

## Printer Driver for TM-S Series

# Driver Manual

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### PDS Overview

Descriptions of the PDS features.

### Using the PDS

Descriptions of simple printings and useful functions.

### Reference

Descriptions of property settings of the printer driver.

### TM Flash Logo Setup Utility Ver.3

Descriptions of how to set and use the  
TM Flash Logo Setup Utility Ver.3.

### Printer Specification

Description of the specifications of the driver.

### Restrictions

Descriptions of restrictions on the use of the PDS.



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## For Safety

### Key to Symbols

The symbols in this manual are identified by their level of importance, as defined below. Read the following carefully before handling the product.

**CAUTION**

Provides information that must be observed to avoid damage to your equipment or a malfunction.

**NOTE**

Provides important information and useful tips.

## Restriction of Use

When this product is used for applications requiring high reliability/safety such as transportation devices related to aviation, rail, marine, automotive etc.; disaster prevention devices; various safety devices etc; or functional/precision devices etc, you should use this product only after giving consideration to including fail-safes and redundancies into your design to maintain safety and total system reliability. Because this product was not intended for use in applications requiring extremely high reliability/safety such as aerospace equipment, main communication equipment, nuclear power control equipment, or medical equipment related to direct medical care etc, please make your own judgment on this product's suitability after a full evaluation.

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## About this Manual

### Aim of the Manual

This manual is aimed to provide all the necessary information for development engineers to develop, design, and install system, or to develop and design printer applications.

### Manual Content

The manual is made up of the following sections:

Chapter 1	<a href="#">PDS Overview</a>
Chapter 2	<a href="#">Using the PDS</a>
Chapter 3	<a href="#">Reference</a>
Chapter 4	<a href="#">TM Flash Logo Setup Utility Ver.3</a>
Chapter 5	<a href="#">Printer Specification</a>
Chapter 6	<a href="#">Restrictions</a>

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# PDS Overview

## Introduction

The Printer Driver for TM-S Series(PDS) is a printer driver for TM-S9000.

The thermal printer for roll paper printing and the ink jet printer for cut sheet printing are installed. Compatible drivers with EPSON's former models are provided.

## Manual organization

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### Install Manual

Descriptions of the procedures from installing the PDS to performing test print, adding printer drivers, and the silent install which is an automated PDS installation.

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### Driver Manual

This manual. Descriptions of how to use the PDS and its functions.

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### Devmode API / PRINTERINFO Manual

Descriptions of how to configure some device functions on your application using the Devmode API. Descriptions of the PRINTERINFO Function of Windows.

## Inquiries

See the Epson homepage.

- For customers in North America, go to the following web site.  
<http://www.epsonexpert.com/>
- For customers in other countries, go to the following web site.  
<http://www.epson-pos.com/>

## *PDS Features*

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### Easy

- Allows you to print from commercially available applications, since the PDS is a Windows driver.
- Allows you to print a Barcode and 2D-Code with the fonts built in the PDS. (["Printing a Barcode" on page 21](#))
- Allow you to print logos and graphics. (["Printing a Logo" on page 32](#))
- Allows you to send the paper cut command to the product. (["Paper Feed and Paper Cut" on page 35](#))
- Allows you to sound the buzzer. (["Option buzzer" on page 80](#))
- Allows you to select from 24 languages for text on screen and help dialog. (["Language for displaying properties" on page 85](#))
- Using a compatible driver enables printing on TM-S9000 with minimum changes in the application to print on other TM printer. (["Using Compatible Driver" on page 42](#))

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### Fast

- Achieves high speed printing using the Device fonts of the product. (["Character Printing \(Device Font\)" on page 15](#))
- Allows you to convert the Windows fonts to the Device fonts.
- Allows you to print an image such as a store logo faster by registering the image in the product. (["Printing a Logo" on page 32](#))

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### Expandability

- Device sharing is supported. Allows you to share product with other computers on a network. (Device sharing through a print server is not supported.)
- Allows you to use ESC/POS commands control. (["How to Use ControlA Font" on page 39](#))

## Programming

- Status API is not supported.

### CAUTION

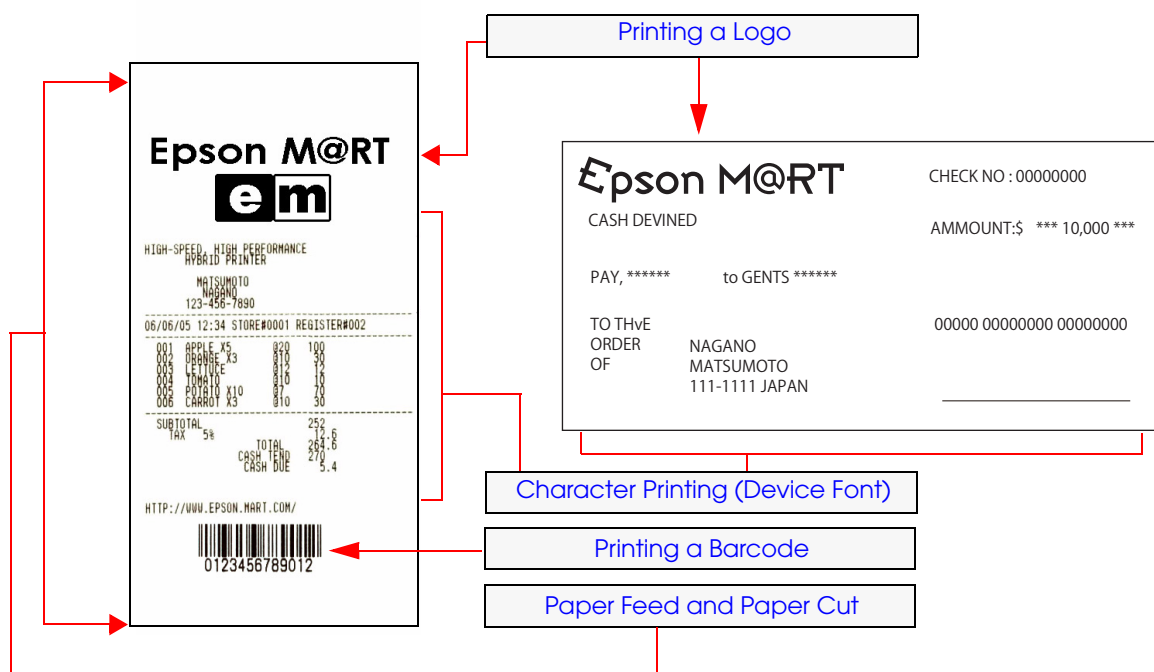
In Terminal Service / Citrix XenApp environment, PRINTER\_INFO\_2 cannot be used.

- It can be printed as any name from your application by specifying the device font. ("Printer font advanced setting" on page 100)
- Character size, font, and other settings that affect the print result can be adjusted with minimal changes to your print application. ("Advanced Font Settings" on page 17)

## Installation

- Allows you to copy the existing settings of the PDS environment to other computers. (Silent Install)
- After the PDS installation, the printer driver will be automatically installed to the product equipped with a USB interface by the Plug and Play function.

## Printing Example



## Differences Depending on the OS

The content of the descriptions of some operations in this book may be different depending on the OS. See the following.

Item	Description
Screens shown	Screens in Windows Vista are used for the descriptions in this manual.
Setting a printer driver	Windows 8 (Desktop) - Sidebar (Settings) - (Control Panel) - (Hardware and Sound) - (Devices and Printers) Right click the printer driver, and select the (Printer properties). Windows 7 (Start) - (Control Panel) - (Hardware and Sound) - (Devices and Printers) Right click the printer driver, and select the (Printer properties). Windows Vista (Start) - (Control Panel) - (Hardware and Sound) - (Printer) Right click the printer driver, and select the (Properties). Windows XP (Start) - (Control Panel) - (Printers and Faxes) Right click the printer driver, and select the (Properties).
Windows 8 How to start the application	Click (Start), then (All apps), and select the application you want to use from the list.
Windows 8 How to display hidden folders	(Desktop) - Sidebar (Settings) - (Control Panel) - (Appearance and Personalization) - (Folder Options) On the "Folder Options" screen, select the (View) tab. Select "Show hidden files, folders, and drives", then click the (OK) button.

# Using the PDS

This chapter explains how to use the functions contained in the PDS.

## CAUTION

- Administrator permission is required for property settings of the printer driver.

## Application Device Settings

The following explains the initial device settings from the Windows application to the product.

Set the device model and paper from the application you are to use.

This is an example using WordPad. Run [All Programs] - [Accessories] - [WordPad] from the [Start] menu.

## NOTE

When printing a device font in Microsoft Word, the following setting is necessary.

- For Word 2003 or earlier : From [Tools] - [Options] - [Compatibility], select "Microsoft Word 6.0/95" in [Recommended Options for] or make a check in "Use printer metrics to lay out document" in [Options].
- For Word 2007 : From [Word Options] - [Advanced] - [Compatibility Options for], select "Microsoft Word 6.0/95" or "Custom" in [Lay out this document as if created in], and make a check in "Use printer metrics to lay out document" in [Layout Options].

### 1. Printer driver specification

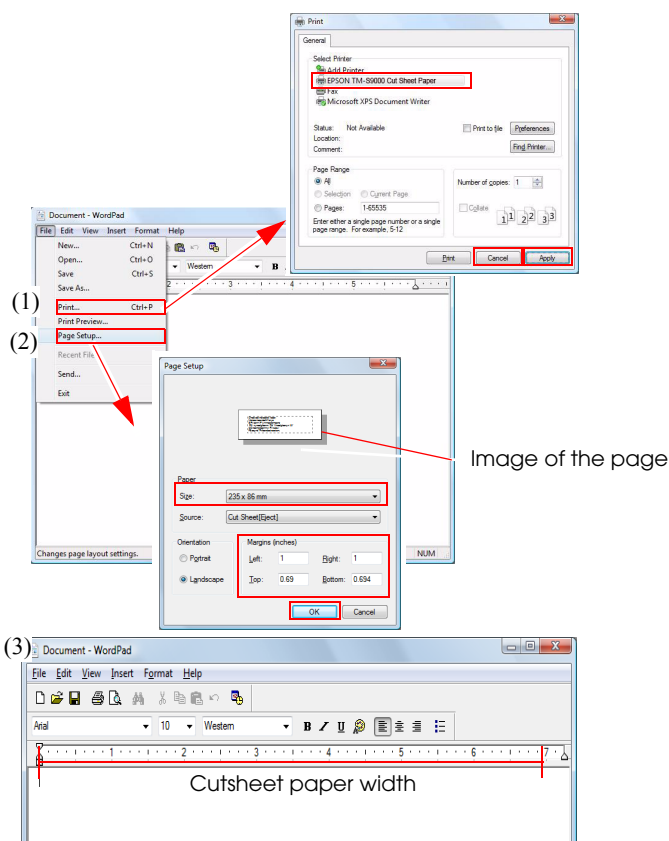
Select [File] - [Print...] to display the print dialog box. Select the printer driver you are to use. Press the [Apply] button, then press the [Cancel]. Return to WordPad screen.

### 2. Page Setup

Select [File] - [Page Setup] to display the Page Setup dialog box. Select the paper you are to use. At this point the Page Setup illustration changes to roll paper. Set the margins, and then press the [OK] button.

### 3. Exit Settings

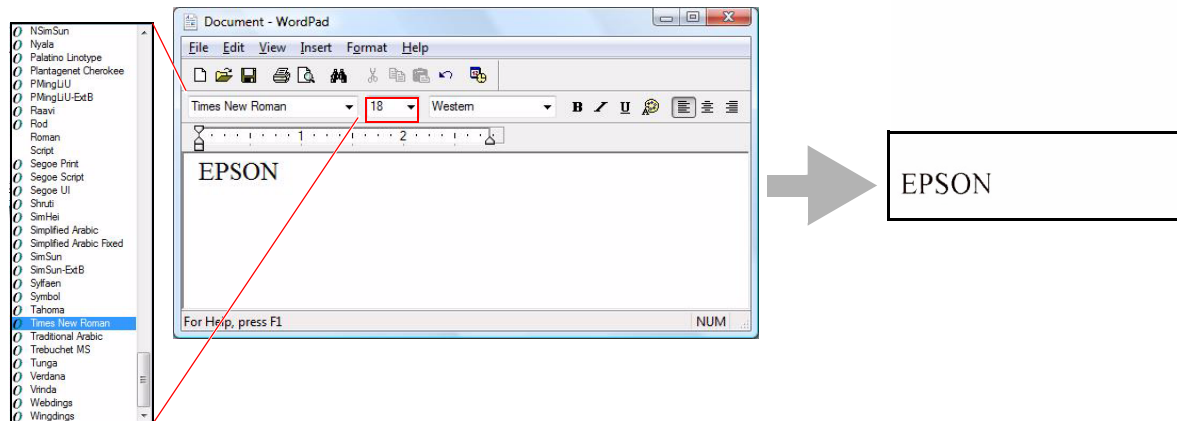
The paper width selected with Page Setup is applied to WordPad.



