

# CITIZEN

**Mobile Printer**

**CMP-20(II)/30(II) (ESC/POS, CPCL)**

**Windows Driver Manual**

**VER.1.04**

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

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## 1. About This Document

This document describes about installation steps, uninstallation steps and function of Window driver for CMP-20, CMP-30, CMP-20II and CMP-30II.

The driver function depends on the emulation and CMP-20 supports only ESC/POS emulation and CMP-20II/30/30II support both ESC/POS and CPCL emulation.

“CMP-30 Label” is used for the explanation about CPCL and “CMP-30 Receipt” is used for the explanation about ESC/POS.

Type II (CMP-20II/CMP-30) uses same driver as type I (CMP-20 / CMP-30).

## 2. Support OS

The driver supports following OS.

Microsoft Windows 2000

Microsoft Windows XP

Microsoft Windows 2003 Server

Microsoft Windows Vista

Microsoft Windows 2008 Server

Microsoft Windows 7

Microsoft Windows 8

Microsoft Windows10

Microsoft Windows 2012 Server

## 3. Driver Installation

### 3-1 Preparation of Driver Installation

CD-ROM which comes with printer includes the Windows driver for CMP-20(II)/30(II).

And latest driver can be downloaded from our web site as well.

If the interface is Bluetooth, Serial or WLAN, check the COM port or TCP/IP address before starting driver installation. If the interface is serial, check the serial port setting by self-printing.

Run the driver installer file “CMP-x0WinDriverxxxENG.exe”.

(x0 is 20 or 30 and xxx means the version of the driver installer.).

CMP-20II, 30 and 30II have emulation setting and either ESC/POS or CPCL can be chosen.

CMP-20/20II/30/30II Receipt driver is only for ESC/POS and CMP-20II/30/30II Label driver is only for CPCL.

The combination of printer's emulation setting and chosen driver needs to be correct for printing.

### 3-2 Installation for USB interface

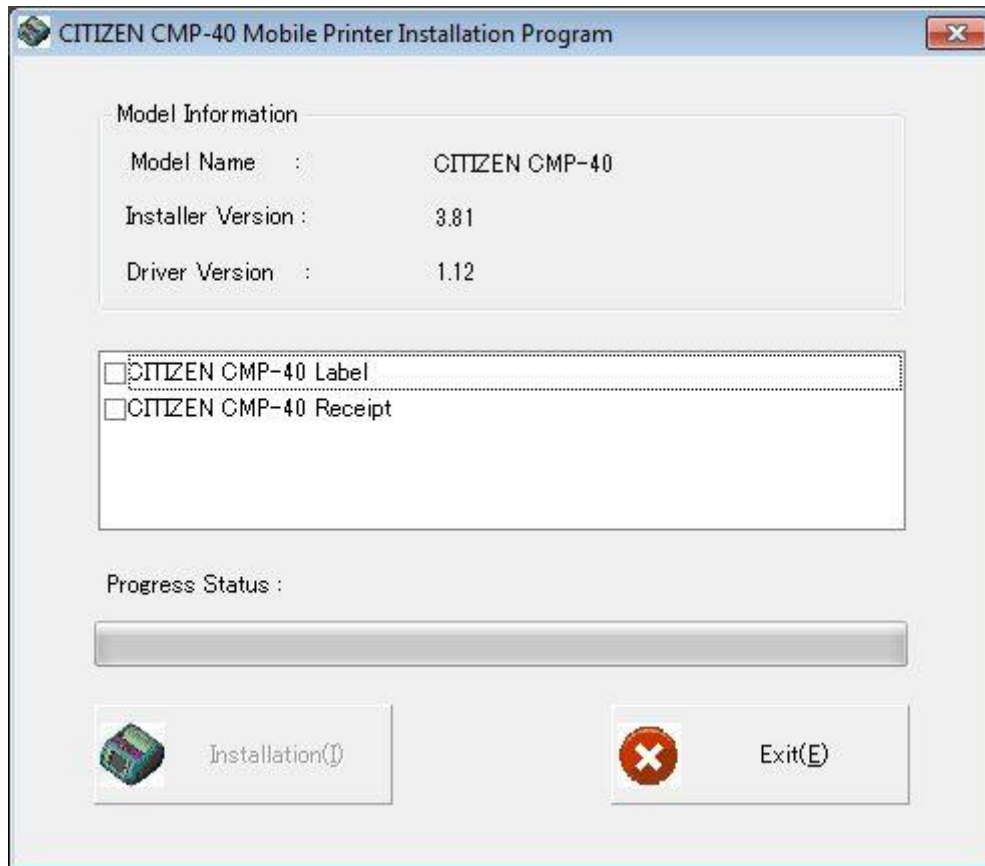
Before connecting printer, run "CMP-x0WinDriverxxxENG.exe" to start driver installation.

Press "Yes" at "User Account Control" message.

Then the installer extracts the driver files to c:\CMP-x0 1.X and shows the dialogue below.

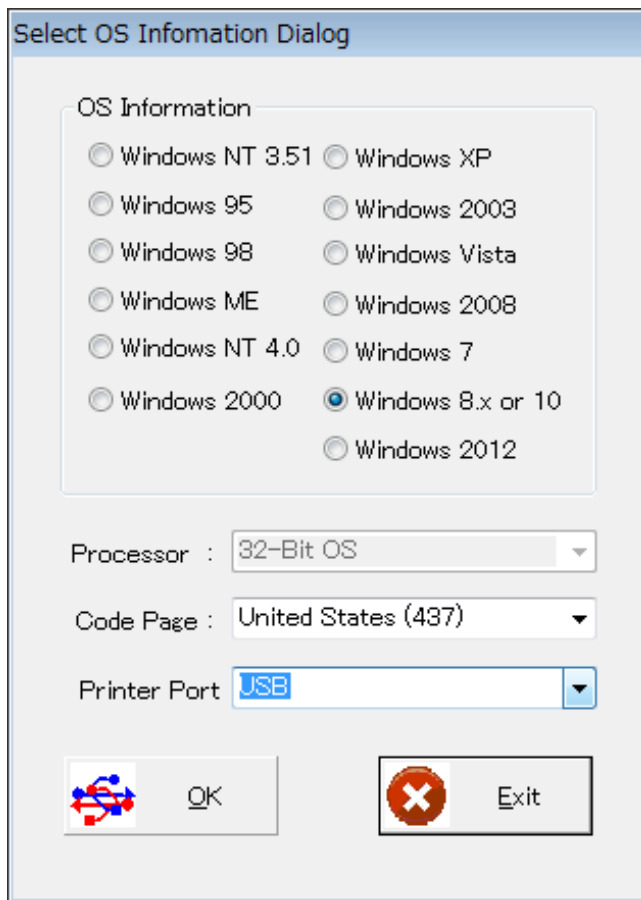
Choose the model (emulation) to install driver and press "Installation".

If necessary, you can install both drivers together.



Then you see the dialogue to below.

You need choose correct OS, Codepage and Port. Press OK after choosing correct settings.



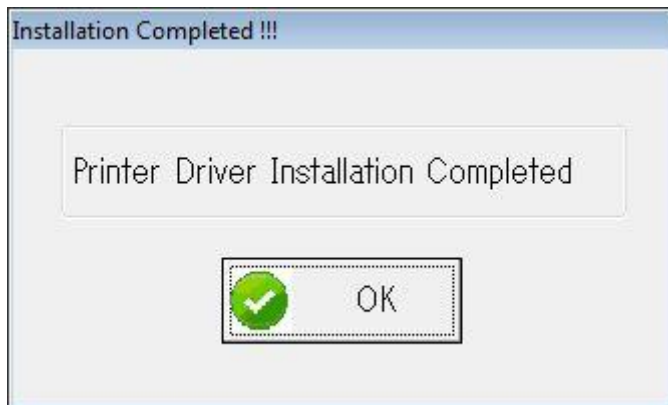
When you see the message below, connect printer to the PC, turn the printer on and press "OK".



When you see Windows security message below, choose "Install".



The installation is finished with the message below.



### 3-3 Installation for Serial, Bluetooth or WLAN interface

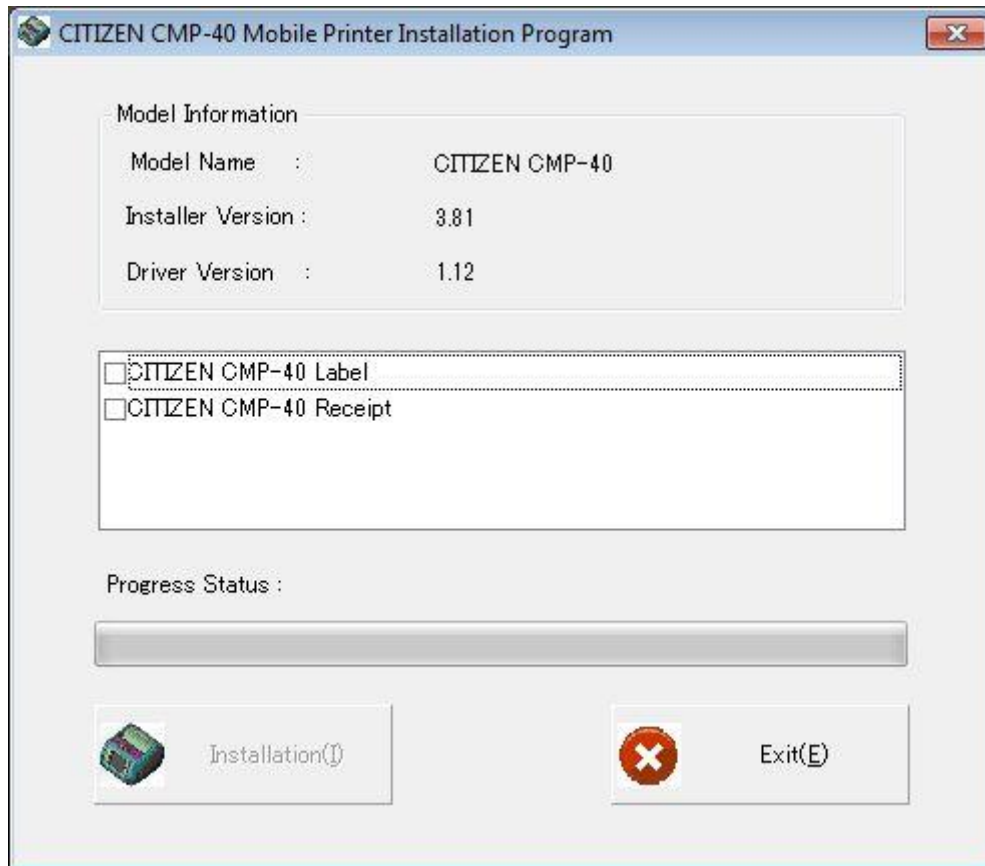
Before connecting printer, run "CMP-x0WinDriverxxxENG.exe" to start driver installation.

Press "Yes" at "User Account Control" message.

Then the installer extracts the driver files to c:\CMP-x0 1.X and shows the dialogue below.

