

# CITIZEN

## **POS Printer Utility Manual**



**CITIZEN SYSTEMS JAPAN CO., LTD.**

## Introduction

The POS Printer Utility can perform the internal setup of a printer easily.

Also, it can edit BMP, GIF and JPG types of images, to register logo data into NV memory (flash memory) of the printer and to perform test printing.

### Supported Models

CT-D150, CT-D151, CT-D151W,  
CT-E351, CT-E651, CT-E651W,  
CT-S251, CT-S251W,  
CT-S280, CT-S281, CT-S281BD,  
CT-S300, CT-S310, CT-S310II,  
CT-S601, CT-S601II, CT-S601IIW, CT-S601IIR, CT-S601IIRW,  
CT-S651, CT-S651II, CT-S651IIW,  
CT-S751,  
CT-S801, CT-S801II, CT-S801IIW,  
CT-S851, CT-S851II, CT-S851IIW,  
CT-S2000,  
CT-S4000, CT-S4500,  
CT-P291, CT-P293,  
PMU2300III,  
PPU-700II

### Supported OS

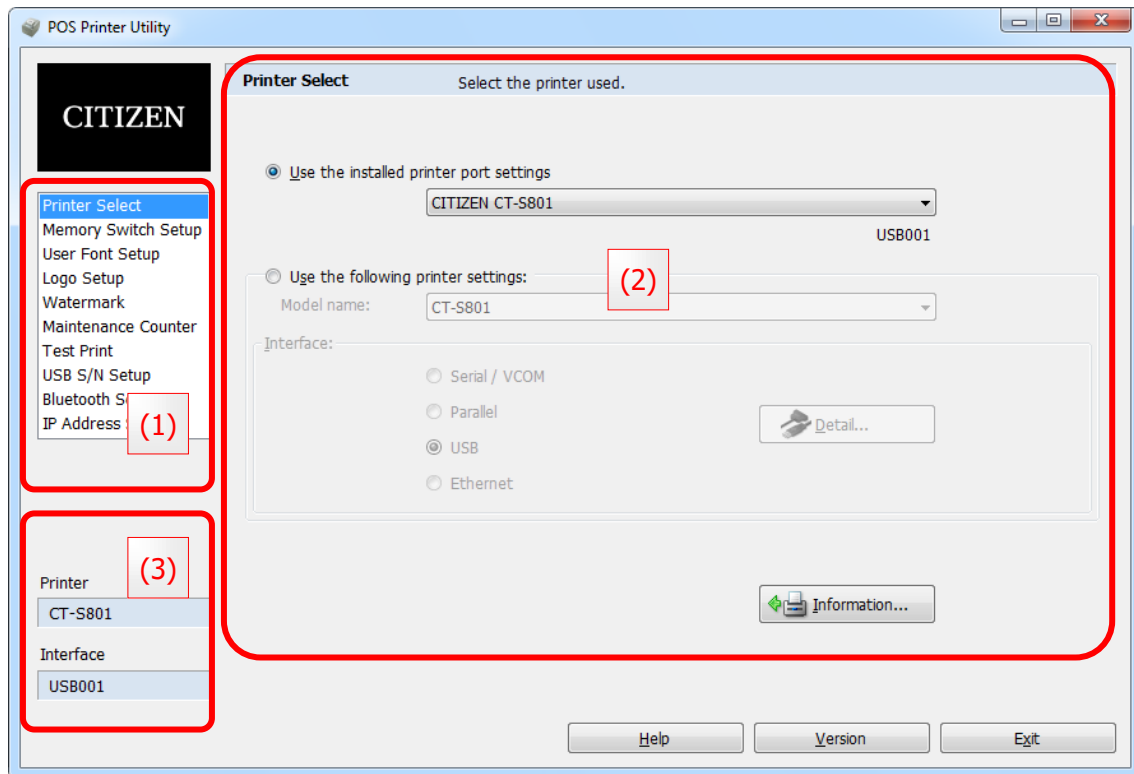
Windows XP or later

Requires: .NET Framework 3.0 SP2

## Basic usage

When you click on setting items of (1) on the left-hand side of screen, the right-hand side screen (2) is changed and setting on each item can be performed.

The current printer and interface are displayed on the left-lower part (3) of screen.



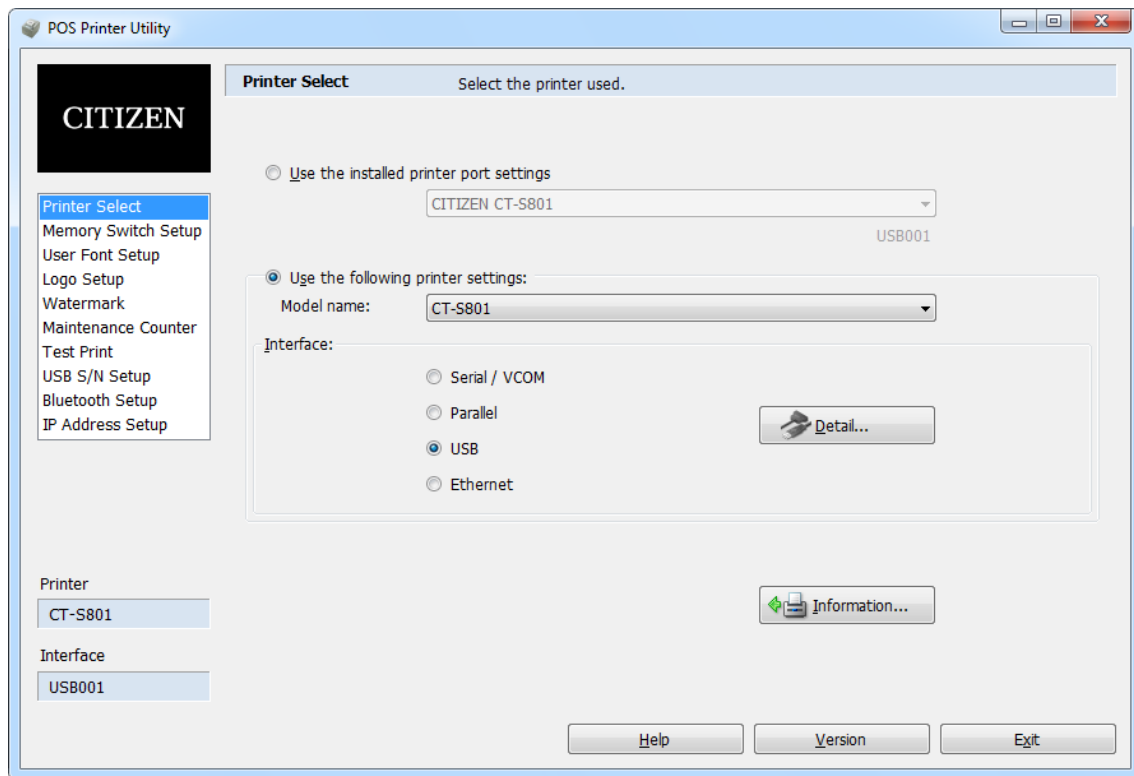
## Common Buttons

<b>[Help]</b>	Displays the manual for POS Printer Utility.
<b>[Version]</b>	Displays the version information for POS Printer Utility.
<b>[Exit]</b>	Exits the POS Printer Utility.