## Character Printing (TrueType fonts)

Printing is performed with the TrueType fonts (Arial, Times New Roman, etc.) available with Windows. You can apply italic and other character modifications, and freely change the font size. You can also print almost exactly what you see on screen.

Specify TrueType font, Point and Style for print data.



# Character Printing (Device Font)

Device Font is the font set built into the device.  
You can obtain text quality in line with the performance of the device.  
You can print text at a higher speed than TrueType font.  
To print Device Font in a .NET environment, you must replace the font. See ["Device Font Printing in a .NET Environment" on page 26](#) for details.

## Setting Device Font

When printing with Device Font, set the Device Font type.

### Device Font Type

The xx after the font name specifies two digits, expressing the character size.  
Font with [255] after the font name is user-defined pages. See the Technical Reference Guide for the product you are using for a description of this setting.  
Also see the manual regarding the number of dots for each font.  
Some fonts are not supported, depending on the model of product. See "Printer Specification" for details.

- FontAxx
- FontBxx

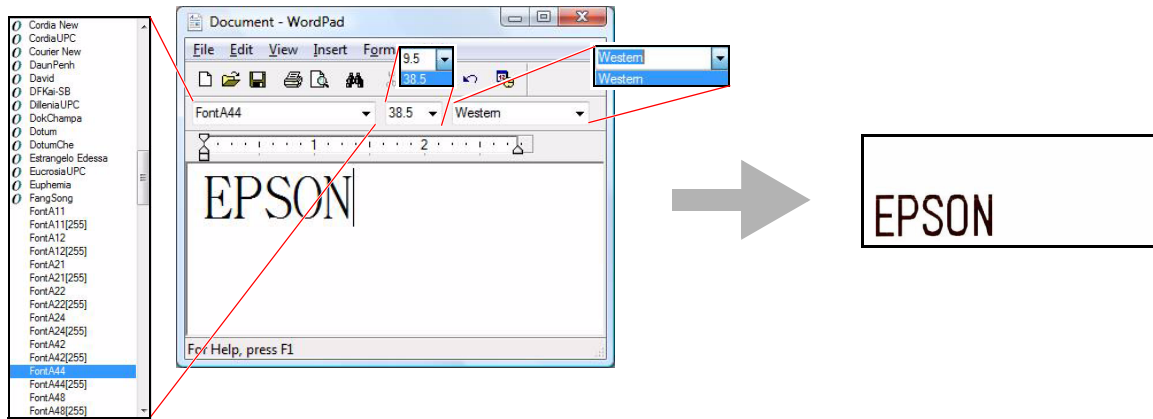
### Device Font Size

Device Font prepares fonts for each character size. As with TrueType fonts, point size is not specified separately from the font; rather, character size is specified by selecting a font.  
The following sizes are available with Device Font.

Width \ Height	Standard	Double	Fourfold	Eighfold		
Standard	FontA11	FontA12			Standard	FontA11
Double	FontA21	FontA22	FontA24		Double height	FontA12
Fourfold		FontA42	FontA44	FontA48	Double width	FontA21
Eighfold			FontA84	FontA88	Double height / width	FontA22

## Printing Method

Specify Device Font, specified Point (check with [Font] tab) and language in print data.



### CAUTION

- Not reflected in characters even when you specify bold/italic. The underline is printed but the position is offset.
- Printing is not possible when Device Font and Barcode(2D-Code) Font are arranged in one line.

### NOTE

The character design and size displayed on the application screen are a little different from actual printing results.

## Program

The following is an example program for reference.

```
-----
Printer.Font.Charset = 0
`Font
Printer.Font.Name = "FontA44"
`Size
Printer.Font.Size = 38.5
`Printing text
Printer.Print "EPSON"
-----
```



## Advanced Font Settings

When developing a print application, fine adjustment of the print layout is often necessary and font names must be changed when the device is changed. By configuring advanced settings for fonts, the desired print results can be obtained with minimal setting changes in the application.

### Alias Setting

- An alias name can be specified for a printer font. This enables printing using the printer font without changing the font name in the application.

### Printer Font Substitution

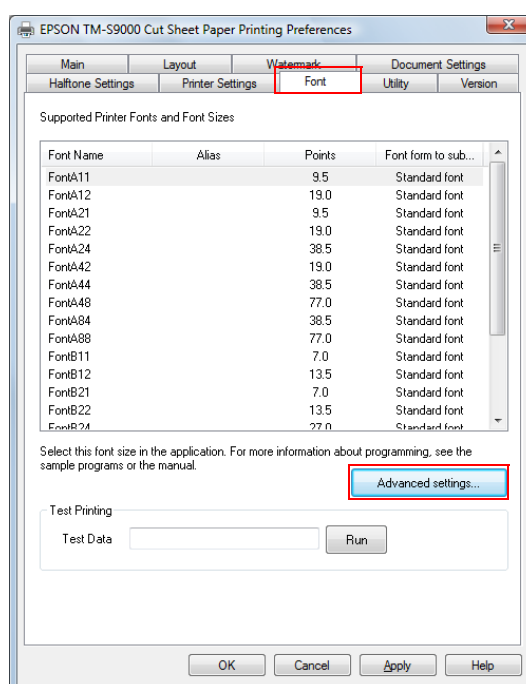
- This substitutes TrueType fonts for printer fonts. The TrueType fonts are adjusted to the size of the printer fonts to minimize disruption of the text layout. Proportional fonts are printed as fixed-width fonts. Select this setting when small differences in font sizes cause disruption of the layout.

### Register Emulation Font

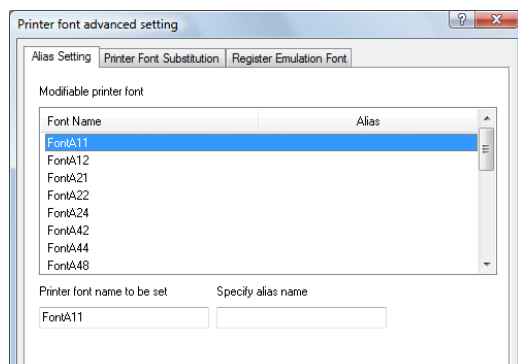
- Any font name, font size (height and width in dots), and font design (TrueType font) can be specified. Use these settings when you wish to change a font name and font size.

Follow the steps below to open the “Printer font advanced setting” screen.

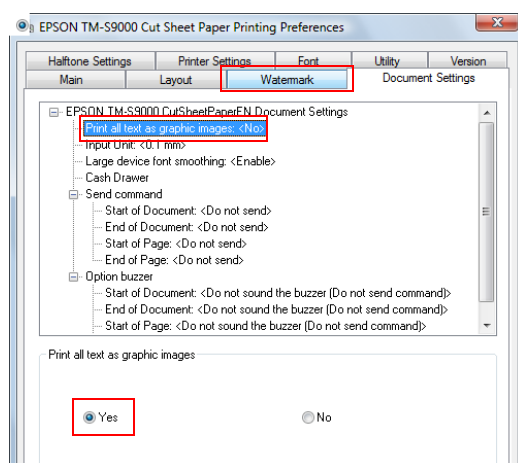
- 1 Select the (Font) tab from Printing Preferences. Click the (Advanced settings) button.



## 2 The “Printer font advanced setting” screen appears.



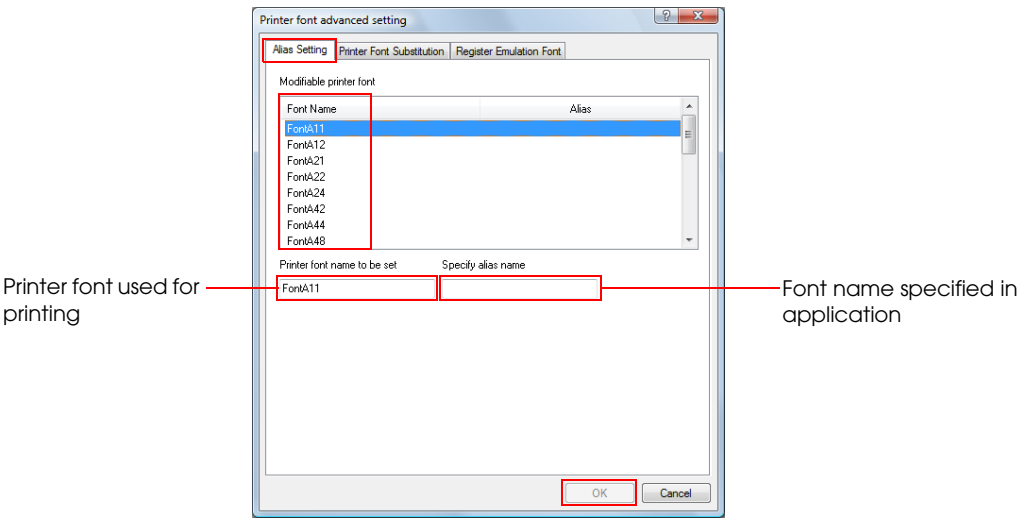
If the [Printer Font Substitution] tab does not appear when using the device, select the [Document Settings] tab from the print settings and set [Print all text as graphic images] to [Yes].



## Alias Setting

Select the [Alias Setting] tab. Select the font from the [Modifiable printer font] list, and specify the alias name. When finished, click the [OK] button.

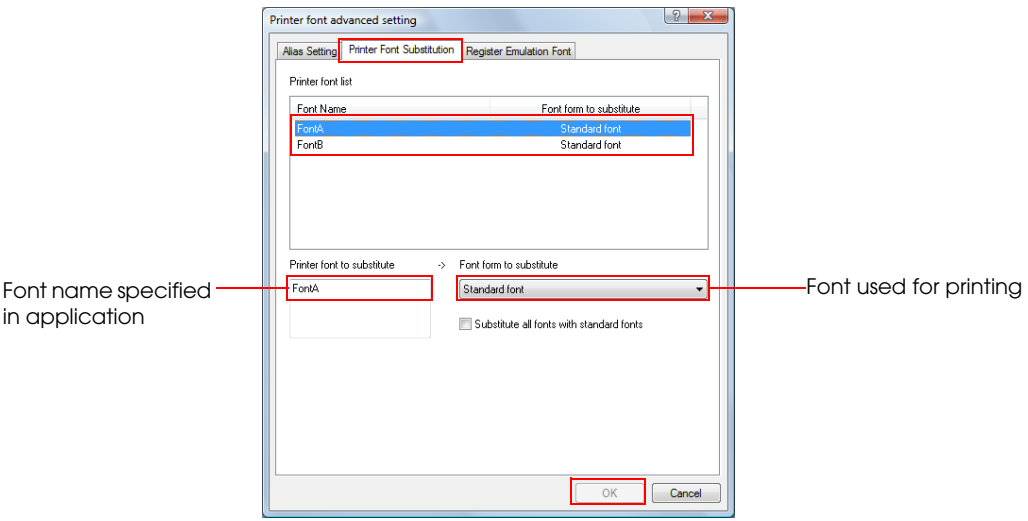
For example, by setting an application font name to an alias name for printer font - "FontA11", text can be printed using "FontA11" without changing the application.



## Printer Font Substitution

Select the [Printer Font Substitution] tab. Select a font from the [Printer font list], and select the font form (TrueType font) that you wish to substitute for it. When finished, click the [OK] button.

For example, when "Arial" is substituted for "FontA", specifying "FontA11" in the application will print text in Arial font at the size of "FontA11". The font size is adjusted to the same size as the printer font. This setting allows a 180 dpi printer to print 46 Arial font characters per line on 80 mm width roll paper.



