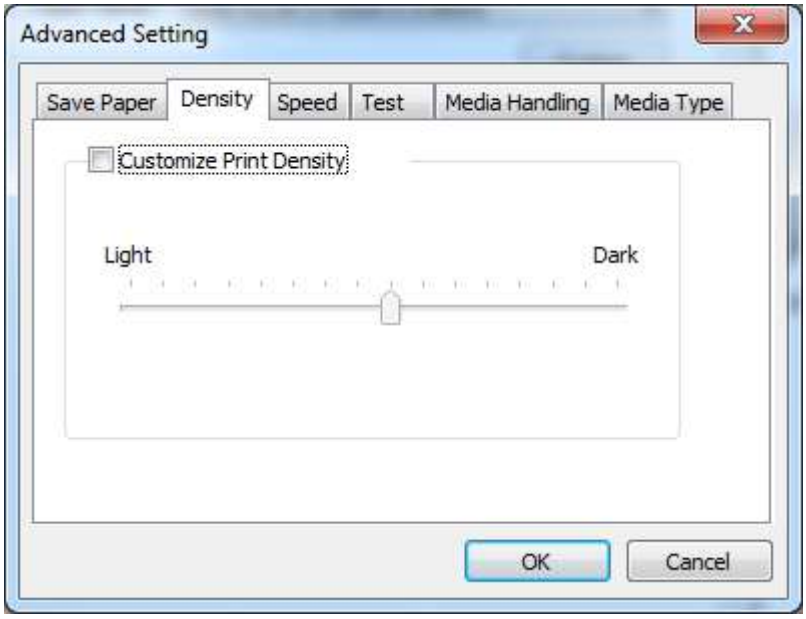


●Click “Advanced” to set “Save Paper”, “Density”, “Speed”, “Test”, “Media Handling” and “Media Type”.

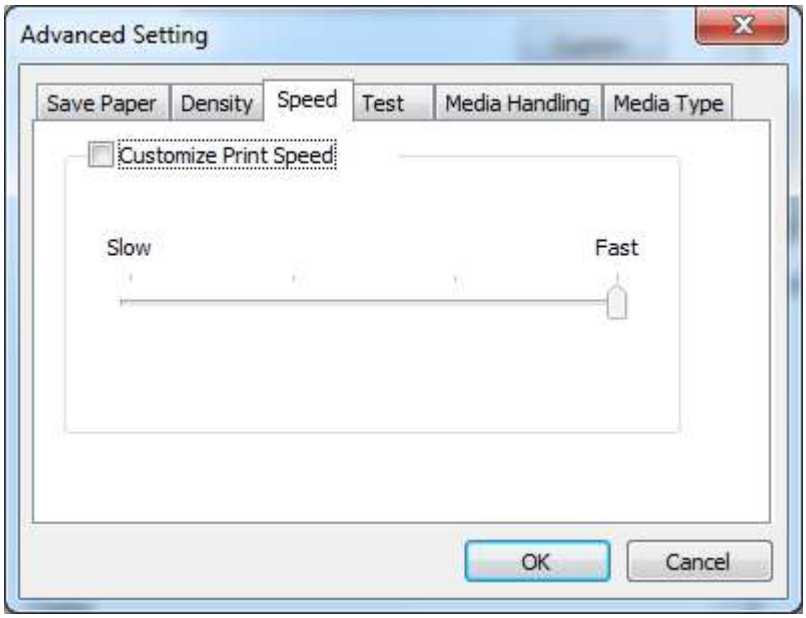
1) Save Paper



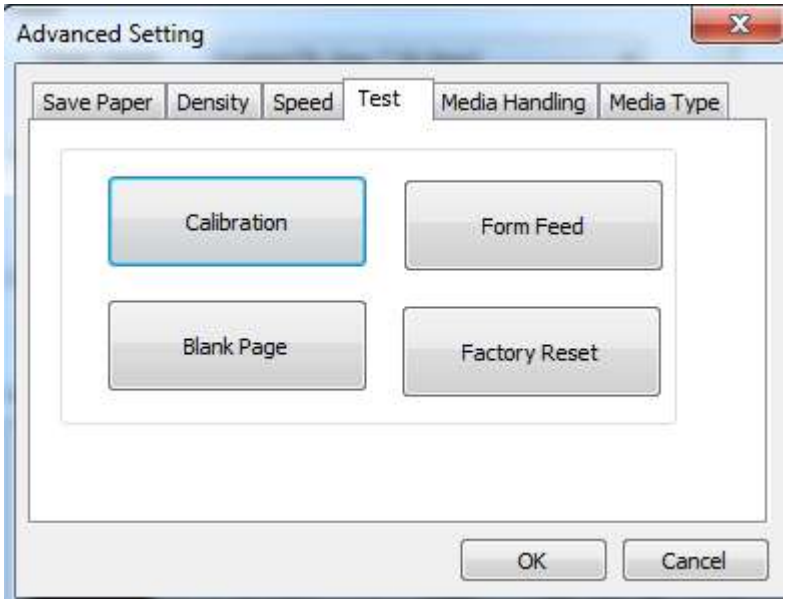
2) Density



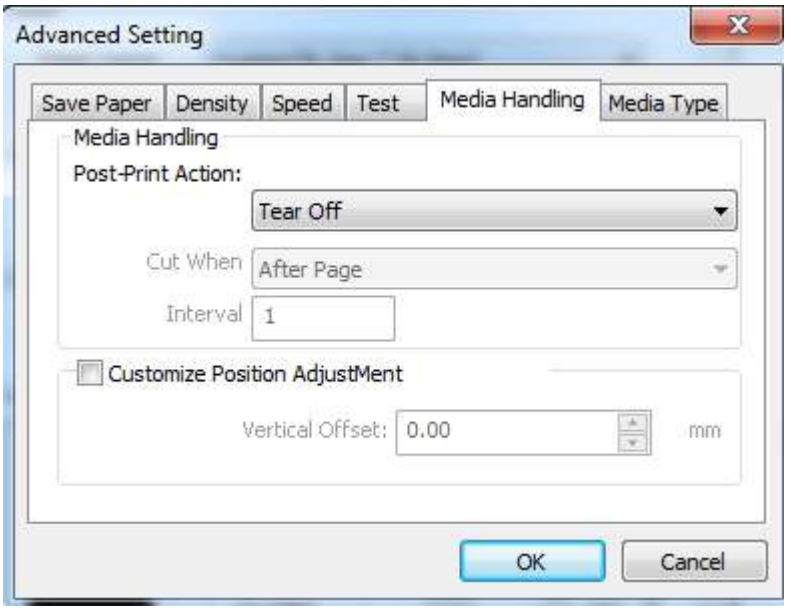
3) Speed



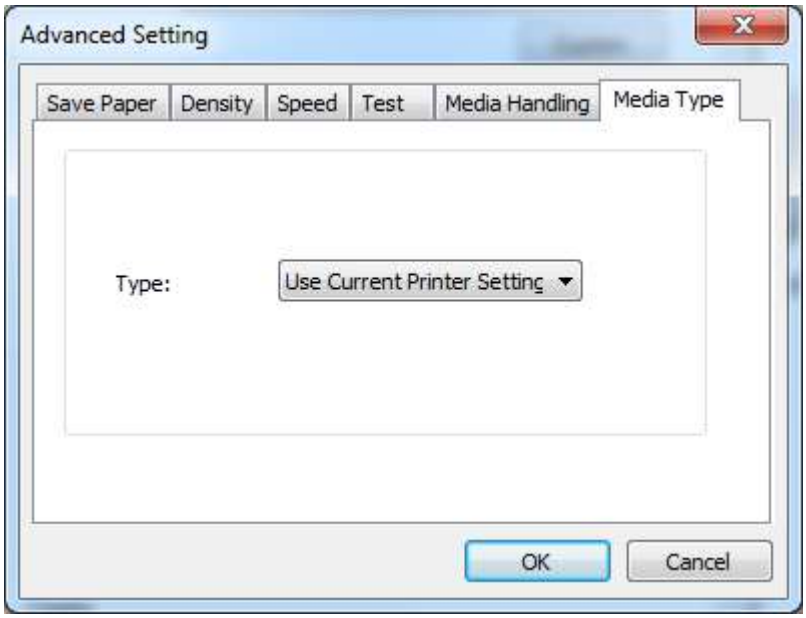
4) Test



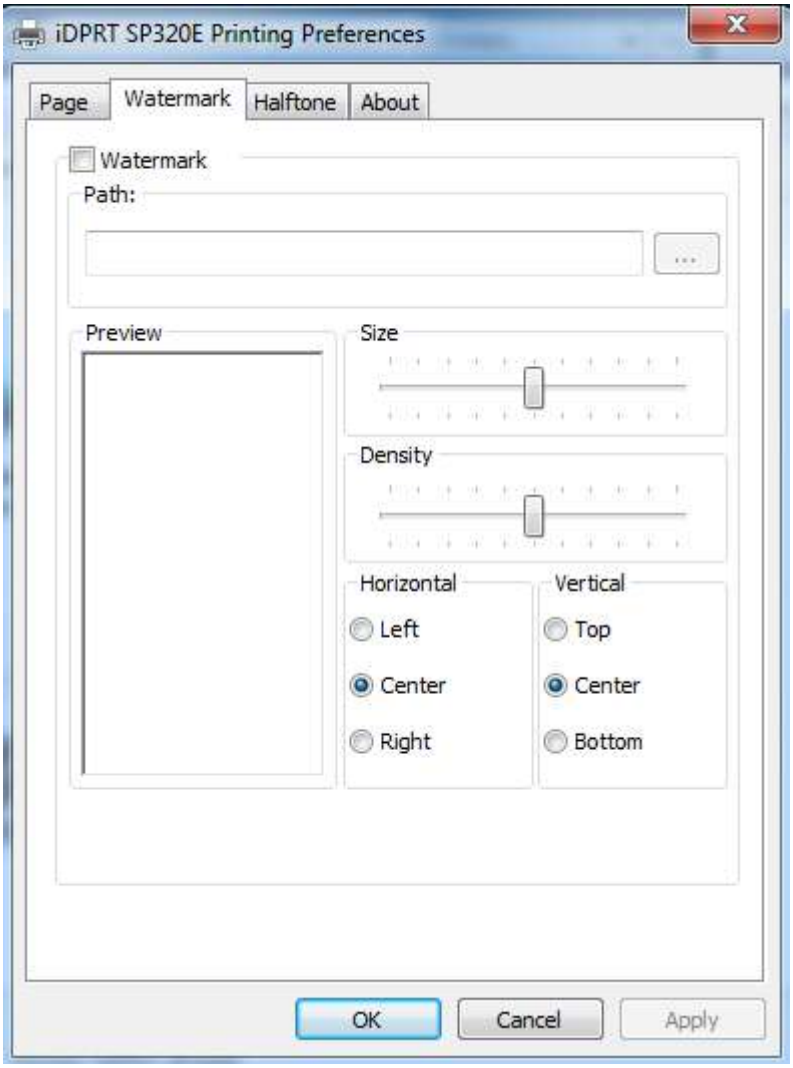
5) Media Handling



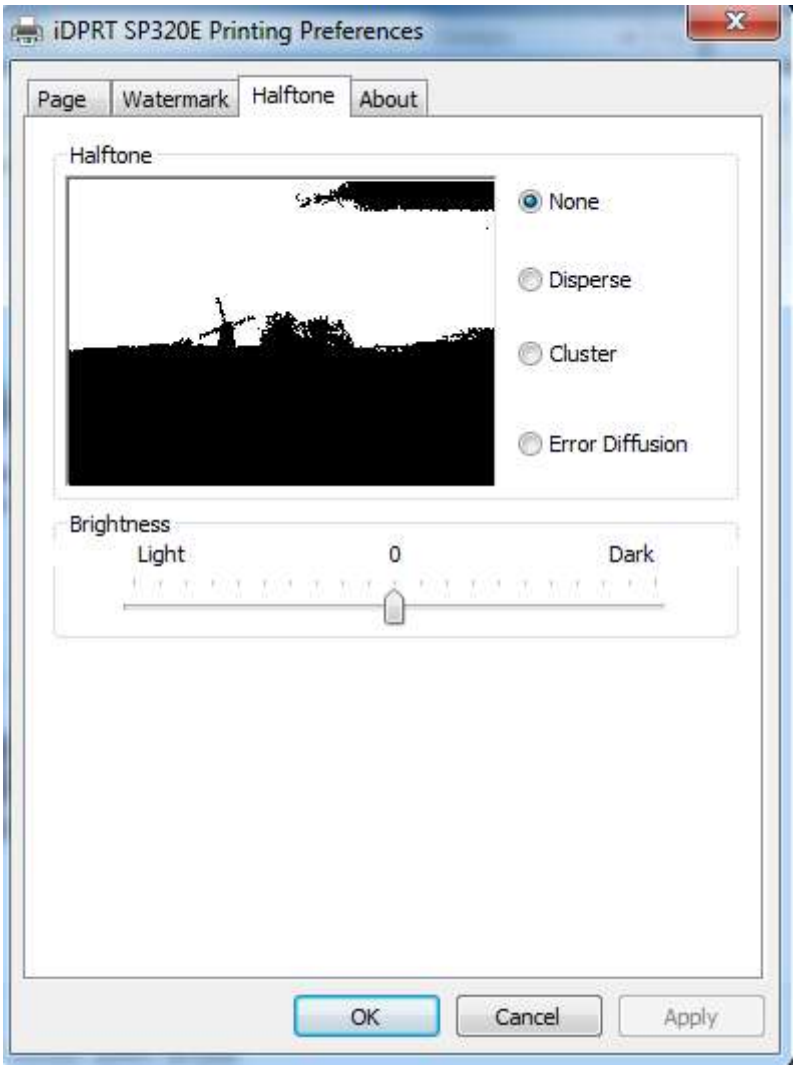
6) Media Type



3.Click “Watermark”, it recommends to use BMP format.



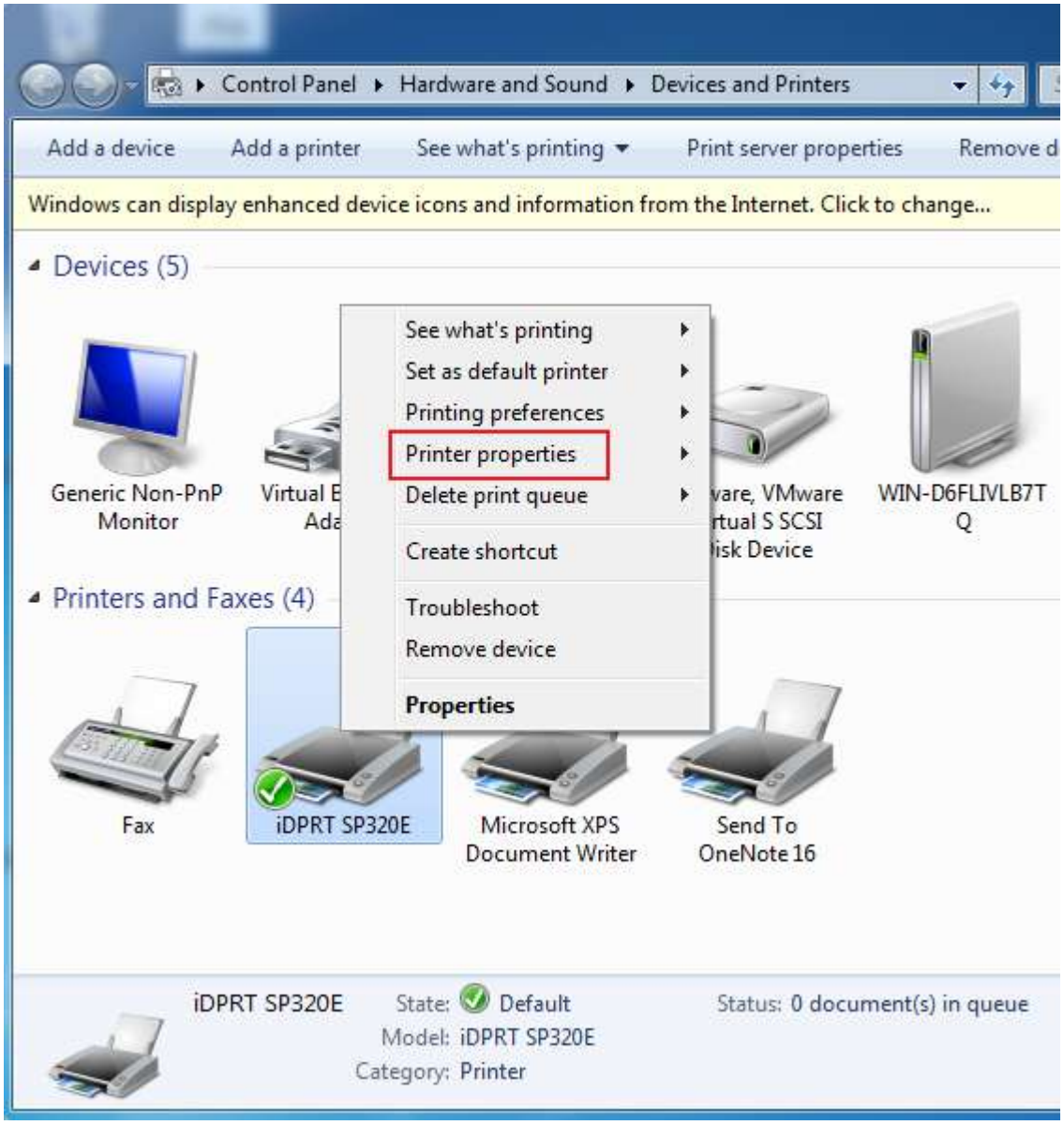
4.Click “Halftone”.



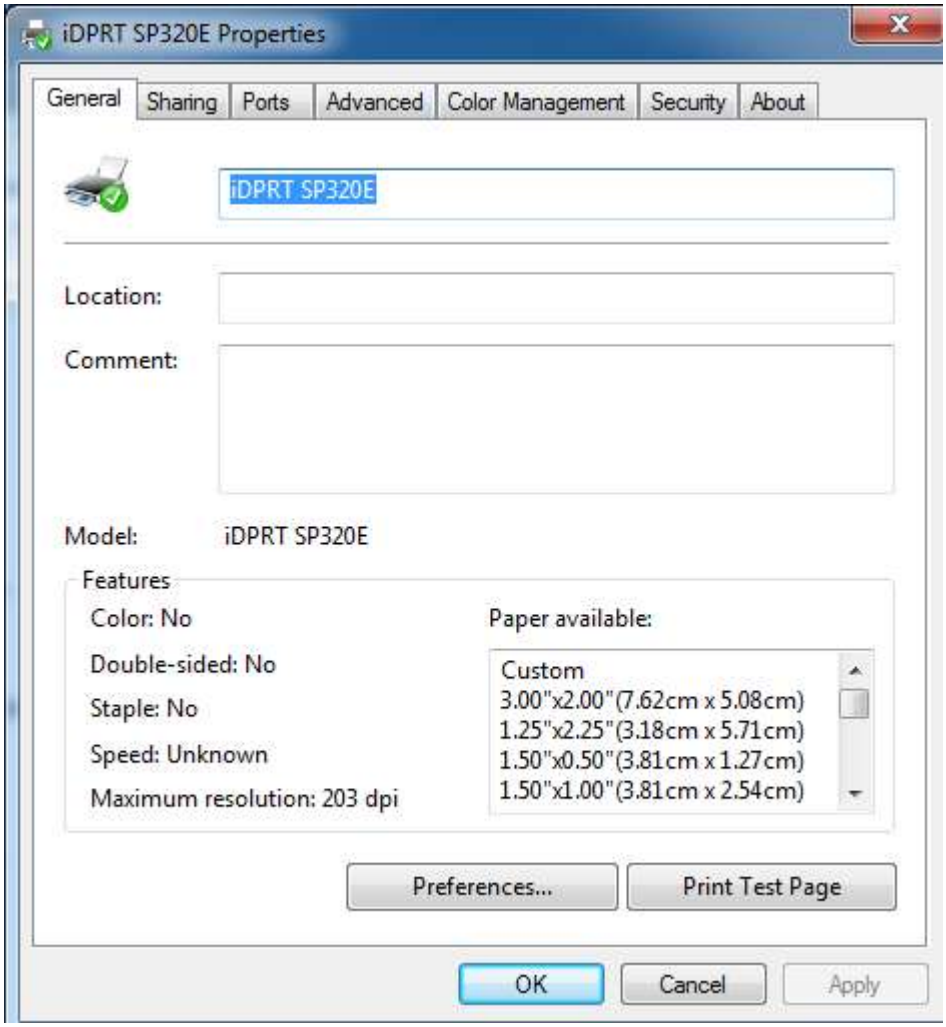
- Click “Brightness” to adjust the brightness.