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# Printer Select

Select the printer and the interface.



## [Use the installed printer port settings] radio button

You can choose from the installed printer.

Click the  to select the printer used.

## [Use the following printer settings] radio button

You can manually select a model and an interface.

Click [Model name] list and [Interface] radio button, select the printer used.

Click [Detail...] button, and [set the details of Interface](#).

## [Information...] button

Acquisition of printer information is tried and the result is displayed.

The contents of a display change by a model.

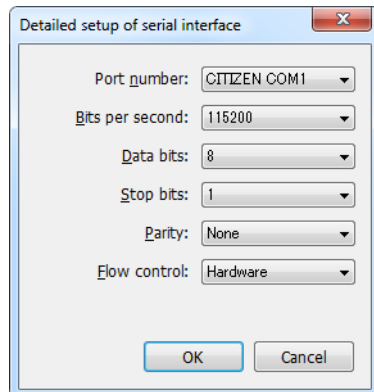
## Detailed Setup of Interface

Perform the detail setting of the interface.

\*Some items may not be displayed if the selected interface is Parallel or USB.

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### Serial interface



#### Port number:

Select the port number.

#### Bits per second:

Select the baud rate from [1200] to [115200].

The selectable value changes by a model.

#### Data bits:

Select the data bit from [7] or [8].

#### Stop bits:

Select the stop bit from [1] or [2]

#### Parity:

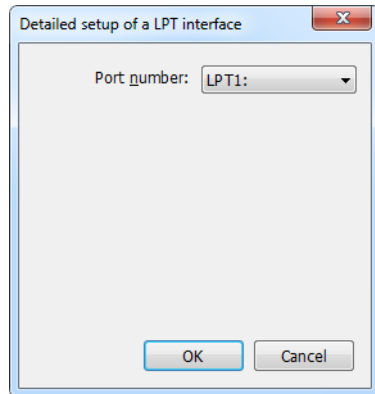
Select the serial parity from [None], [Odd] or [Even].

#### Flow control

Select [DTR/DSR], [Xon / Xoff] for Serial flow control.

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## Parallel interface

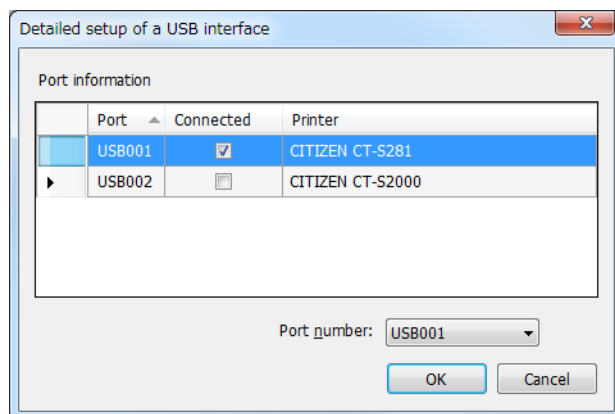


### Port number:

Select the port number.

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## USB interface



### Port information:

Display the port information.

You can choose the port number by clicking on the port information.

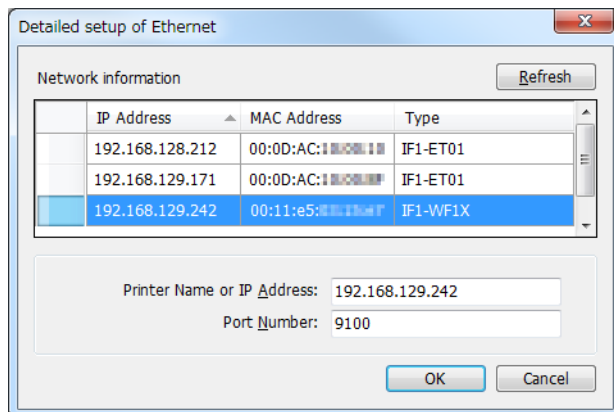
### Port number:

Select the port number.

\*If you are using Virtual COM on the USB interface, please refer to the detailed setup of ["Serial interface"](#).

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## Ethernet



### Network information:

Display the network information.

You can choose the IP address by clicking on the network information.

### [Refresh] button

Search the network printers and display it.

Searchable network interface boards are as follows.

IF1-ETxx, IF2-ETxx, IF1-WFxx, IF2-WFxx, IF1-ESxx

### Port Name or IP Address:

Type the port name or IP address.

### Port number:

Type the port number.

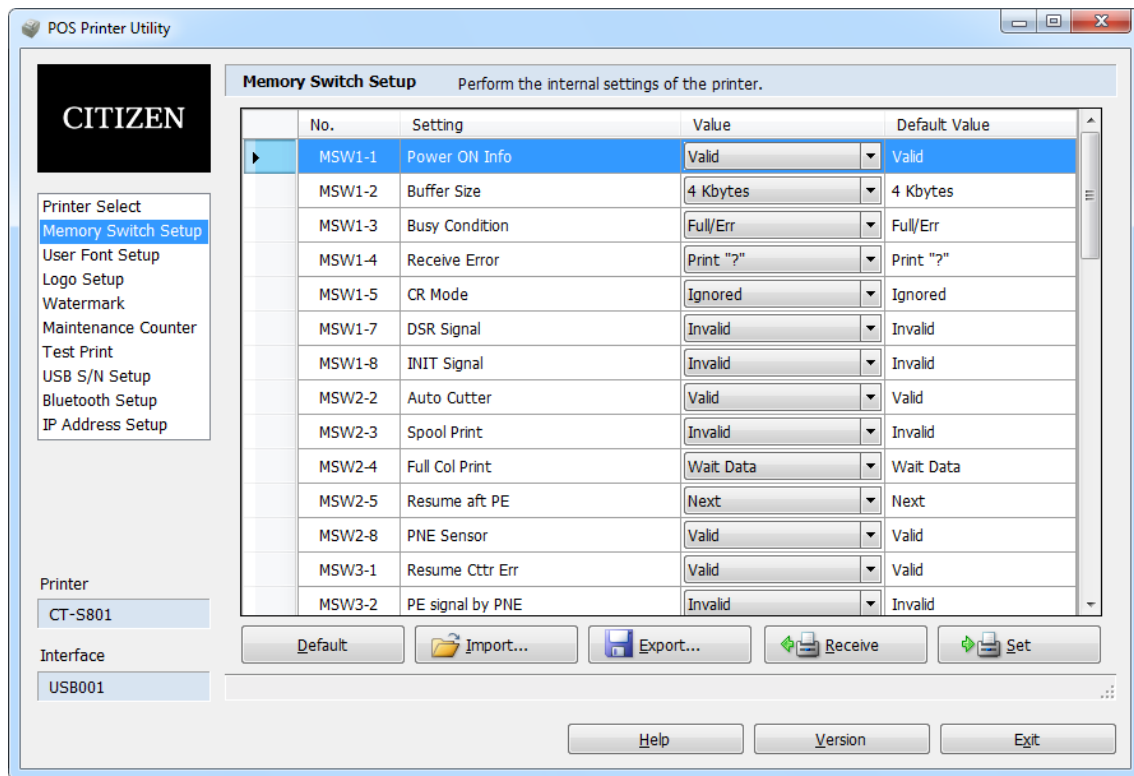
\*If driver uses **"SEH Print Monitor"** or **"Standard TCP/IP Port"**, you must uncheck **[Enable bidirectional support]** of the port.