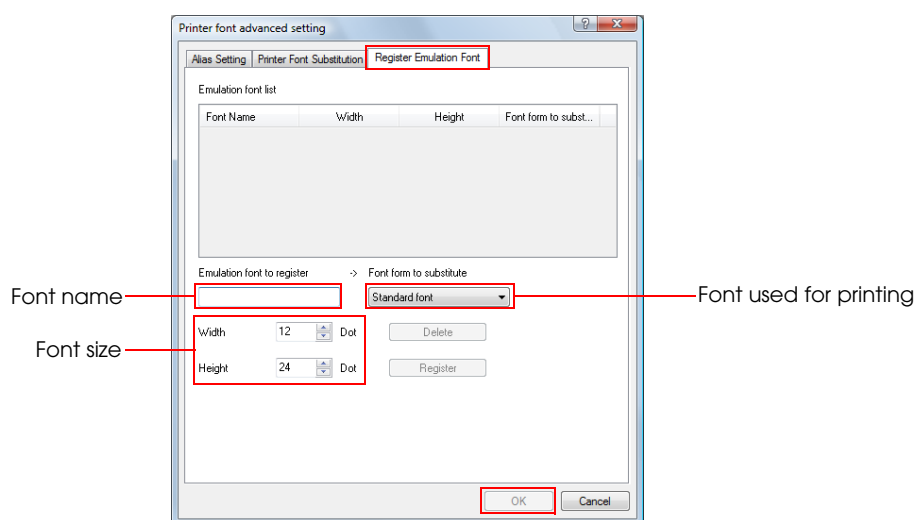
## Register Emulation Font

Select the [Register Emulation Font] tab. Enter the name of the emulation font you wish to register and specify the font form to be substituted (TrueType font). Enter the width and height. When finished, click the [OK] button.

The emulation font registration function makes it easy to adjust the print layout. In addition, when the device is changed in an existing application, printing is possible using the previous text size and layout without changing the application.

### NOTE

If the text size is too small or the height-width ratio is too large, the characters may be blurred. Be sure to check the print result carefully before using this function.



# Printing a Barcode

PDS has Barcode font built in. Therefore, you can print Barcode even if you have not created Barcode on the application side.

NOTE

When used in combination with Rotation, set a slow Printing Speed with the [Document Settings] tab. When the print speed is too fast, the barcode may not be read.

Barcode font lets you register the Barcode type and size as properties. Up to eight types of Barcode (Barcode 1 ~ 8) can be registered using the PDS.

## Barcode font setting

Select the Barcode tab from Printing Preferences.

Barcode tab

Font Name

Points

Alias

Barcode type

Open the Advanced settings

EPSON TM-S9000 Roll Paper Printing Preferences

MainLayoutWatermarkDocument SettingsHalftone SettingsPrinter SettingsBarcode2D CodeFontUtilityVersion

Font NameBarcode165.0Points

Alias

Select this font size in the application. For more information about programming, see the sample programs or the manual.

Barcode1TypeUPC-A

SettingsAdvanced settings...

OptionSetting

CompositeOff

Element Width3 Dots

Element Height162 Dots

HRI PositionDo not print

HRI FontFontA

RotationNormal

Hex Input ModeOff

Add Quiet ZoneOff

OKCancelApplyHelp

Element width  
(width of the thin lines in dots)

Element height  
(height of the thin lines in dots)

HRI characters

Barcode1UPC-A

☐ Composite

Element Width3[2-6] Dots

Element Height162[1-255] Dots22.8 mm

HRI PositionDo not print

HRI FontFontA

Options

RotationNormal

☐ Hex Input Mode

☐ Add Quiet Zone

Test Printing

Test Data012345678905Run

OKCancel

Element  
HRI characters  
Rotation  
Quiet Zone

Make the following settings. See "Barcode" on page 86 for details.

Setting	Description
Font Name	You can set Barcode font for up to 8 Barcode types (Barcodes 1 ~ 8). When printing through an application, specify the font name or the alias name.
Points	The Barcode font size is displayed. When printing through an application, specify this value.
Alias	You can make optional settings. You can specify Alias during programming.

Setting	Description
Type	Configures the Barcode type (UPC-A, Code39, etc)
Element	Determines the Barcode size. Specifies the finest Element width and height. Units are the smallest dot of the product. This result determines the Barcode font Point.
HRI characters	Sets with/without HRI characters, position and font.
Rotation	Sets whether to independently rotate Barcode.
Hex Input Mode	Allows the Barcode characters to be entered in binary.
Add Quiet Zone	The blank margin on either side of a Barcode required in order to read the Barcode.

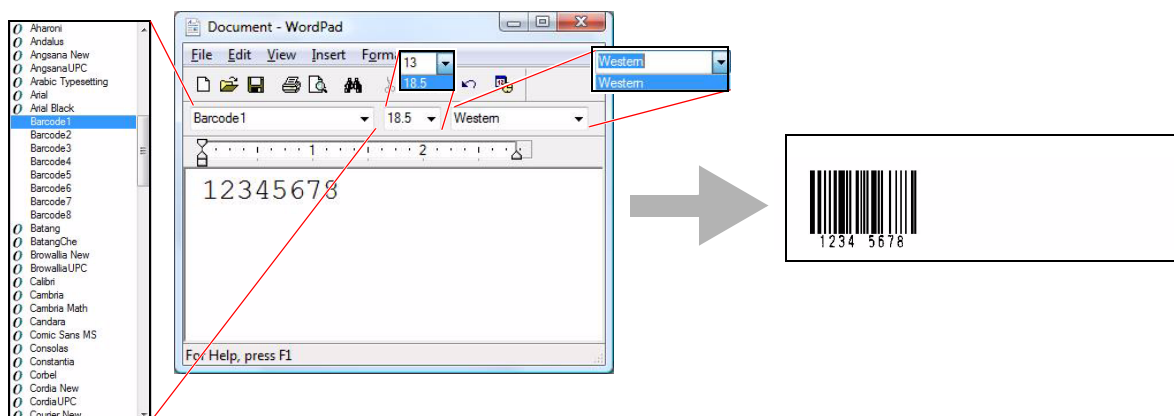
### NOTE

When Rotate is set with the [Layout] tab, the printing direction of the Barcode matches [Layout] tab Rotate and the Rotation of [Barcode]-[Advanced settings] printing direction.

Ex: When specifying [Rotate by 90 degrees] with [Layout] Rotate and [Rotate by 90 degrees] with [Barcode] Rotation, the printing direction is turned through 180 degrees.

## Printing Method

Specify Barcode Font, specified Point (check with [Barcode] tab) and language in print data.



### CAUTION

Barcode Font Points determined. Check with Printing Preferences - [Barcode]. When specifying a value other than this, the Barcode is not printed.

### NOTE

The character design and size displayed on the application screen are a little different from actual printing results.

## Program

The following is an example program for reference.

```
-----  
Printer.Font.Charset = 0  
`Size  
Printer.Font.Size = 18.5  
`Font  
Printer.Font.Name = "Barcode1"  
`Printing text  
Printer.Print "12345678"  
-----
```

## Printing a 2D-Code

PDS has a 2D-Code font. Therefore, you can print 2D-Code without creating 2D-Code on the application side.



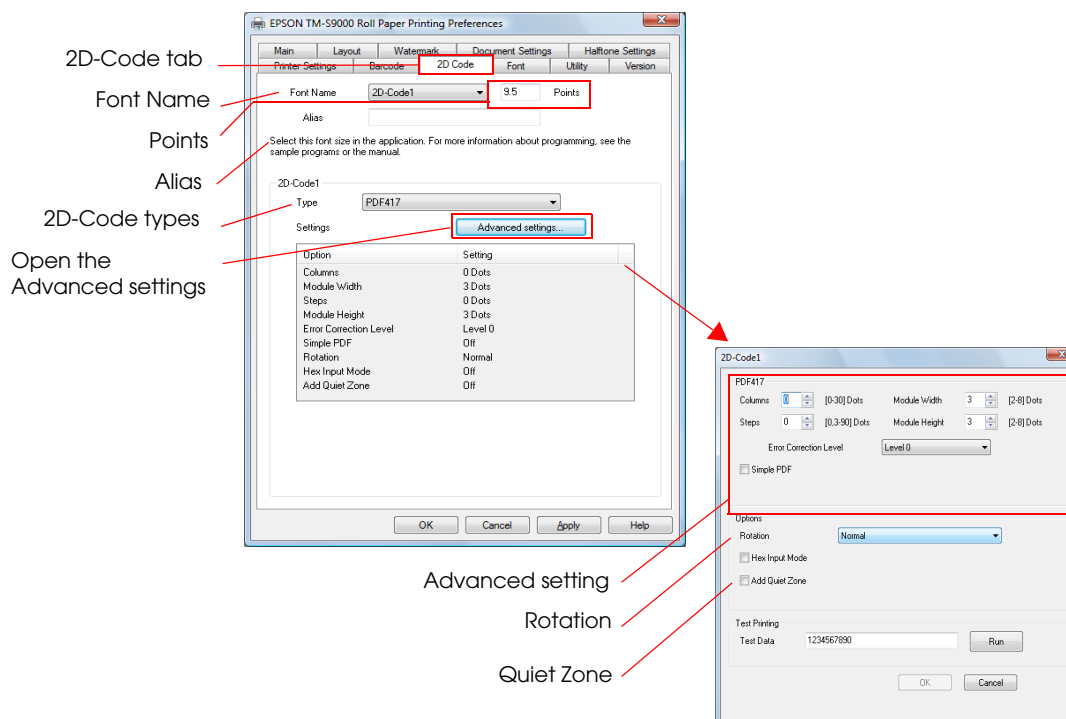
Set a slow Printing Speed with the [Document Settings] tab. When the print speed is too fast, the symbols may not be read.

The 2D-Code font allows registration of 2D-Code type and size properties.

Up to eight types (2D-Code 1 ~ 8) of setting can be registered using the PDS. You can make fine settings of 2D-Code at one time, and also easily change the settings.

### Setting the 2D-Code Font

Select the 2D-Code tab from Printing Preferences.



Make the following settings. See ["2D-Code" on page 89](#) for details.

Setting	Description
Font Name	You can set the 2D-Code font from the 8 types of 2D-Code(1 ~ 8). When printing through an application, specify the font name or the alias name.
Points	The 2D-Code font size is displayed. When printing through an application, specify this value.



Setting	Description
Alias	You can put a name to 2-dimensional symbol fonts. Through an application, you can specify a font by this alias name instead of specifying 2-dimensional symbol font itself.
Type	Sets the type. (PDF417, MaxiCode, etc.)
Advanced setting	Sets the 2D-Code size and Error Correction Level, etc. Setting contents differ with the 2D-Code type.
Rotation	Sets whether to independently rotate 2D-Code.
Hex Input Mode	Allows the 2D-Code characters to be entered in binary.
Add Quiet Zone	Check this box to add a quiet zone, the blank margin on either side of a 2D-Code required to be properly read.

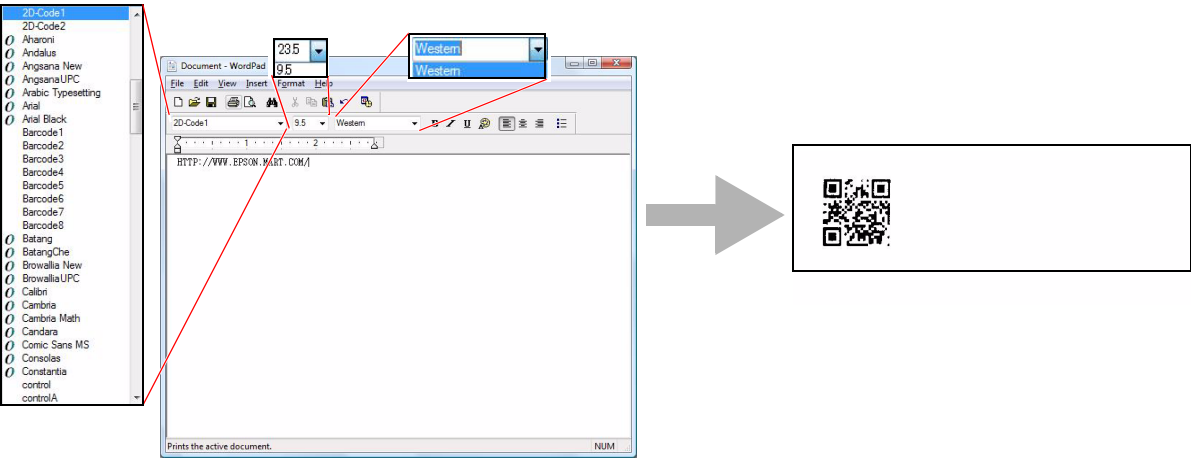
NOTE

When Rotate is set with the [Layout] tab, the printing direction of the Barcode matches [Layout] tab Rotate and the Rotation of [Barcode]-[Advanced settings] printing direction.  
Ex: When specifying [Rotate by 90 degrees] with [Layout] Rotate and [Rotate by 90 degrees] with [2D-Code] Rotation, the printing direction is turned through 180 degrees.