7.3.2 Printer Properties

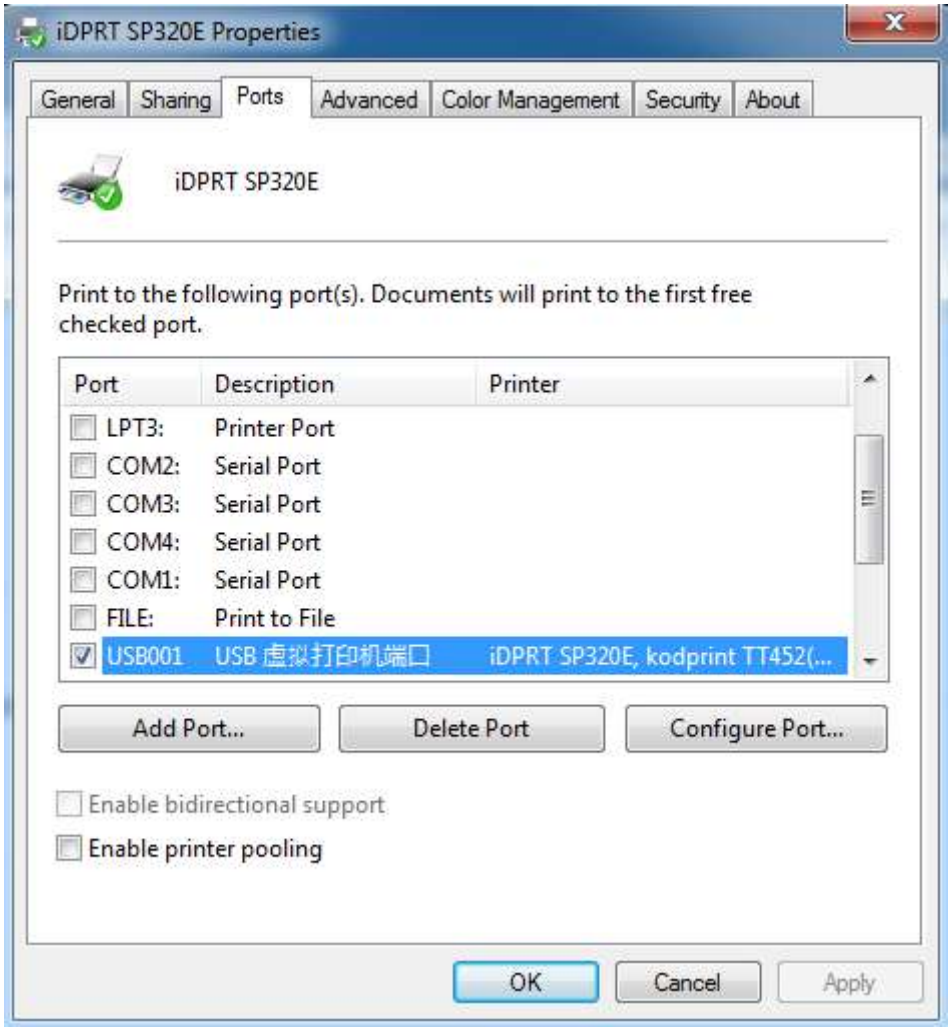
1.Click “Start” → “Devices and Printers”. Right-click the icon and select “Printer properties”.



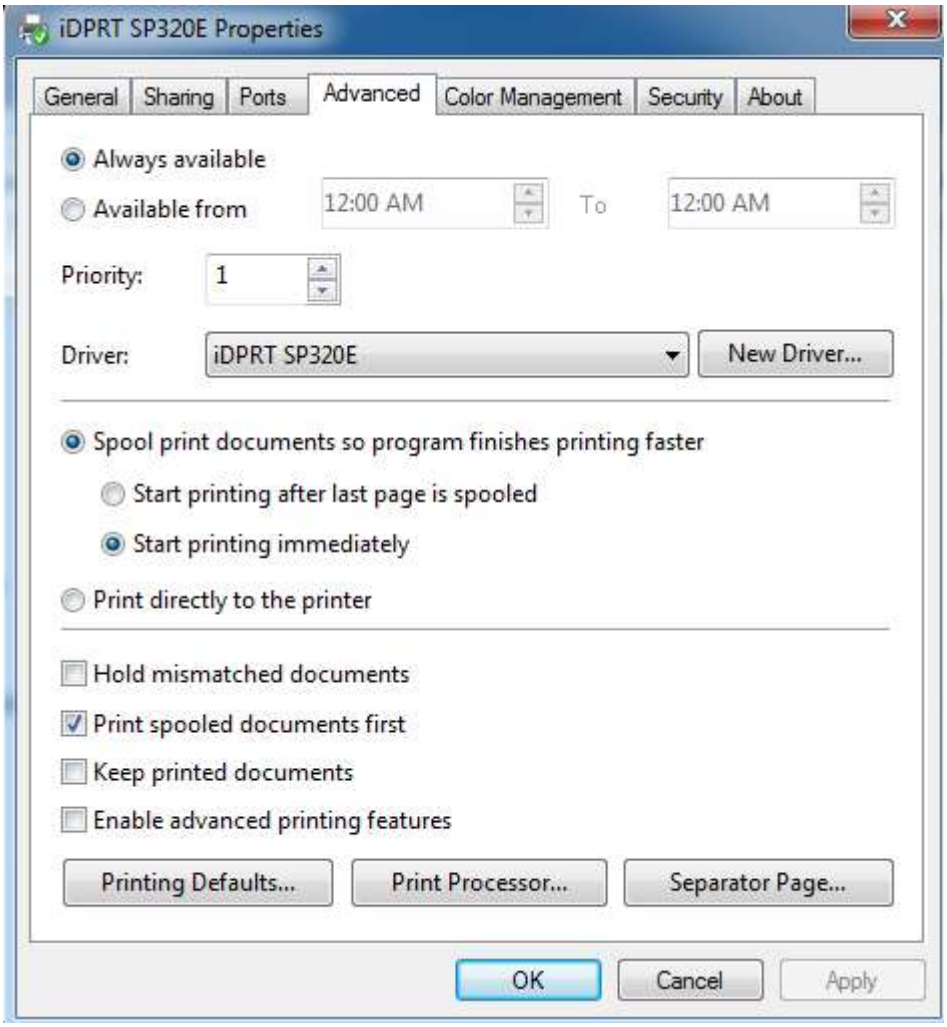
2.Click “General” → “Print Test Page”, and the printer will print label with current settings.



3.Click “Ports”, then select the port according to your needs.



4.Click “Advanced” to set the available time for the printer.

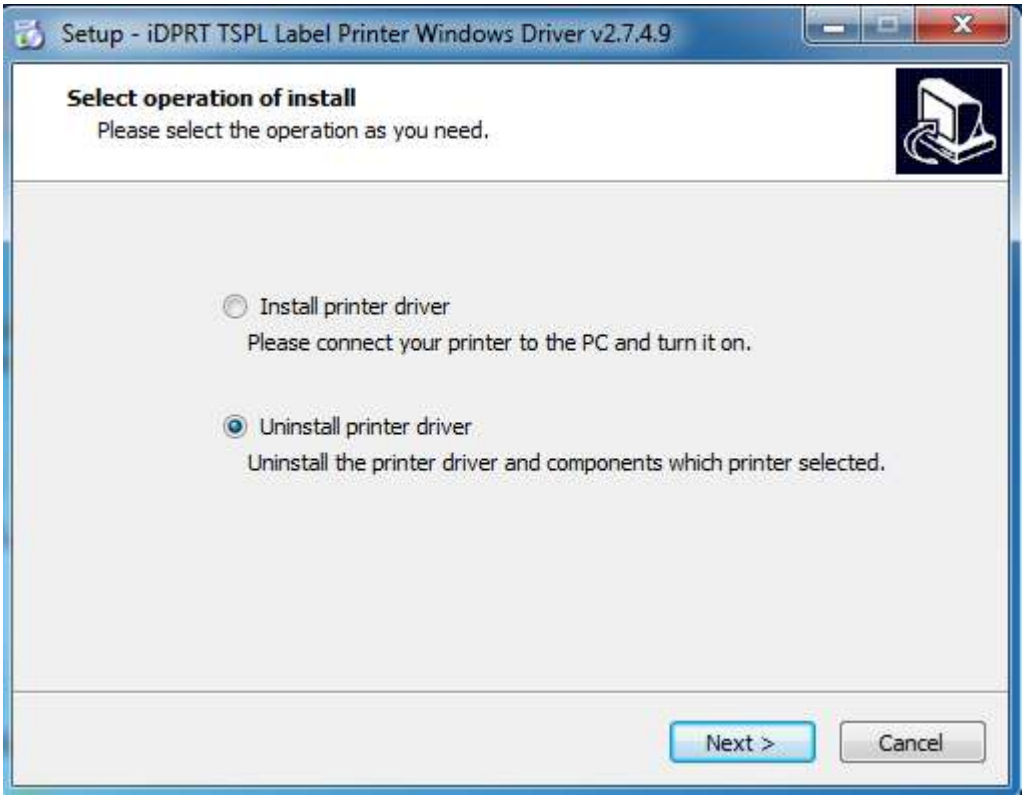


7.4 Removing

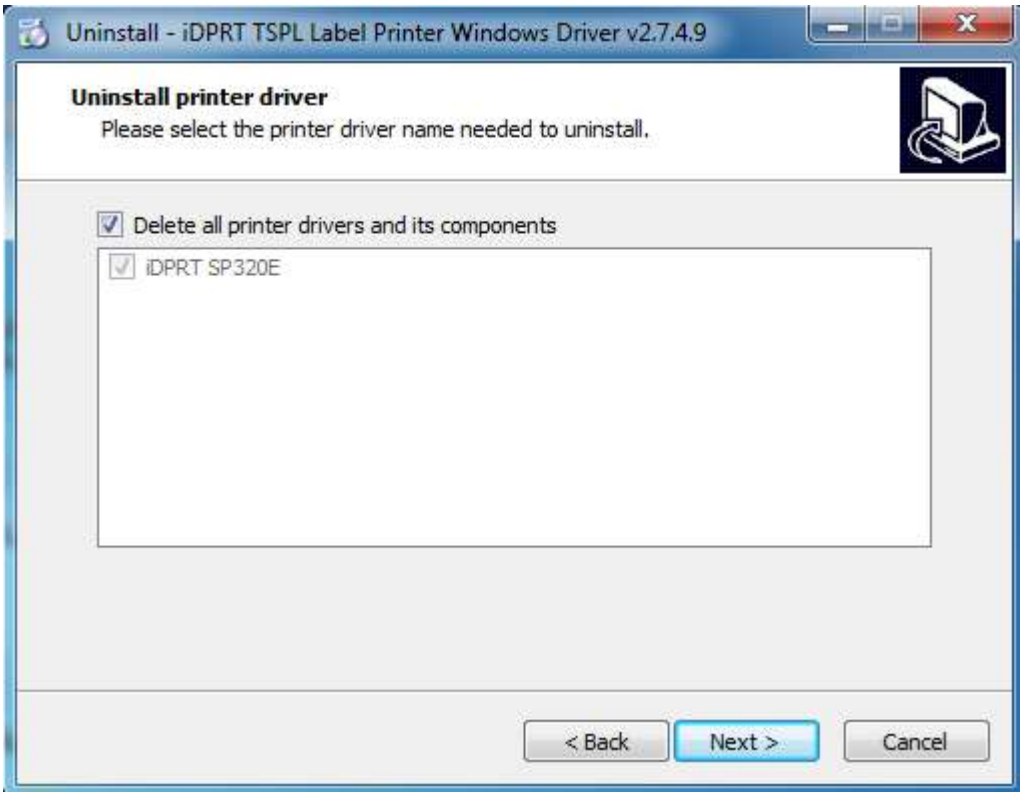
Note: Please turn off the printer or unplug the USB cable before removing the driver.

1.Double-click Windows Driver.

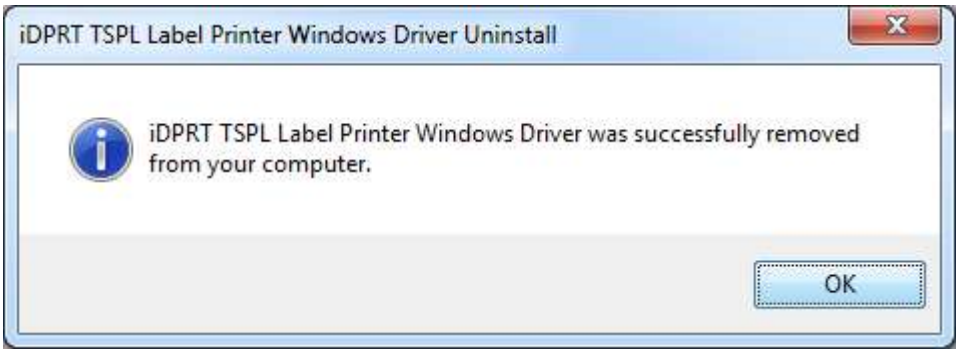
2.Select “Uninstall printer driver”, then click “Next”.



3.Select the name of the printer driver needed to be uninstalled, then click “Next”.



4.Click"Yes" → “OK”.



Chapter 8 Mac Driver Installation

8.1 Manual Information

This Driver Installation Manual provides information on installation in macOS operation system.

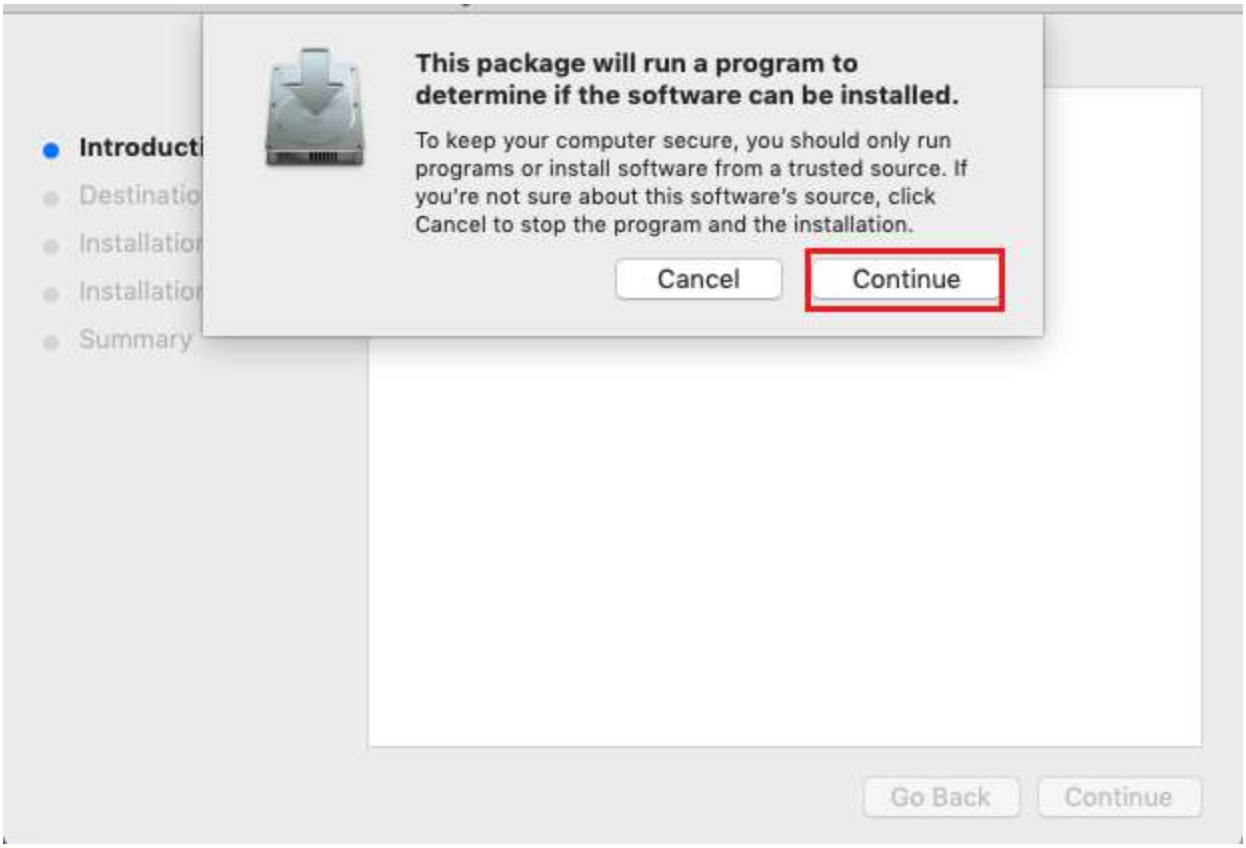
8.2 Driver Preparation for macOS

The driver of the installation file name is “idprt-tspl-printer-mac-driver-v1.3.7”

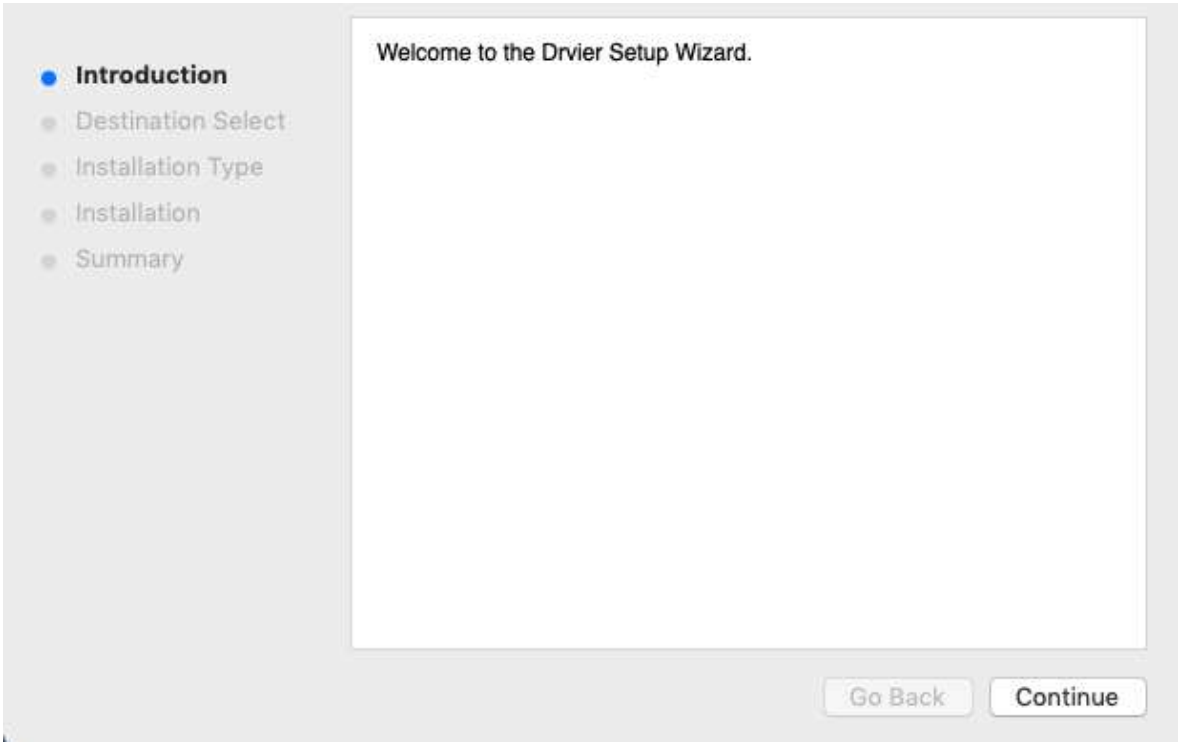
8.3 Driver Installation for macOS

Warning: Under different operating system, the screen has a slight difference. Please operate it according to the tips. Take SP320E (macOS 10.15) as an example.