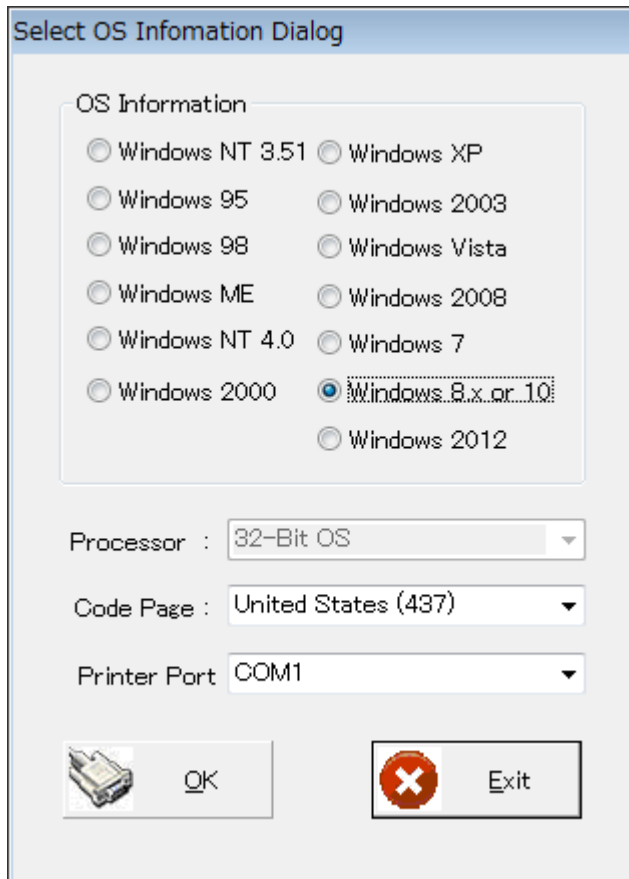
Choose the model (emulation) to install driver and press "Installation".

If necessary, you can install both drivers together.





Choose the COM port for serial or Bluetooth. If interface is WLAN, choose TCP/IP.



**Select OS Information Dialog**


OS Information

☐ Windows NT 3.51   ☐ Windows XP  
☐ Windows 95   ☐ Windows 2003  
☐ Windows 98   ☐ Windows Vista  
☐ Windows ME   ☐ Windows 2008  
☐ Windows NT 4.0   ☐ Windows 7  
☐ Windows 2000   ☒ Windows 8.x or 10  
☐ Windows 2012

Processor : 32-Bit OS

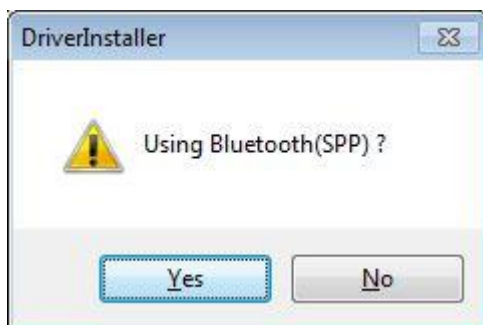
Code Page : United States (437)

Printer Port : COM1




If you choose COM port, you see the message below.

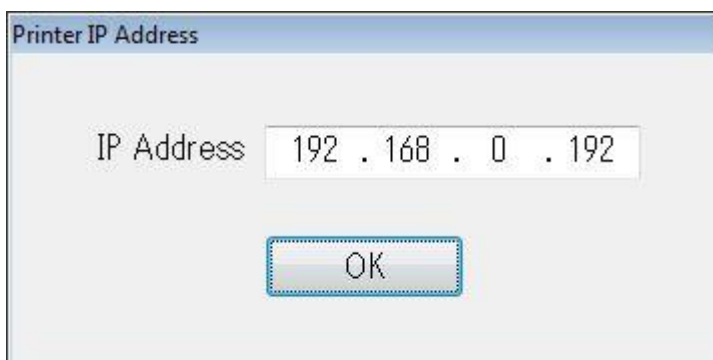
Choose Yes for Bluetooth and choose No for Serial interface.



**DriverInstaller**

 Using Bluetooth(SPP) ?

If you choose WLAN interface (TCP/IP), enter TCP/IP address of printer in the dialogue below.



**Printer IP Address**

IP Address 192 . 168 . 0 . 192

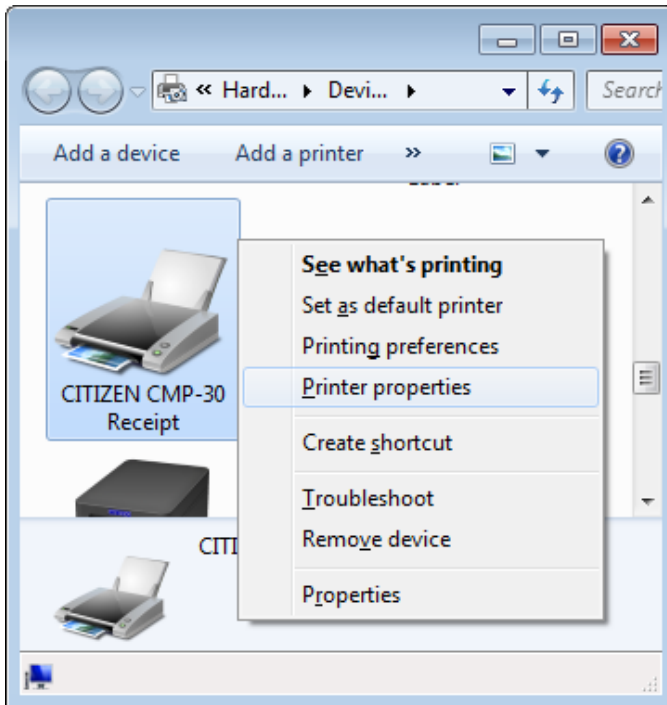
The installation is finished with the message below.



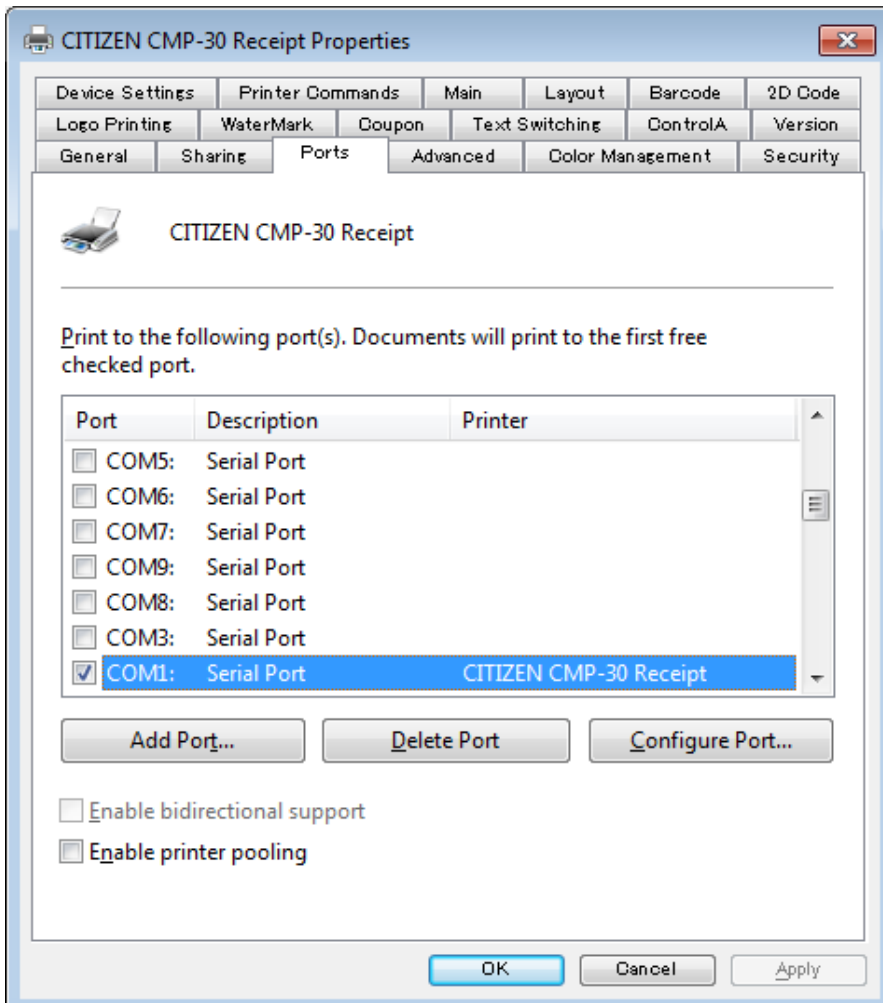
### 3-4 Serial Port Setting

For Serial port, you may need to change port setting.

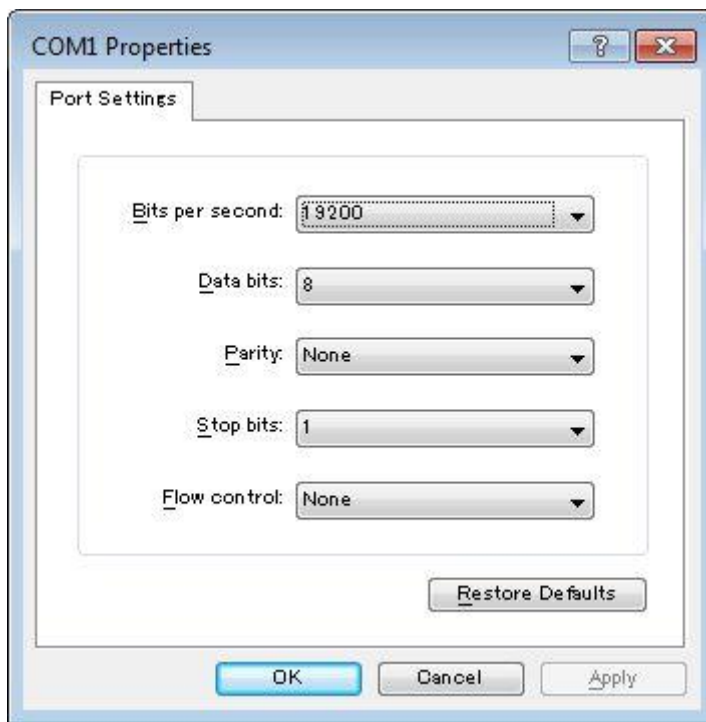
In "Devices and Printers", choose CMP-40 drive icon and right-click. Then choose "Printer properties".



Choose "Port" tab and press "Configure Port".