If driver uses **"CITIZEN TCP/IP Port"**, the above setting is not necessary.

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# Memory Switch Setup

Perform the printer's Memory Switch Setup. The setting can also save and open.



\* Display setting item varies depending on the selected printer.

For setting items, please refer to the **user's manual** for each printer.

\* This function may differ from the actual product.

## Memory Switch Setup

Click the  to select a Value of each line.

Example

No.	Setting	Value	Default Value
MSW1-1	Power ON Info	Valid	Valid
MSW1-2	Buffer Size	4K bytes	4K bytes
MSW1-3	Busy Condition	4K bytes	Full/Err
MSW1-4	Receive Error	45 bytes	Print "?"
MSW1-5	CR Mode	Does not change	Ignored
MSW1-7	DSR Signal	Ignored	Invalid



## Button function

### **[Default] button**

Return the Values to the Default Value.

**\* Depending on the destination, the default value may differ from the actual product.**

### **[Import...] button**

Reads the settings from the exported file for utility, and display the contents in the screen.

### **[Export...] button**

Save the screen settings to the file.

You can choose the save format from [for Printer Registration] or [for Utility].

### **[Receive] button**

Reads the current printer setting, and display the contents in the screen.

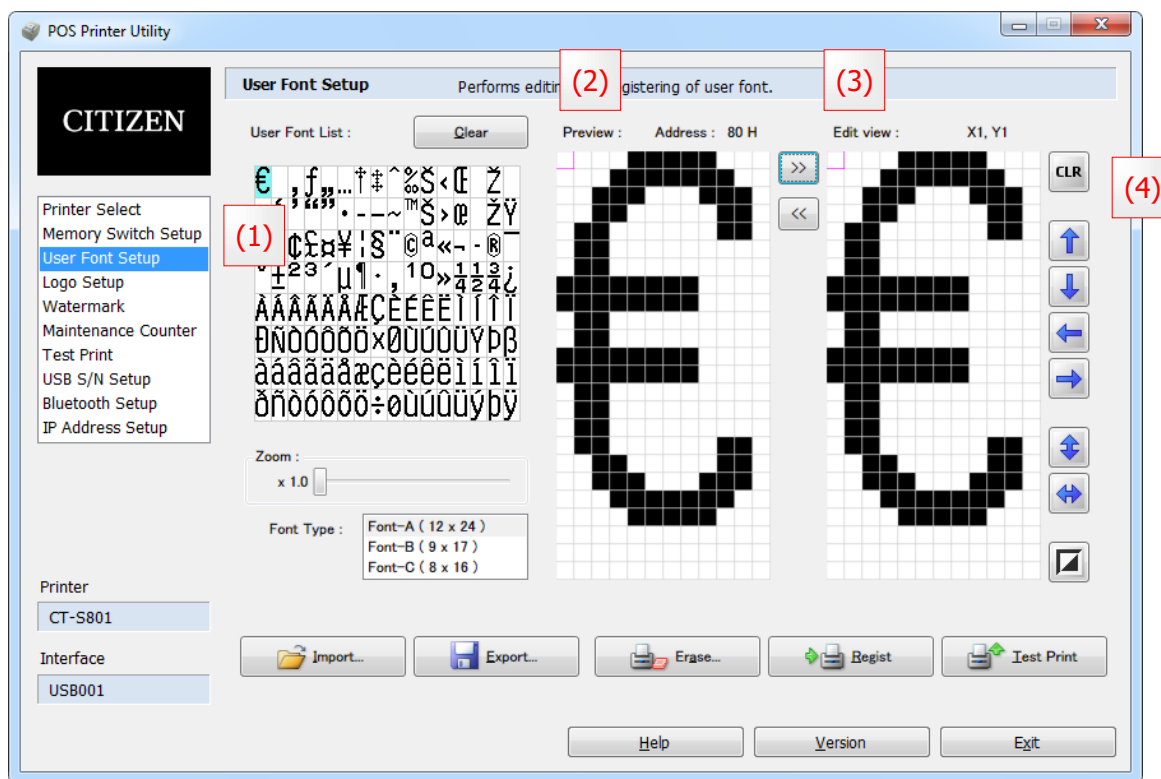
### **[Send] button**

Send the screen settings to the printer.

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# User Font Setup

Performs the user font setup.



## Editing and registration procedures

### 1. Selects the font type

Click the [Font Type] list to select the font type to edit. Size of Font-B is different by a model.

### 2. Selects the existing user font

Select the font file to edit on [Import] dialog box, which will open by clicking [Import ...] button. Then, the fonts are listed on [User Font List]<sup>(1)</sup>.

[Clear] button: Clears the list of [User Font List]<sup>(1)</sup>.

[Zoom] slider: Zooms in on the list of [User Font List]<sup>(1)</sup>.

### 3. Copy the font to [Edit View]<sup>(3)</sup>

To copy the font to [Edit View]<sup>(3)</sup>, double-click the font of [User Font List]<sup>(1)</sup>. At this time, [Preview]<sup>(2)</sup> is also updated.









If you single-click the font of [User Font List]<sup>(1)</sup>, [Preview]<sup>(2)</sup> only to copy.

Further if you want to copy to [Edit View]<sup>(3)</sup>, click the  button.


#### 4. Edits the Font

Left-click (drag) is set to black and right-click (drag) is set to white on [Edit View]<sup>(3)</sup>.

[Edit View] tool button group<sup>(4)</sup>

	All dots clear to white.
	1 dot up rotation.
	1 dot down rotation.
	1 dot left rotation.
	1 dot right rotation.
	Vertical flip.
	Horizontal flip.
	Black & white reversal.

#### 5. Copy the font to [User Font List]<sup>(1)</sup>

To copy the font to [User Font List]<sup>(1)</sup> from [Edit View]<sup>(3)</sup>, click the  button. At this time, [Preview]<sup>(2)</sup> is also updated.