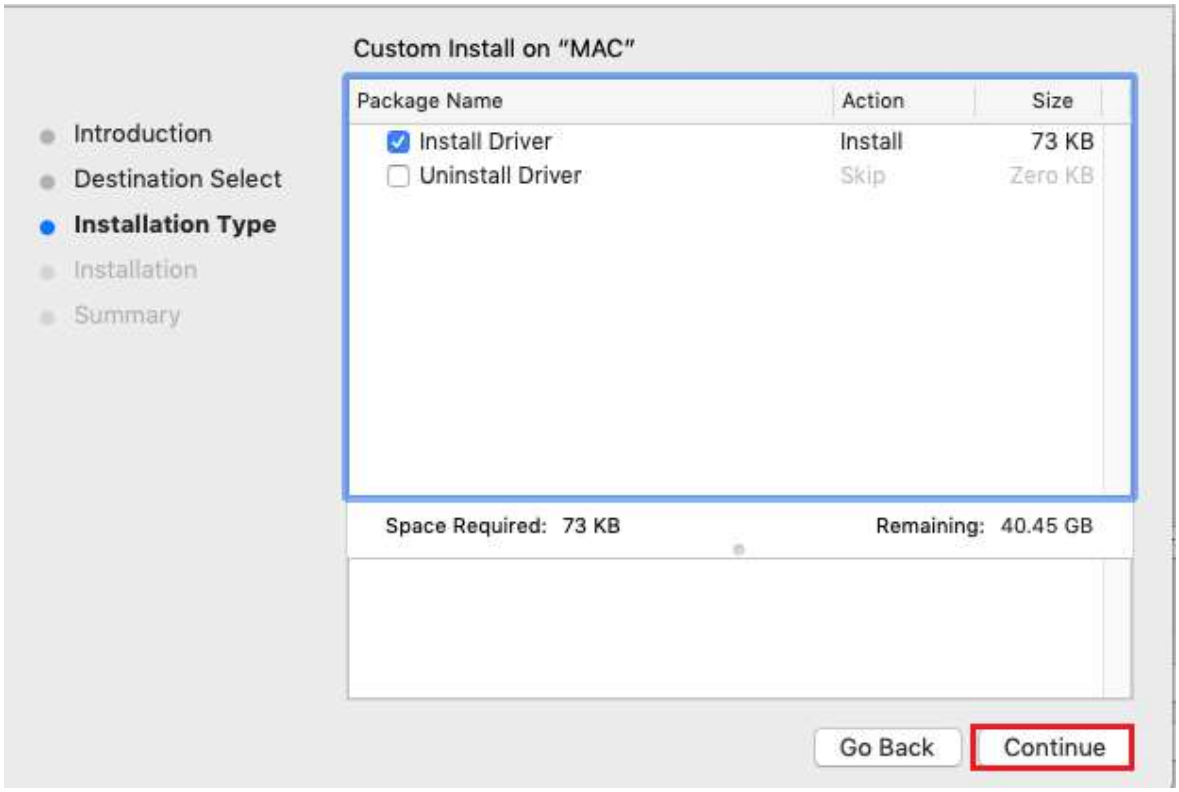
1.Double-click the Driver, click “Continue”.

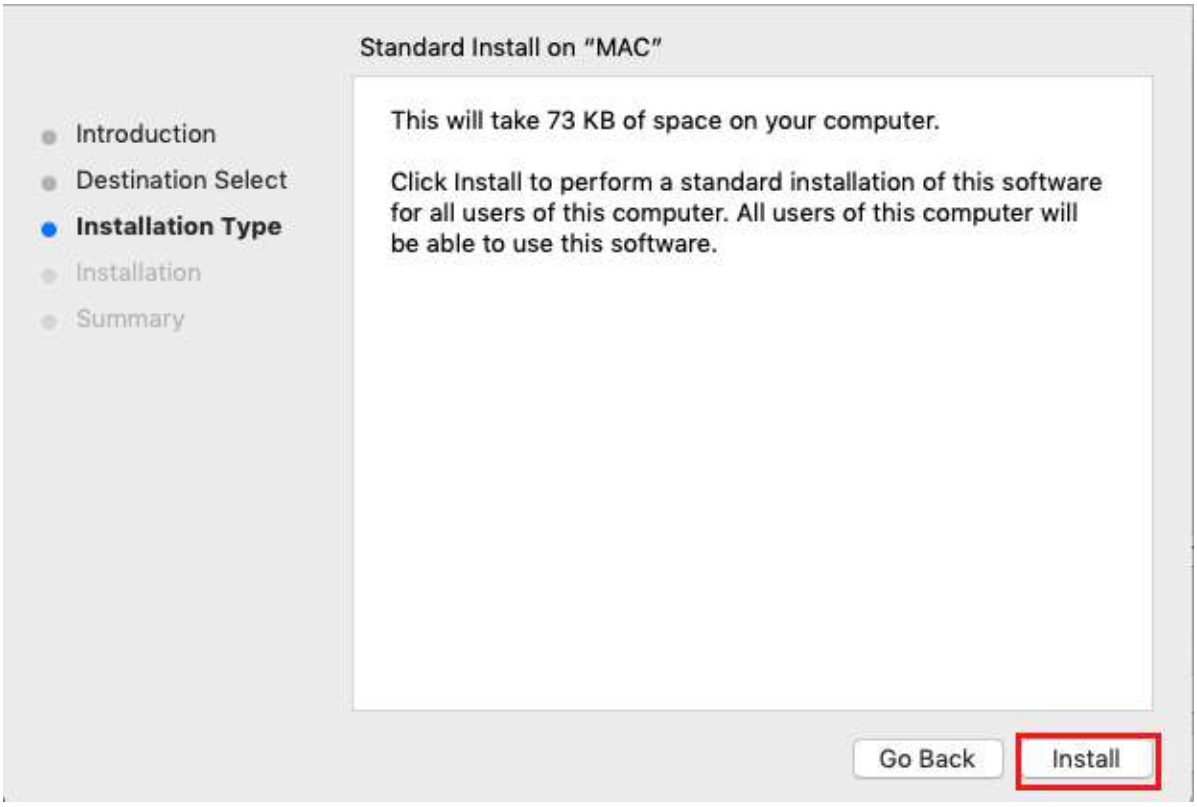


2.Select a destination and click “Continue”.

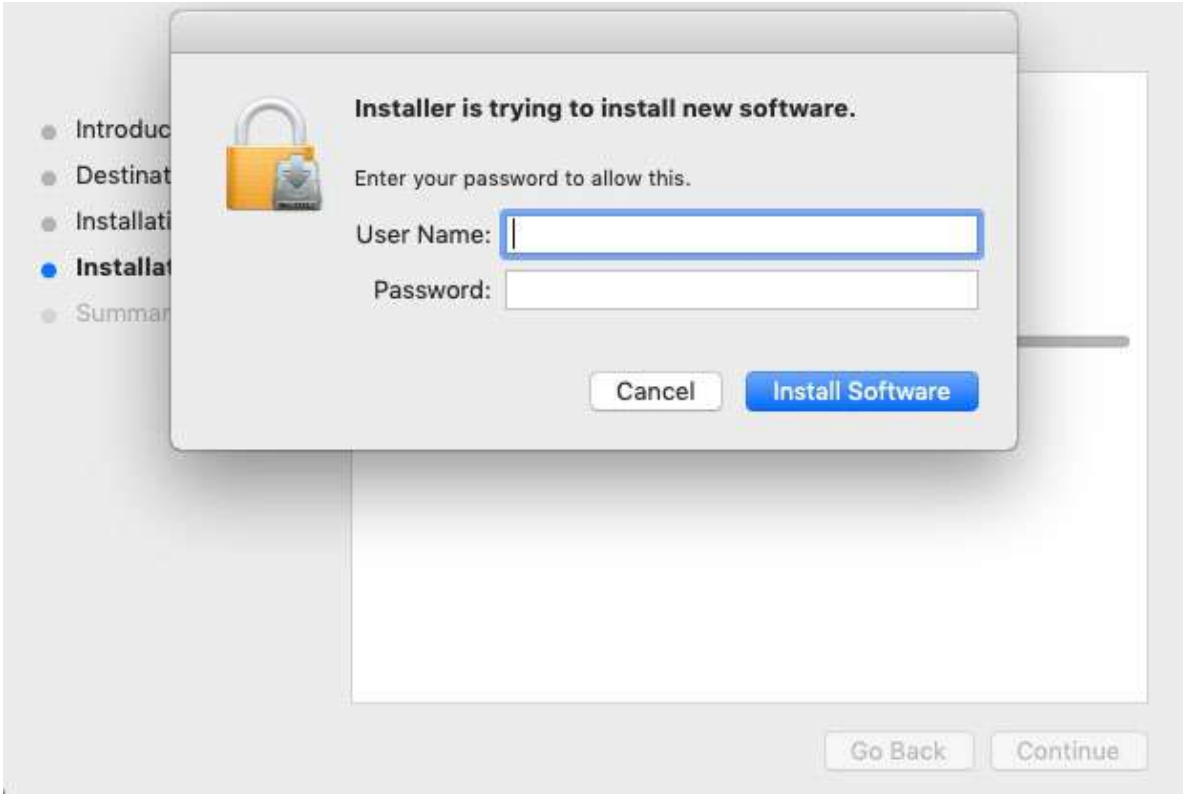


3.Select “Installation Type” and click “Continue”-> “Install”.

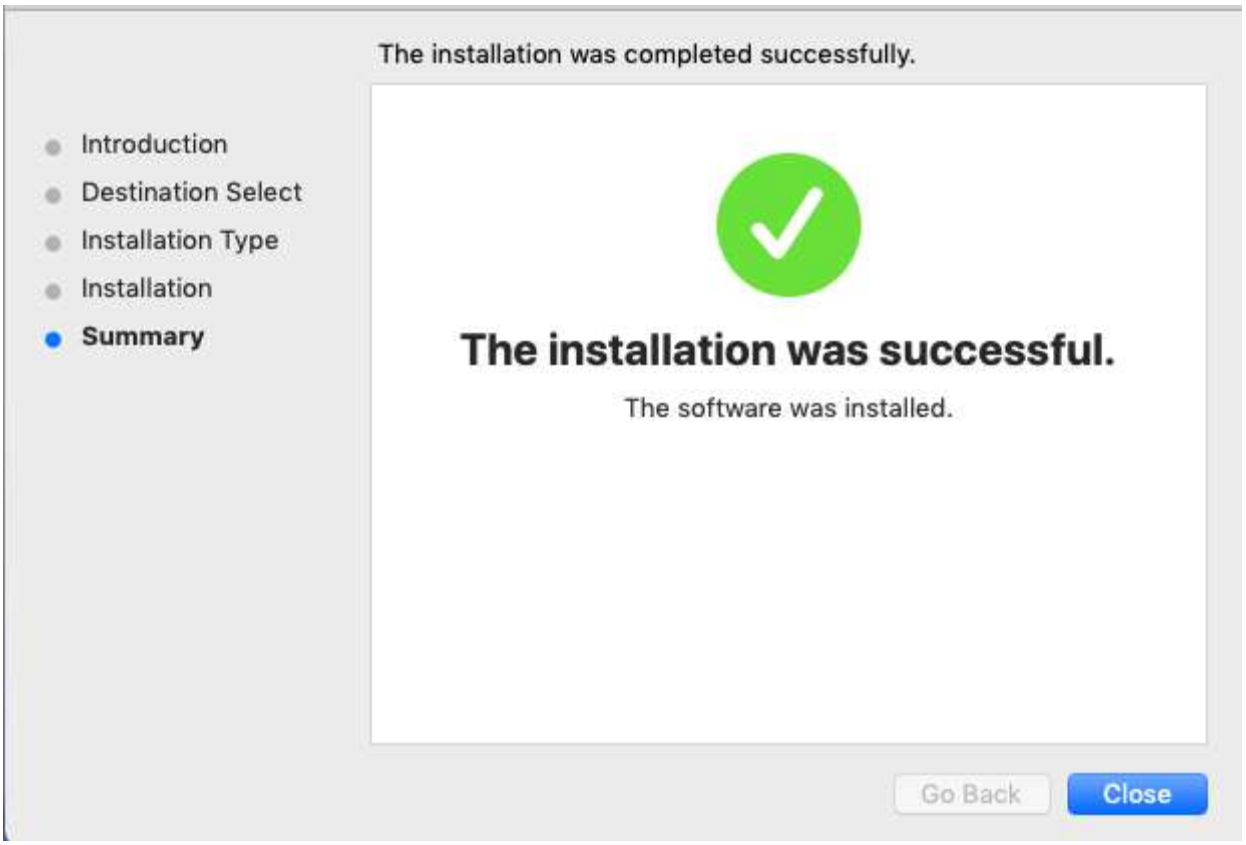




4.Type in the password of your computer.



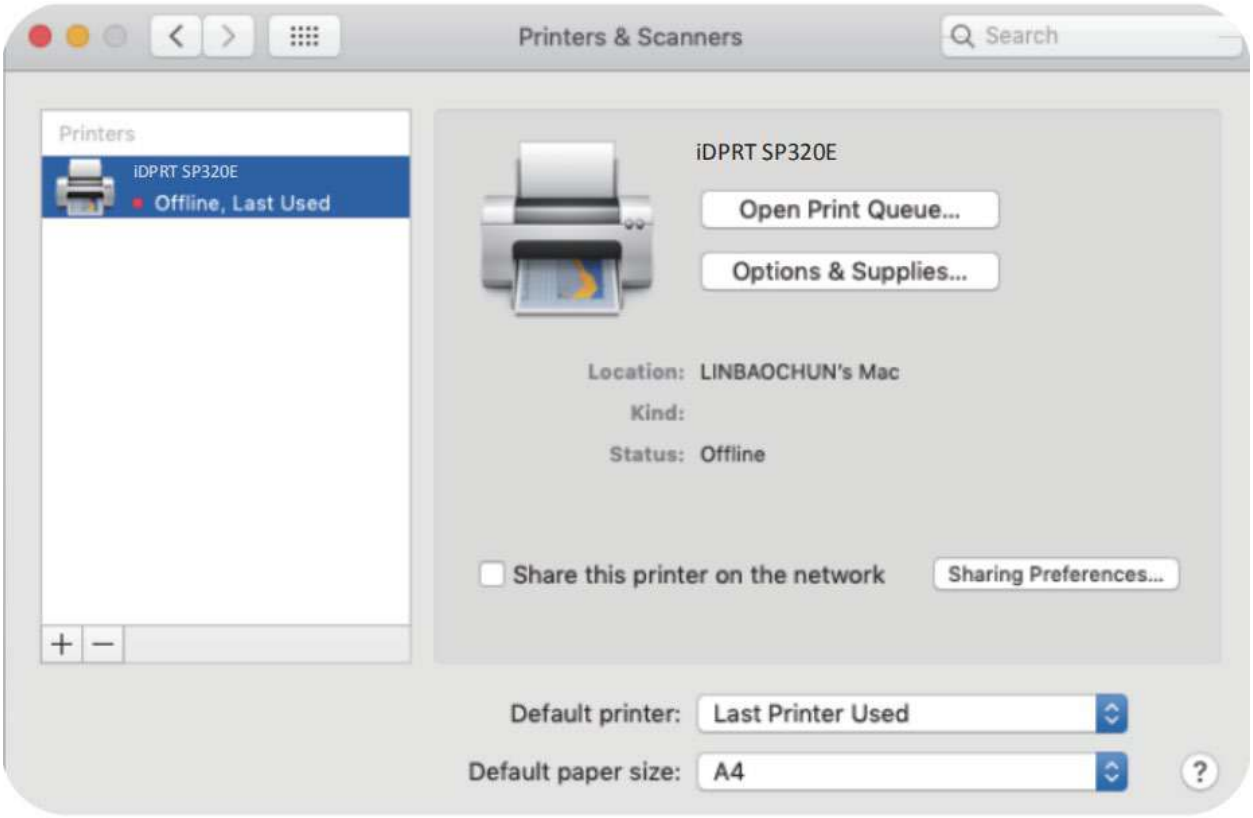
5.The installation was successful.



6.Turn on the printer (for example: SP320) and connect it to your computer (for example: via USB cable).

7.Click: Launchpad -> System Preferences -> Printers & Scanners.

8.Under “Printer & Scanner”, printer SP320E is available.



Chapter 9 Linux Driver Installation

9.1 Manual Information

This Linux Driver Installation Manual provides information on installation and usage of the printer's Linux Driver according to PC operating system (OS).

We maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. As follows, product specifications and/or user manual content may be changed without prior notice.

9.2 Operating System (OS) Environment

The following operating systems are supported for usage:

- Linux (64bit/32bit)

9.3 Linux Driver Installation

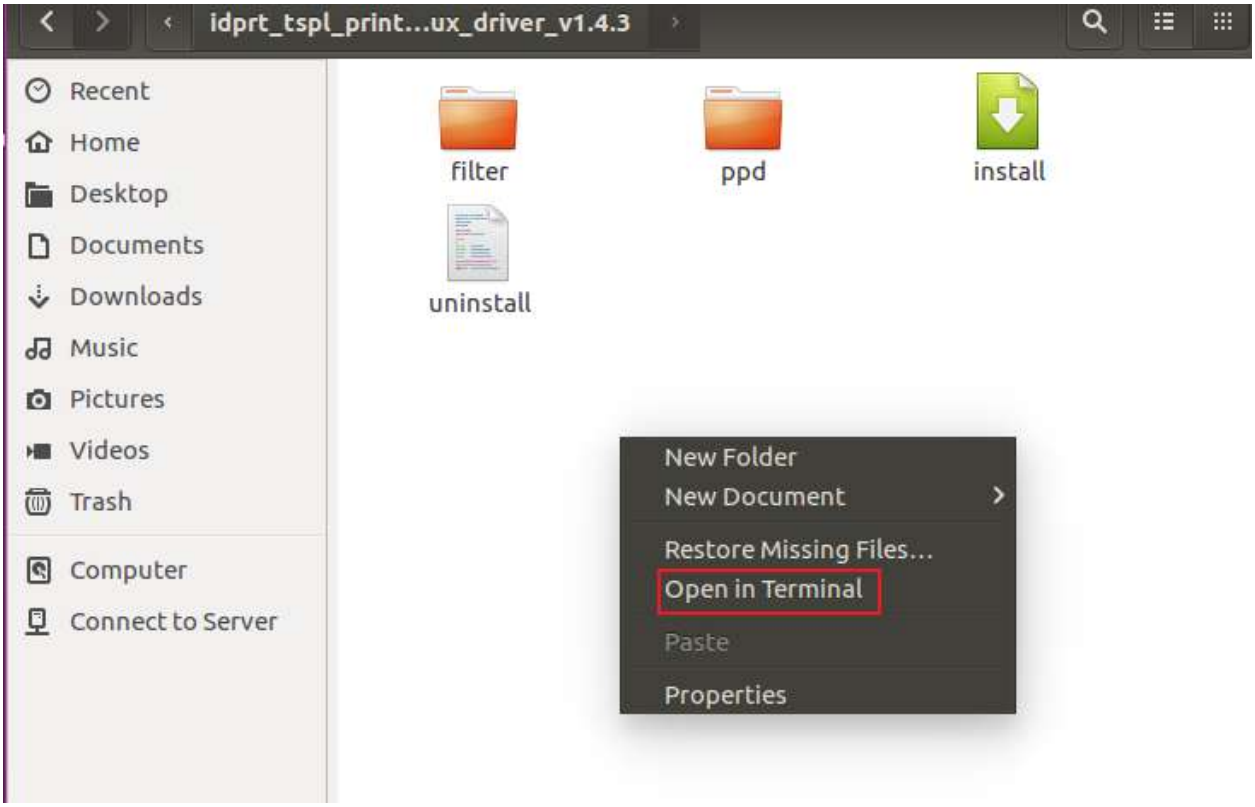
Warning: Under different operating systems, the screen has slight difference. Please operate it according to the tips.

1. Select one interface to connect your printer to the computer.

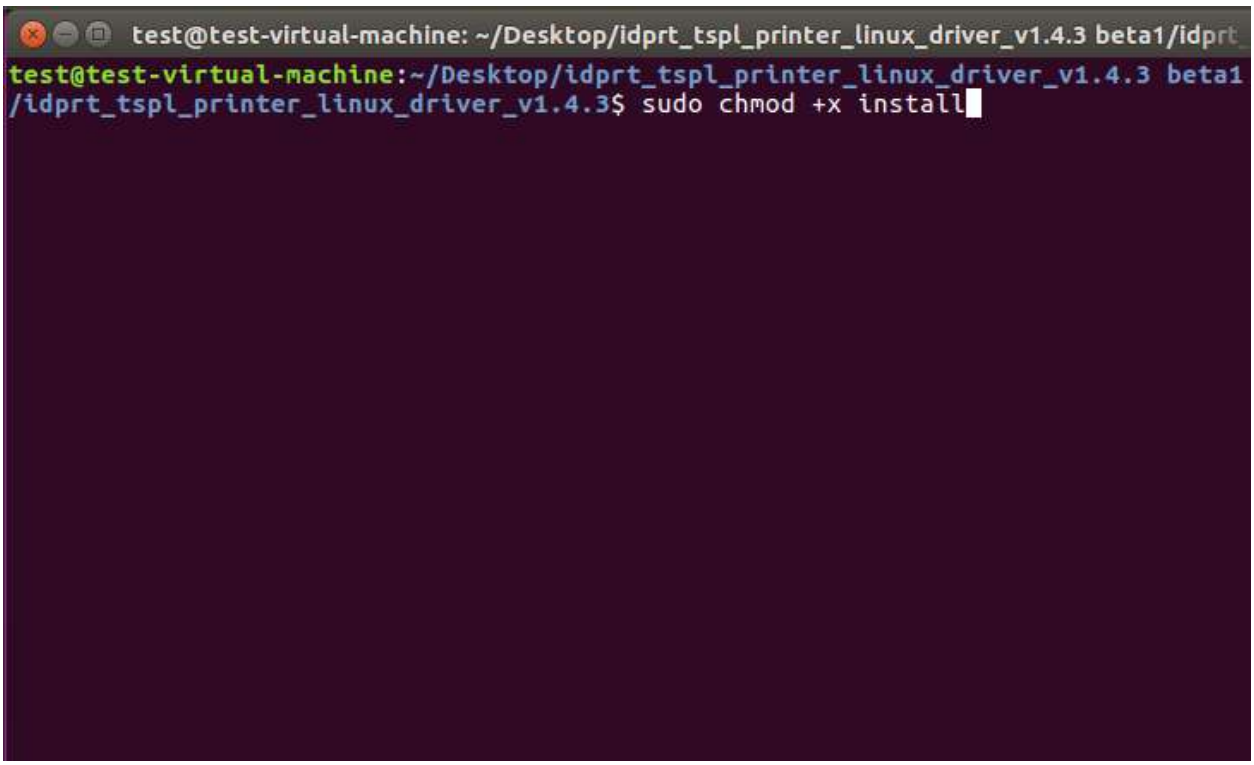
2. Turn on the printer and check if it is connected successfully.