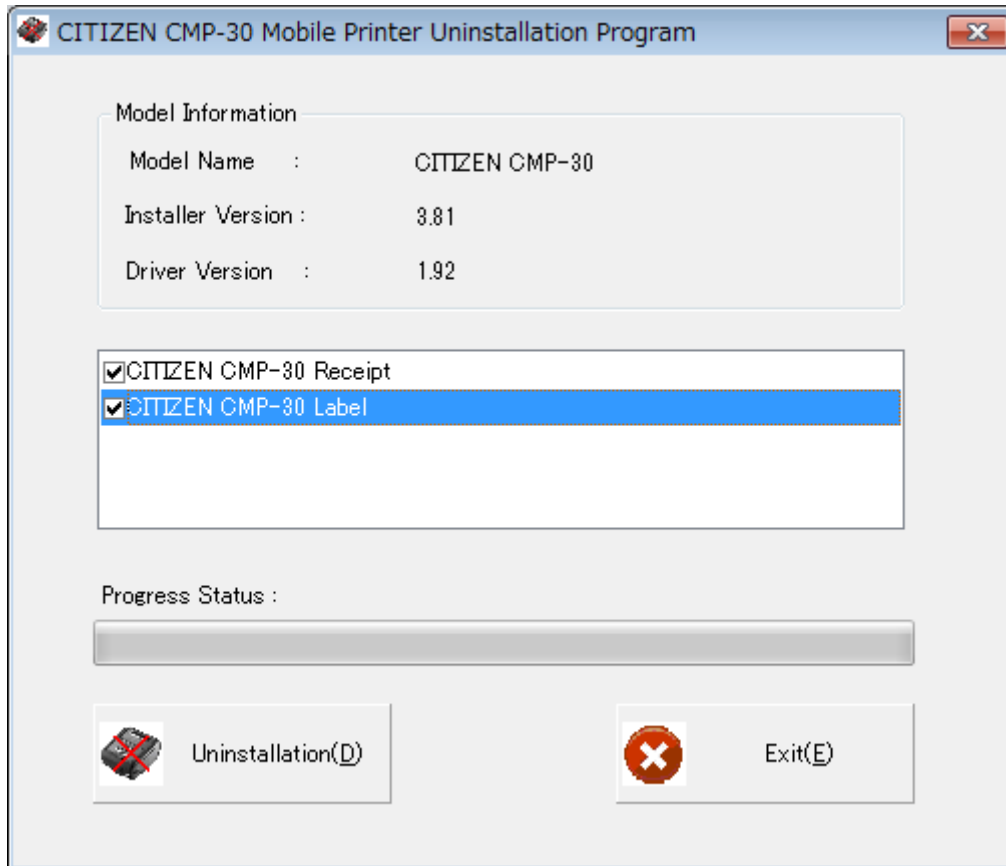


You can change the Bits per second (Baud rate), Data bits, Parity, Stop bits, and Flow control here.

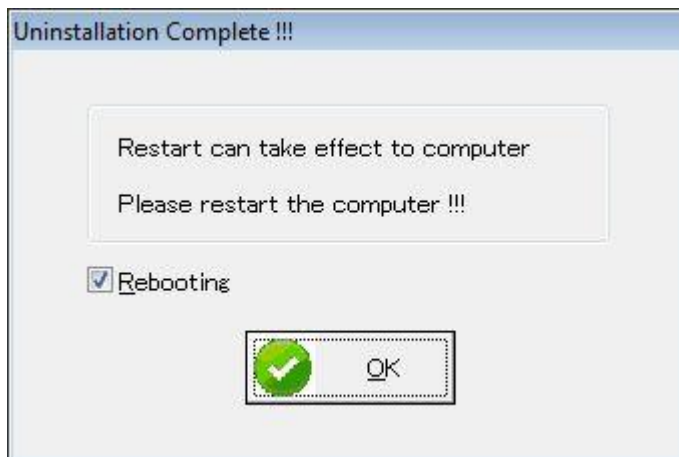


#### 4. Driver Uninstallation

- 1) Move to "C:\CMP-x0 1.X" folder and run "DriverUninstaller.exe".  
or you can do the same from "Uninstall a program".
- 2) Choose the driver to uninstall and press "Uninstallation(D)".  
(You can uninstall both drivers altogether.)



When you see the message below, press OK to complete the uninstallation.



## 5. Driver for Receipt (ESC/POS)

### 5-1 Driver Function

#### 5-1-1 Printer Commands

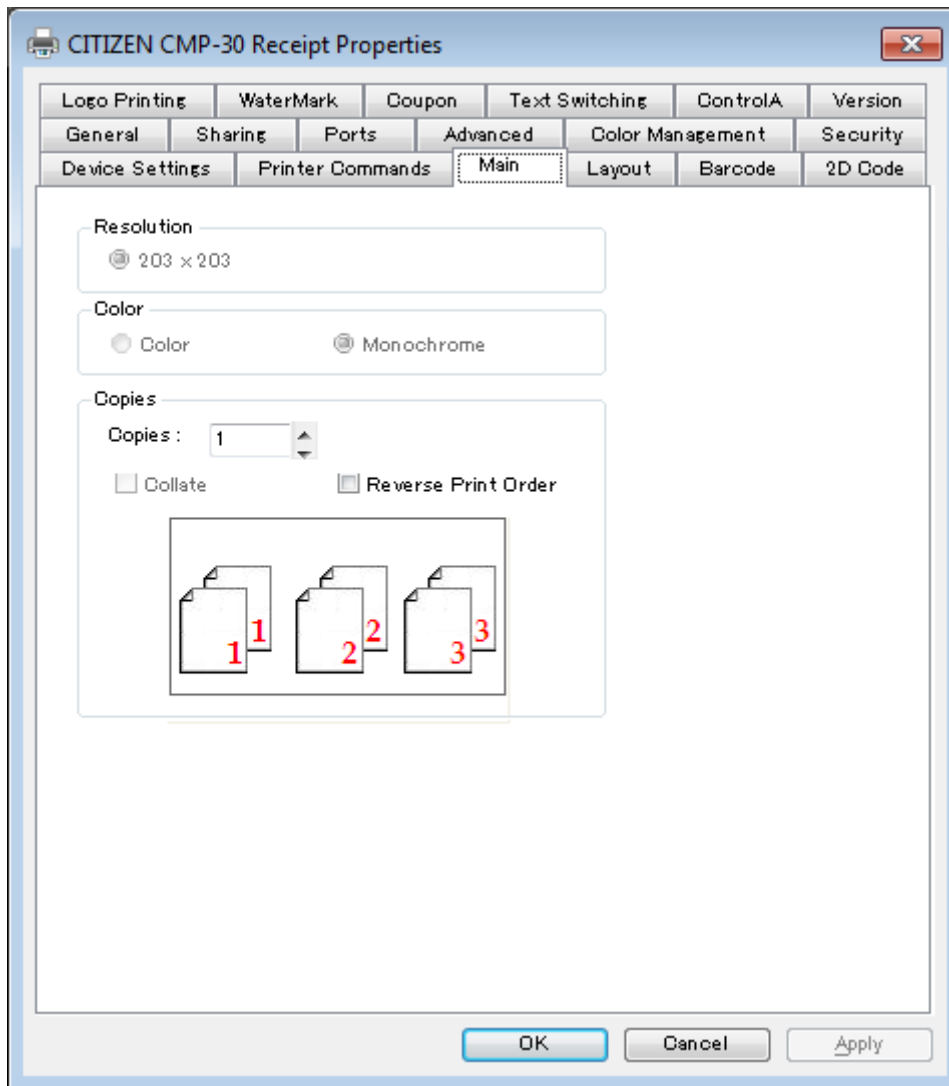
You can add command to the top/bottom of print data generated by the driver.

“Begin Document” is added to the top of print data. “End Document” is added to the bottom of print data.

Paper feeding length at the end of printing can be changed as well.

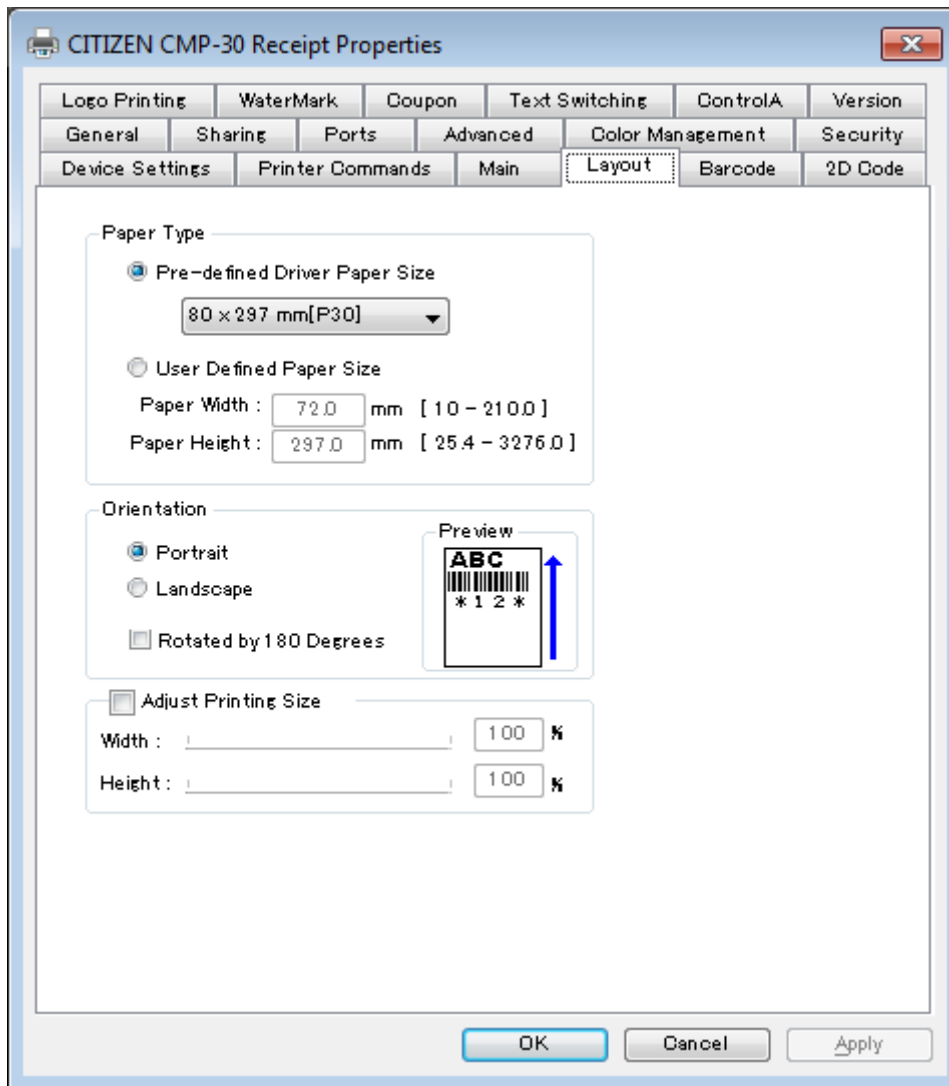
The screenshot shows the 'CITIZEN CMP-30 Receipt Properties' dialog box with the 'Printer Commands' tab selected. The dialog has a tabbed interface with the following tabs: Logo Printing, WaterMark, Coupon, Text Switching, ControlA, Version, General, Sharing, Ports, Advanced, Color Management, Security, Device Settings, Printer Commands (selected), Main, Layout, Barcode, and 2D Code. The 'Printer Commands' section contains three main areas: 'Begin Document' with an 'Emulation Commands[Example:\x1b\x70\x00]' text box; 'End Document #1' with an 'Emulation Commands[Example:\x1b\x70\x00]' text box; and 'End Document #2' with a 'Number of Line Feeds[ 0 - 99 ]' spin box currently set to '0'. At the bottom of the dialog are 'OK', 'Cancel', and 'Apply' buttons.