If necessary, save the [User Font List]<sup>(1)</sup> by [Save file...] button.

#### 6. [User Font List]<sup>(1)</sup> registration

[User Font List]<sup>(1)</sup> to register the printer by click the [Regist] button.

[Print] button: Prints the list of registered fonts.

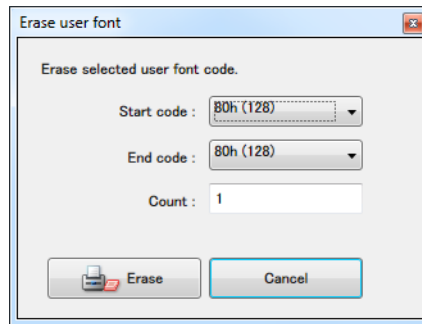
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## Erasing procedures

### 1. Open [Erase user font] dialog

Click [Erase...] button on [User Font Setup] screen, and opens [Erase user font] dialog box.

### 2. Select the font address



Select each of [Start code] and [End code].

The number of the selected fonts appears at [Count].

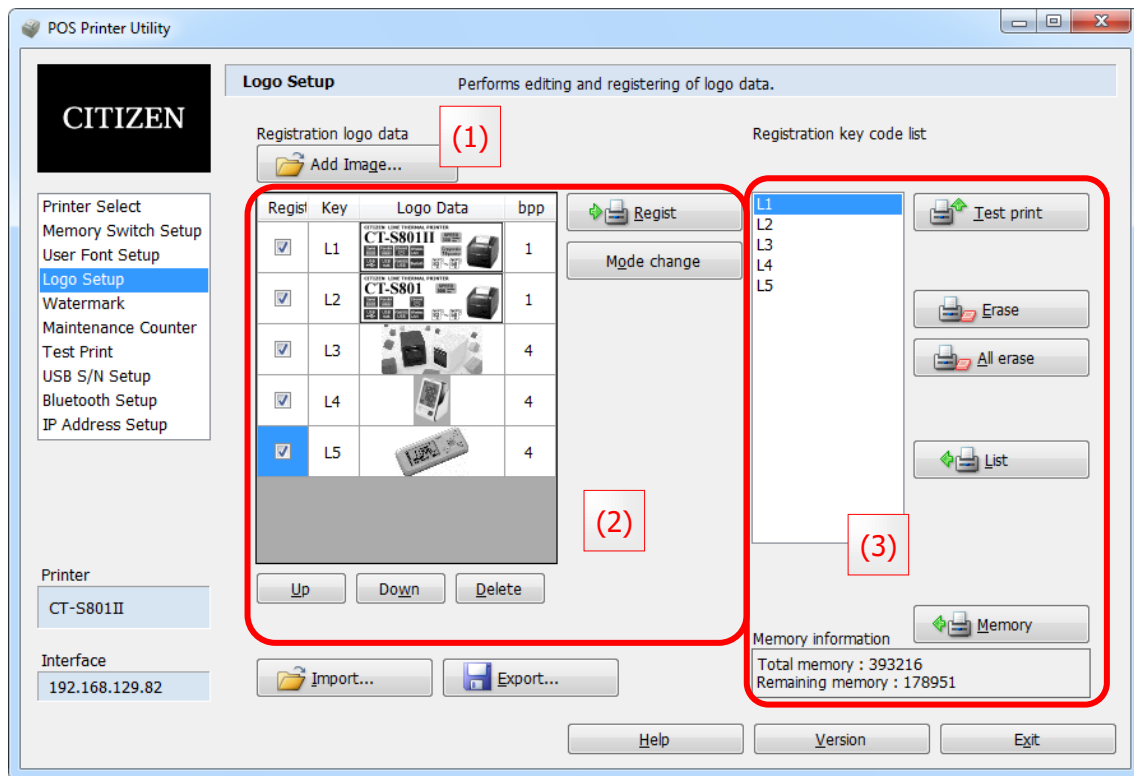
### 3. Erasing

Click [OK] button, and start erase.

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# Logo Setup

Performs editing and registering of logo data.



The above figure is one example that supports to Key code mode.

\* Supported image file formats: BMP, GIF, JPG, PNG.

## [Import...] button

Reads the settings from the exported file for utility, and add to the list of Registration logo data.

## [Export...] button

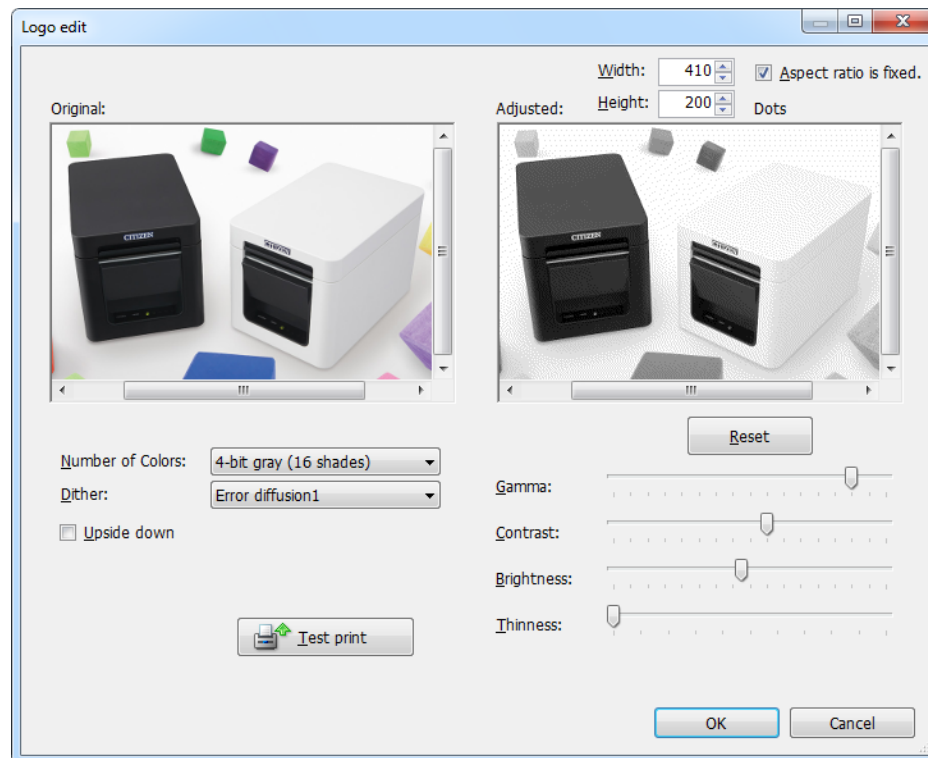
Save the screen settings to the file.

You can choose the save format from [for Printer Registration], [for Utility] or [BMP picture].