2

Printing Method

Specify 2D-Code Font, specified Point (check with [2D-Code] tab) and language in print data.



NOTE

2D-Code Font Points determined. Check with Printing Preferences - [2D-Code]. When specifying a value other than this, the 2D-Code is not printed.

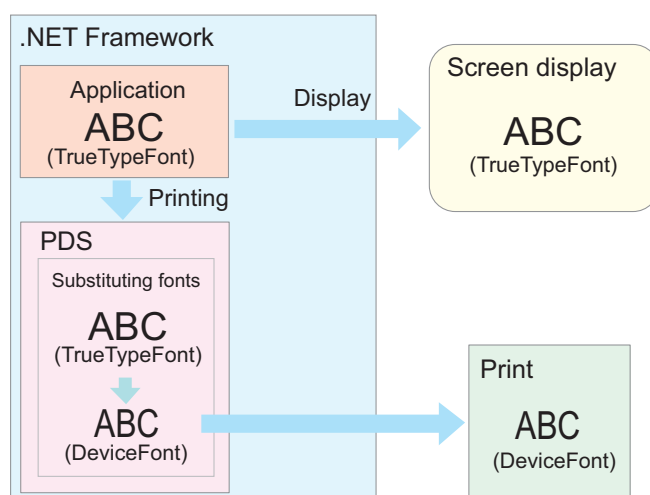
## Device Font Printing in a .NET Environment

.NET Framework supports only TrueType and OpenType fonts. Therefore, the printer's device fonts cannot be used. In the PDS, therefore, a font substitution function is provided to allow you to use device fonts even with .NET Framework.

This function is not only useful in a .NET Framework environment: it also allows you to use the device fonts from an application that only supports TrueType fonts.

### Substituting Fonts

The PDS font substitution function replaces a TrueType font with a device font. By specifying a device font to be used as a substitute for a given TrueType font, printing can be done using a device font. True Type fonts are used for the application's screen display, but they are substituted by the device font when printed.



For TrueType fonts not available for the substitution, see the table below.

TrueType fonts not available for the substitution			
Marlett	Symbol	MS Outlook	Wingdings 3
Wingdings	Webdings	Wingdings 2	

#### NOTE

Images on an application screen cannot be printed as it is because device fonts differ from TrueType fonts in characteristics such as the aspect ratio. You need to confirm print results in advance.

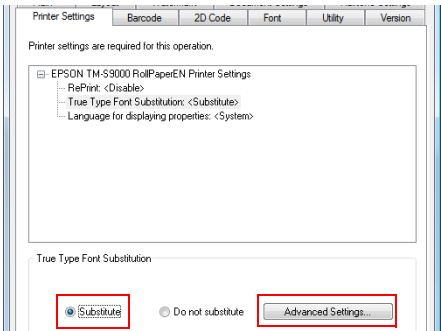
#### CAUTION

Device fonts whose horizontal/vertical ratio is different, such as FontA 12/21, cannot be printed.

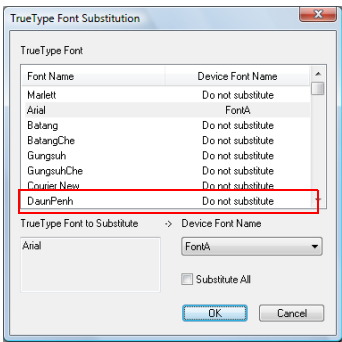
## Font Substitution Settings

Make the Substitution setting as follows. See ["TrueType Font Substitution" on page 84](#) for details.

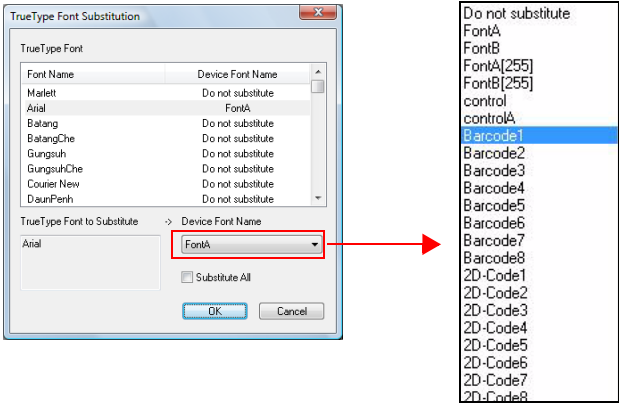
- 1 Select the Printer Settings tab from Printing Preferences.
- 2 Select (True Type Font Substitution) from the selection items.
- 3 Select (Substitute) and click the (Advanced Settings) button.



- 4 The TrueType Font Substitution screen is displayed. Select a TrueType font to be substituted.



- 5 From the pull down list, select the device font with which you substitute the TrueType font.



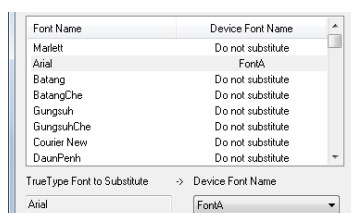
## Printing Using a Device Font

Select the TrueType font to be substituted.

That TrueType font for which substitution has been specified will always be output as the device font. Otherwise, therefore, always select another TrueType font.

### Font Substitution Settings

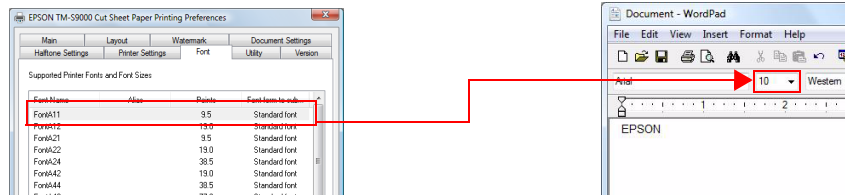
Make the [Printer Settings] - TrueType Font Substitution settings. The example specifies Arial for font substitution. (See "Substituting Fonts" on page 26.)



For the print data, specify a TrueType font and size.  
(Specify the size of the device font using that of the TrueType font.)

Specify the font size by adding 1 point to the size in the [Font] tab and dropping the fractional part.

Example: If the device font size is 9.5pt, specify 10.0pt.



#### Note:

- If characters does not fit in one line and are printed on the next line, specify a smaller point size for the TrueType font.
- Only device fonts whose vertical/horizontal ratio is same, such as FontA11/22, can be printed.
- Smaller fonts whose point sizes are smaller than that of the smallest device font (example: FontA11) cannot be printed.
- If a point size between those of FontA11 and FontA22 is specified for the point size of the TrueType font, the smaller device font will be printed.

### Print

You need to confirm print results with your application in advance.

#### NOTE

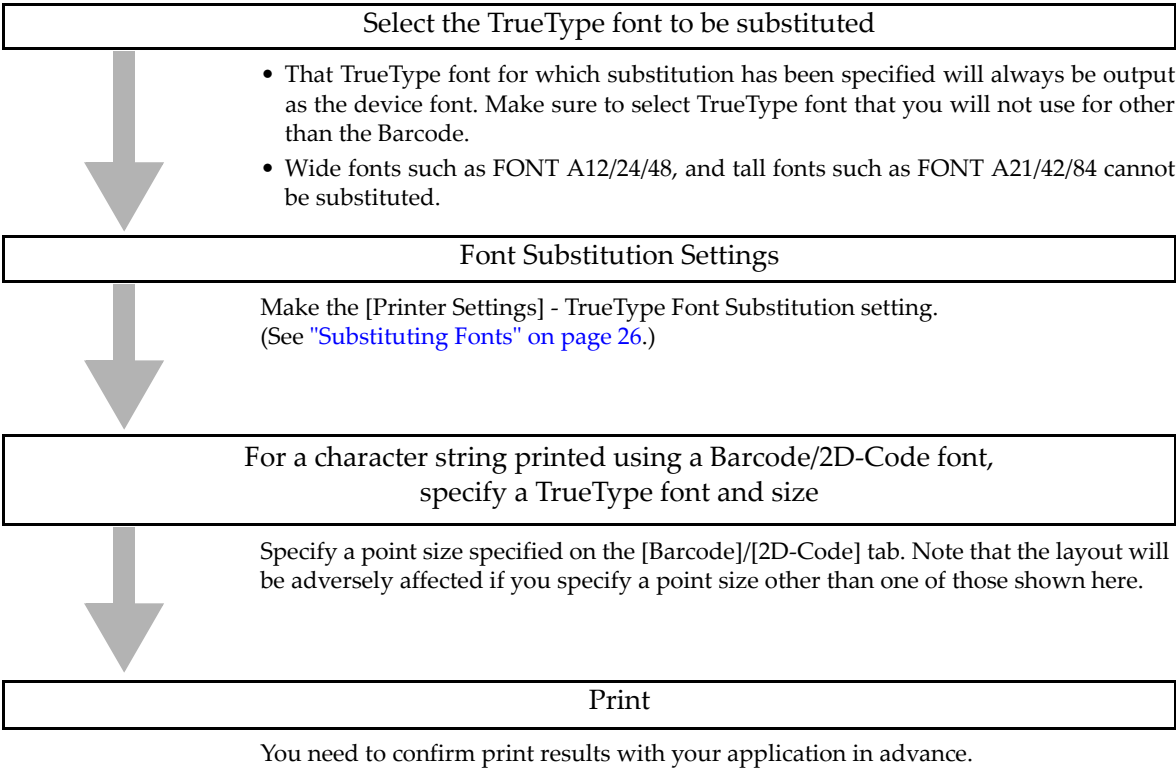
Even if you specify bold or italic font settings to the text in TrueType font, it will not be reflected in the printings. The underline is printed but the position is offset.

# Program

The following is an example program for reference.

```
-----
Printer.Font.Charset = 0
`Font
Printer.Font.Name = "Arial"
`Size
Printer.Font.Size = 38.5
`Printing text
Printer.Print "EPSON"
-----
```

## Printing Barcodes/2D-Code Fonts



## Controlling the Product(Device): Control Font/Control A Font

### Select the TrueType font to be substituted

- Select a TrueType font to be used as a control font.
- That TrueType font for which substitution has been specified cannot be used as other than the control font. If you specify this font for any other characters, not only will printing fail, but the system may operate as if another command had been specified. Therefore, make sure to select TrueType font that you will not use as other than the control font.

### Font Substitution Settings

Make the [Printer Settings] - TrueType Font Substitution setting.  
(See "[Substituting Fonts](#)" on page 26.)

### Specify the TrueType font and size for the control font/control A font for print data.

Specify a point size shown on the [Font] tab.  
The point size may be too small to be recognized on the application screen.

### Print

You need to confirm print results with your application in advance.

# Background printing

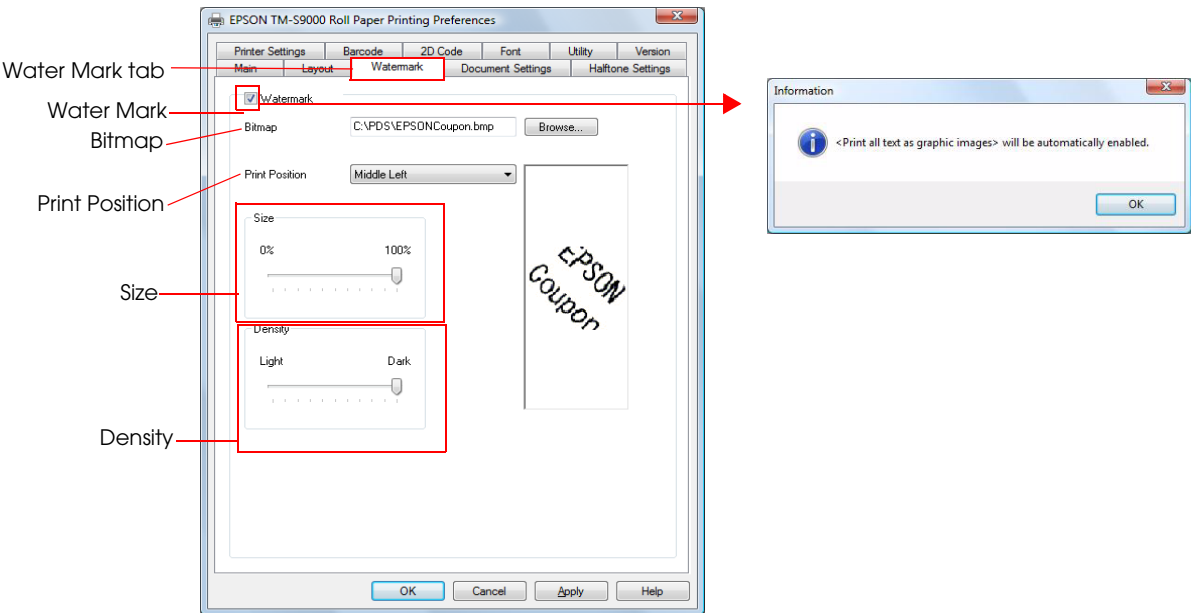
Use Water Mark to print background. A bitmap file is necessary for Water Mark setting.