## 5-1-2 Print Order



You can change the order of printing pages for multiple pages or multiple copies printing.  
If you want reverse order, click "Reverse Print Order".

### 5-1-3 Print Orientation and Adjusting Printing Size

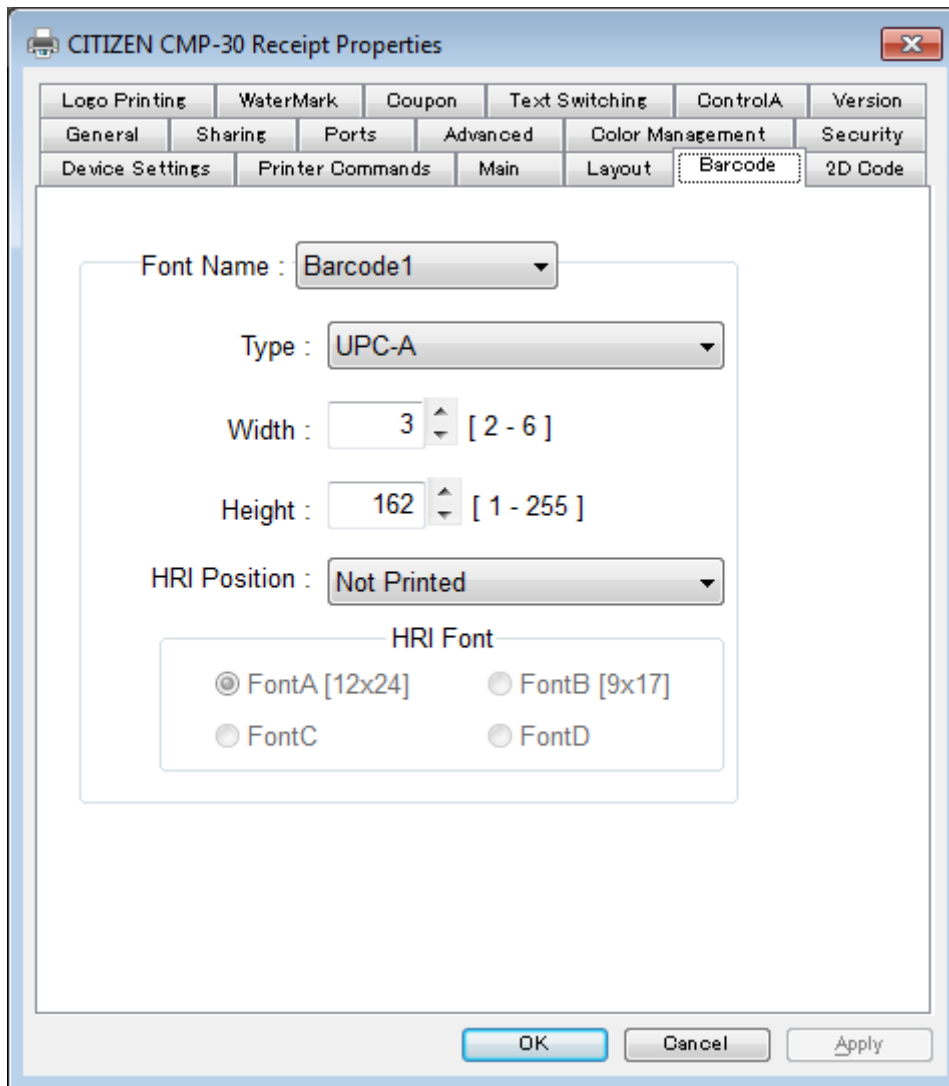


This tab allows following function.

Choosing paper size, defining own paper size, choosing page orientation and adjusting printing size.

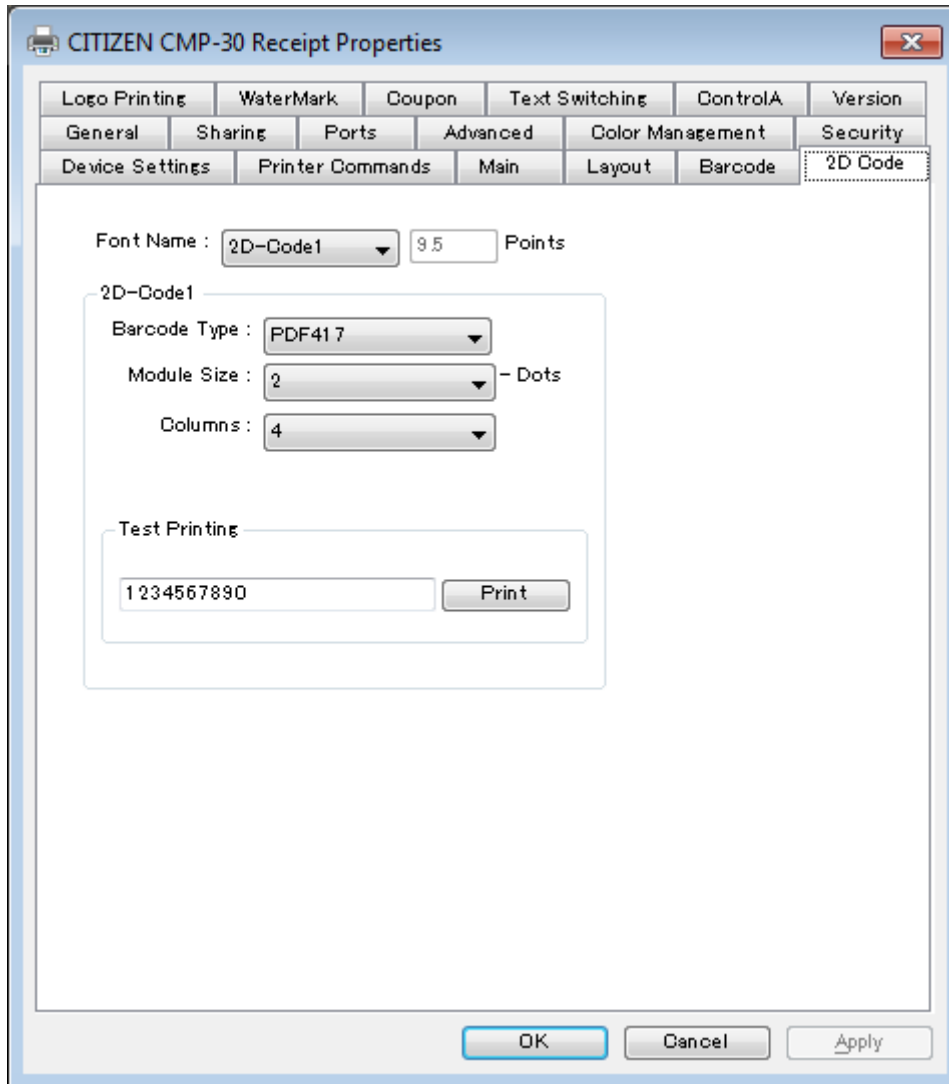


### 5-1-4 Barcode



You can define barcode type, size and HRI setting for Font name Barcode1 through Barcode8.

### 5-1-5 2D Code



You can define 2D barcode type, module size, column number, error correction level to the Font name 2D-Code1 through 2D-Code8.

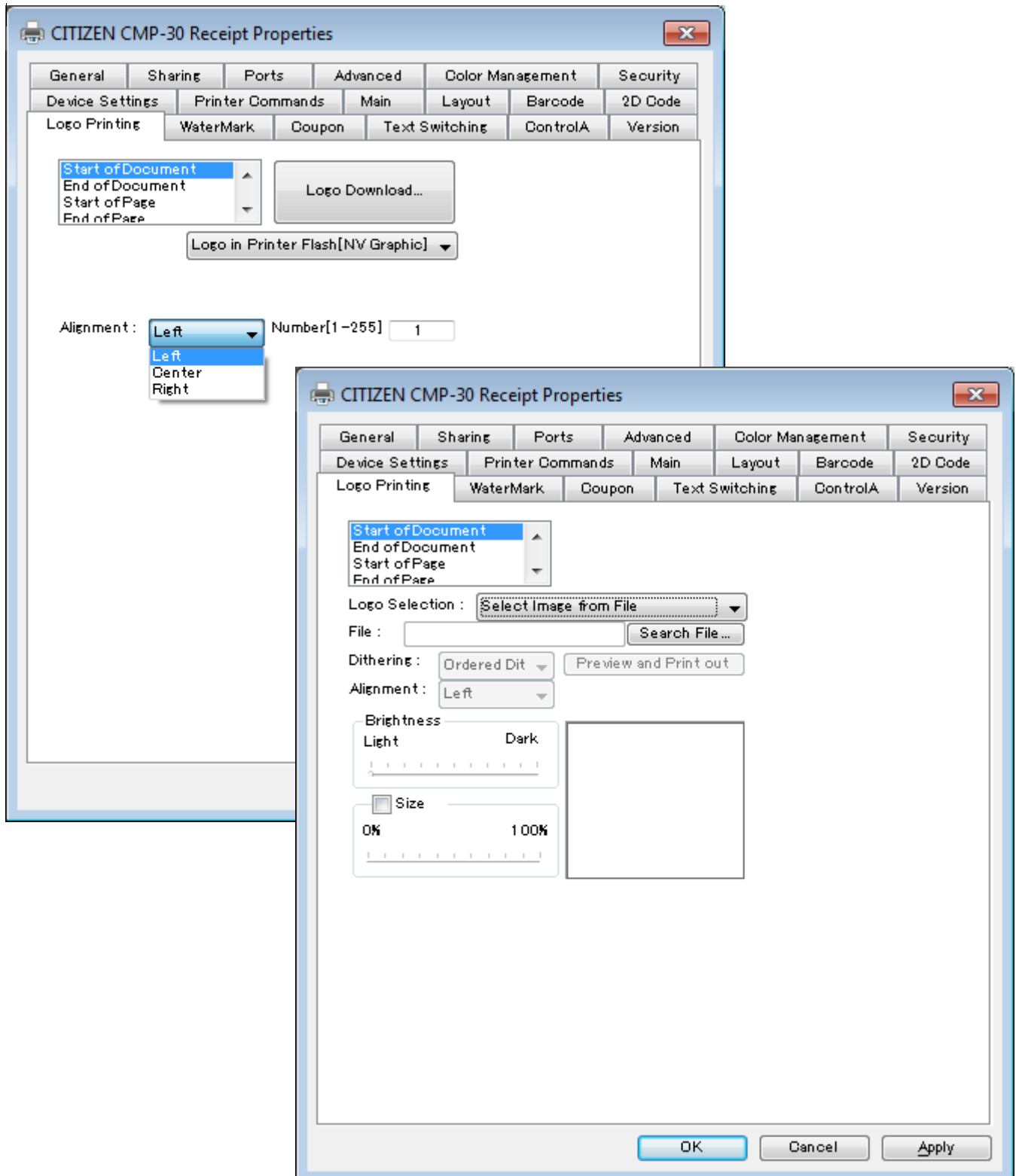
### 5-1-6 Logo Printing

Two ways of logo printing are supported.