## Add image procedure [Logo Setup screen (1)]

Processing the selected image and add to the list.

1. Select an image on [Open] dialog that appears by **[Add Image...]** button.



2. Specifies the size of Image by **[Width]** and **[Height]**.
  - \* If checked in **[Aspect ratio is fixed]**, change without changing the aspect ratio.
  - \* If checked in **[Upside down]**, change upside down.
3. Specifies the reduced number of colors by **[Number of Colors]**.

<p><b>[gray]</b> Supported model:</p>	<p>CT-D151, CT-D151W, CT-E651, CT-E651W, CT-S251, CT-S251W, CT-S601II, CT-S601IIW, CT-S601IIR, CT-S601IIRW, CT-S651II, CT-S651IIW, CT-S751, CT-S801II, CT-S801IIW, CT-S851II, CT-S851IIW</p>
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4. Specifies the color reduction method of the selected image by **[Dither]**.
5. Adjust the selected image by **[Gamma]**, **[Contrast]**, **[Brightness]** and **[Thinness (thin out the black dot)]** slider.
  - \* Return the adjust value to default by **[Reset]** button.
6. Print the adjusted image by **[Test print]** button and check the amount of adjustments.
  - \* The image is not registered to the printer.
7. Add the adjusted image by **[OK]** button to the list of Registration logo data.



## Image registration procedure [Logo Setup screen (2)]

Set logo registration mode, registration order, key code, check the logo and register.

Regist	Key	Logo Data	bpp
<input checked="" type="checkbox"/>	L1	CT-S801III	1
<input checked="" type="checkbox"/>	L2	CT-S801	1
<input type="checkbox"/>	L3		4
<input type="checkbox"/>	L4		4
<input type="checkbox"/>	L5		4

1. Select logo registration mode by **[Mode change] button**.

Logo registration mode can be selected for the following two types.

Unused key code mode: FS q command

Key code mode: GS ( L command

\*Conditions:

<b>[Key code mode]</b>	CT-S280, CT-S281, CT-S281BD, CT-S300, CT-S310,
Unsupported model:	CT-P291, CT-P293, PMU2300III

2. Change the position by **[Up] / [Down] button**.

If you wish to change registration order, please make registration by changing position since the checked logo data is registered in printer by top-to-bottom order.

Delete logo data under selection with **[Delete] button**.

3. Specifies the key code to **[Register] column**.

**Unused key code mode:** The key code becomes invalid (registration order).

**Key code mode:** Enter the any two alphanumeric characters.

Recommended key code:

Usage environment	Recommended key code
Windows Driver v2.8 or earlier	"L1"- "L5"
Windows Driver v3.0 or later	"L1"- "L9"
Each POS Print SDK, OPOS, etc.	"01"- "20"



4. Check the checkbox for registration in **[Regist] column**.

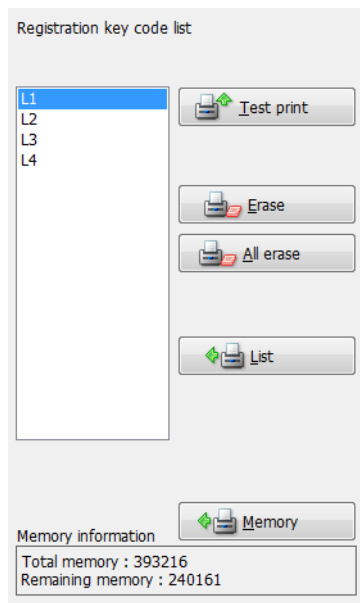
5. Register the checked logo data by **[Regist] button** and then print it.

Please make sure that the prints are correctly.

If you use on Windows, please see "**Windows Driver Specifications**".

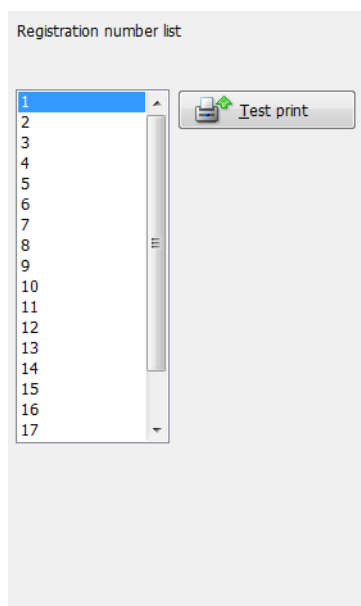
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## Logo print [Logo Setup screen (3) Key code mode]



- Print NV registered logo data selected by **[Test print] button**.
  - Erase NV registered logo data selected by **[Erase] button**.
  - Erase all NV logo data selected by **[All erase] button**.
  - Obtain the list of NV registered logo data from printer by **[List] button**.
  - Display the memory information of the printer by **[Memory] button**.
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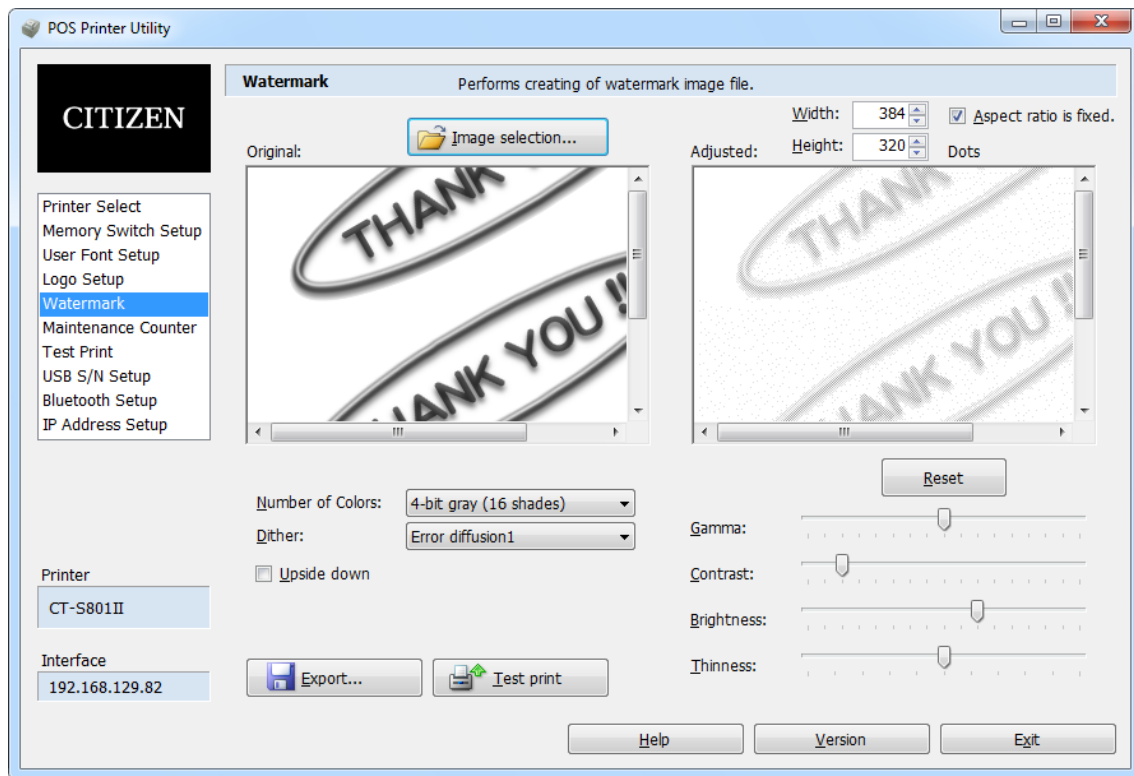
## Logo print [Logo Setup screen (3) Unused key code mode]