3. Open the folder of the Linus Driver.

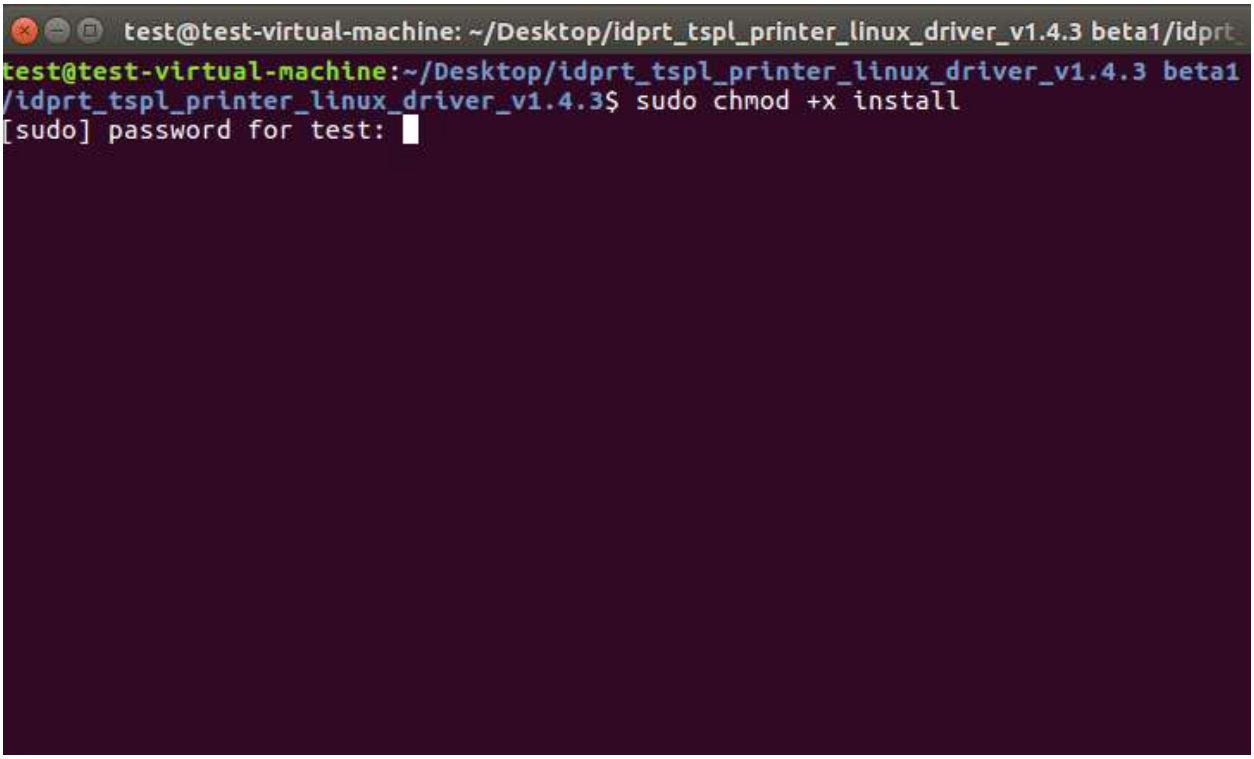
4. In the folder, double-click and choose “Open in Terminal”.



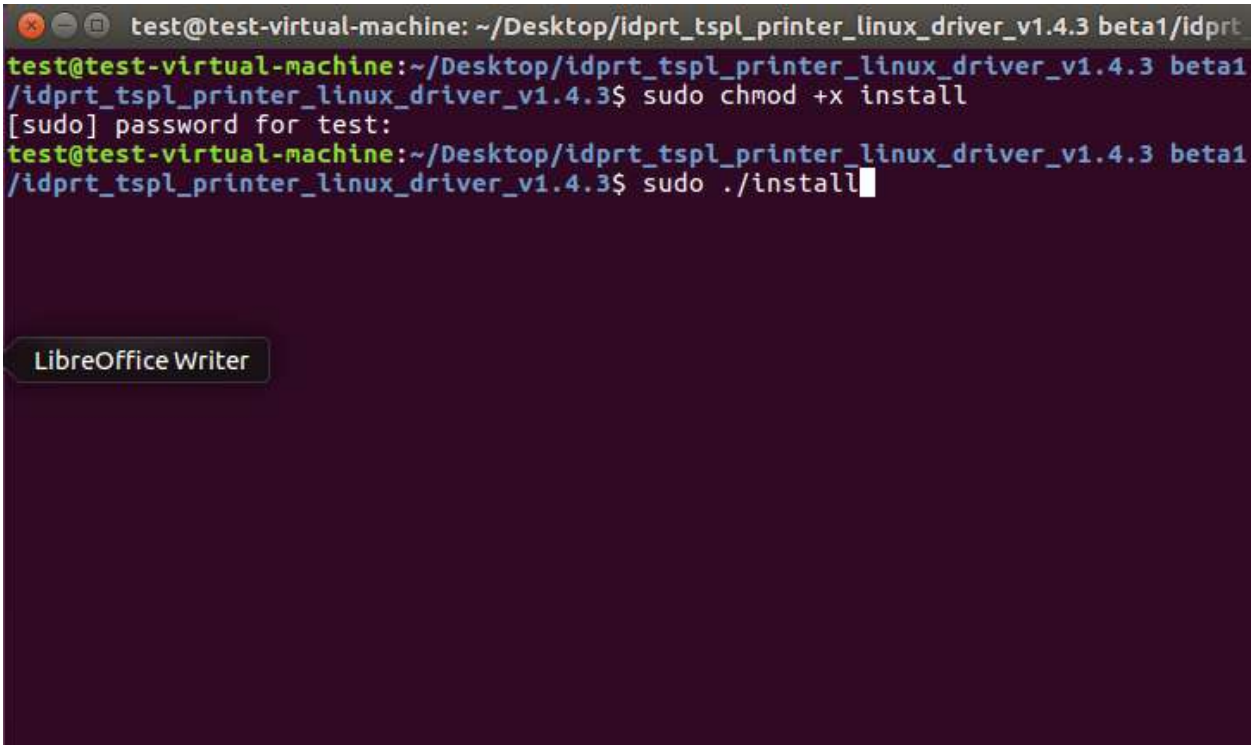
5.Type in “sudo chmod +x install” and enter.



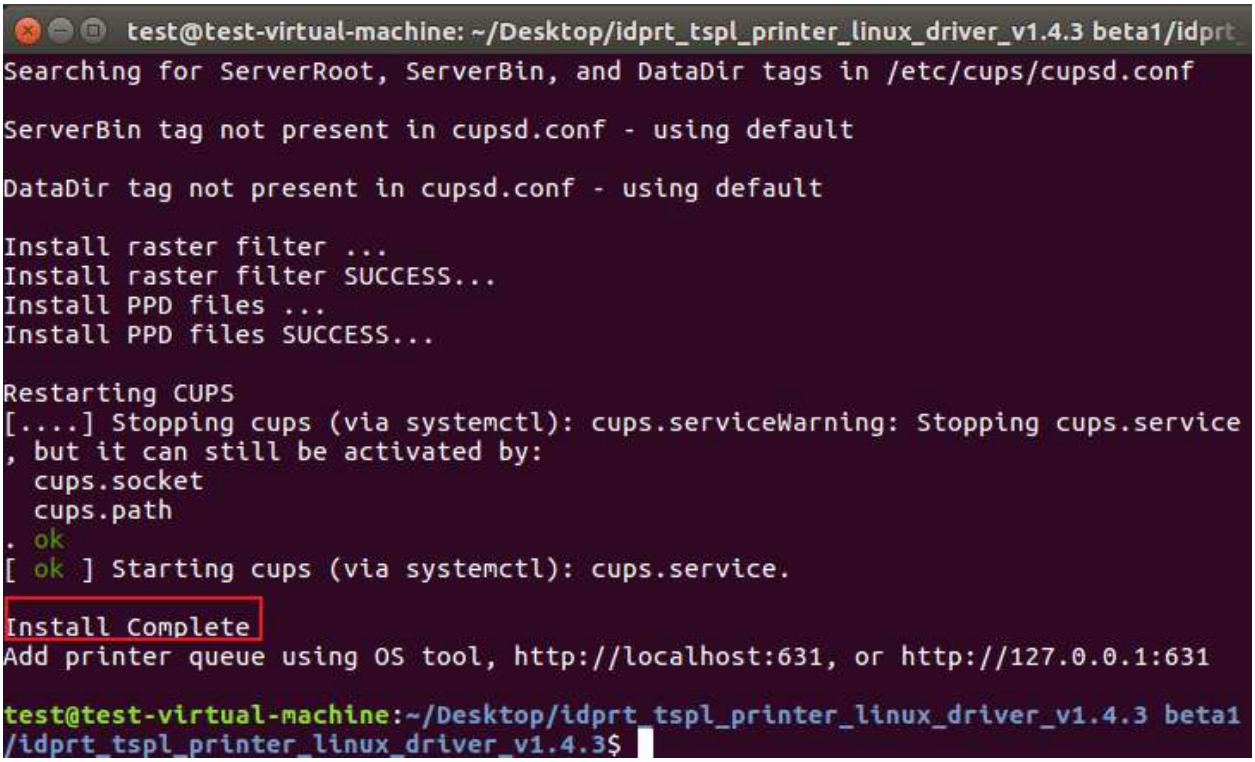
6.Type in the password of your computer and enter .



7.Type in “sudo ./install” and enter.



8. The installation was successful.



9. Click: System Settings -> Printers.

10.Under “Printers”, printer SP320E is available.

Chapter 10 BarTender Ultralite Installation

10.1 Introduction

This chapter provides instructions on BarTender Ultralite program according to the PC operating systems (OS).

The followings are supported.

- √Windows 10, 8.1, 8, 7 and Vista.
- √Windows Server 2016，Server 2012 and 2012 R2，Server 2008 and 2008 R2.
- √Includes all 32-bit and 64-bit (x64) editions.

10.2 Installation Preparation

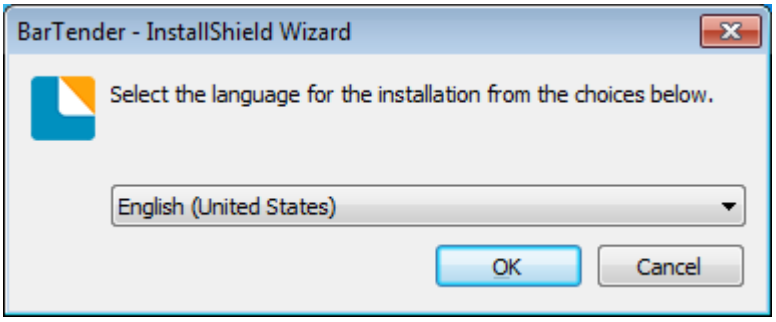
Download BarTender Ultralite application program in CD.

10.3 Installation

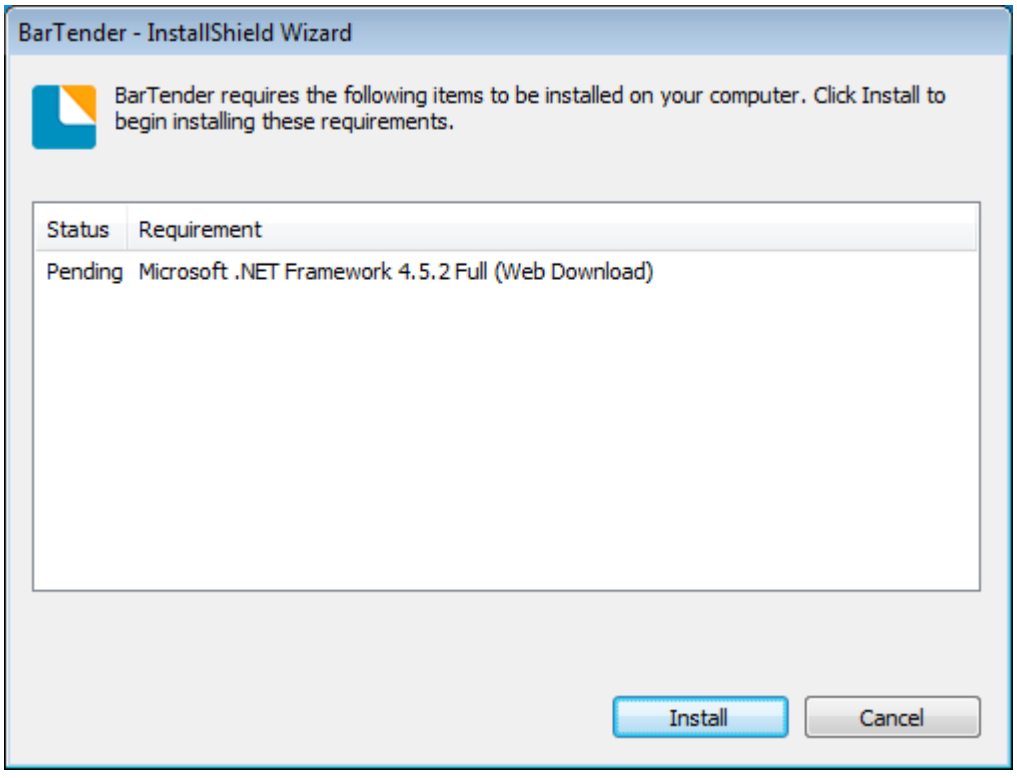
Note：Under different operating systems, the screen has a slightly difference. Take Windows 7 as an example. To avoid the prevention, recommend to close the security software before installation.

1.Double-click the application program .

2.Select language, then click "OK".

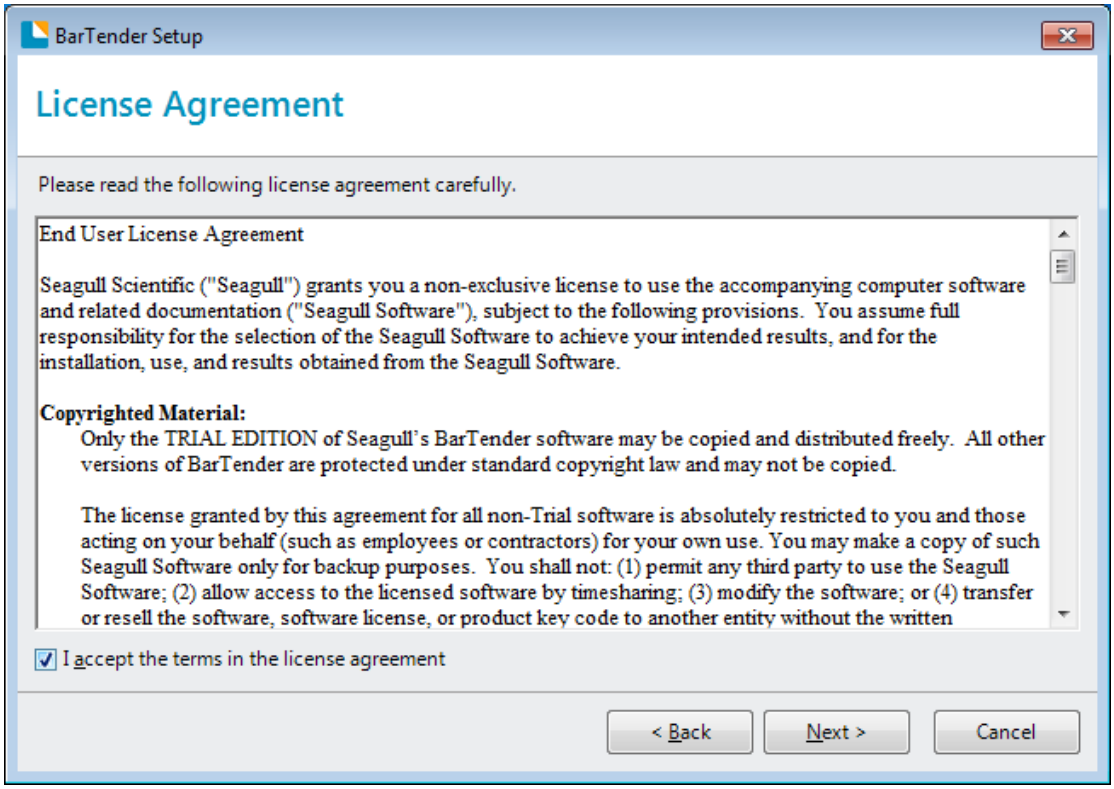


3.Click "Install".

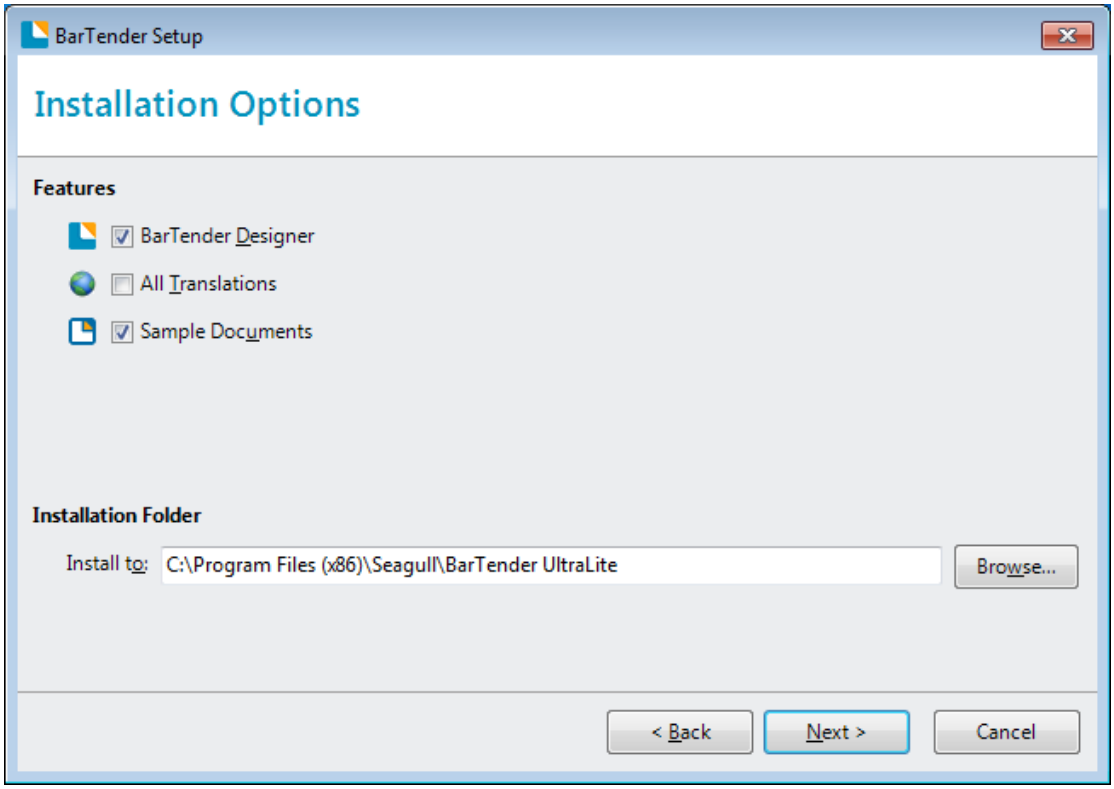


4.Click “Next”.