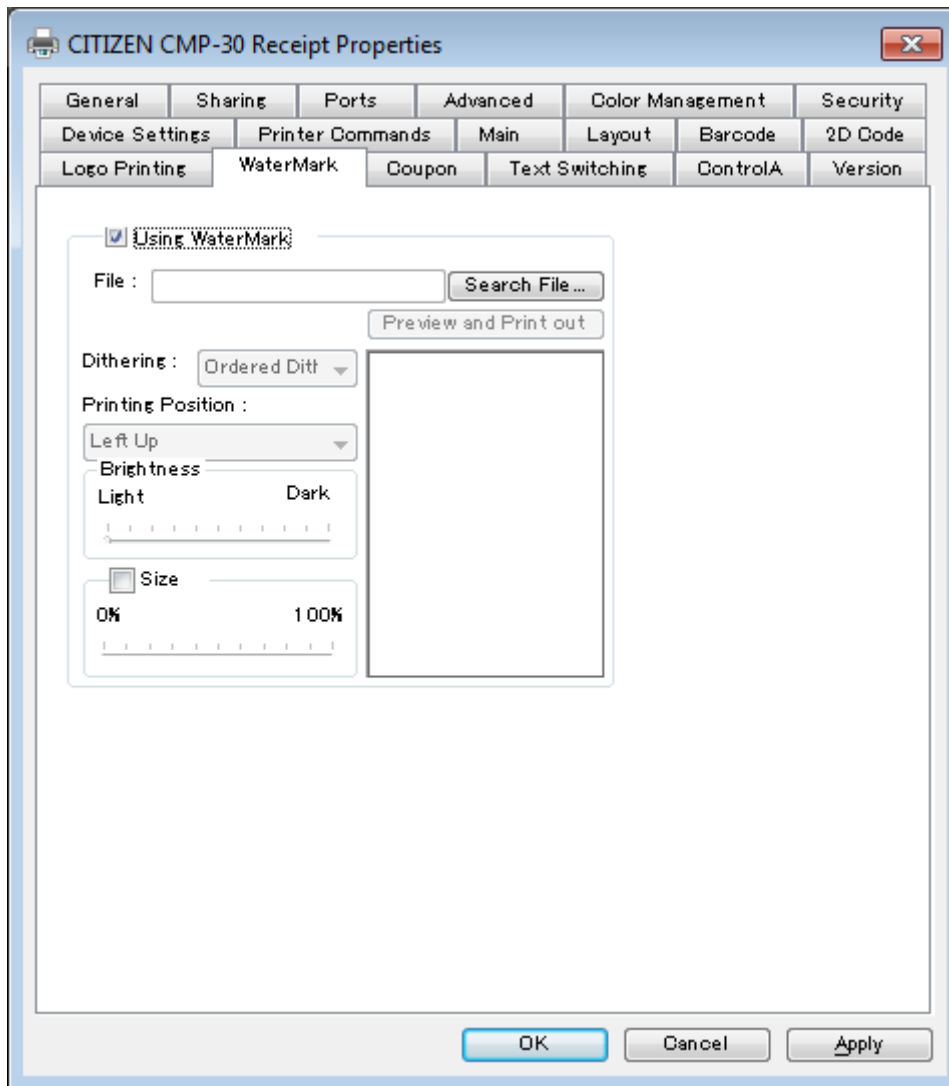
One is printing logo data registered in NV memory. The other one is printing BMP file.

For the timing of logo printing, Start/End of Document or Start/End of page can be selected.

Horizontal position can be selected for NV logo. Dithering type, density and size can be selected for BMP file printing. Logo Utility is installed together with driver and when you press "Logo Download", the utility appears.

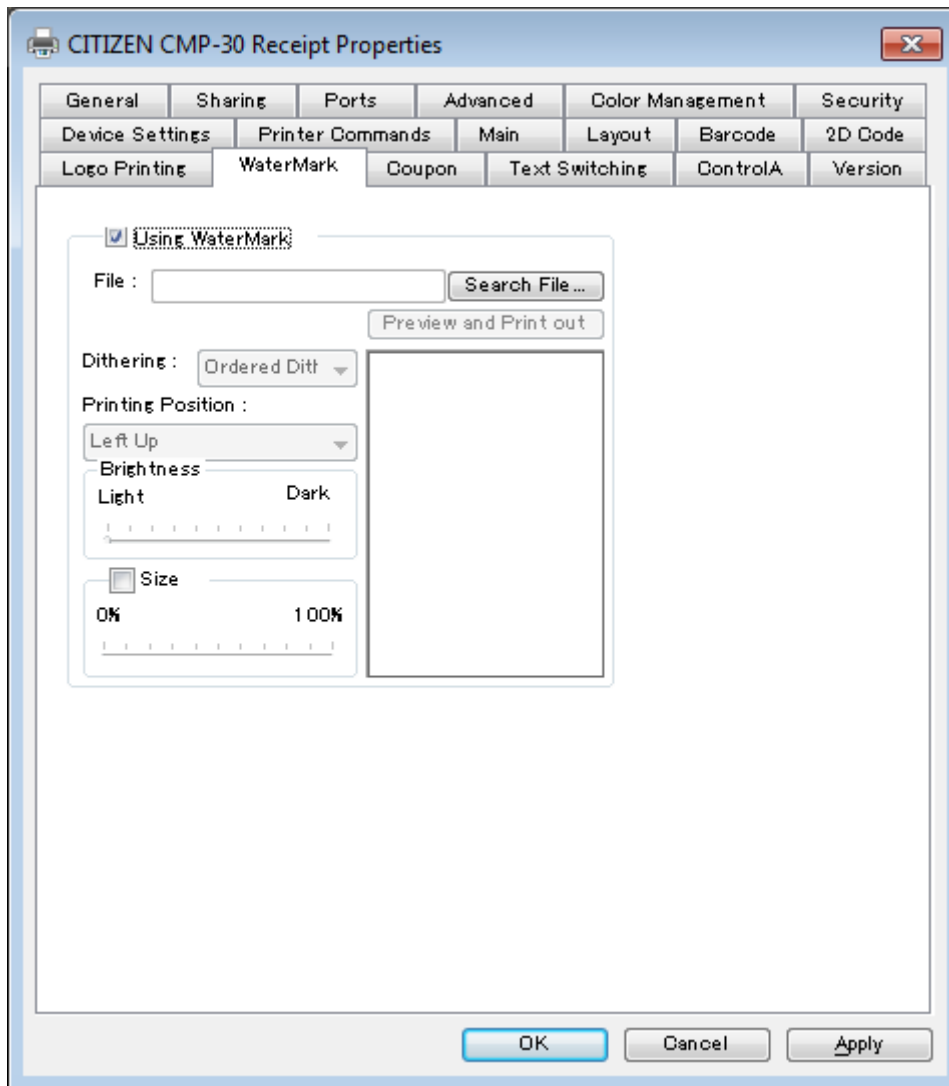


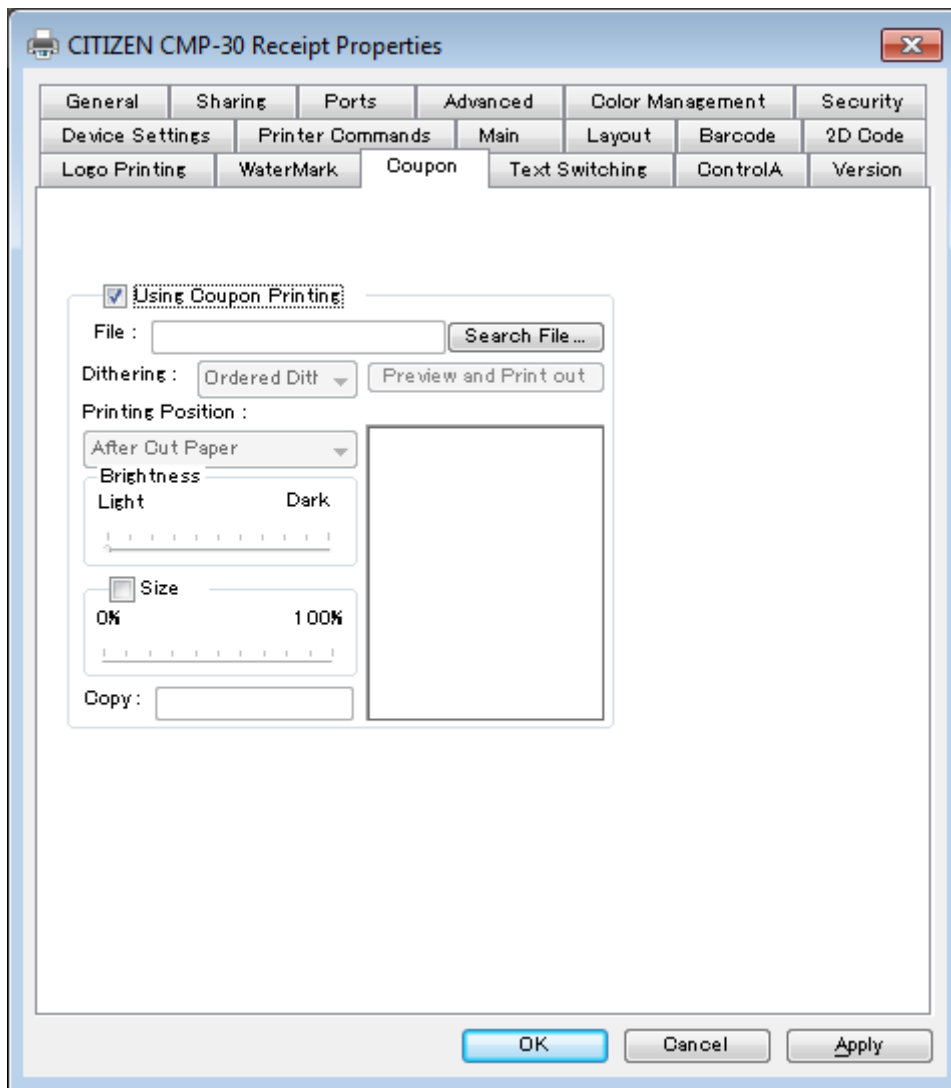
## 5-1-7 Water Mark



Choose the bitmap file for watermark and specify the printing position, density and size.