- Print logo data under selection by **[Test print] button**.
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# Watermark

Performs creation of watermark image file for the Windows Driver v2.0 or later.



## Creation procedure

1. Select an image in [Open] dialog that appears by **[Image selection...]** button.
2. Specifies the size of Image by **[Width]** and **[Height]**.
  - \* If checked in **[Aspect ratio is fixed]**, change without changing the aspect ratio.
  - \* If checked in **[Upside down]**, change upside down.
3. Specifies the reduced number of colors by **[Number of Colors]**.

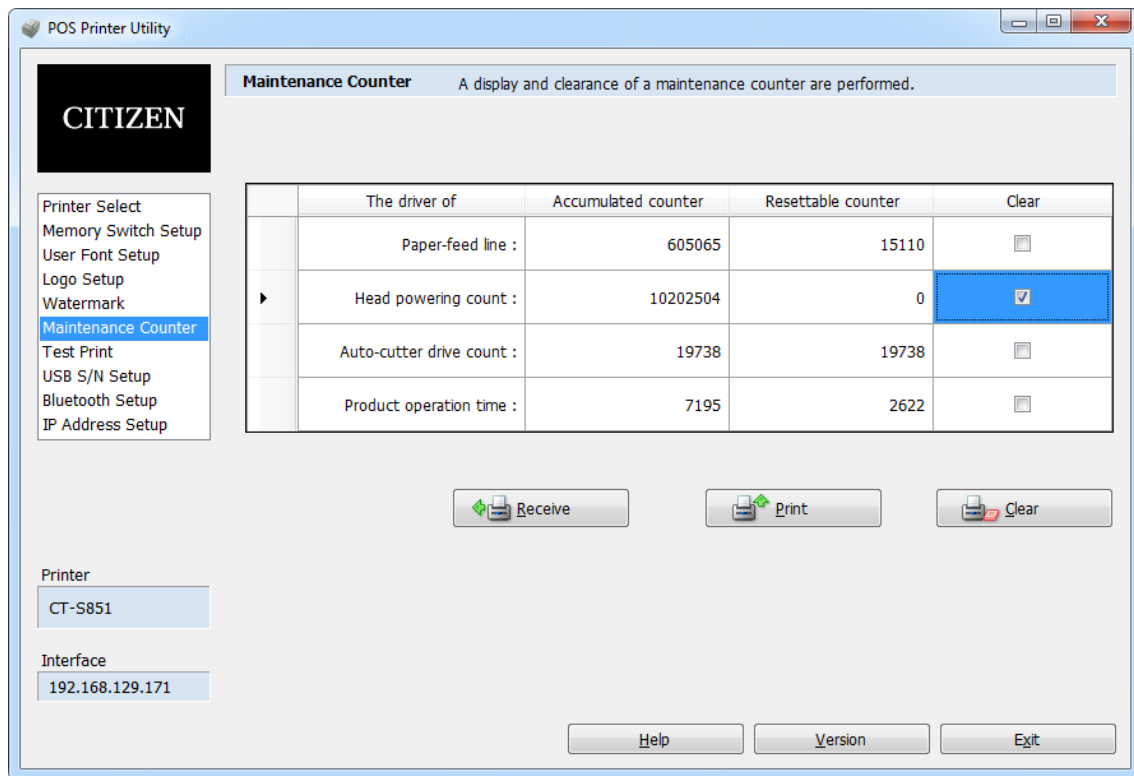
<b>[gray]</b> Supported model:	CT-D151, CT-D151W, CT-E651, CT-E651W, CT-S251, CT-S251W, CT-S601II, CT-S601IIW, CT-S601IIR, CT-S601IIRW, CT-S651II, CT-S651IIW, CT-S751, CT-S801II, CT-S801IIW, CT-S851II, CT-S851IIW
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4. Specifies the color reduction method of the selected image by **[Dither]**.
5. Adjust the selected image by **[Gamma]**, **[Contrast]**, **[Brightness]** and **[Thinness]** (thin out the black dot) slider.
  - \* Return the adjust value to default by **[Reset]** button.
6. Print the adjusted image by **[Test print]** button and check the adjustments.
  - \* The image is not registered to the printer.
7. Save the adjusted image by **[Export...]** button.

If you use on Windows, please see "**Windows Driver Specifications**".

# Maintenance Counter

Performs display and clear of the maintenance counter.



The above figure is one example that supports this function.

\*Conditions:

Unsupported model:	CT-D151W, CT-E651W, CT-S251W, CT-S280, CT-S281, CT-S281BD, CT-S300, CT-S310, CT-S601IIW, CT-S601IIRW, CT-S651IIW, CT-S801IIW, CT-S851IIW, CT-P291, CT-P293, PMU2300III, PPU-700II
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## [Accumulated counter] [Resettable counter]

There are [Accumulated counter] and [Resettable counter] respectively for [Paper-feed line], [Head powering count], [Auto-cutter drive count] and [Product operation time].

Communicate with printer by **[Receive] button**.