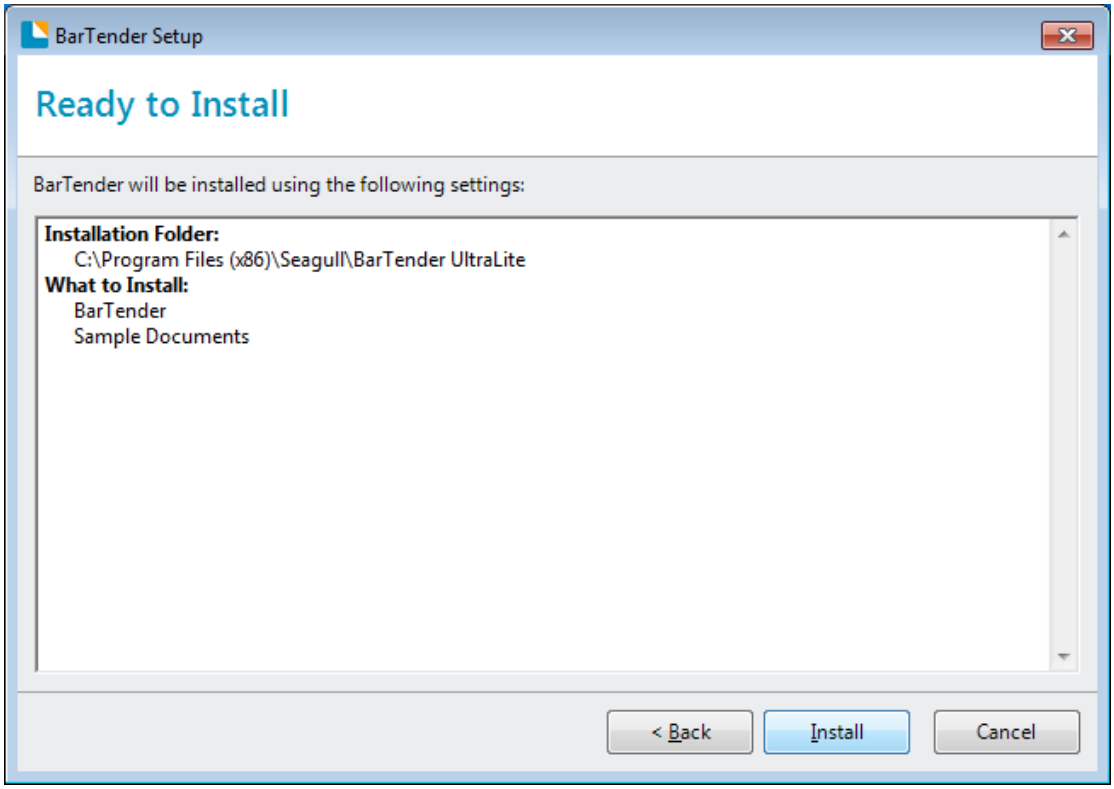
5.Read and accept the license agreement, then click "Next".

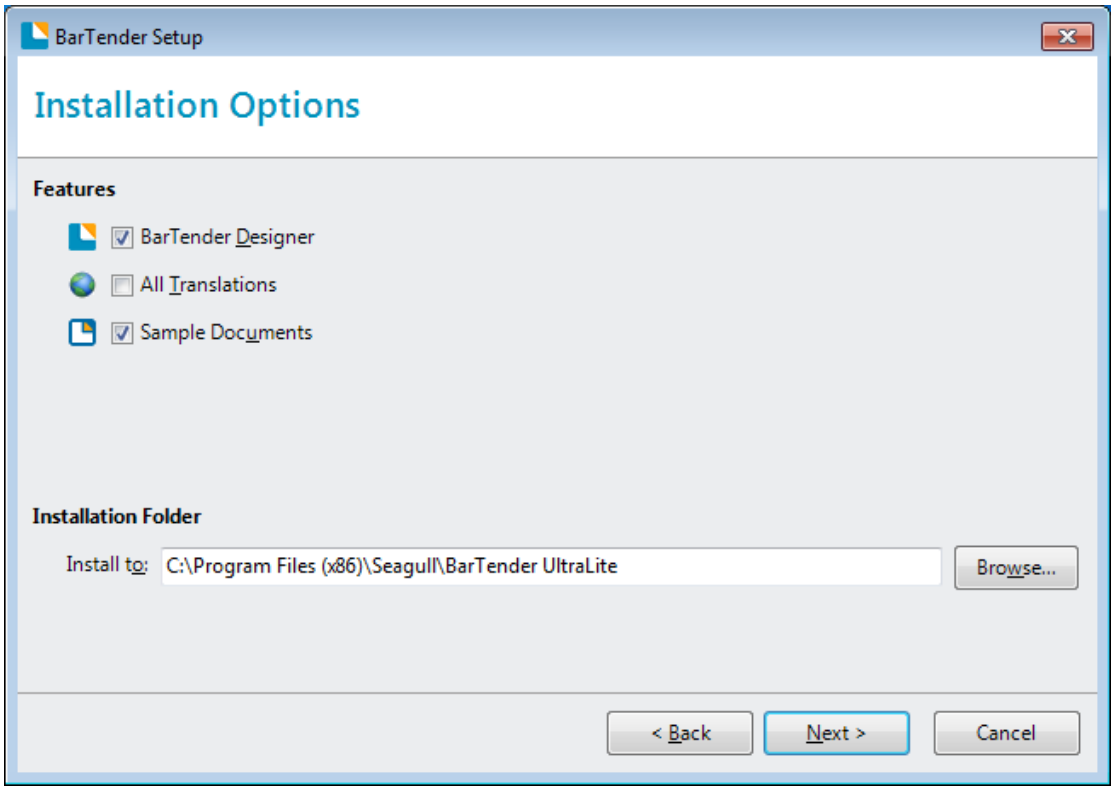


6.Select "Features" and installation location, then click "Next".

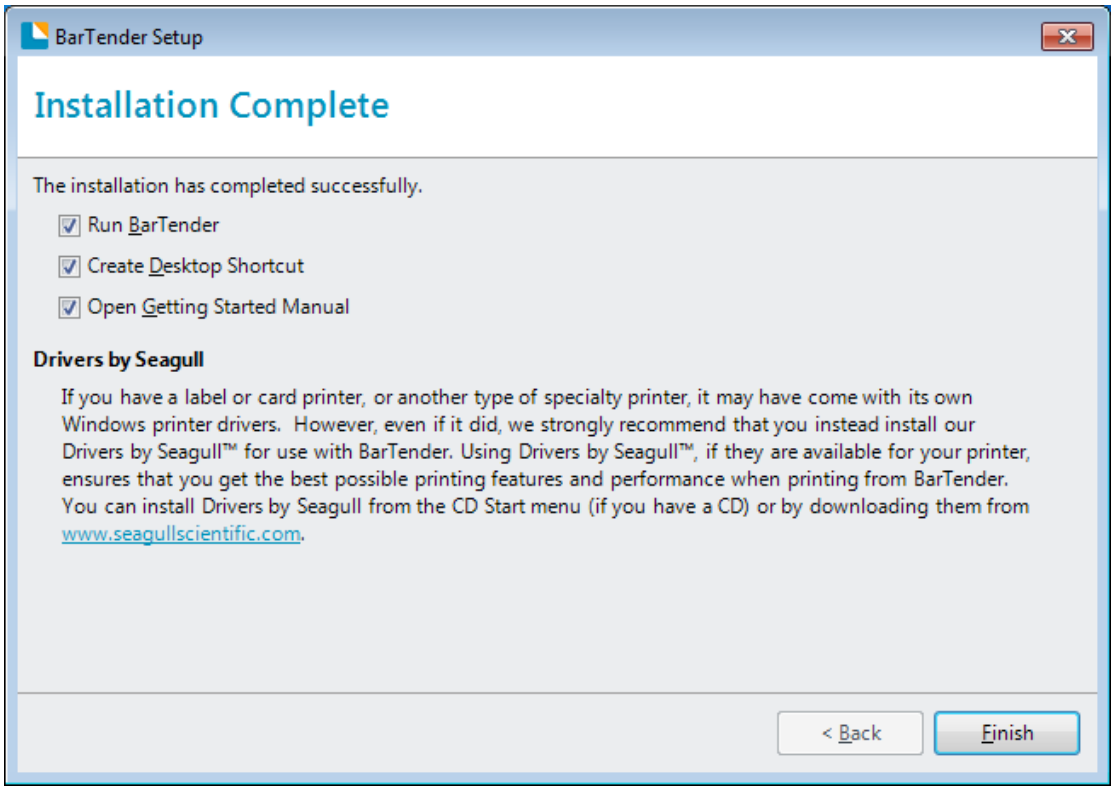


7.Click "Install".





8.Click "Finish".

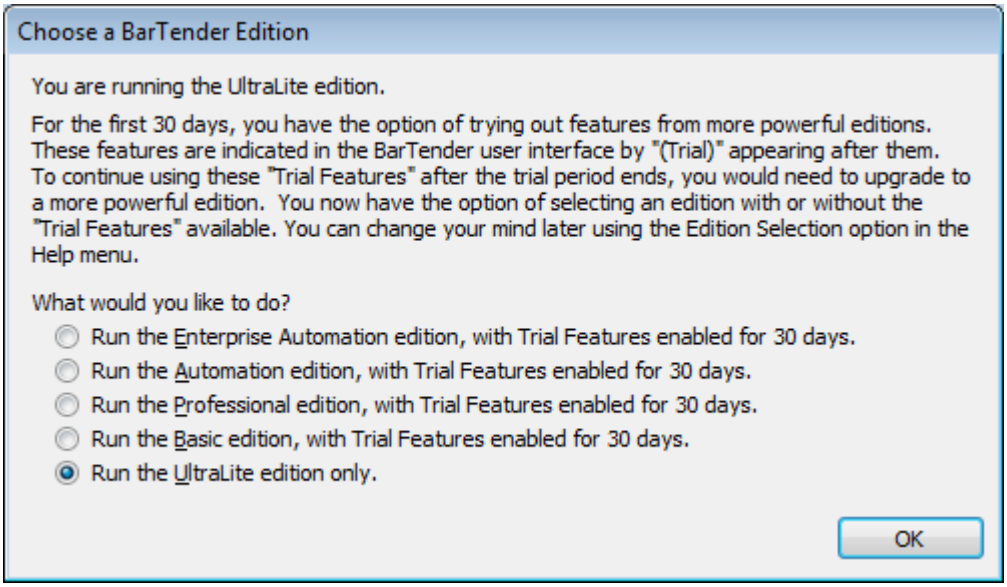


9.Back to desktop, and you will see the icon of BarTender Ultralite. Double-click it and get down to use.

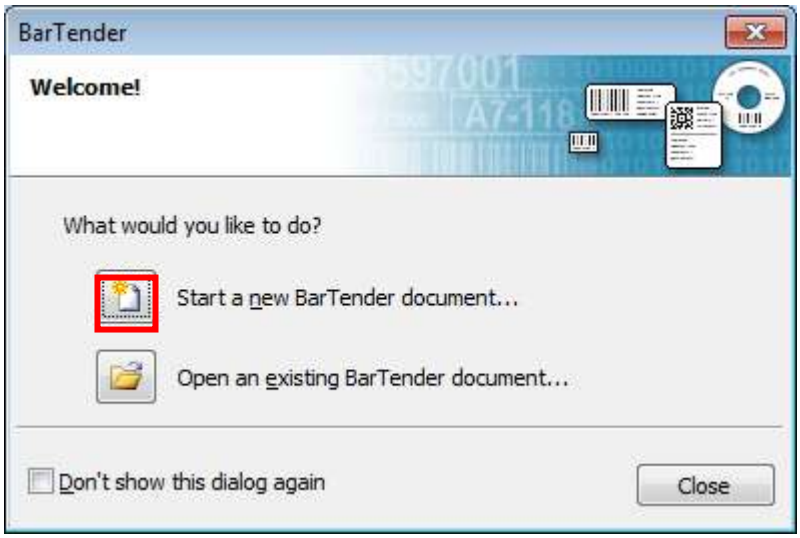
10.4 Usage

10.4.1 Page Settings

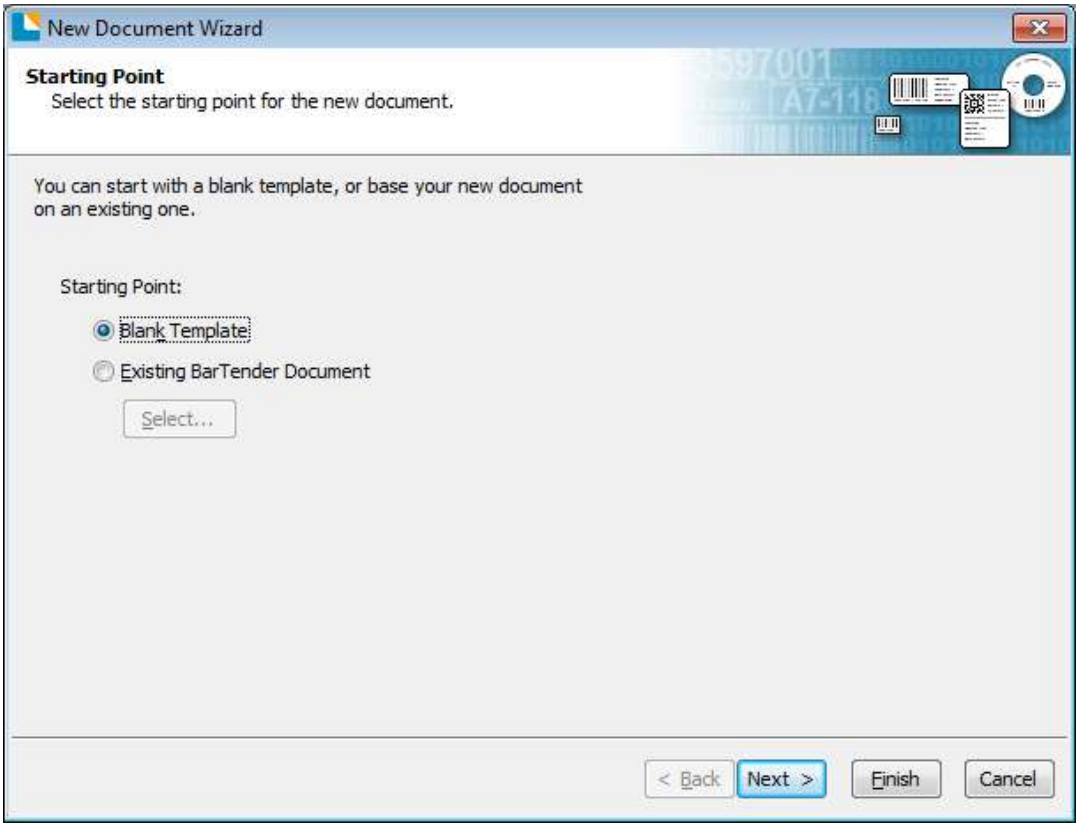
1.Double-click the icon, then select the edition. Click “OK”. (The edition may be changed according to different needs.)



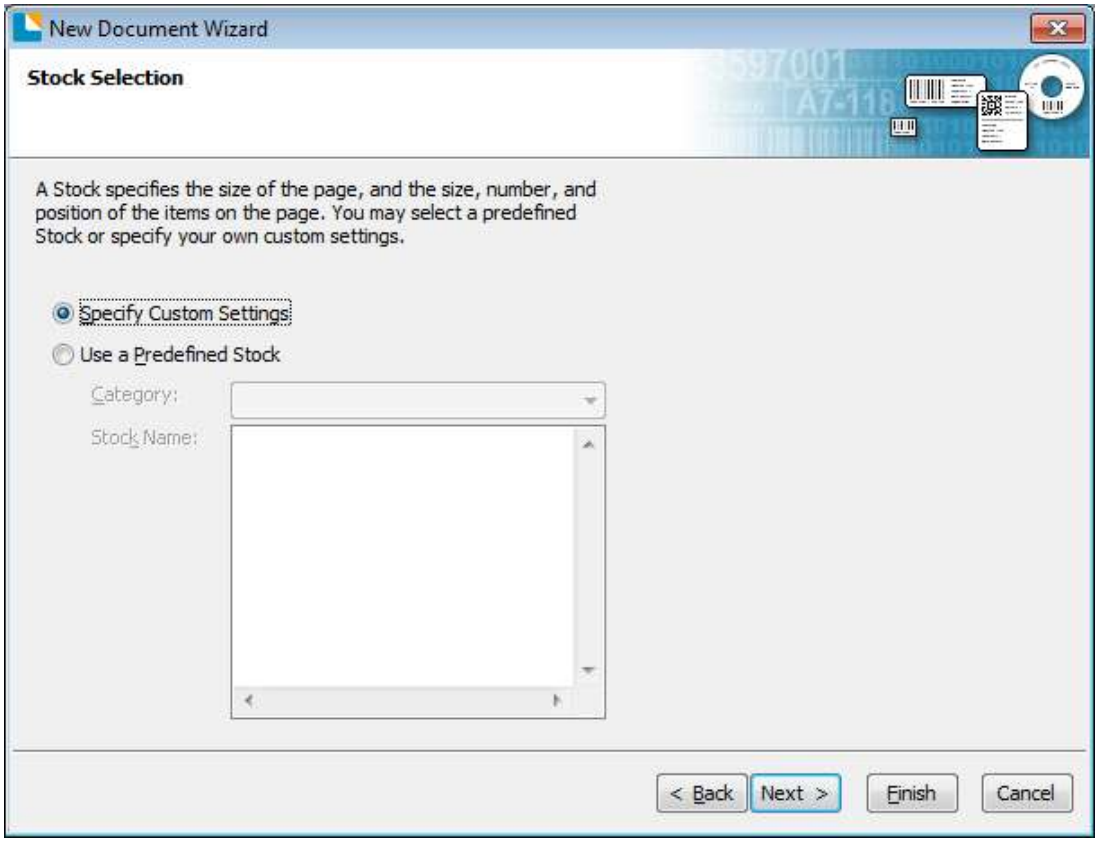
2.Click “Start a new BarTender document”.



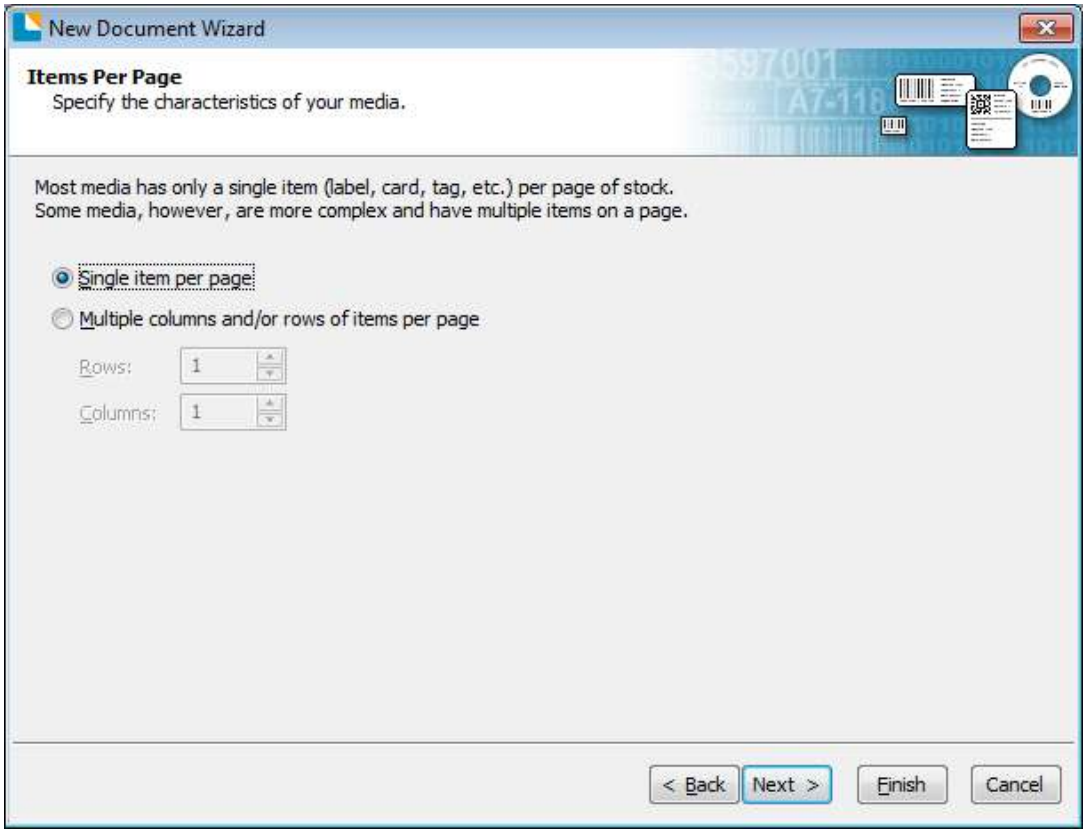
3.Select “Blank Template”, then click “Next”.