**CAUTION**

- You may not be able to print a Water Mark depending on the application.
- When the printing orientation setting is other than standard, since [Print all text as graphics] under Document Settings is "Yes" you cannot use Device Font, Control Font control (logo printing using NV memory, etc.) or ControlA Font.
- When printing in the shared printer environment, save the data file in a folder accessible from the shared environment.

## Water Mark setting

Select the Water Mark tab from Printing Preferences.



Make the following settings. See ["Water Mark" on page 67](#) for details.

Setting	Description
Water Mark	Check to print Water Mark. When checked, (Print all text as graphics) under Document Settings is automatically set to "Yes".
Bitmap	Specifies the background bitmap data file.
Print Position	Make the following settings.
Size	Configures the size of the Water Mark.
Density	Configures the density of the Water Mark.

## Printing a Logo

Use the following method to print graphics.

Method	Features
Print bitmap on the application screen	Large data volume, printing is slow.
Specify bitmap file in the printer driver for printing.	Slow, because file is read each time for printing.
Register bitmap in product for printing	Data volume is small, therefore you can print fast.

The following explains how to register a bitmap in the product and print. Method that applies the bitmap of a fixed format such as a store logo.

### CAUTION

When registering a bitmap file in the shared device environment, save the data file in a folder accessible from the shared environment.

## Bitmap data registration

Register the bitmap data in the product's NV (Non Volatile) memory with the TM Flash Logo Setup Utility. This memory retains its data even when the product is switched off.

For more details, see ["TM Flash Logo Setup Utility Ver.3" on page 103](#).

## Bitmap data printing

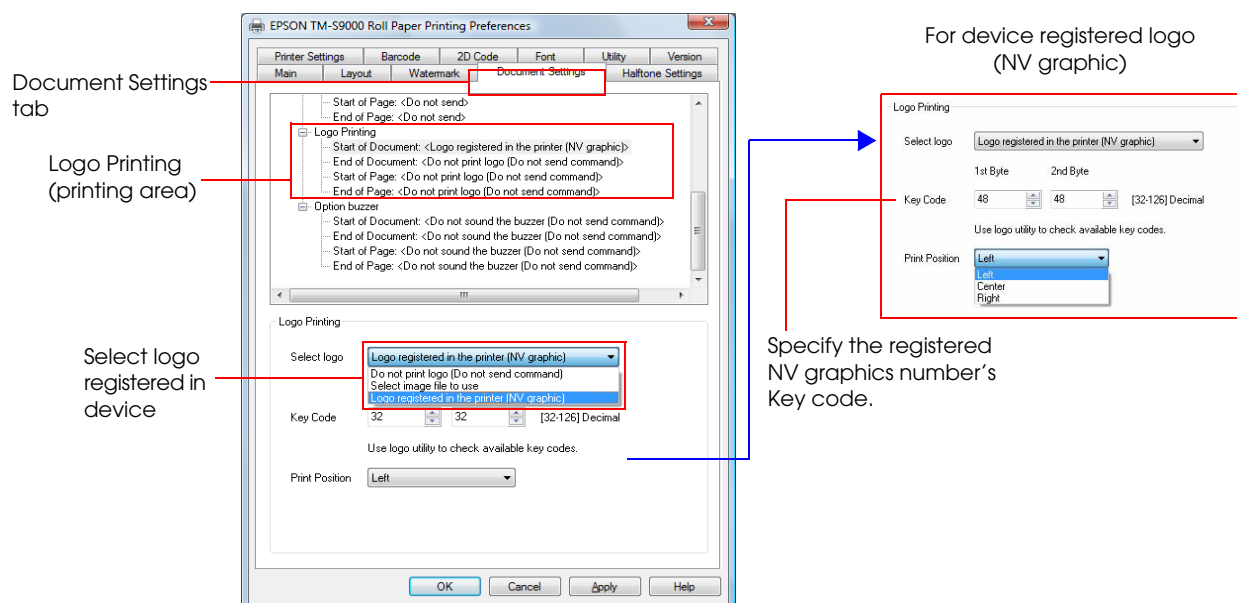
The following method is for printing bitmaps registered in a product.

Method	Features
Setting by printer driver	Prints the bitmap in a document or before and after a page.
Specifying by Control Font.	Specifies control font at the position for bitmap printing.



## Setting by printer driver for printing

Select the Document Settings tab from Printing Preferences.



Make the following settings. See ["Logo Printing" on page 79](#) for details.

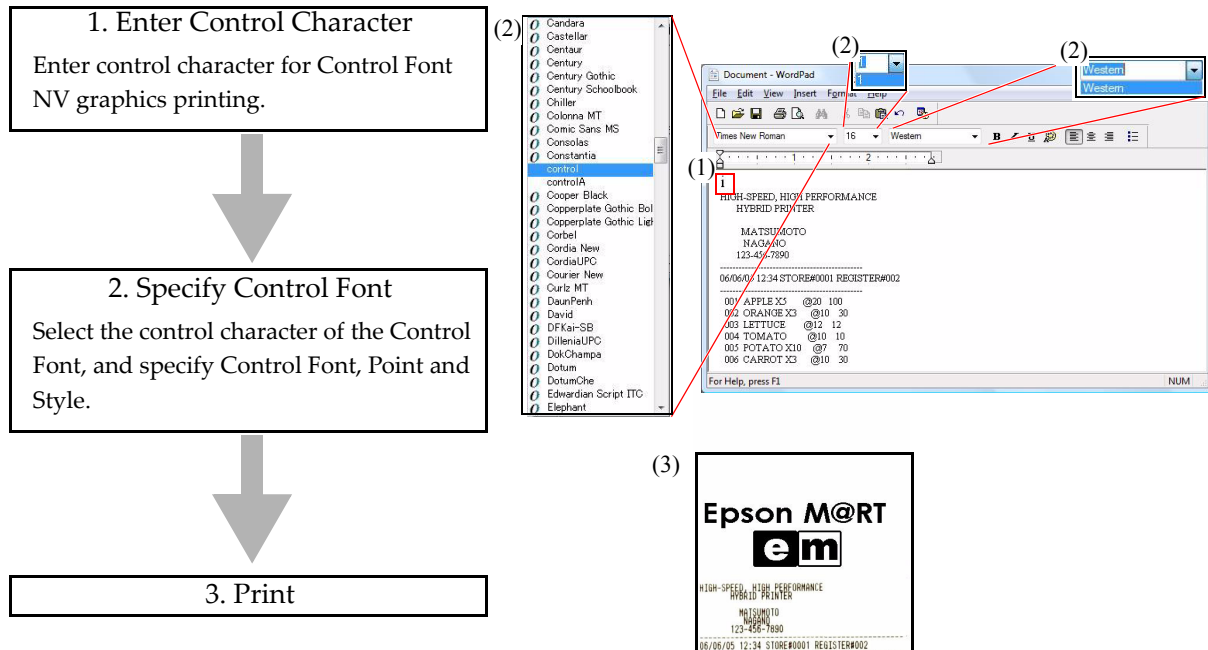
Setting	Description
Logo Printing (printing area)	Specify an area for a logo printing (before or after a document or each page.)
Print Position	Specify a logo print position. Select Left, Center, or Right.
Specifying the bitmap to print	Select whether to use the logo registered in the product or to specify and use an image file.
Specify logo registered in device*	Specify a logo registered in the product.
NV graphic	Specify the key code of a logo registered using TM Flash Logo Setup Utility.

\* The Key code and graphic in the NV memory for printing are as follows.

NV graphics number	Key code	
	1st byte	2nd byte
NV graphics 0	48	48
NV graphics 1	48	49
NV graphics 2	48	50
NV graphics 3	48	51
NV graphics 4	48	52

## Specify Control Font to print

Bitmap is printed using Control Font.



## Program

The following is an example program for reference.

```
Printer.Font.Charset = 0
`Font
Printer.Font.Name = "control"
`Size
Printer.Font.Size = 1
`Printing text
Printer.Print "i"
```

# Paper Feed and Paper Cut

There are two methods for controlling the paper cut.

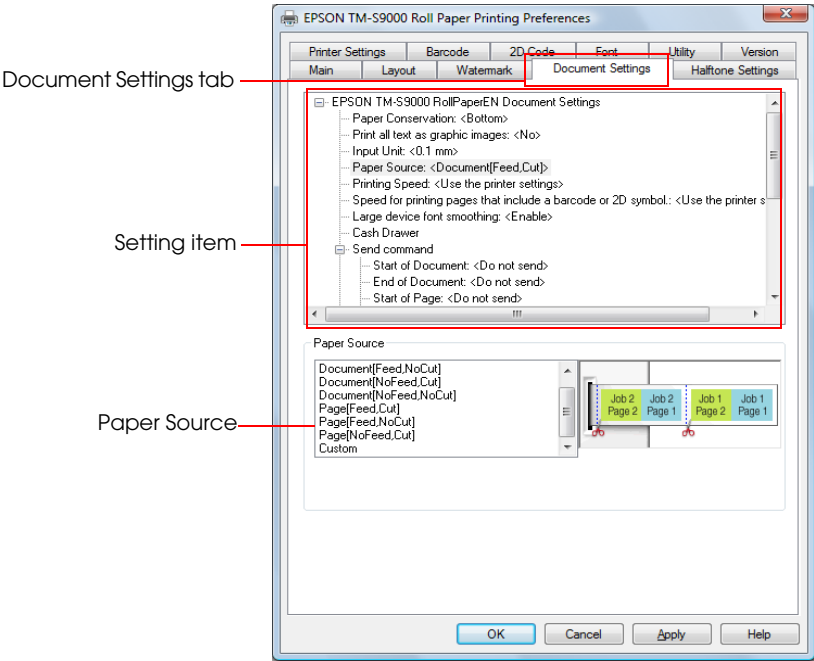
- Configure the PDS to feed and cut the paper automatically at the end of each printing.  
This method is valid even when [Print all text as graphics image] is set.
- Cut the paper using Control Font in the program.

CAUTION

When using Control Font, you cannot use it in combination with a <Print all text as graphics image> setting such as Rotated Printing/Water Mark/Scale-down Printing.

## Setting paper cut with the printer driver

Select the Document Settings tab from Printing Preferences.



Make the following settings. See ["Paper Source" on page 72](#) for details.

Setting	Description
Setting item	Select Paper Source
Paper Source	Select whether to feed paper per job (document) or page, and whether to cut paper with the auto-cutter or not.

Making this setting controls paper feed and paper cut when printing a document.

## Specifying Control Font and performing paper cut in programming.

The following is an example program for reference.

```
-----  
Printer.Font.Charset = 0  
`Font  
Printer.Font.Name = "control"  
`Size  
Printer.Font.Size = 1  
`Printing text  
Printer.Print "P"  
-----
```

# Drawer Control

The methods for controlling the drawer are as follows.

- Make the drawer open automatically by configuring the printer driver.
- Open the drawer from the application using the Open Drawer Control Font.

CAUTION

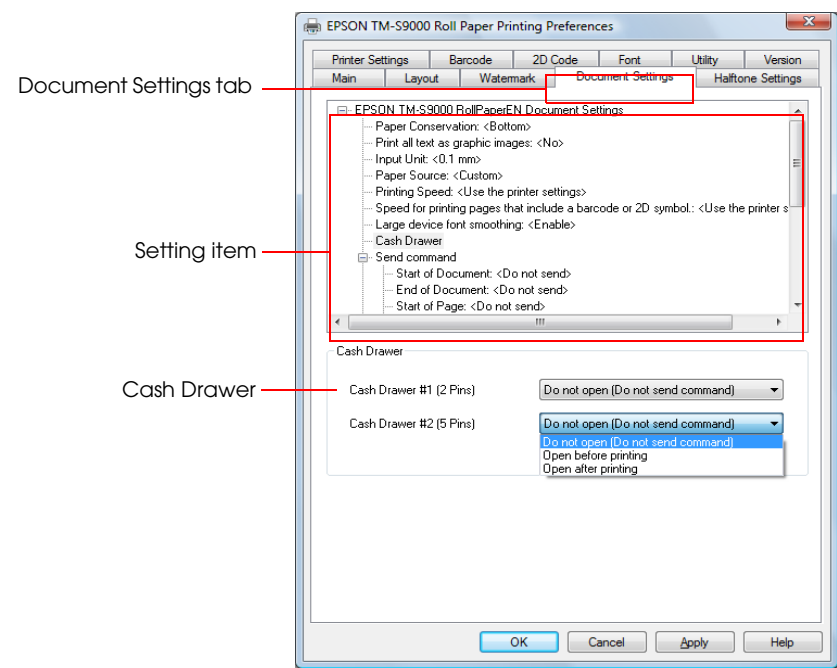
When using Control Font, you cannot use it in combination with the <Print all text as graphics image> setting such as Rotated Printing/Water Mark/Scale-down Printing.