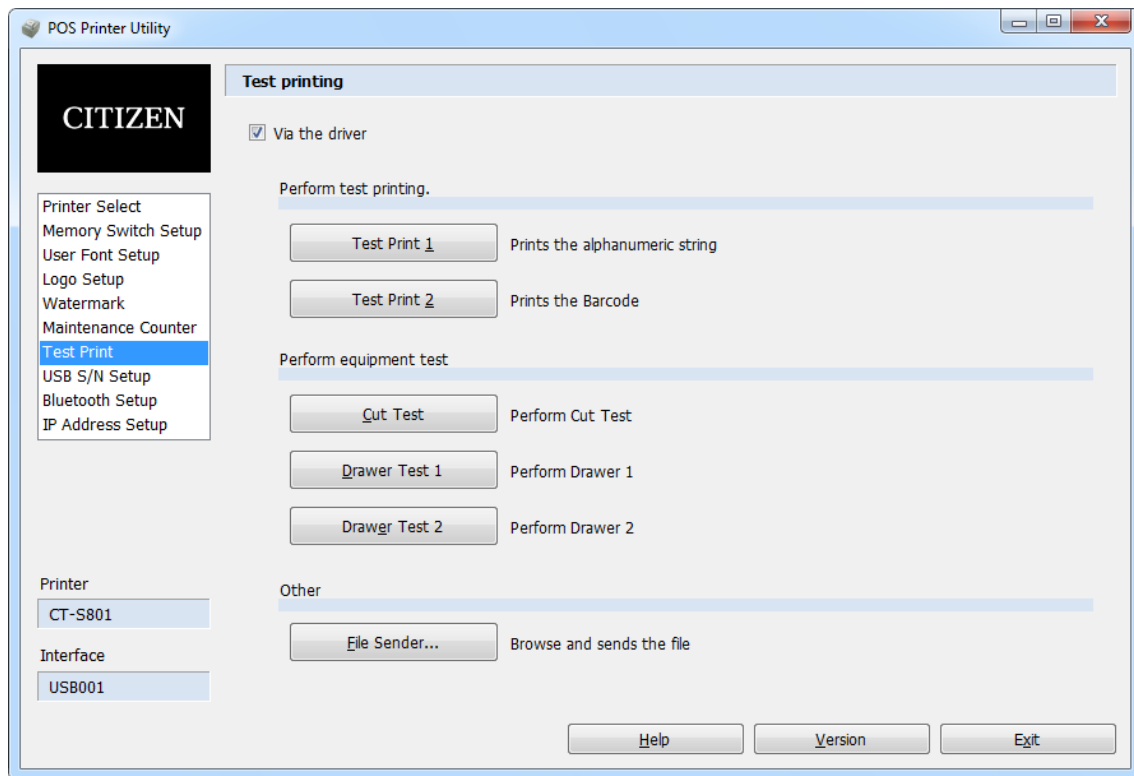
Print the values by **[Print] button**.

Initialization of checked [Resettable counter] is possible by **[Clear] button**.

\* Initialization of [Accumulated counter] is not possible.

# Test Print

Performs test printing.



The above figure is one example that support all function.

\* Testing item vary depending on the selected printer.

## [Via the driver] check box

Checked: The test print outputs data via the print spooler service.

Unchecked: The test print outputs directly data to the selected interface.

## [Test Print 1] button

Prints the alphanumeric string.

## [Test Print 2] button

Prints the Barcode.

## [Cut Test] button

Perform the Cut Test.

## [Drawer Test 1] button

Perform the Drawer 1 open.

## [Drawer Test 2] button

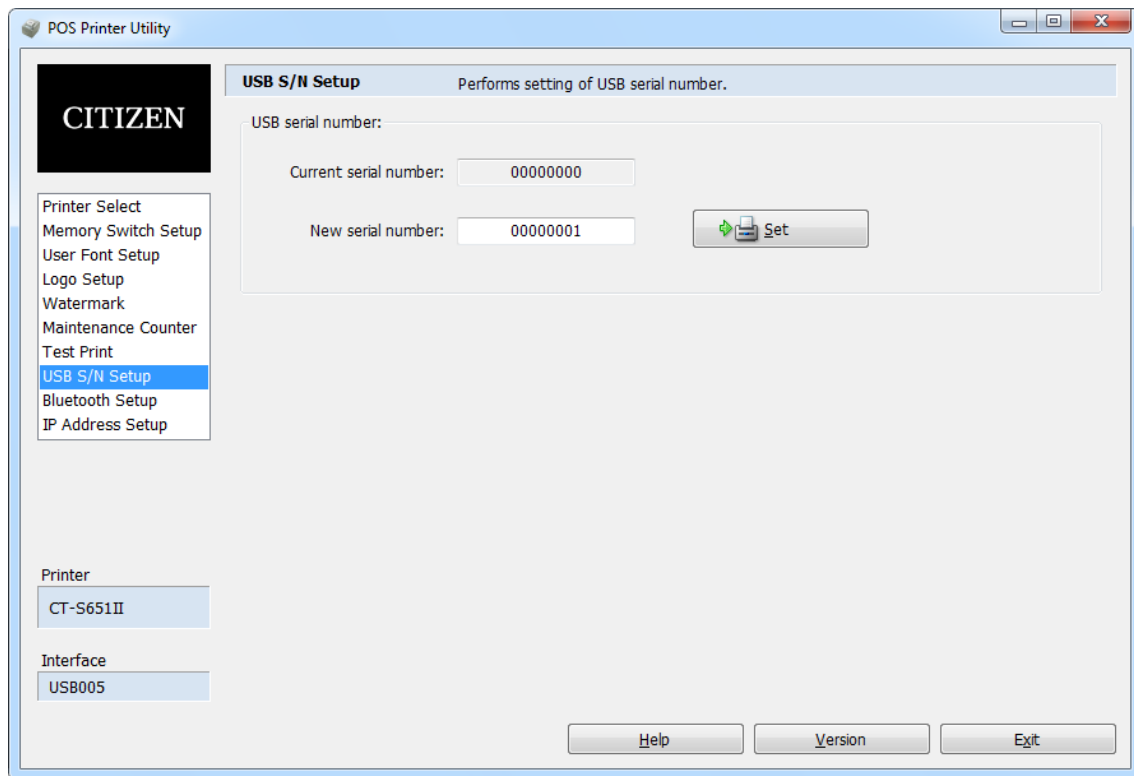
Perform the Drawer 2 open.

## [File Sender...] button

Browse and sends PRN file.

# USB S/N Setup

Performs setting of USB serial number.



The above figure is one example that supports this function.

## \*Conditions:

Unsupported model:	CT-S280, CT-S300
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### [Current serial number]

If printer is connected via the USB interface, display the current USB serial number.

### [New serial number]

Type the new USB serial number.

### [Set] button

Set new USB serial number to the printer.