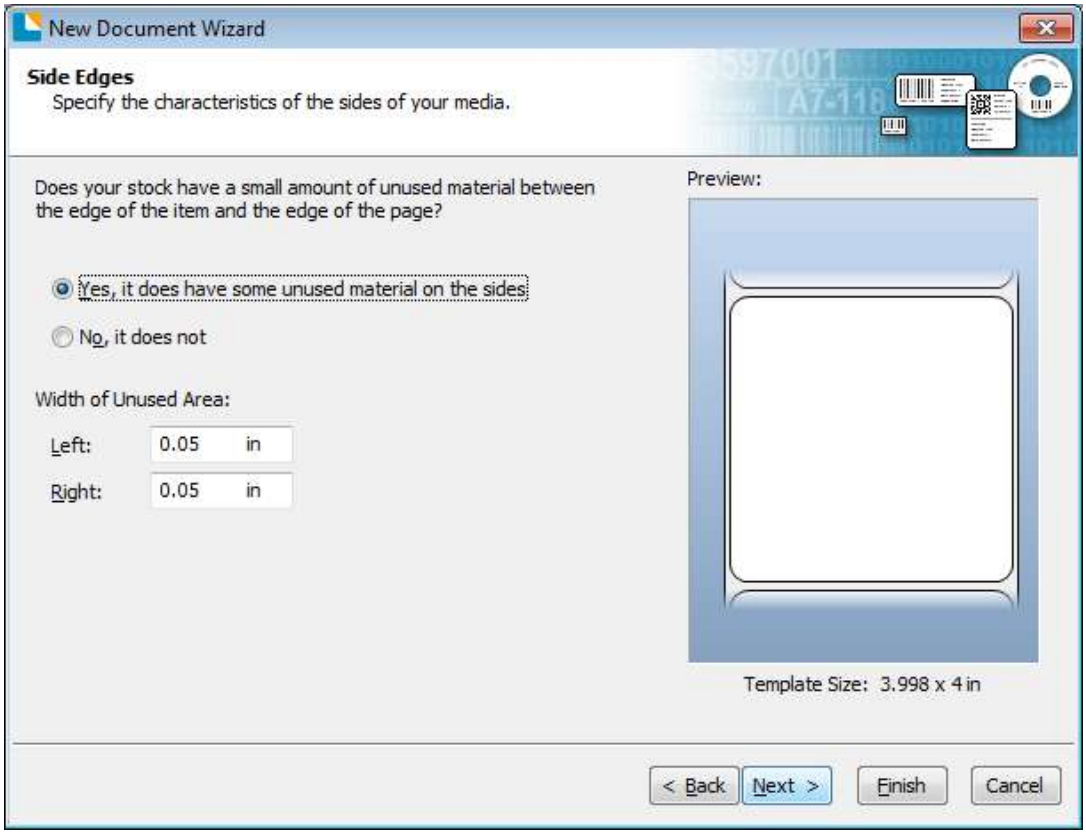
4.If the predefined stocks don’t meet your need, tick “Specify Custom Settings”. Then click “Next”.



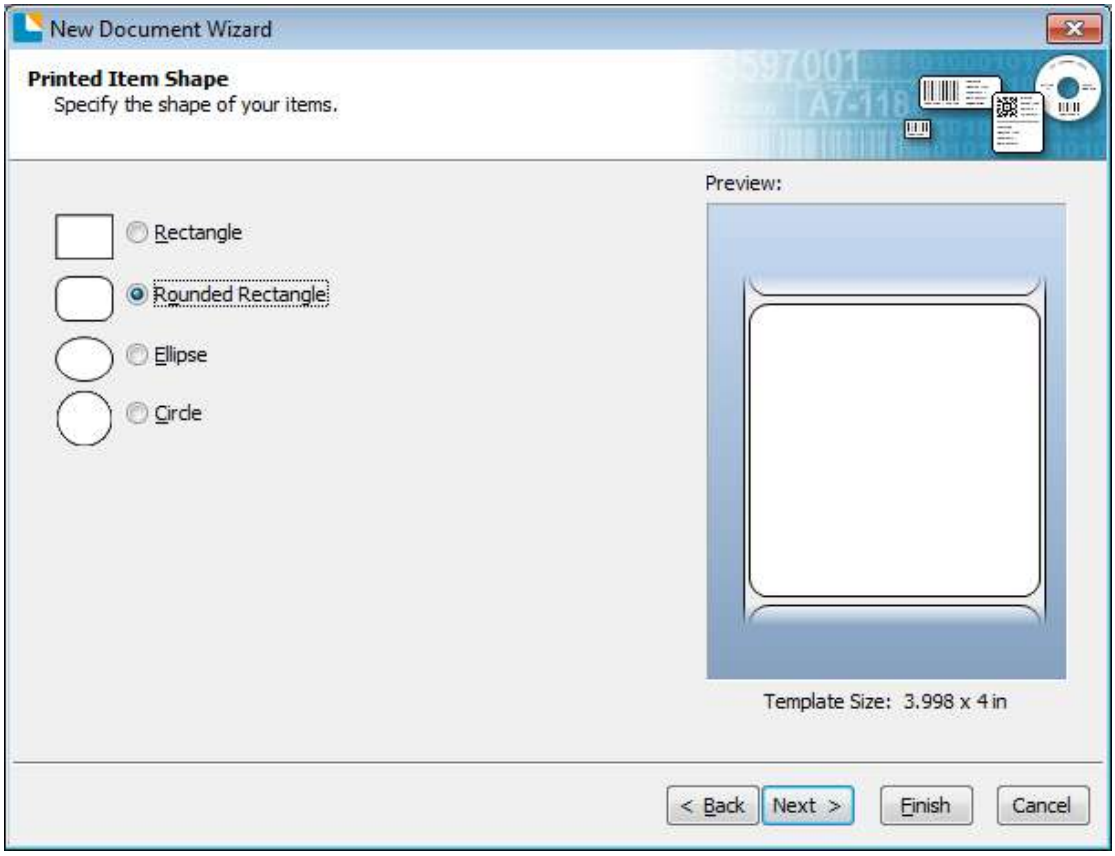
5.Tick “Single item per page”, then click “Next”. (If you print multiple labels, tick “Multiple columns and/or rows of items per page”.)



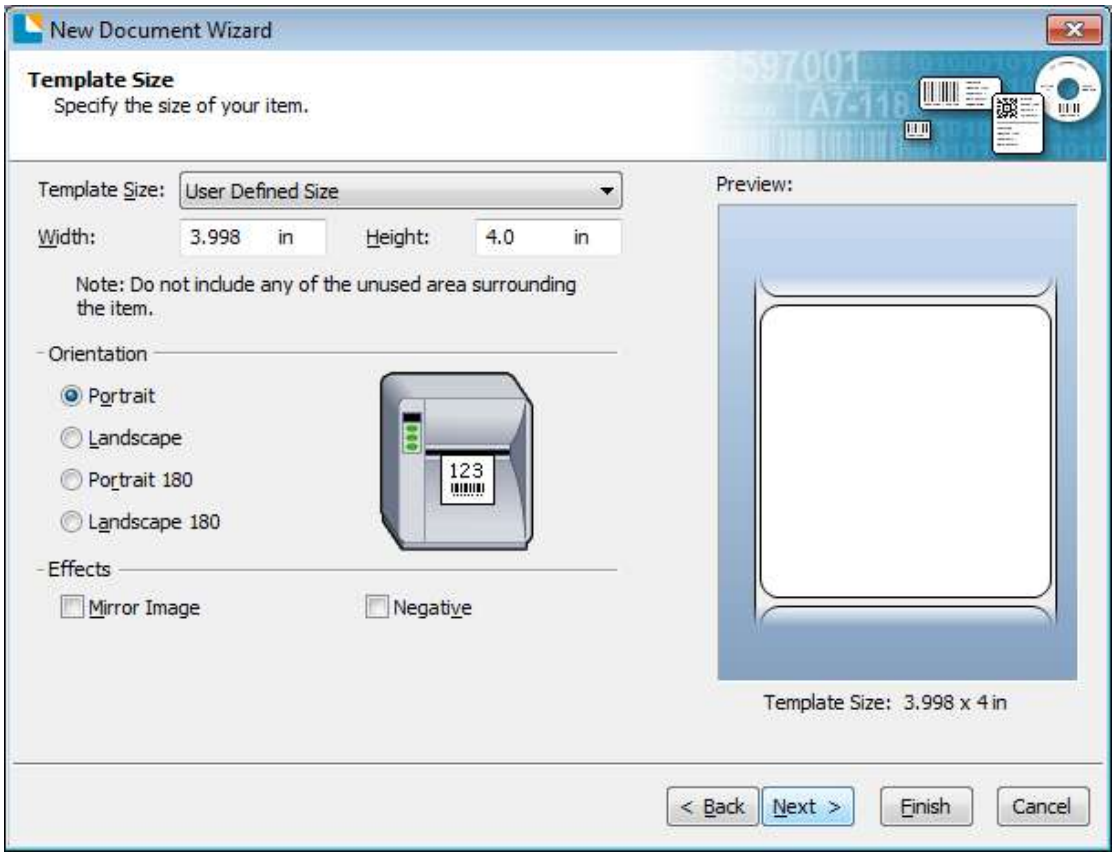
6.Edit the side edges, then click “Next”.



7.Select the item shape, then click “Next”.

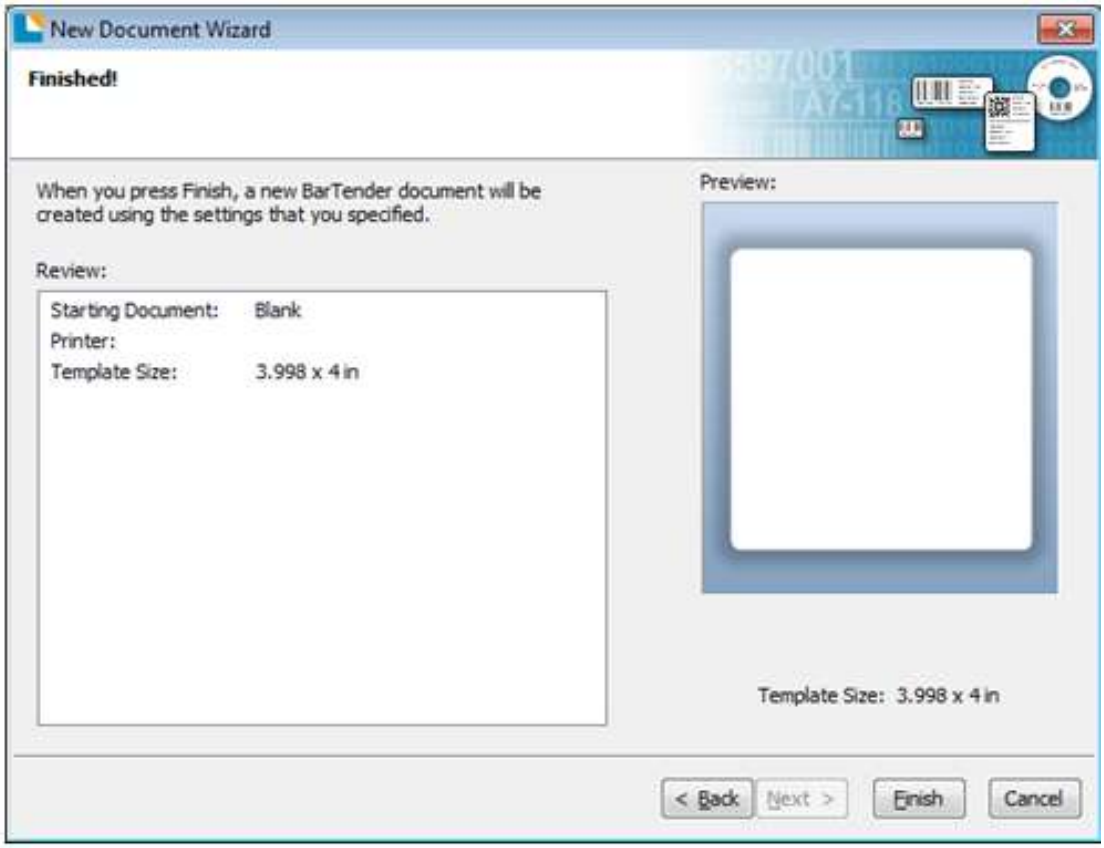


8.Edit the template size, then click “Next”.



9.Based on your need, edit the template background. Then click “Next”.

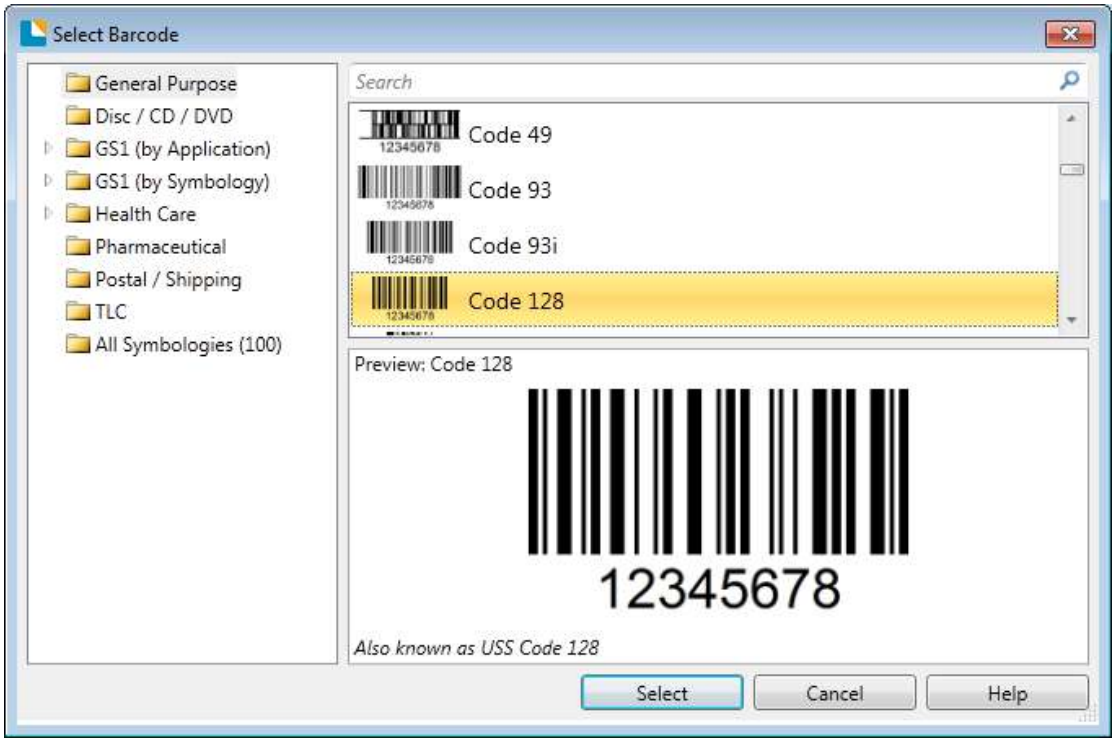
10.Finish the settings, showed in the “Review” and “Preview”. Then click “Finish”.



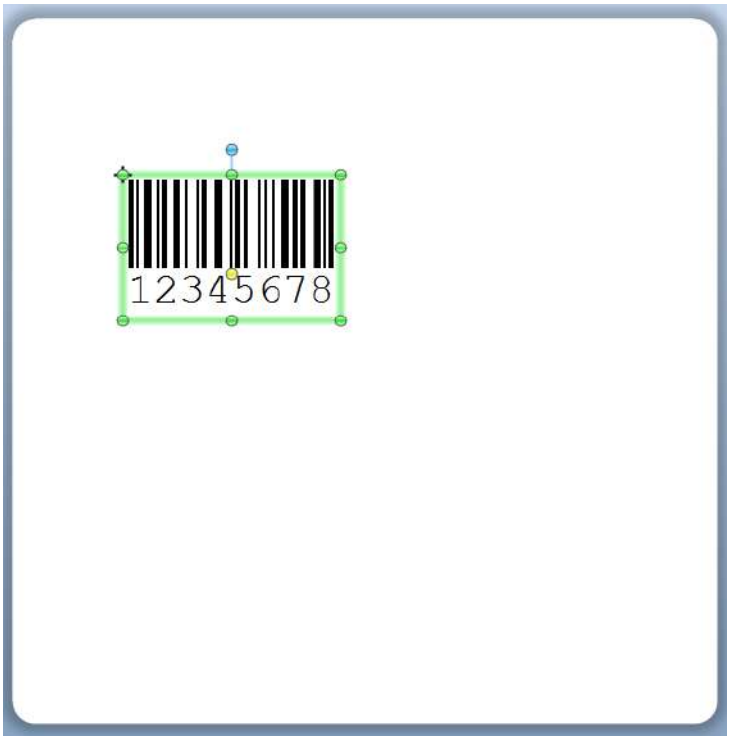
10.4.2 label Edit

1.Click the icon of code .

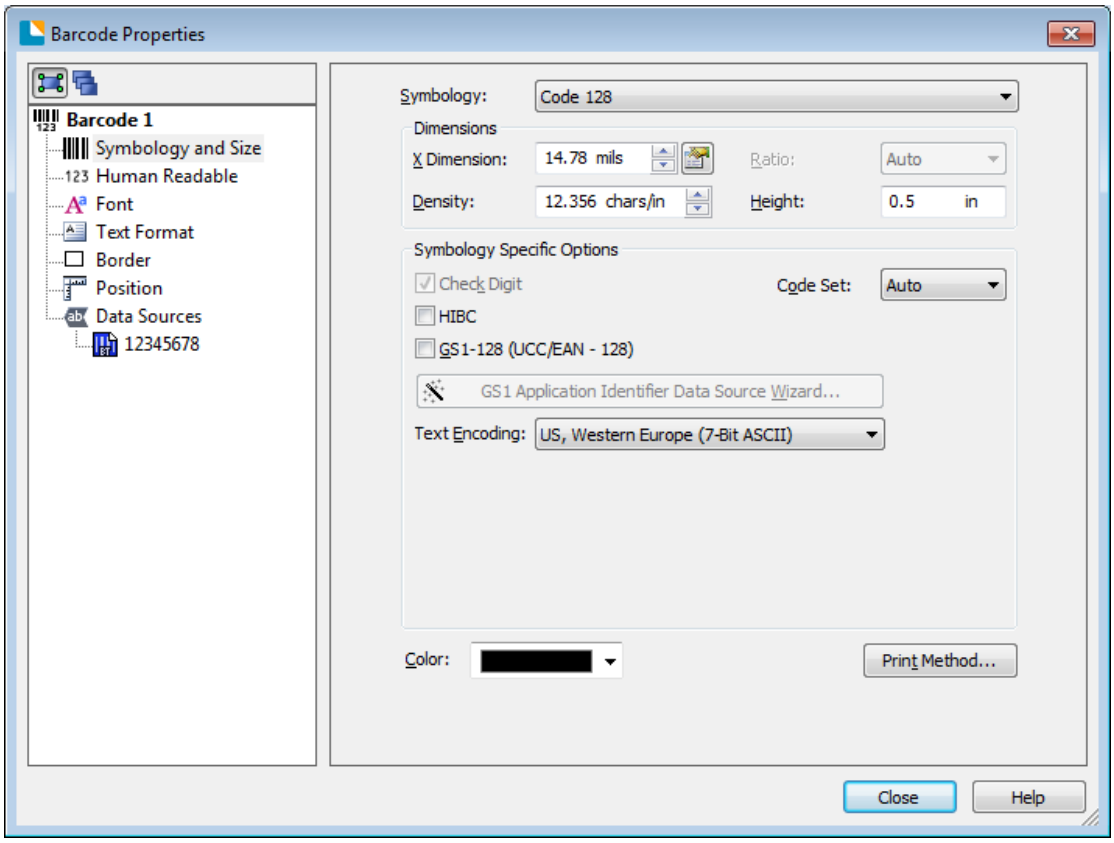
2.Select the code, then click “Select”.



3.Click the blank, showing the code.



4.Double-click the code and edit it. User can set up the size, font, border and so on.



Finishing the change, click “Close”.

5.Click the icon of character , then enter the text.

6.Click the icon of picture , then edit the pictures.

Finish all the settings. Click “Print” and a new label will be printed.

Chapter 11 iDPRT Label Designer Installation

11.1 Installation Preparation

Download iDPRT Label Designer application program in CD.