NOTE

For closing the drawer, push manually.

## Opening Drawer with printer driver setting

Select the Document Settings tab from Printing Preferences.



Make the following settings. See ["Cash drawer" on page 77](#) for details.

Setting	Description
Setting item	Selecting Cash drawer
Cash Drawer	With a drawer provided by Epson, if you set "Open after printing" for Cash drawer #2 (5pins), the drawer opens after printing.

NOTE

For closing the drawer, push manually.

## Opening Drawer by Control Font

Use the Open drawer Control Font to open Drawer.

### NOTE

Set "Do not open (do not send command)" for Cash Drawer in Document Settings.

### 1. Enter Control Character

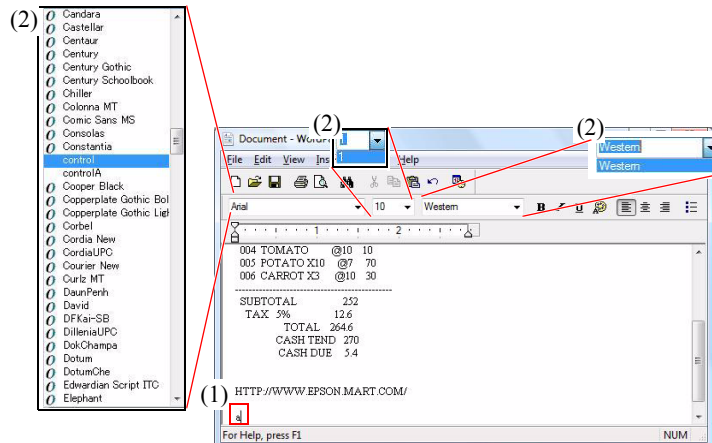
Enter control character of the Open drawer Control Font in the position you want the drawer to open.

### 2. Specify Control Font

Select the control character of the Control Font, and specify Control Font, Point and Style.

### 3. Print

Drawer opens.



## Program

The following is an example program for reference.

```
Printer.Font.Charset = 0
`Font
Printer.Font.Name = "control"
`Size
Printer.Font.Size = 1
`Printing text
Printer.Print "a"
```

# How to Use ControlA Font

With the ControlA Font, ESC/POS commands can be assigned to the selected characters, and on printing the assigned characters can be executed as defined ESC/POS commands.

NOTE

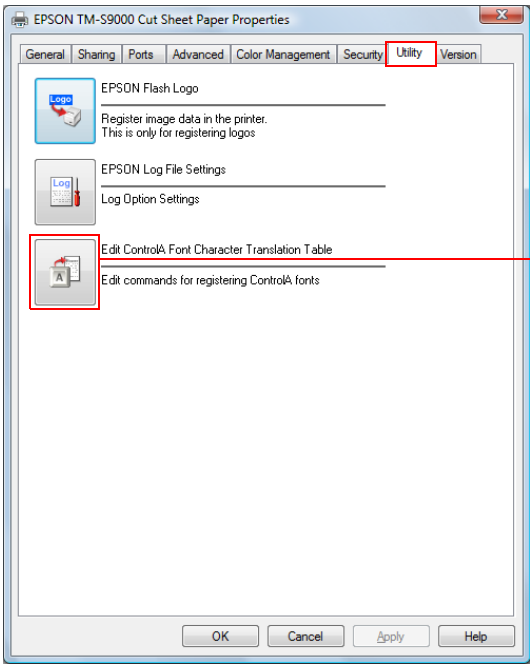
ESC/POS commands are not open to the public. Ask your sales representative for more information.

CAUTION

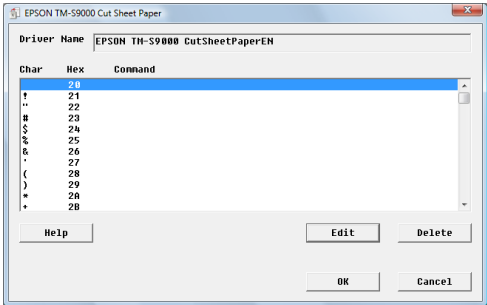
When using ControlA Font, you cannot use it in combination with the <Print all text as graphics image> setting such as Rotated Printing/Water Mark/Scale-down Printing.

## Setting ControlA Font

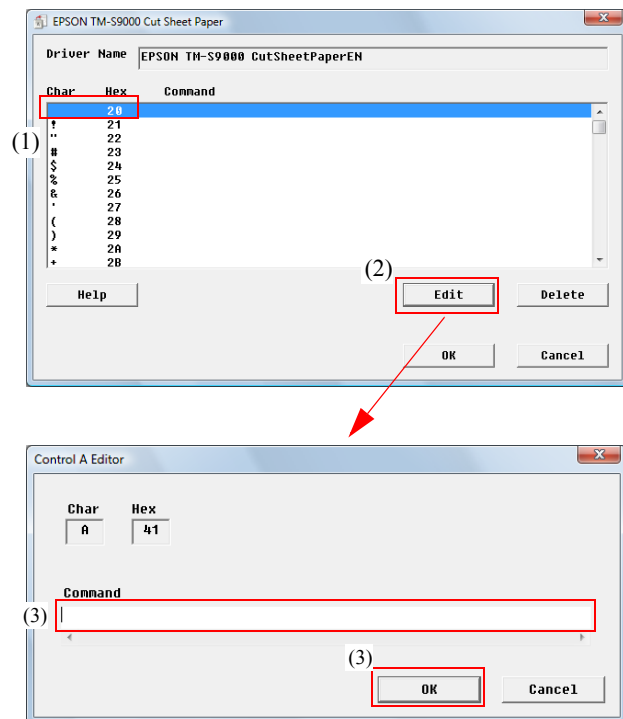
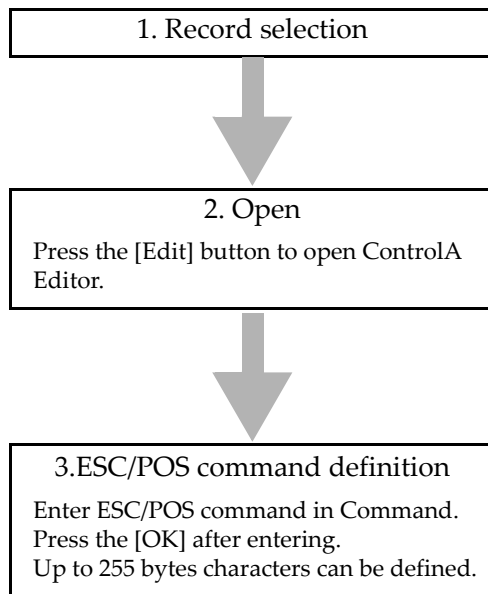
Select [Utility] from Properties, and then press the [Edit controlA font Character Translation Table] button. Edit controlA font character translation table is displayed.



Edit controlA font Character Translation Table

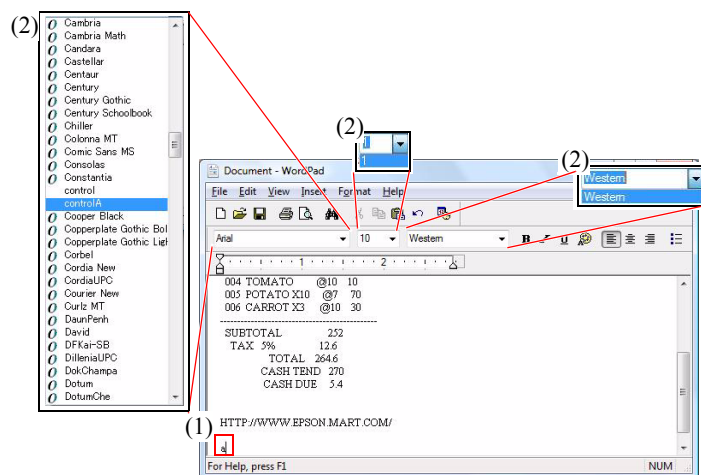
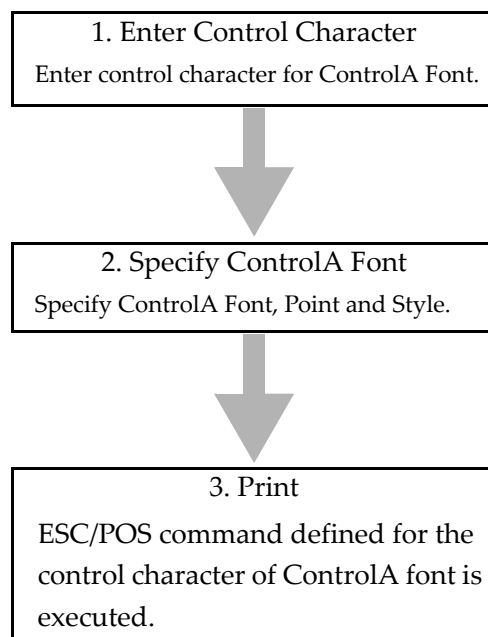


Define ESC/POS commands in the record you want to define.



## Using ControlA Font

Use the defined ControlA Font.





## Program

The following is an example program for reference.

```
-----  
Printer.Font.Charset = 0  
`Font  
Printer.Font.Name = "controlA"  
`Size  
Printer.Font.Size = 1  
`Printing text  
Printer.Print "a"  
-----
```

## Using Compatible Driver

A compatible driver is a driver used for TM-S9000 to emulate other TM printers (former models). This allows printing on TM-S9000 with minimum changes in the application to print on other TM printer.

### TM Printer and Station Driver

The applicable TM printers are as follows.

Printer	Station	Driver
TM-H6000II	Receipt	EPSON TM-H6000II Receipt (for TM-S9000)
	Slip	EPSON TM-H6000II Slip (for TM-S9000)
	Validation	EPSON TM-H6000II Validation (for TM-S9000)
TM-H6000III	Receipt	EPSON TM-H6000III Receipt (for TM-S9000)
	Slip	EPSON TM-H6000III Slip (for TM-S9000)
	Slip Rotate	EPSON TM-H6000III Slip Rotate (for TM-S9000)
	Validation	EPSON TM-H6000III Validation (for TM-S9000)
TM-H6000IV	Receipt	EPSON TM-H6000IV Receipt (for TM-S9000)
	Slip	EPSON TM-H6000IV Slip (for TM-S9000)
	Slip Rotate	EPSON TM-H6000IV Slip Rotate (for TM-S9000)
	Validation	EPSON TM-H6000IV Validation (for TM-S9000)
TM-U325	Receipt	EPSON TM-U325 Receipt (for TM-S9000)
	Validation	EPSON TM-U325 Validation (for TM-S9000)
TM-U375	Receipt	EPSON TM-U375 Receipt (for TM-S9000)
	Slip	EPSON TM-U375 Slip (for TM-S9000)
	Validation	EPSON TM-U375 Validation (for TM-S9000)
TM-U675	Receipt	EPSON TM-U675 Receipt (for TM-S9000)
	Slip	EPSON TM-U675 Slip (for TM-S9000)
	Validation	EPSON TM-U675 Validation (for TM-S9000)

## Driver Coexistence

The driver coexistence environment is as follows.