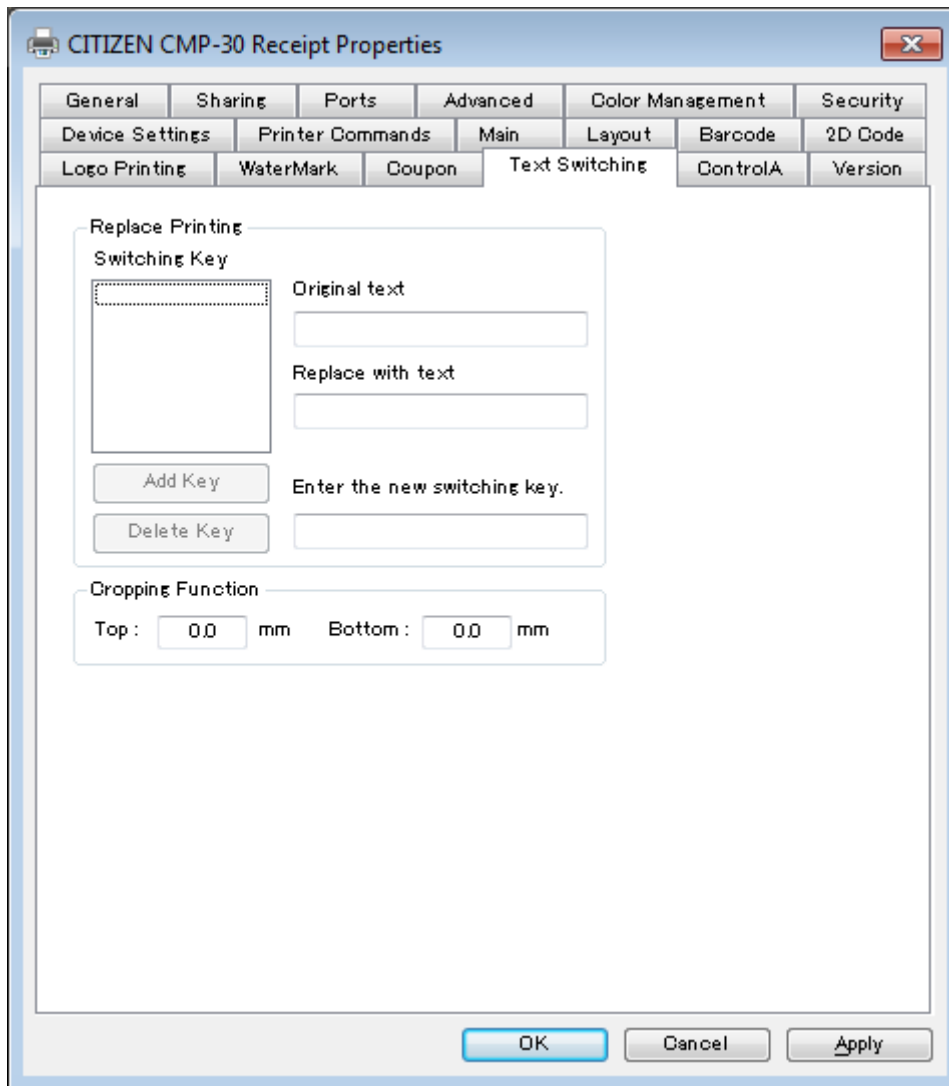
## 5-1-8 Coupon Printing





This is similar function as BMP file logo printing or water mark printing.  
Choose BMP file, dithering type, vertical printing position, density and size.

## 5-1-9 Replacing Text



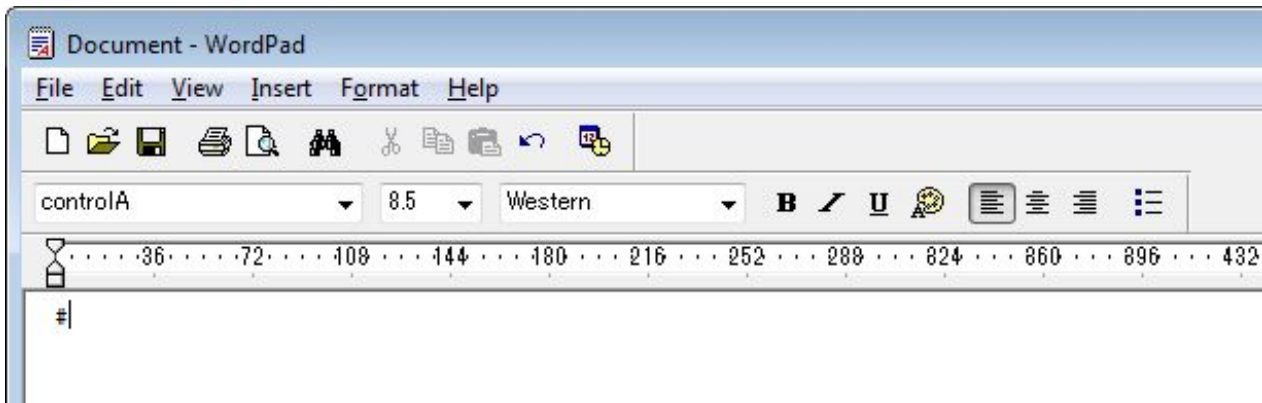
The text in the print data can be replaced with other text by this function.

There are limitations to use this function.

### 5-1-10 ControlA

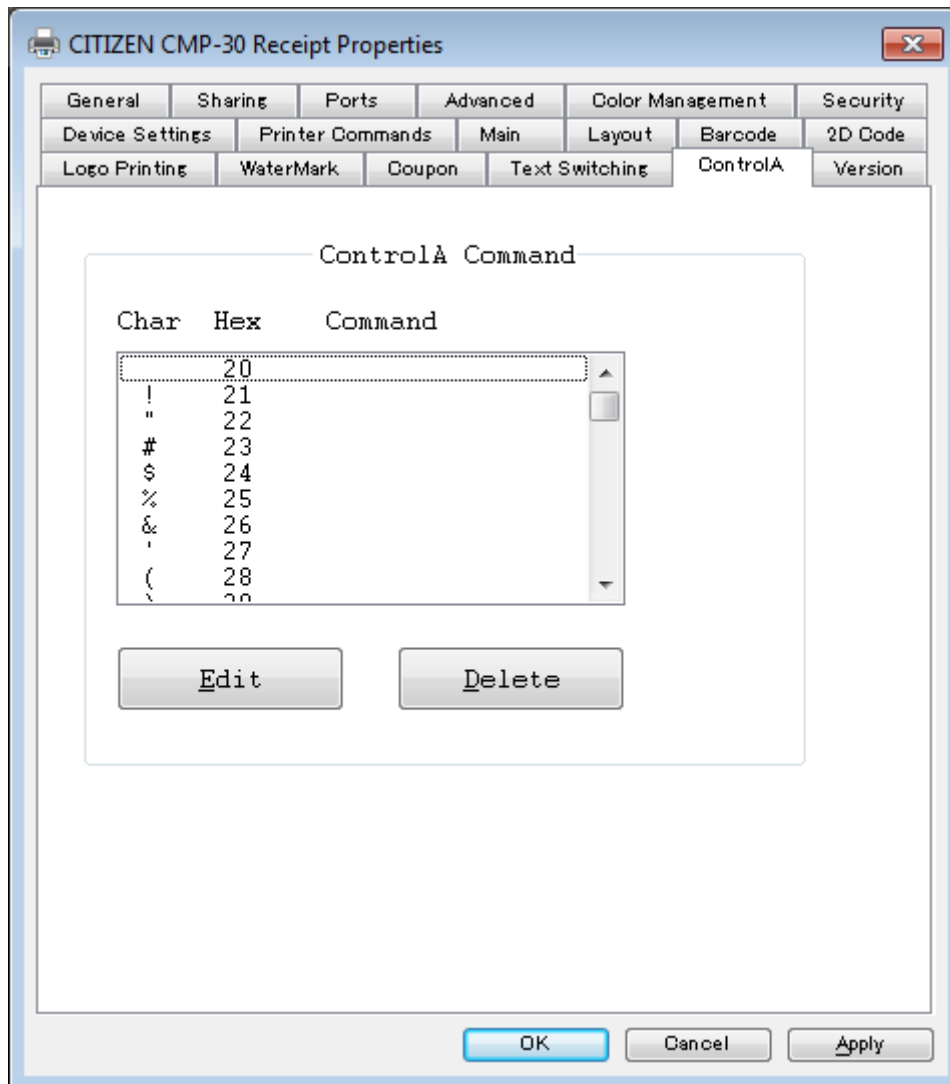
You can define command sequence to any character of controlA device font and when the character is printed as controlA, the command is executed instead of printing.

For example, WordPad on old version Windows allows to use controlA as font. Font size is 8.5.



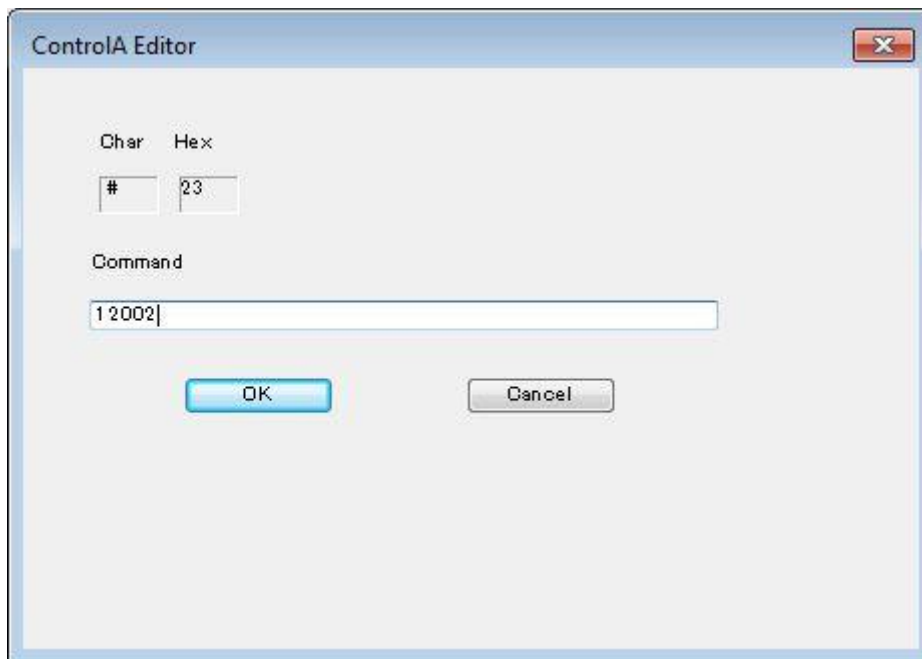
For example, if you print “#” as controlA font, the command sequence defined as “#” will be executed.

Defining on each character can be done from the same driver property page.