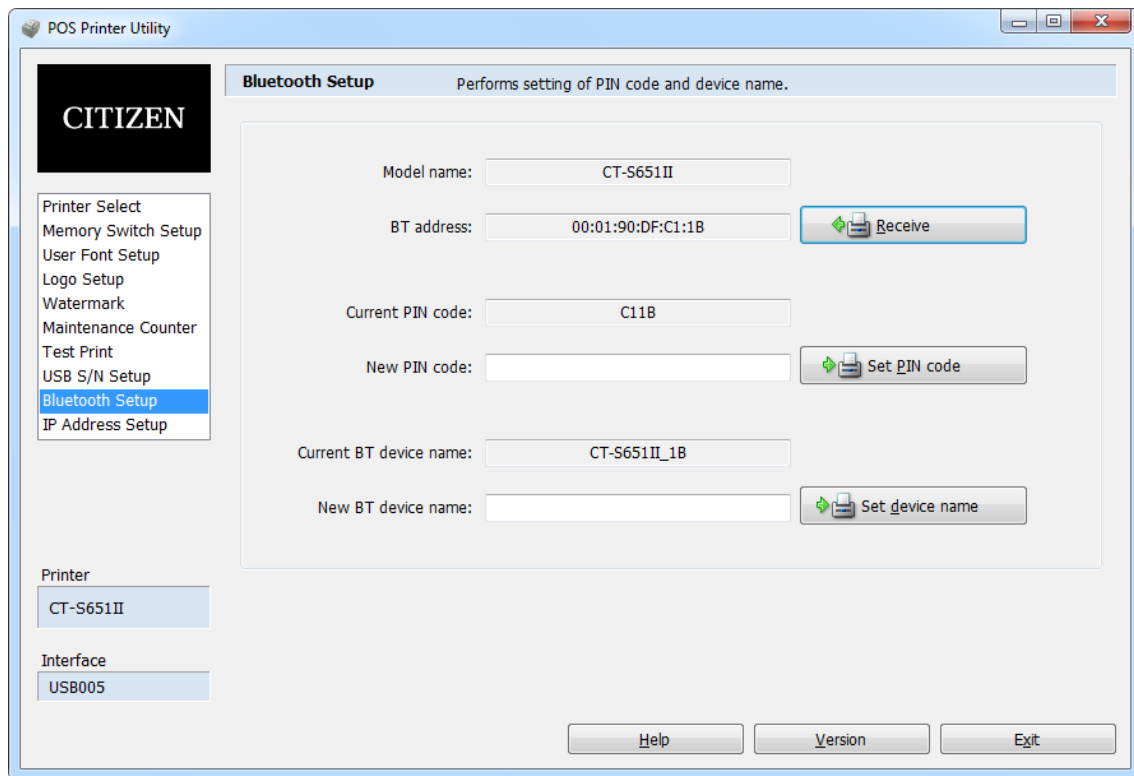
\* If you set via the USB interface, please re-select the printer (port number) in [Select Printer] screen.

If the new printer is added at this time, you may need restart the Print Spooler service or restart the computer.

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# Bluetooth Setup

Performs setting of PIN code and device name.



The above figure is one example that supports this function.

## \*Conditions:

Supported model:	CT-D151, CT-D151W, CT-E651, CT-E651W, CT-S251, CT-S251W, CT-S281BD, CT-S601II, CT-S601IIW, CT-S601IIR, CT-S601IIRW, CT-S651II, CT-S651IIW, CT-S751, CT-S801II, CT-S801IIW, CT-S851II, CT-S851IIW, CT-S4500
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## [Receive] button

Receives and displays [Model name], [BT address], [Current PIN code], [Current BT device name] from the printer.

\* This function is only available when equipped with Bluetooth interface to the printer.

## [Set PIN code] button

Set New PIN code to the printer.

PIN code must meet the following conditions.



- The number of characters to be 4-16 characters.
- First character is other than space (20H), double quotes (22H).
- Characters code to be ASCII character (20H-2BH, 2DH-7EH), except comma (2CH).

### **[Set device name] button**

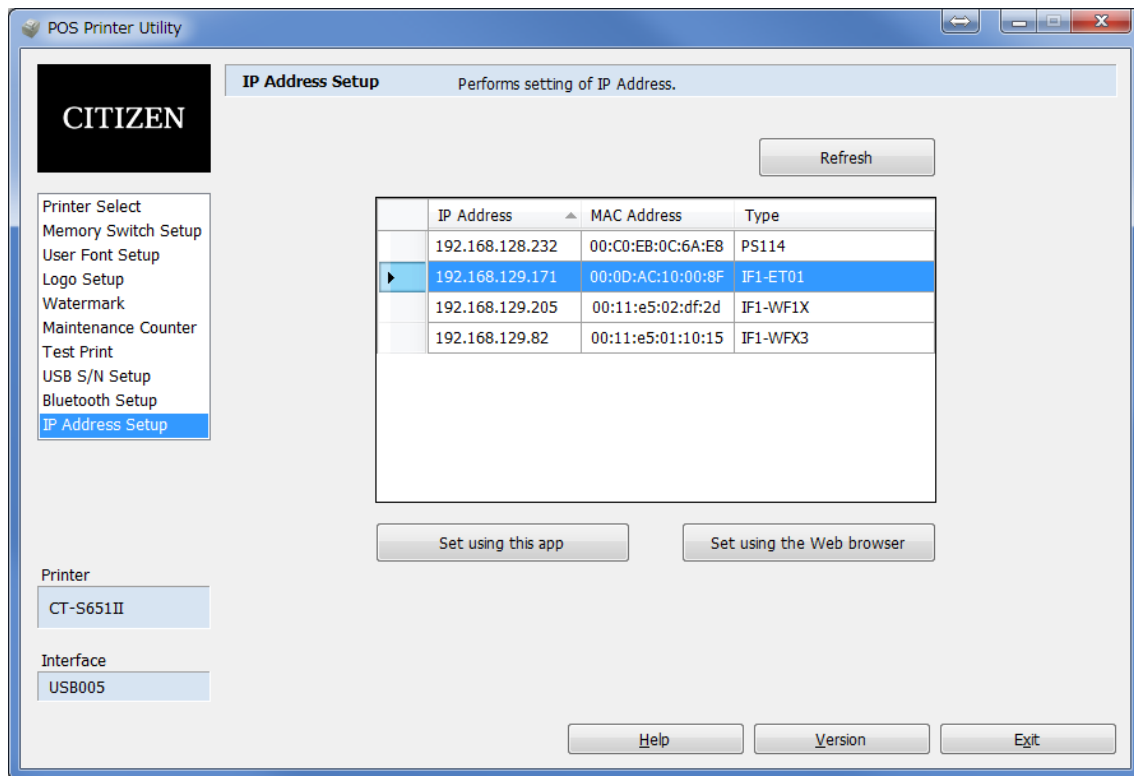
Set New BT device name to the printer.

BT device name must meet the following conditions.

- The number of characters to be 1-31 characters.
  - First character is other than space (20H), double quotes (22H).
  - Characters code to be ASCII character (20H-2BH, 2DH-7EH), except comma (2CH).
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# IP Address Setup

Performs setting of DHCP, IP address, Subnet mask and Default gateway.



The above figure is one example that supports this function.

\* This function is only available in a state in which the printer is connected via a network interface.

## [Refresh] button

Search the printer on the network and refresh the display.

## [Set using this app] button

Make the IP settings by this application.

Please use here if you cannot connect in the Web browser.

※ This function cannot be changed DHCP / BOOTP of IF1-ESxx interface. Please set using the Web browser if you want to change.

## [Set using the Web browser] button

Make the network interface settings by the default Web browser.

Please use here if detailed settings required.