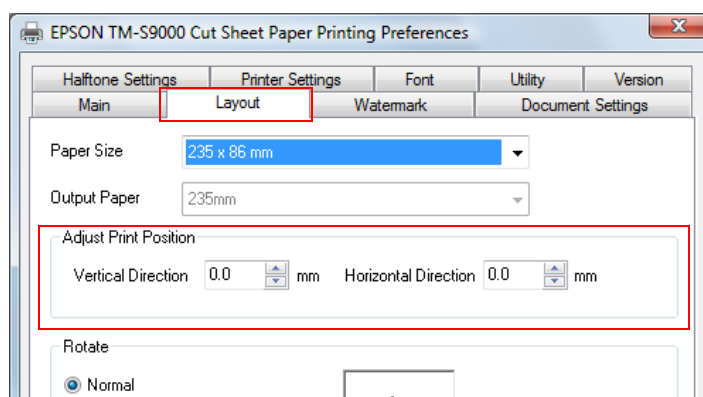
Combination	Coexistence
Using the same device with TM-S9000 driver and a compatible driver.	No
Using different devices with TM-S9000 driver and a compatible driver.	Yes
Using the same device with compatible drivers for different models, for example, TM-H6000III compatible driver and TM-U675 compatible driver.	No
Using the same device with compatible drivers for the same model, for example, TM-H6000III Receipt compatible driver and TM-H6000III Slip compatible driver.	Yes

## How to Use

Before using a compatible driver, be sure to execute printing test adequately and adjust the print position and layout.

In addition, take the following points into consideration.

- The print position must be adjusted due to different printer resolution.
- The print position must be adjusted due to different printing area.
- Adjust the print position from Adjust Print Position on the Layout tab of the driver.  
The "+ / -" direction for the adjusted value is different depending on the driver. For details, see the descriptions for each driver.

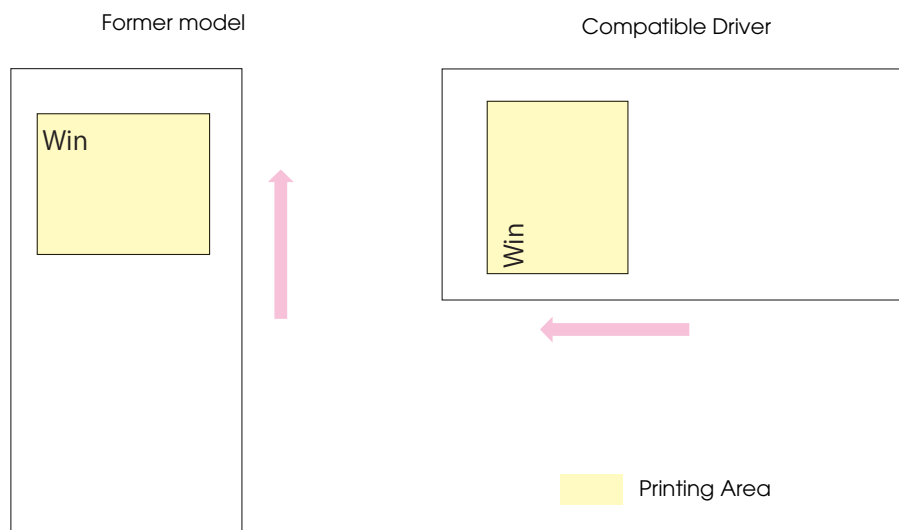


Driver	Position of Origin
Slip Compatible	Upper left of paper
Validation Compatible	Upper left of paper
TM- S9000 Cut Sheet Paper	Upper left of paper
Receipt Compatible	Upper left of paper
TM-S9000 Roll Paper	Upper left of paper

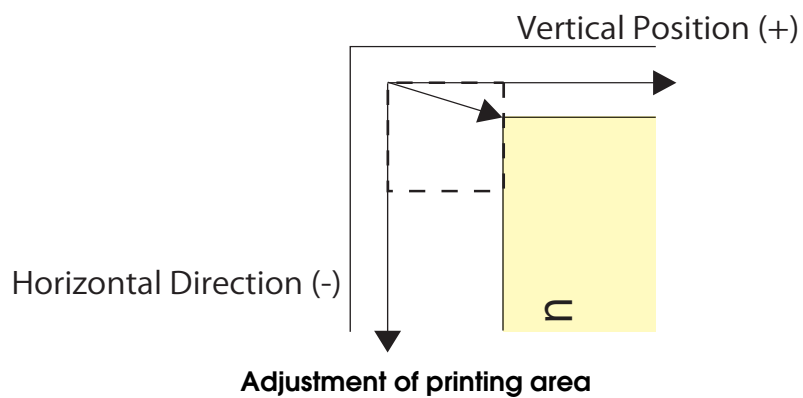
---

## Slip Compatible Driver

The print position is slightly different between the former model and the compatible driver. Adjust the print position from Adjust Print Position on the Layout tab.

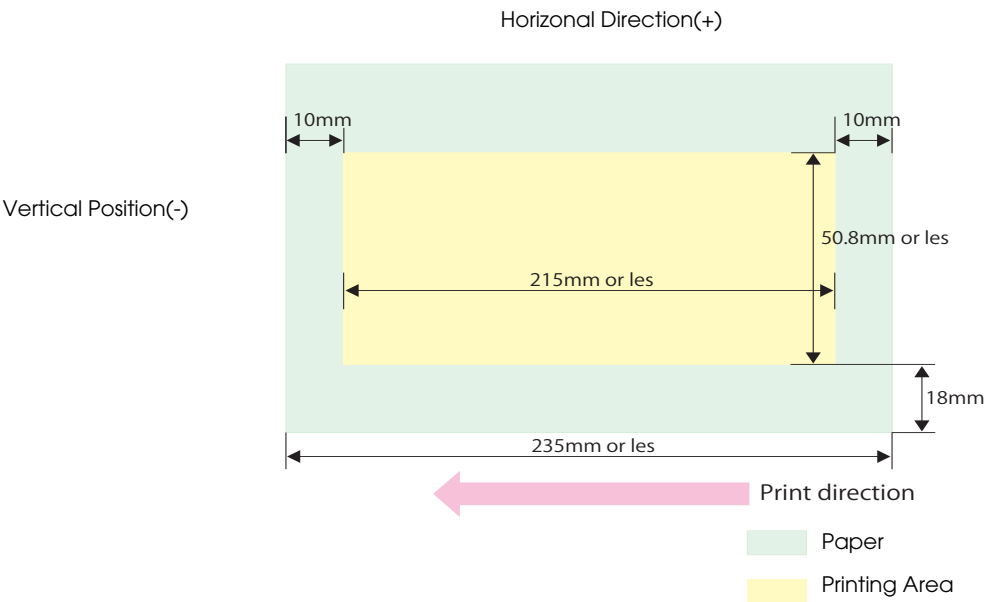


**Print Direction**



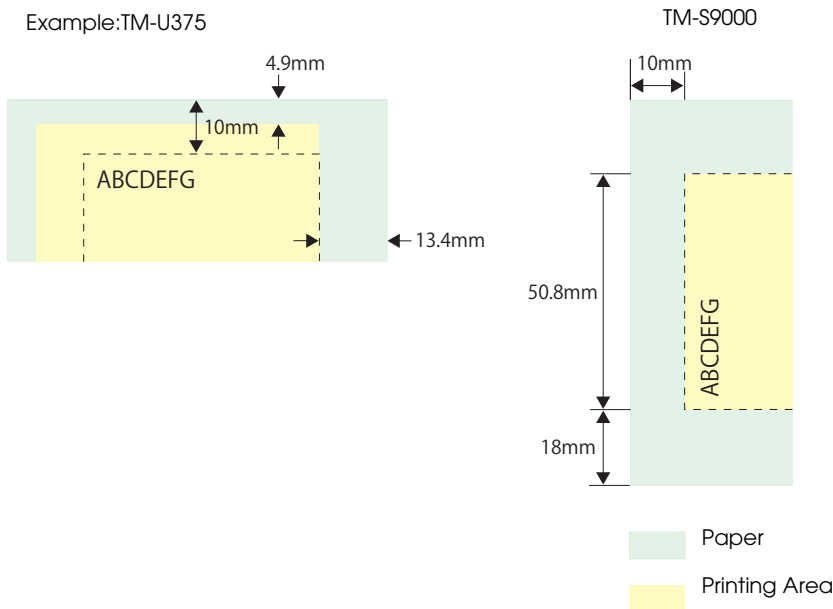
Printing Area

TM-S9000 can print the area shown below on cut sheets.



Device fonts cannot be printed on the area shown below.

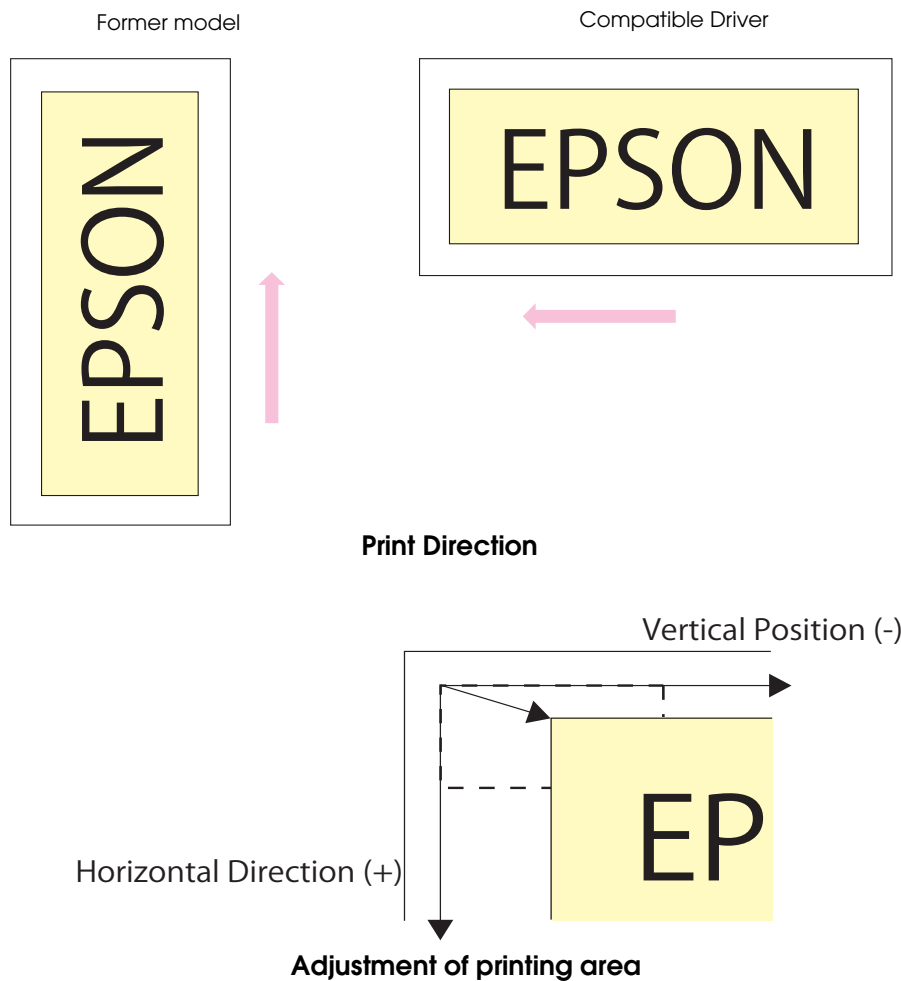
For the printing area for each printer, see Technical Reference Guide for each printer.



---

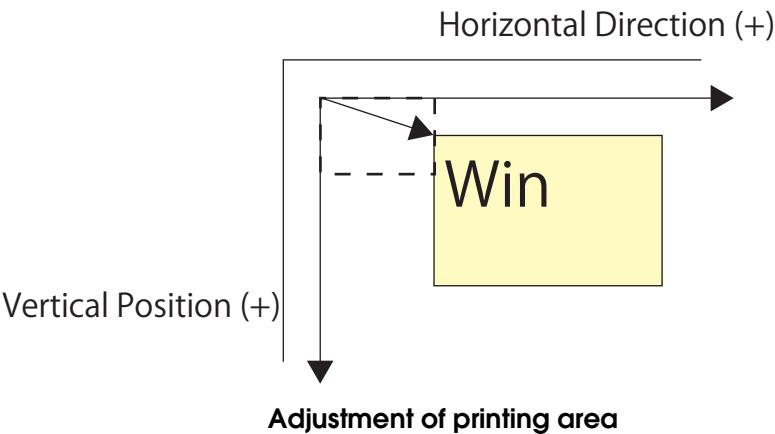
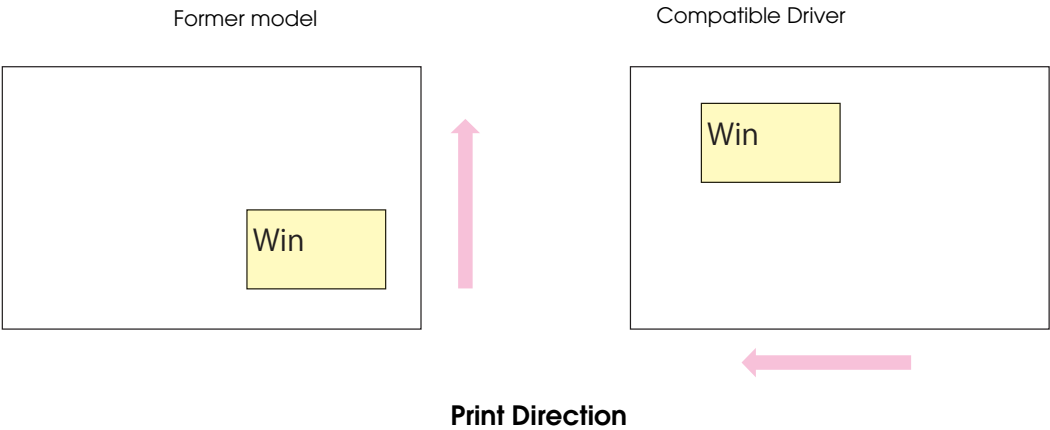
## Slip Rotate Compatible Driver

The print position is slightly different between the former model and the compatible driver.  
Adjust the print position from Adjust Print Position on the Layout tab.