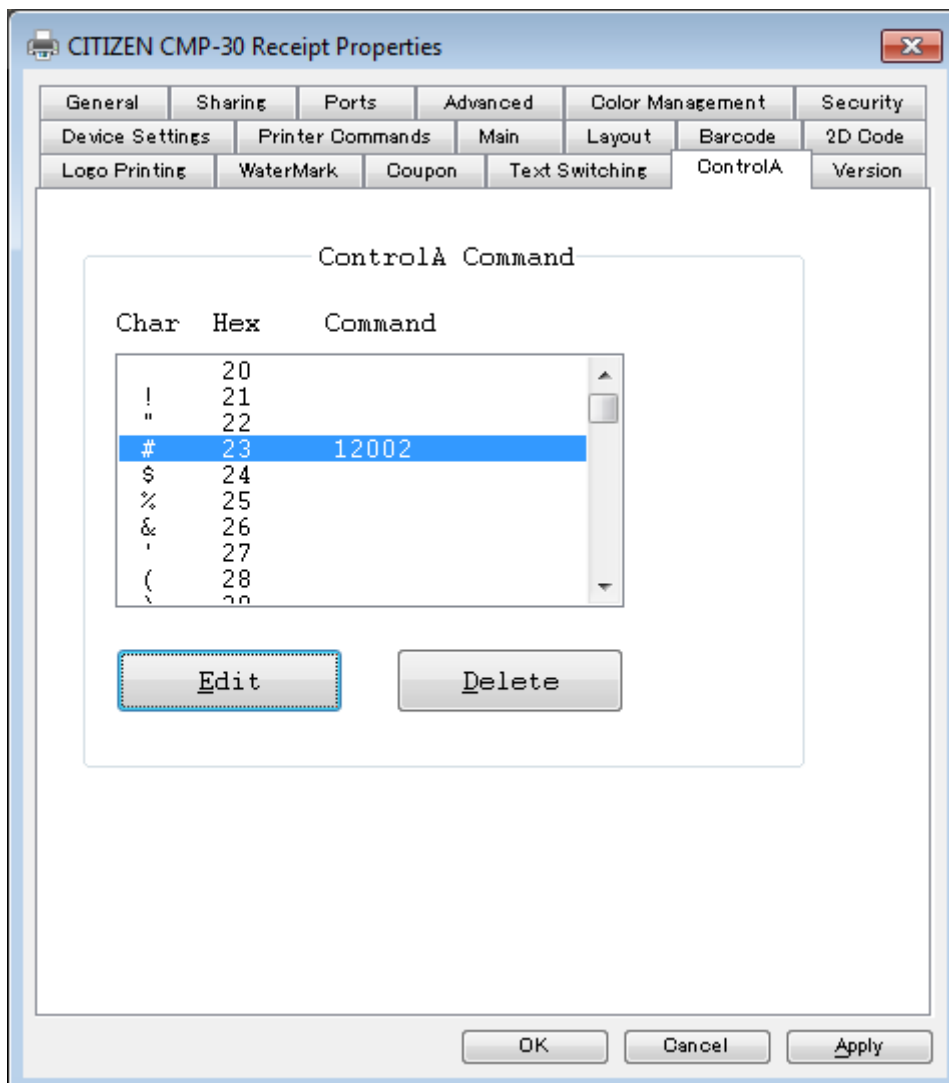


If you press “Edit” button, Editor appears





Then command data is defined.



## 5-2 Driver Device Font

### 5-2-1 Font for Characters

This driver supports following device font for character printing.

Using this function, printing is much faster than graphic printing.

There are limitations to use these fonts.

Font name	Size(Dot)	Size(Point)	Printed font
FontA11	(24 X 12)	8.5	Font A: Hx1 / Vx1
FontA12	(24 X 24)	17	Font A: Hx2 / Vx1
FontA21	(48 X 12)	8.5	Font A: Hx1 / Vx2
FontA22	(48 X 24)	17	Font A: Hx2 / Vx2
FontA24	(48 X 48)	34	Font A: Hx2 / Vx4
FontA42	(96 X 24)	17	Font A: Hx4 / Vx2
FontA44	(96 X 48)	34	Font A: Hx4 / Vx4
FontA48	(96 X 96)	68	Font A: Hx4 / Vx8
FontA84	(192 X 48)	34	Font A: Hx8 / Vx4
FontA88	(192 X 96)	68	Font A: Hx8 / Vx8
FontB11	(17 X 9)	6	Font B: Hx1 / Vx1
FontB12	(17 X 18)	12	Font B: Hx1 / Vx2
FontB21	(34 X 9)	6	Font B: Hx2 / Vx1
FontB22	(34 X 18)	12	Font B: Hx2 / Vx2
FontB24	(34 X 36)	24	Font B: Hx2 / Vx4
FontB42	(68 X 18)	12	Font B: Hx4 / Vx2
FontB44	(68 X 36)	24	Font B: Hx4 / Vx4
FontB48	(68 X 72)	48.5	Font B: Hx4 / Vx8
FontB84	(136 X 36)	24	Font B: Hx8 / Vx4
FontB88	(136 X 72)	48.5	Font B: Hx8 / Vx8

### 5-2-2 Font for Barcode and 2D Code

This driver supports following barcode/2D barcode font for barcode/2D barcode printing.

If you choose barcode font and enter necessary data, barcode can be printing.

There are limitations to use these fonts.

#### Barcode

Font name	Font size (Point)	Printed Barcode
Codabar(NW7)	18/35.5/53/71	Codabar
Code128	18/35.5/53/71	Code 128
Code39	18/35.5/53/71	3 Of 9
Code93	18/35.5/53/71	Code 93
ITF	18/35.5/53/71	Interleaved 2 of 5
JAN13(EAN13)	18/35.5/53/71	JAN(EAN)13
JAN8(EAN8)	18/35.5/53/71	JAN(EAN)8
UPC-A	18/35.5/53/71	UPC-A
UPC-E	18/35.5/53/71	UPC-E
Barcode1-8	28.5	Defined barcode

#### 2D barcode

Font name	Font size (Point)	Printed 2D Barcode
PDF417	8.5	PDF417
QR Code	8.5	QR Code
2D-Code1-8	8.5	Defined 2D barcode

Refer to section 5-1-4 and 5-1-5 for the details of Barcode1-8 and 2D-Code1-8.

### 5-2-3 Font for Special Function

You can use special function by printing following character using “control” font.

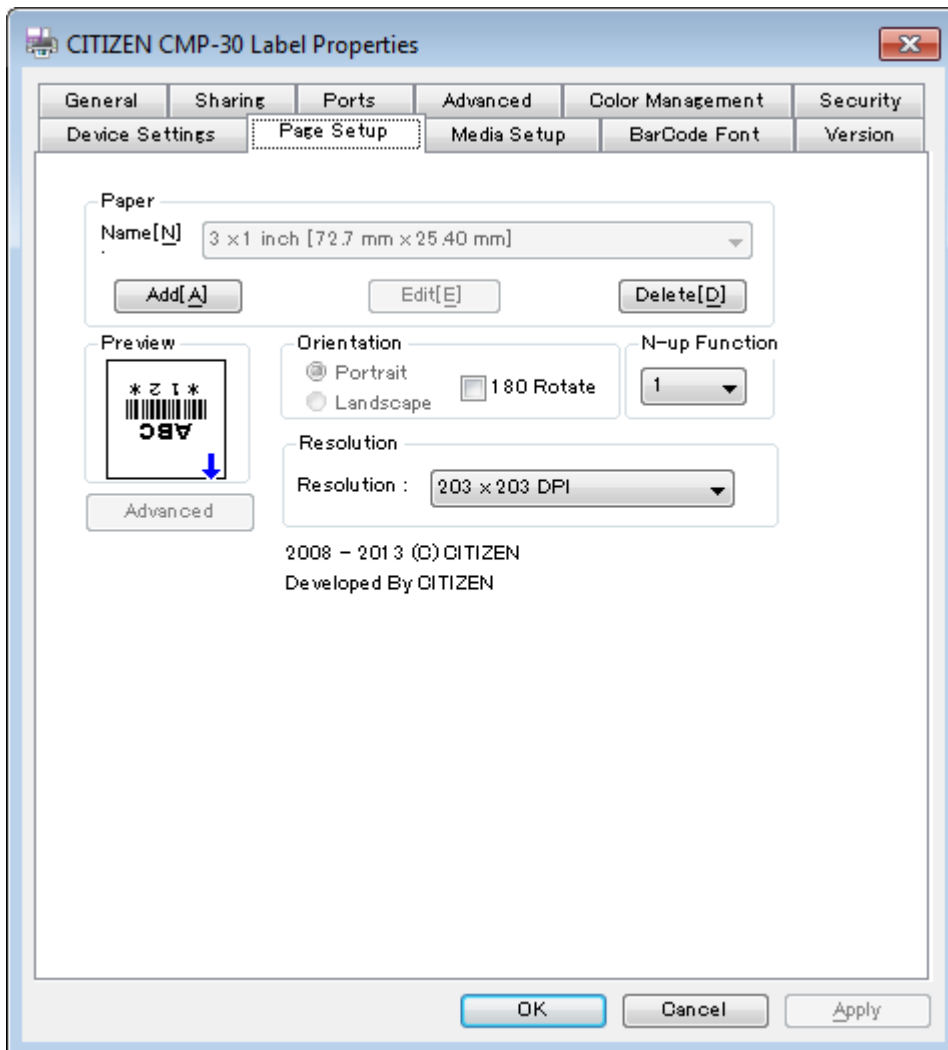
Each character will not be printed. Font size of “control” is 8.5.

Character	Function
5	Horizontal tab (HT)
6	Line feed (LF)
7	Print (CR)
p	No print HRI characters with barcode
q	Print HRI characters above barcode with font A
r	Print HRI characters below barcode with font A
s	Print HRI characters above barcode with font B
t	Print HRI characters below barcode with font B
u	Enable smoothing
v	Disable smoothing
w	Align characters to the left
x	Align characters to the center
y	Align characters to the right
G	Print No.1 data in NV memory with normal size
H	Print No.2 data in NV memory with normal size
I	Print No.3 data in NV memory with normal size
J	Print No.4 data in NV memory with normal size
K	Print No.5 data in NV memory with normal size
[	Print No.1 data in NV memory with x4 size
]	Print No.2 data in NV memory with x4 size
^	Print No.3 data in NV memory with x4 size
_	Print No.4 data in NV memory with x4 size
`	Print No.5 data in NV memory with x4 size

## 6. Driver for CPCL (Label)

### 6-1 Driver Function

#### 6-1-1 Page Setup



Function of this tab

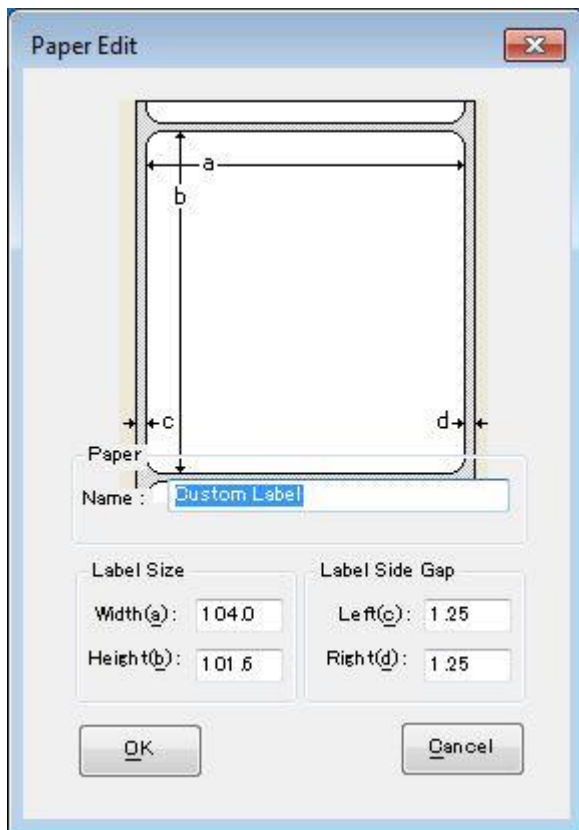
New page size can be created here.

180 degrees rotate printing can set here.