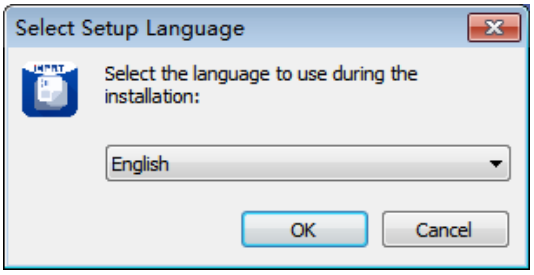
11.2 Installation

Note：Under different operating systems, the screen has a slightly difference. Take Windows 7 as an example. To avoid the prevention, recommend to close the security software before installation.

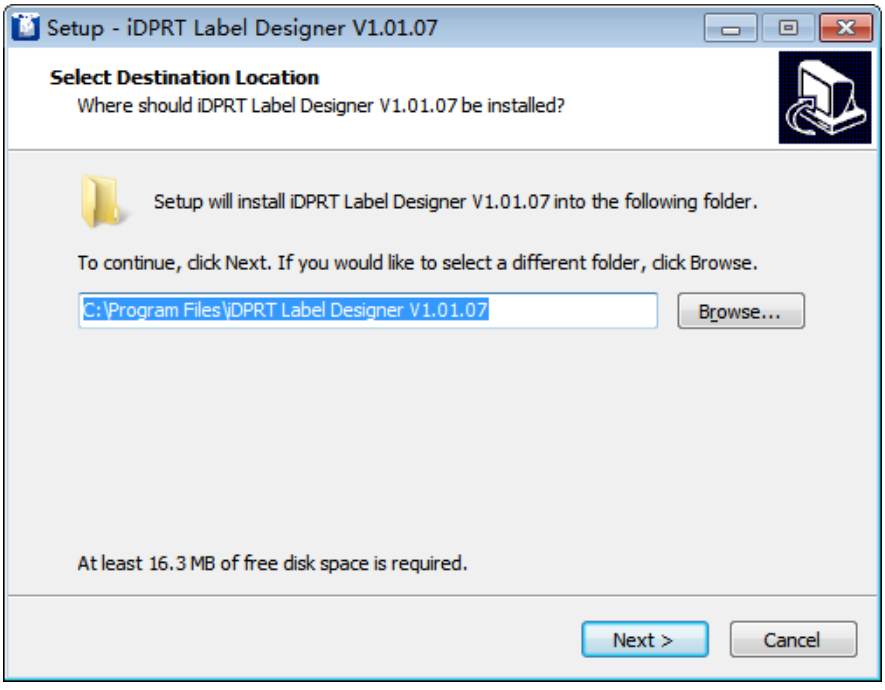
1.Make sure the ***Windows Driver*** has been installed (Please refer to the Chapter 7).

2.Double-click the application program.

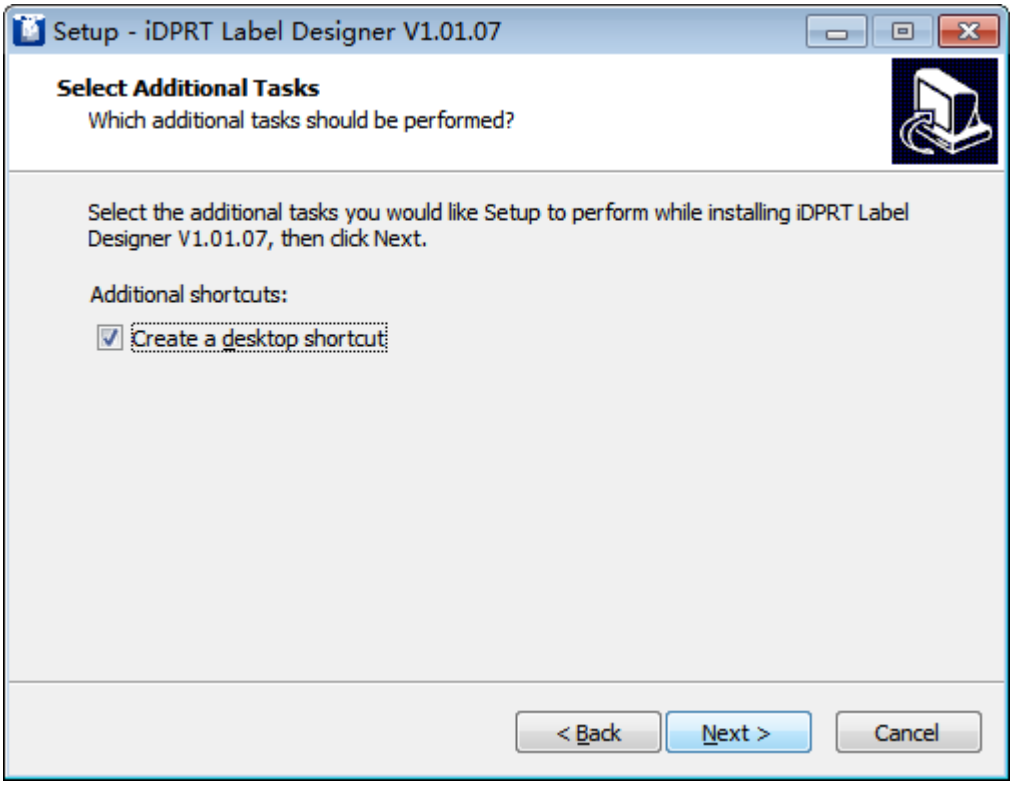
3.Select language, then click "OK".



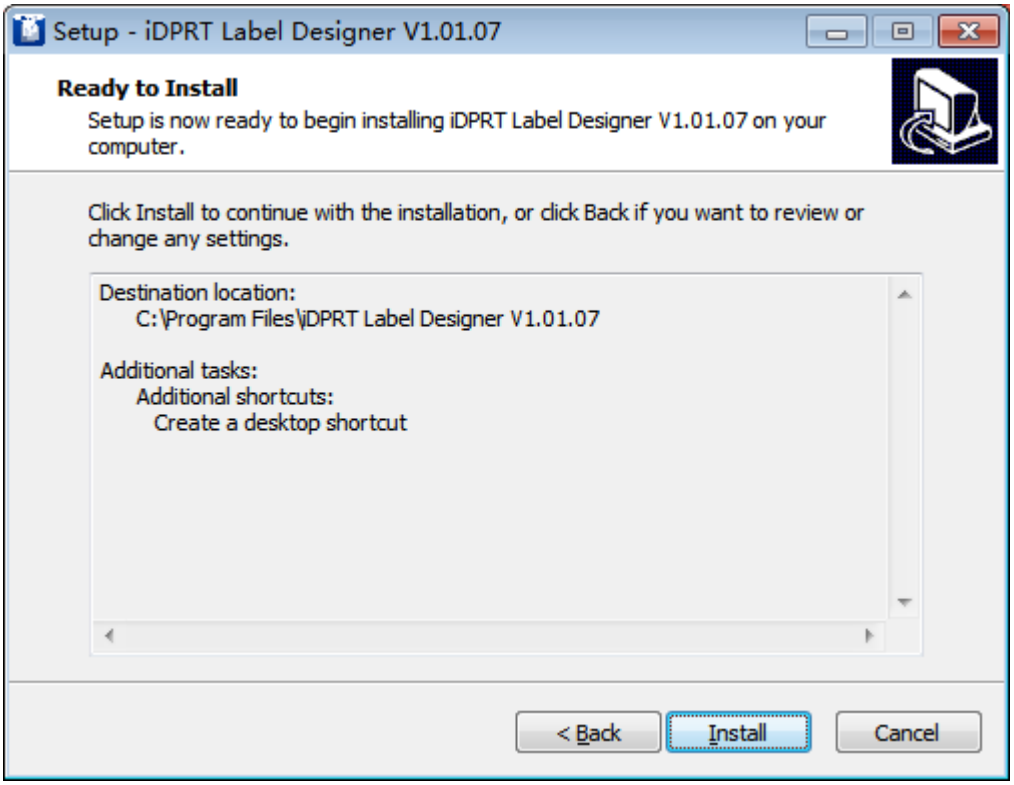
4.Select the destination location.



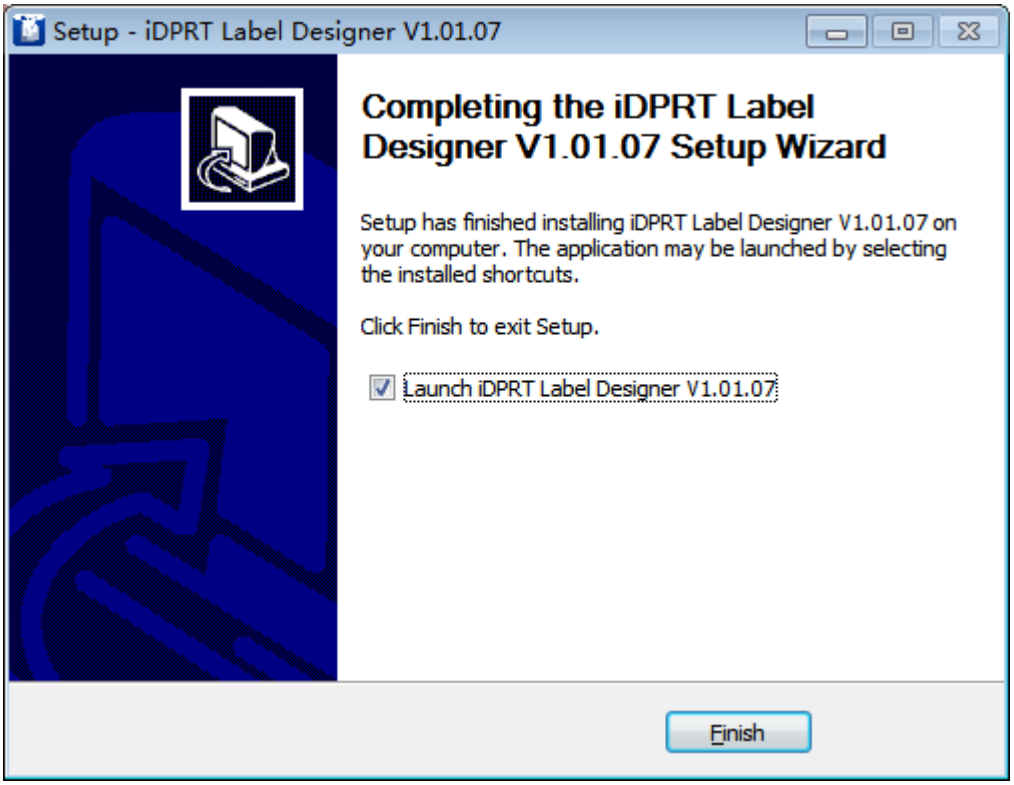
5.Click "Next".



6.Click “Install”.



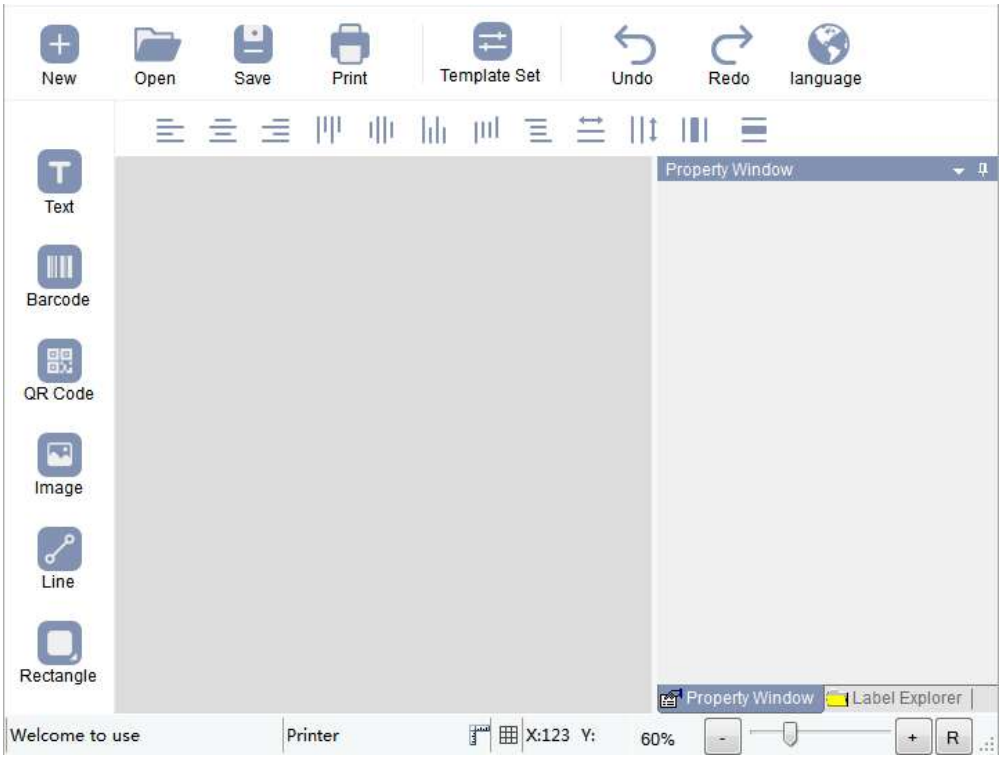
7.Click "Finish".



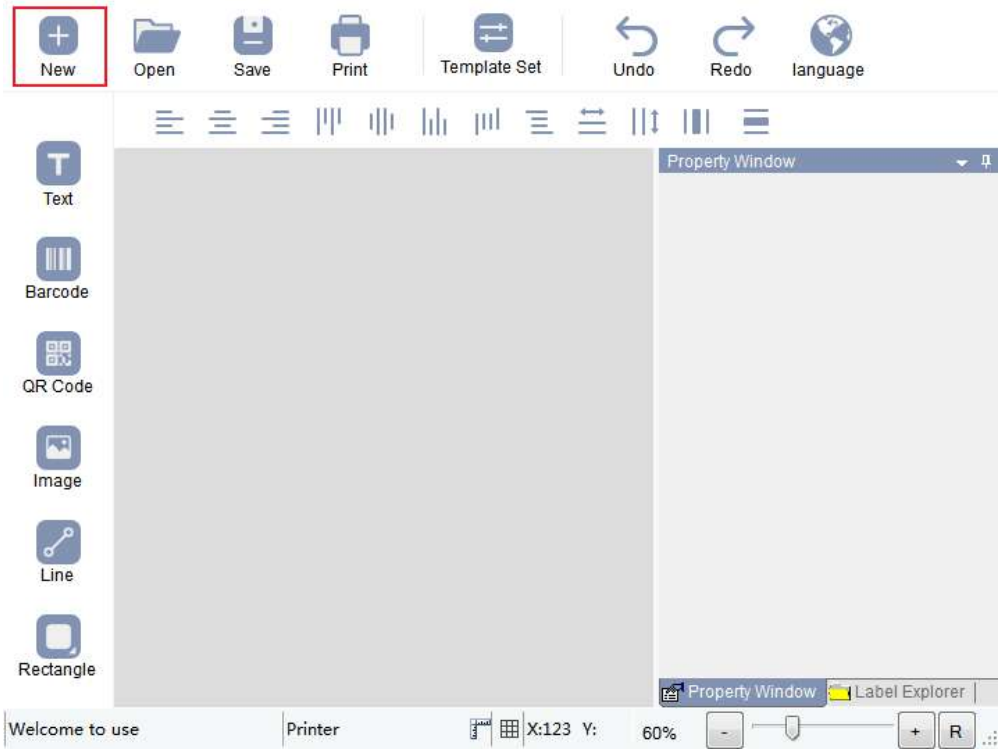
8.Back to desktop, and you will see the icon of Label Designer. Double-click it and get down to use.

11.3 Label Edit

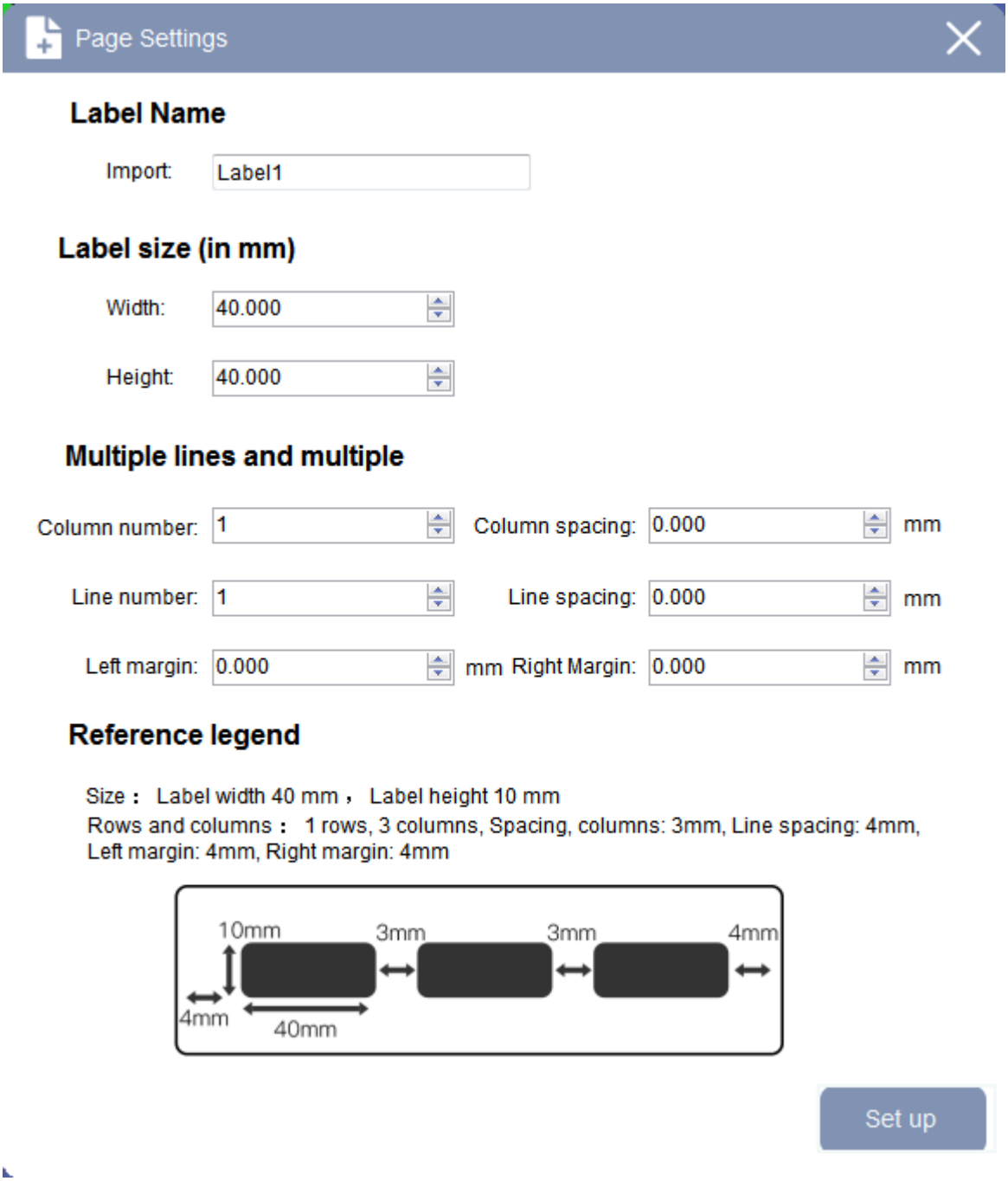
1. Double-click the icon.



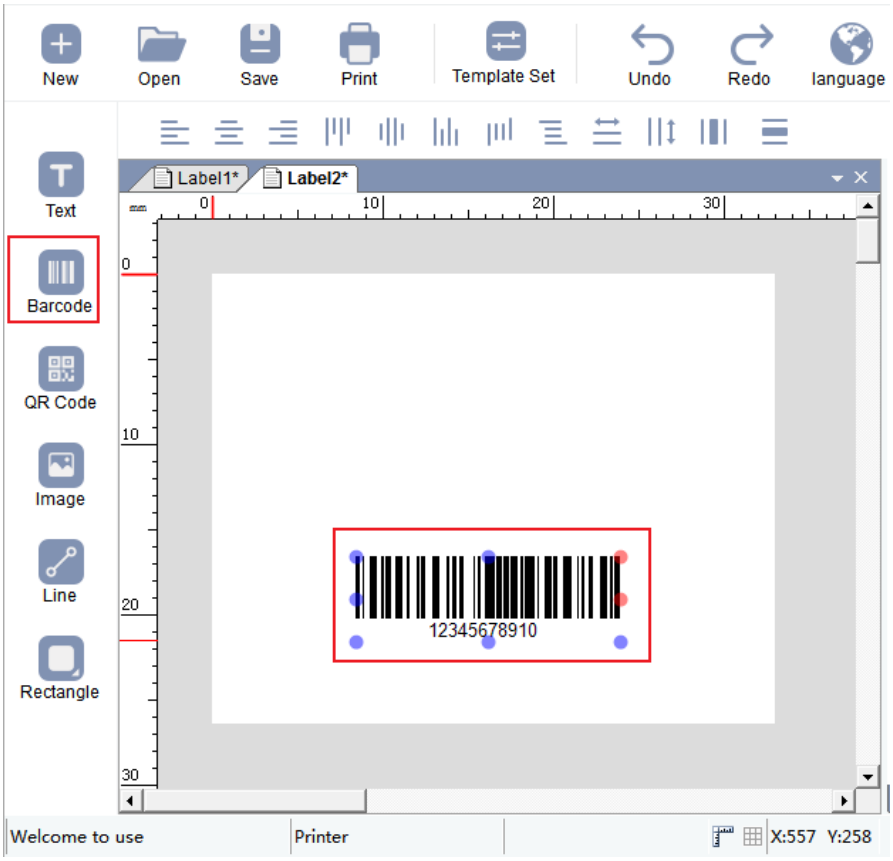
2.Click “New” to create a new template.



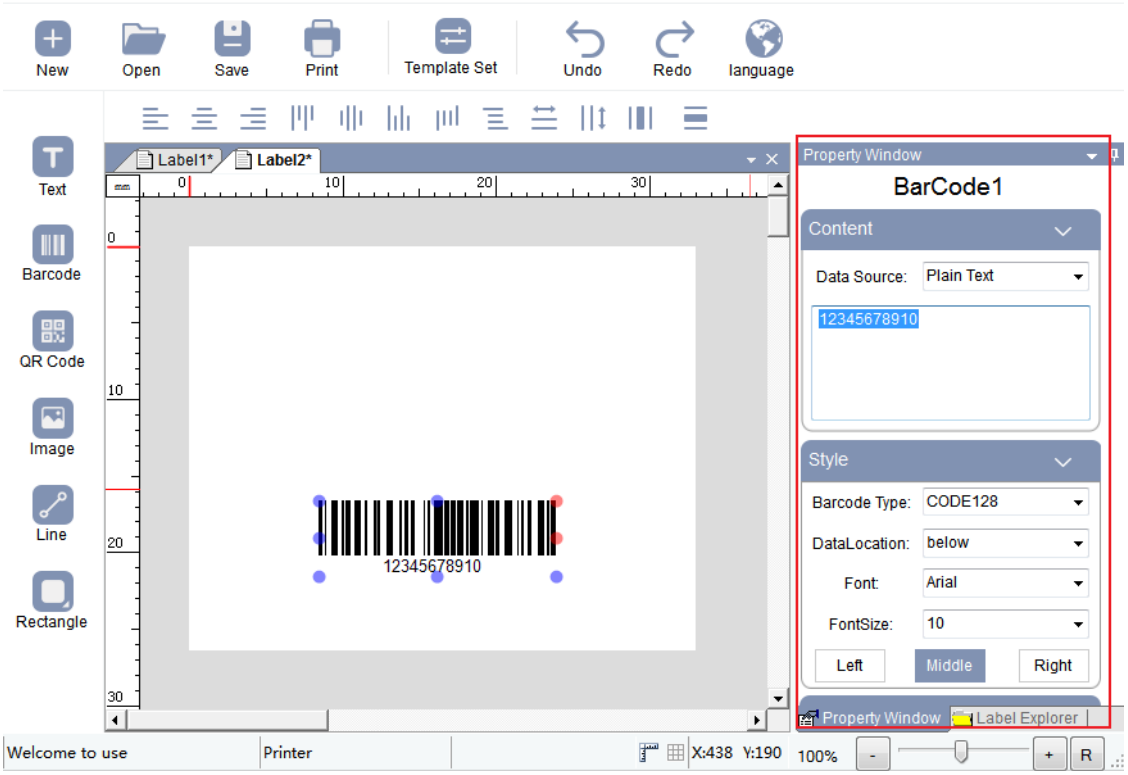
3.Set up the page according to your needs, then click “Set up”.



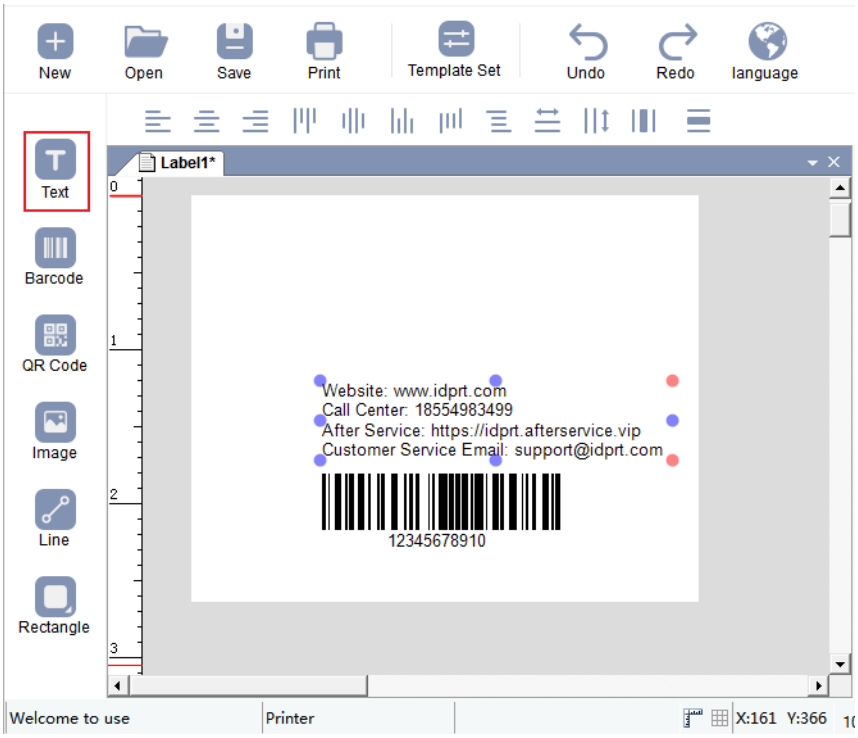
4.Select “Barcode”, then click the blank space to place the Barcode.



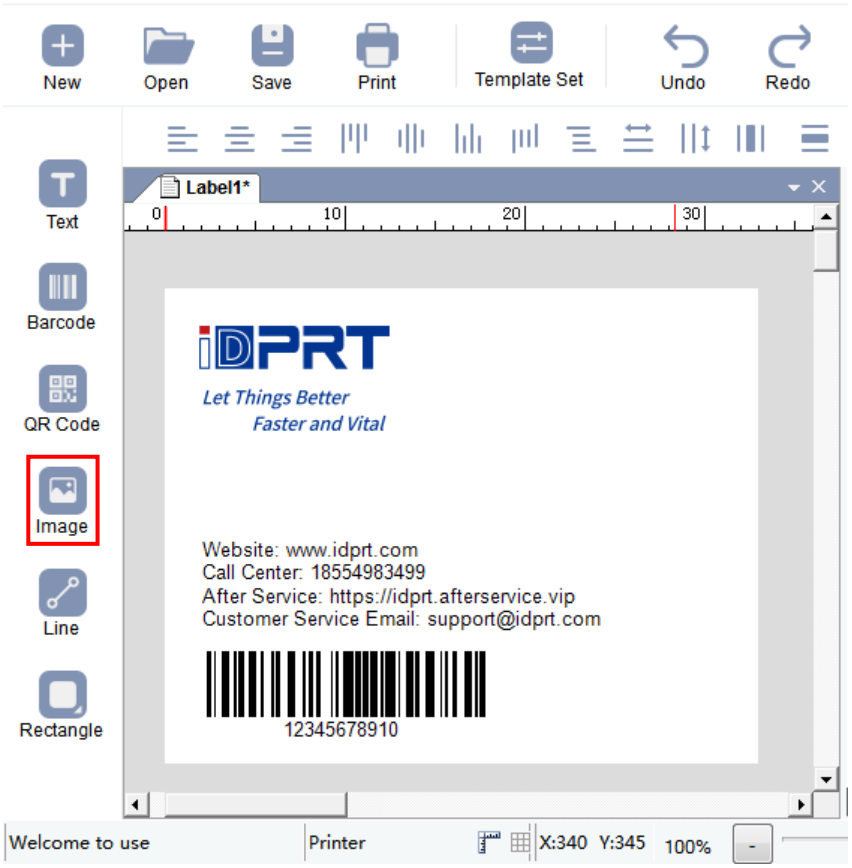
5.Double-click the code to edit it. User can set up the size, font, border and so on.



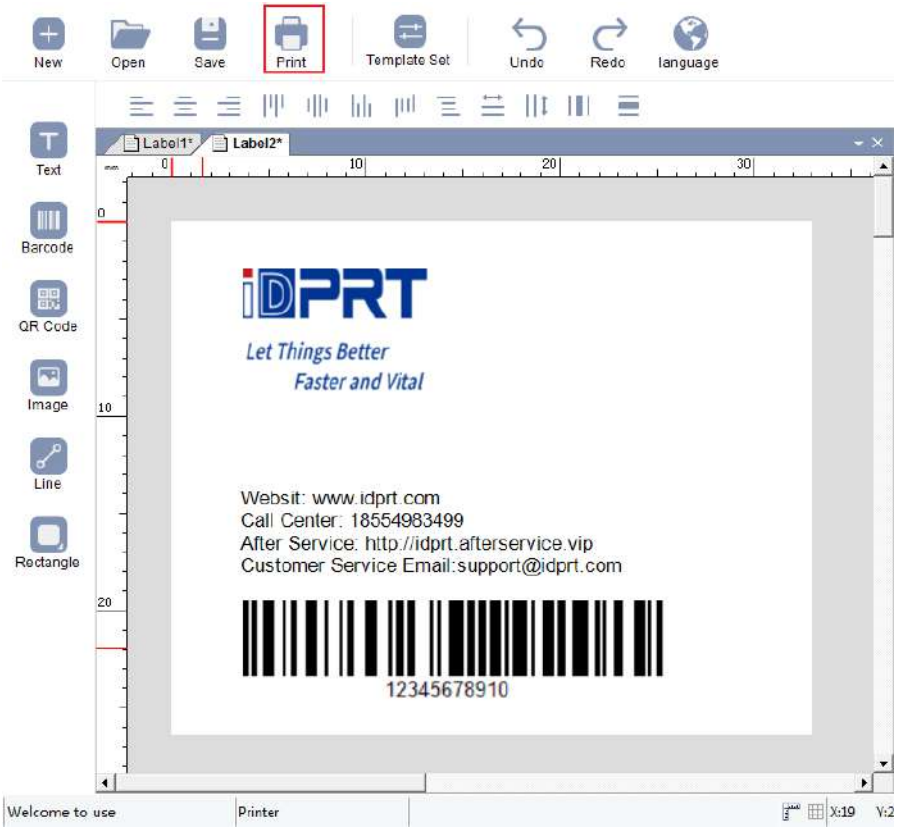
6.Click “Text”, then enter the text.



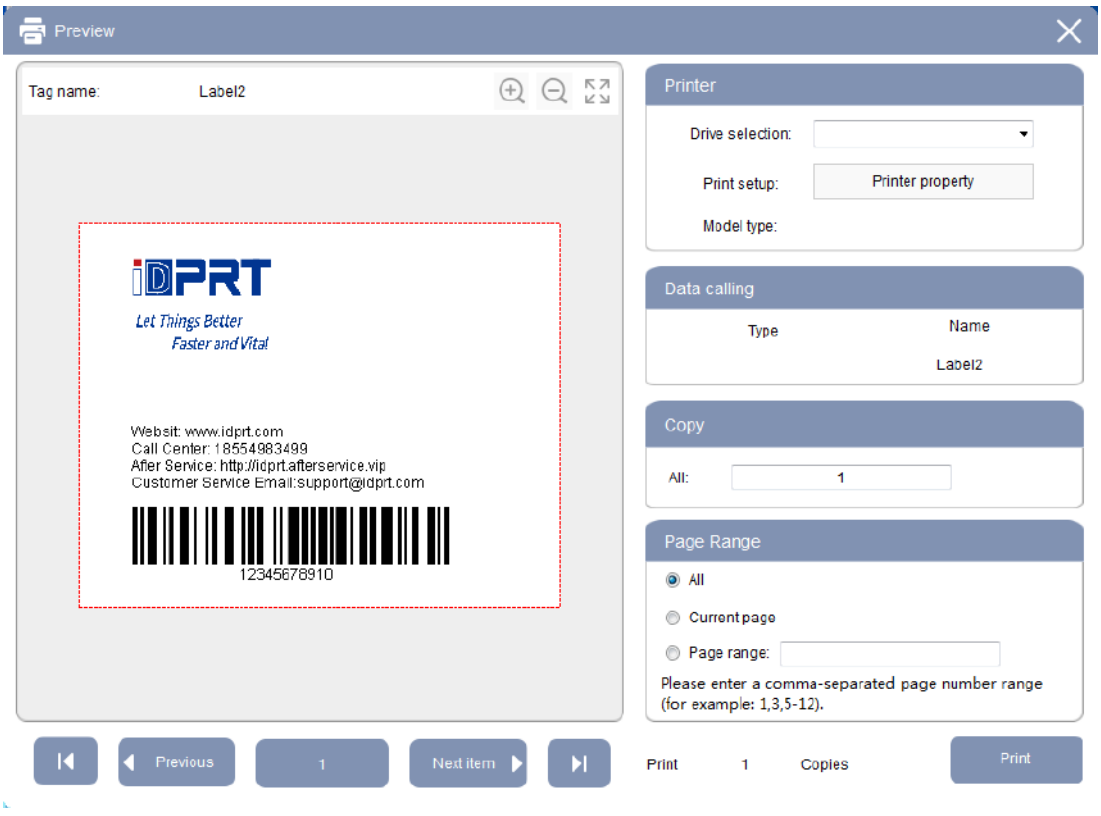
7.Click “Image”, then edit the pictures.



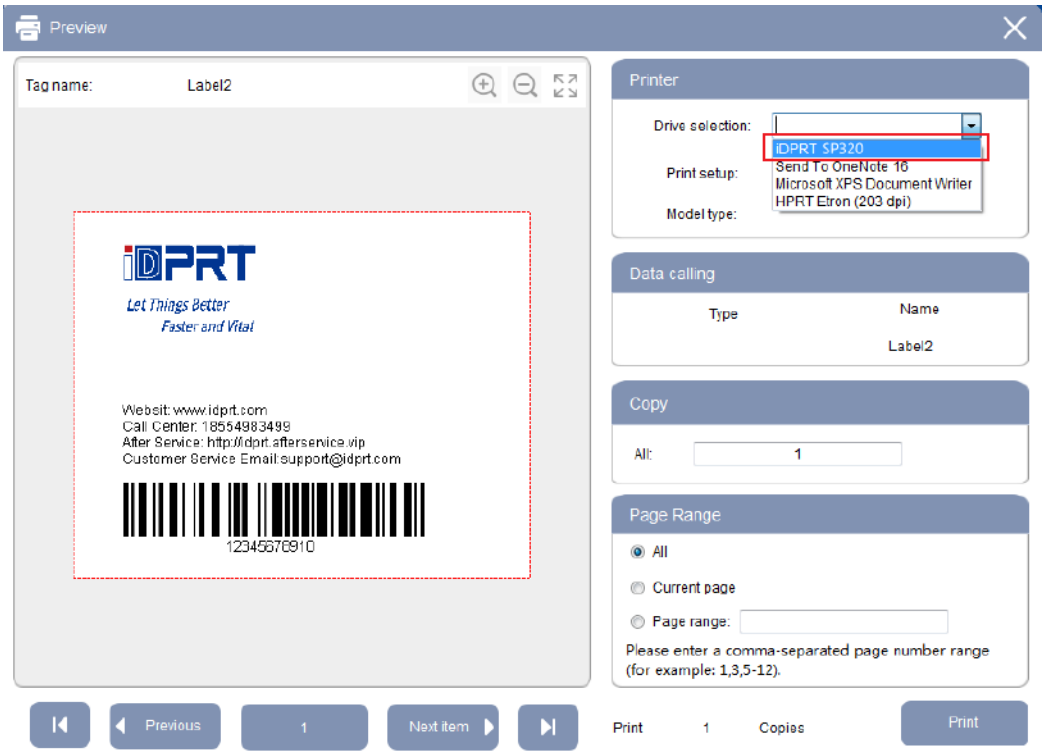
8.Finish all the settings, then click “Print”.



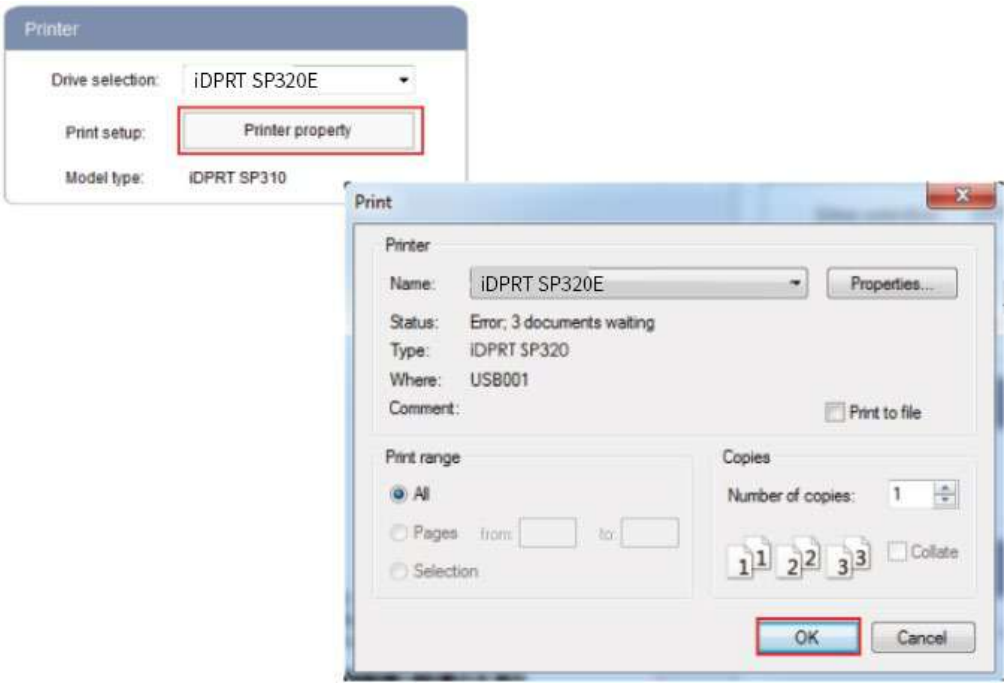
9.Preview the label to be printed.



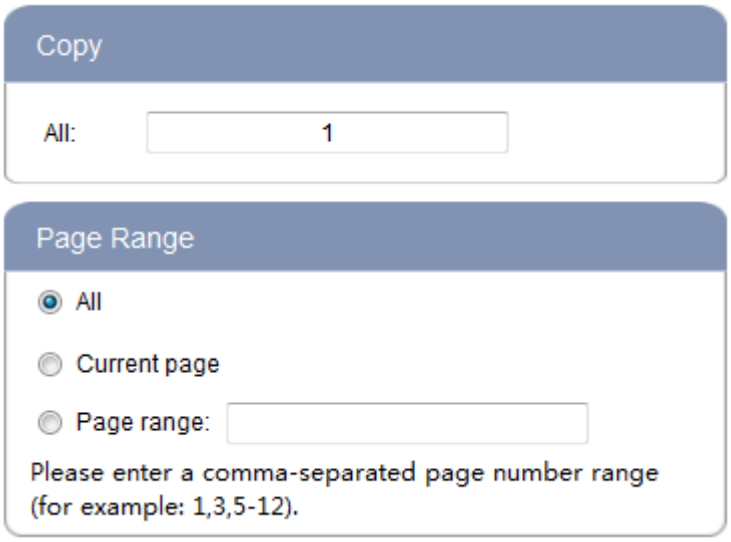
10.Click “Driver selection”, then select the printer of “iDPRT SP320”.



11.Click “Printer Property” to set up the label by Windows Driver (Please refer to the Chapter 7), then click “OK”.



12.Set the “Copy” or “Page Range” as needed.



Finish all the settings. Click “Print” and a new label will be printed.

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

FCC RF exposure statement:

The equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. During the operation of device a distance of 15 cm surrounding the device and 20 cm above the top surface of the device must be respected.

FCC ID：2AUTE-HDDL21001