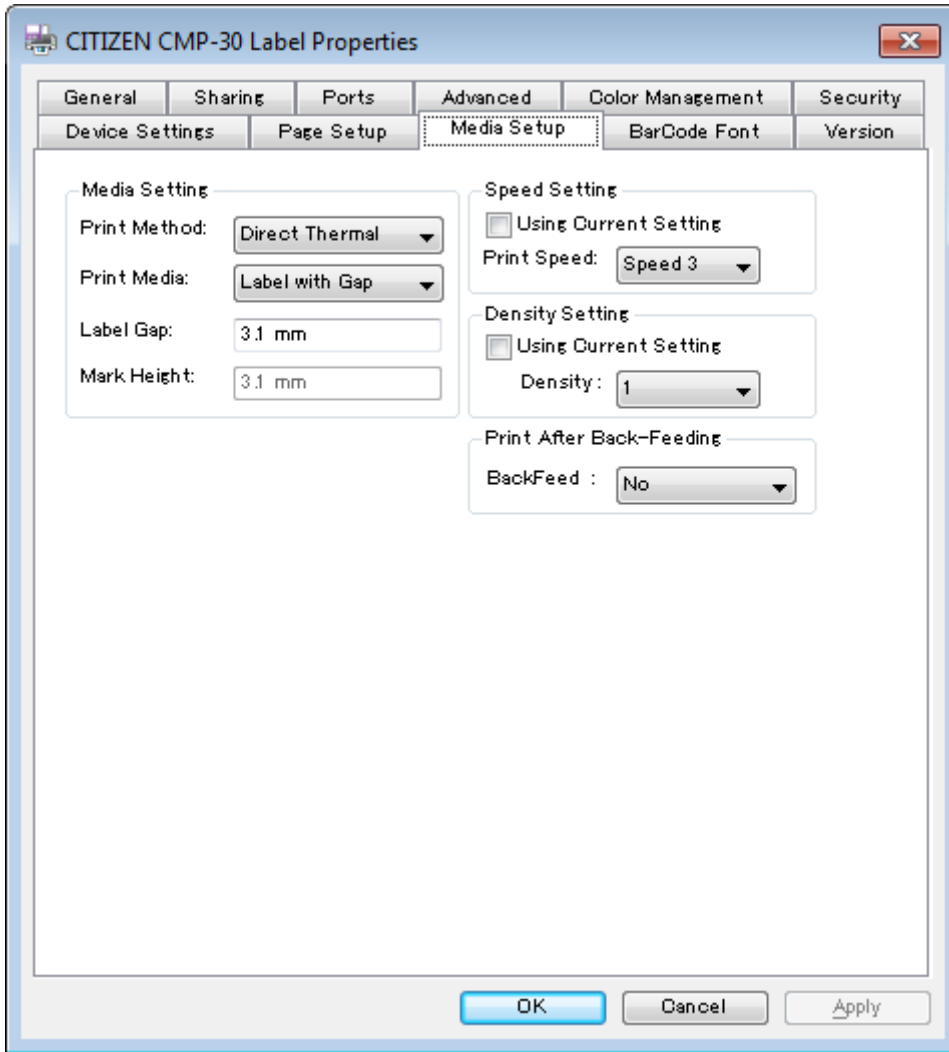
2 columns or 3 columns printing can be chosen by N-up Function.

## New page size

By pressing “Add” or “Edit”, the dialogue below appears. You can enter the size here.



## 6-1-2 Media Setup



This tab allows following settings.

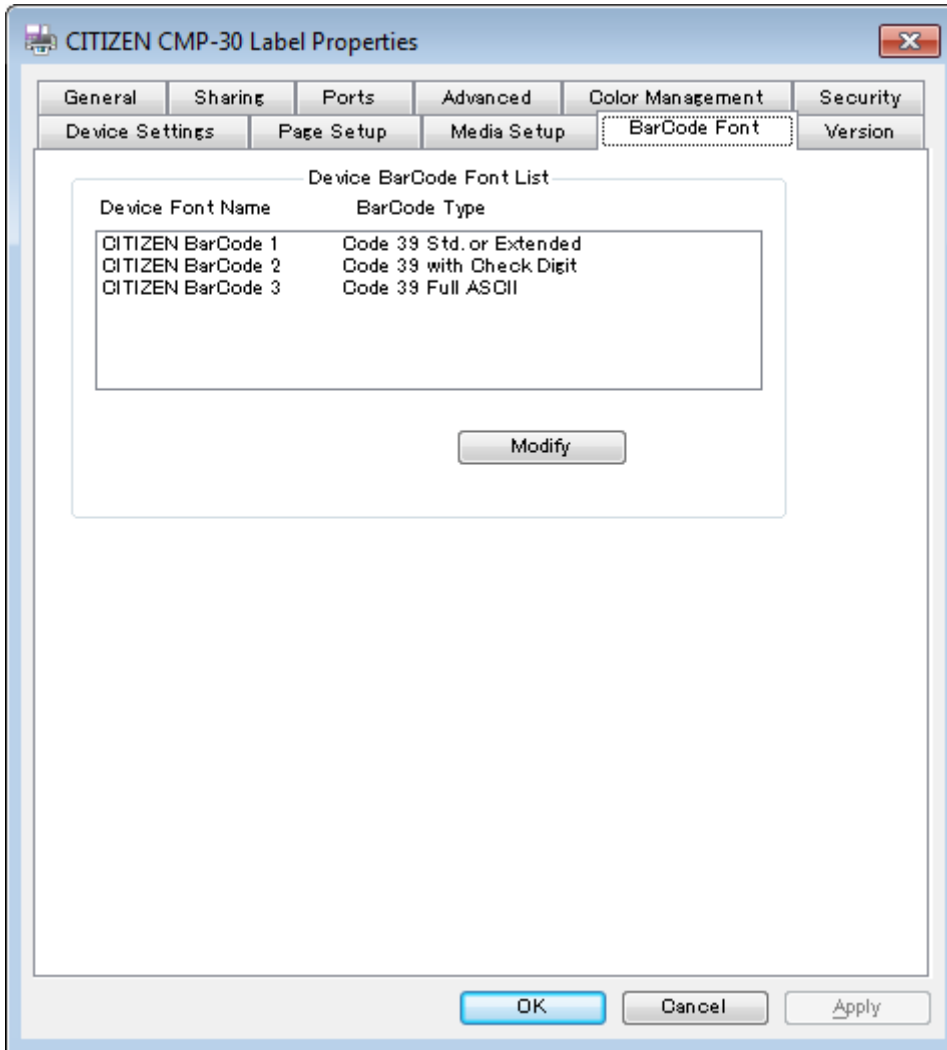
Print Media (Label with Gap/Label with mark/Continuous)

Print Speed (Current Setting, Speed 0 through Speed 5)

Density (Current Setting, Density 0 through 3)

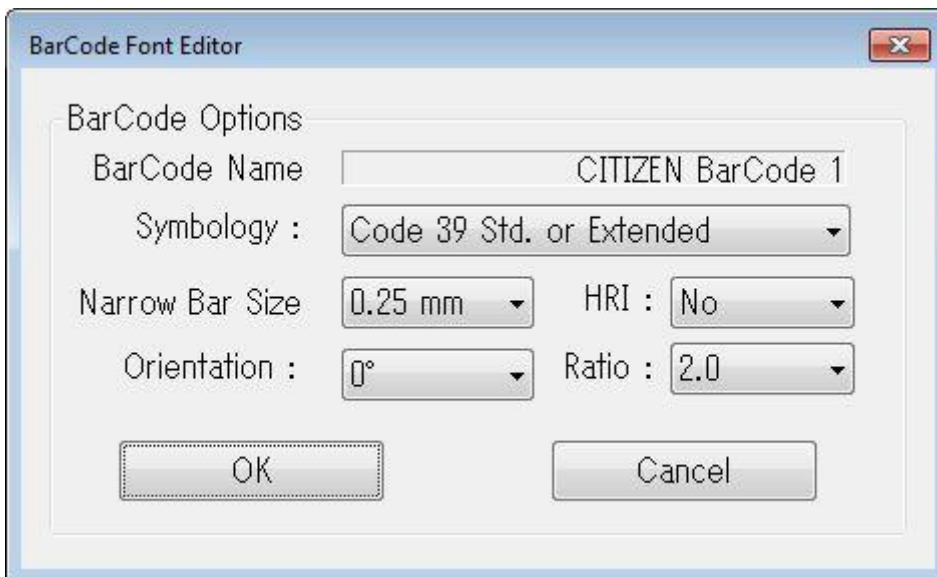
Back feed before print (No, Yes).

### 6-1-3 Barcode Font Setup



Choose the Barcode font from the list and press “Modify”.

Then set the barcode



Choose type of barcode on Symbology.

## 6-2 Driver Device Font

### 6-2-1 Font for Characters

This driver supports following device font for character printing.

Using this function, printing is much faster than graphic printing.

There are limitations to use these fonts.

Font name	Size (W x H Dot)	Size (Point)	Printed font
CITIZEN Font0-0	8 x 9	4.5	Font 0 Size 0
CITIZEN Font0-1	16 x 9	4.5	Font 0 Size 1
CITIZEN Font0-2	8 x 18	9	Font 0 Size 2
CITIZEN Font0-3	16 x 18	9	Font 0 Size 3
CITIZEN Font0-4	32 x 18	9	Font 0 Size 4
CITIZEN Font0-5	16 x 36	18.5	Font 0 Size 5
CITIZEN Font0-6	32 x 36	18.5	Font 0 Size 6
*CITIZEN Font1-0	? x 48	17	Font 1
CITIZEN Font2-0	20 x 12	4.5	Font 2 Size 0
CITIZEN Font2-1	20 x 24	8.5	Font 2 Size 1
*CITIZEN Font4-0	? x 47	16.5	Font 4 Size0
*CITIZEN Font4-1	? x 94	33	Font 4 Size1
*CITIZEN Font4-2	? x 45	16	Font 4 Size 2
*CITIZEN Font4-3	? x 90	32	Font 4 Size 3
*CITIZEN Font4-4	? x 180	64	Font 4 Size 4
*CITIZEN Font5-0	? x 24	8.5	Font 5 Size 0
*CITIZEN Font5-1	? x 48	17	Font 5 Size 1
*CITIZEN Font5-2	? x 46	16.5	Font 5 Size 2
*CITIZEN Font5-3	? x 92	32.5	Font 5 Size 3
CITIZEN Font6-0	28x27	9.5	Font 6
CITIZEN Font7-0	12x24	8.5	Font 7 Size 0
CITIZEN Font7-1	12x48	17	Font 7 Size 1

\* = Proportional font

### 6-2-2 Font for Barcode

This driver supports following barcode/2D barcode font for barcode/2D barcode printing.

If you choose barcode font and enter necessary data, barcode can be printing.

There are limitations to use these fonts.

Barcode font name	Font size (Point)	Printed barcode
CITIZEN Barcode 1	8/9/10/11/12/14/16/18/20/22/24/26/28/36/48/72	Define barcode
CITIZEN Barcode 2	8/9/10/11/12/14/16/18/20/22/24/26/28/36/48/72	Define barcode
CITIZEN Barcode 3	8/9/10/11/12/14/16/18/20/22/24/26/28/36/48/72	Define barcode