# Validation Compatible Driver

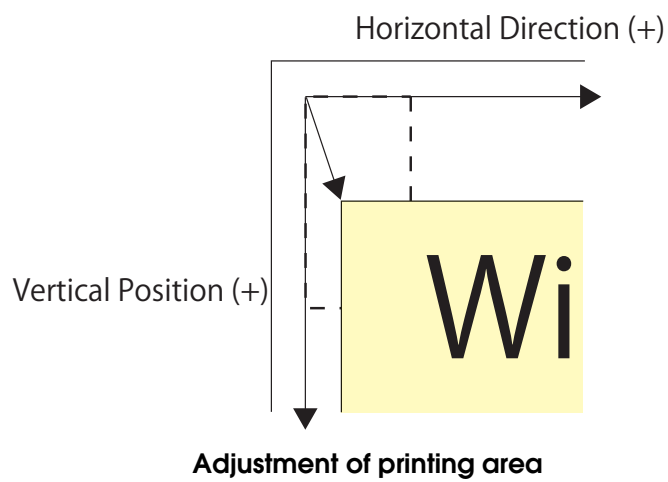
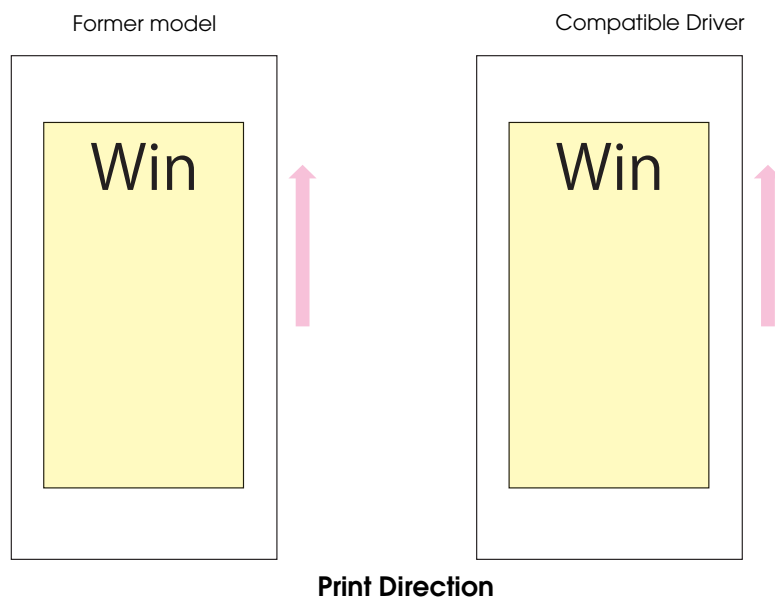
The print position is greatly different between the former model and the compatible driver.  
Adjust the print position from Adjust Print Position on the Layout tab.



---

## Receipt Compatible Driver

The print position is slightly different between the former model and the compatible driver.  
Adjust the print position from Adjust Print Position on the Layout tab.





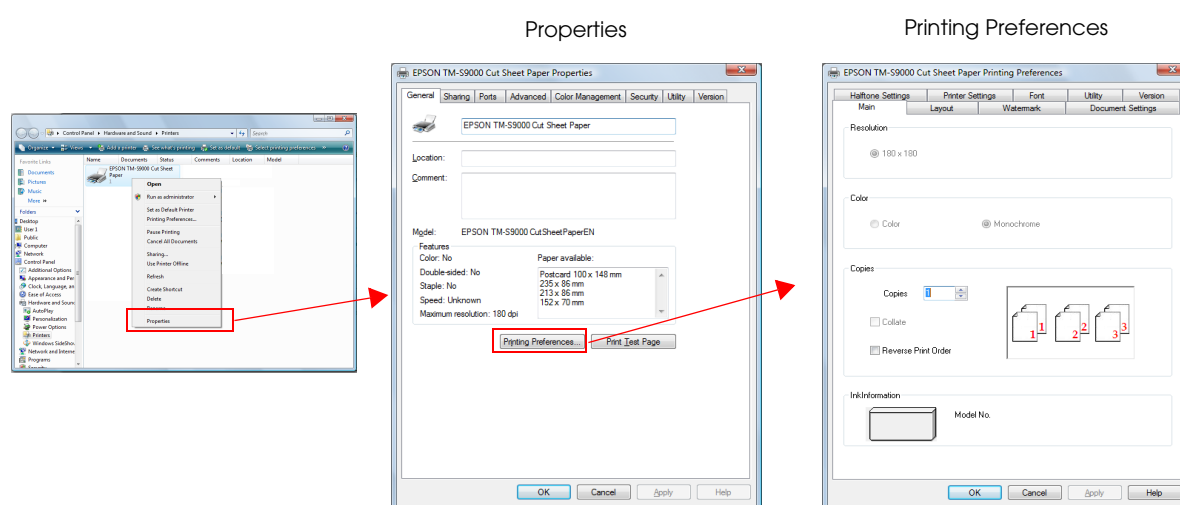
# Reference

This chapter describes the PDS settings.

## CAUTION

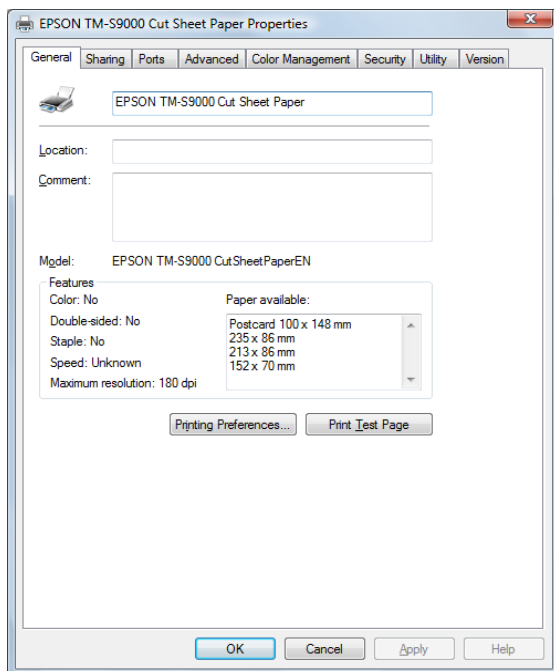
- Administrator permission is required for property settings of the printer driver.

To open the setting screen of the printer driver Properties, right click the printer driver from [Start] - [Control Panel] - [Printers] and select [Properties] ([Reference page of other OS](#)). Select the [General] tab on the Properties screen and click the [Printing Preferences...] button to open the Printing Preference screen.



# Properties

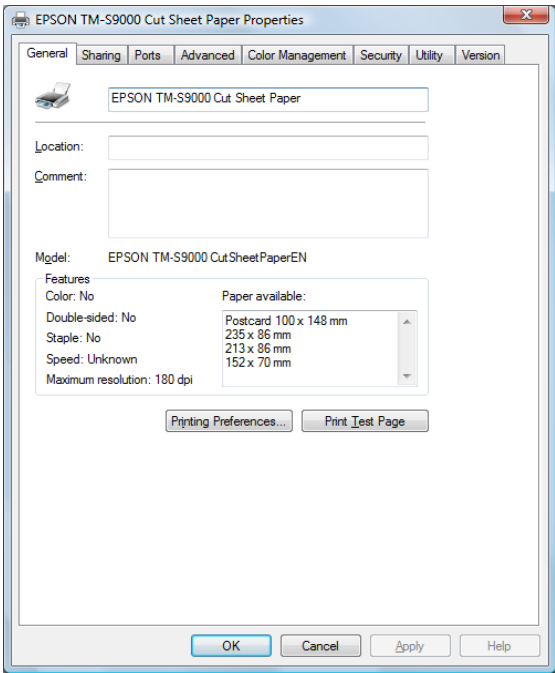
The following settings are available in the Property.



Tab	Description
General	Configures device name and printing preference, or makes a test print.
Sharing	Configures settings for sharing the device.
Ports	Configures ports settings.
Advanced	Configures detailed settings for printing.
Color Management	Configures color management settings.
Security	Configures Windows security setting.
Utility	Configures Log File and ControlA font settings.
Version	Displays version information.

General

Allows you to check/change the device name, check the print settings, and make a test print (Print Test Page).



Setting	Description
Device Name	Displays the printer driver name.
Location	Accepts the device location to be input.
Comment	Accepts comments about the driver to be input.
Model	Displays the driver name of the device.
Features	Displays functions and papers available with the device.
Printing Preferences...	Displays the Printing Preferences screen.
Print Test Page	Prints the Windows test page.

## Sharing

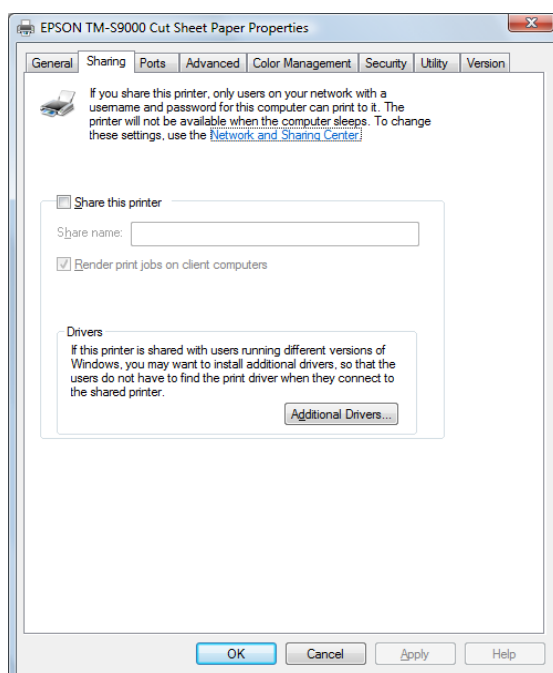
Allows you to configure the settings for sharing the device.

### CAUTION

Device sharing through a print server is not supported.

### NOTE

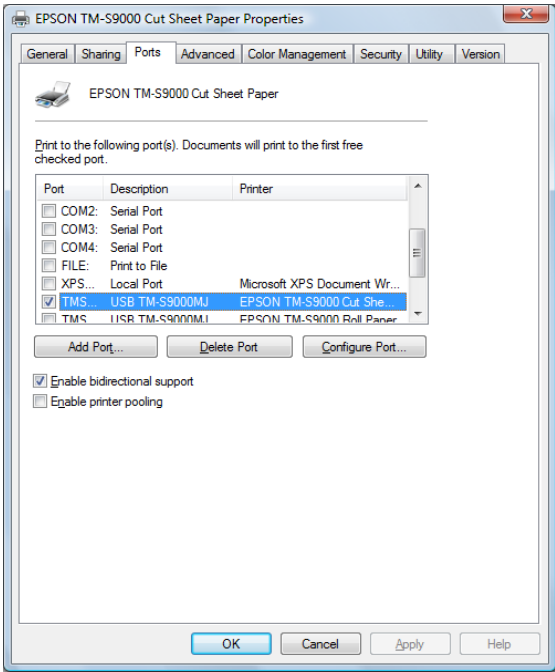
In Windows 7 / Vista, elevation of UAC is required.



Setting	Description
Change sharing options	Check this box when a device is to be shared.
Share this printer	When this box is checked, network users can access a device connected to this computer.
Share name	Specifies the name of a shared device.

Ports

Allows you to configure Epson Port settings.



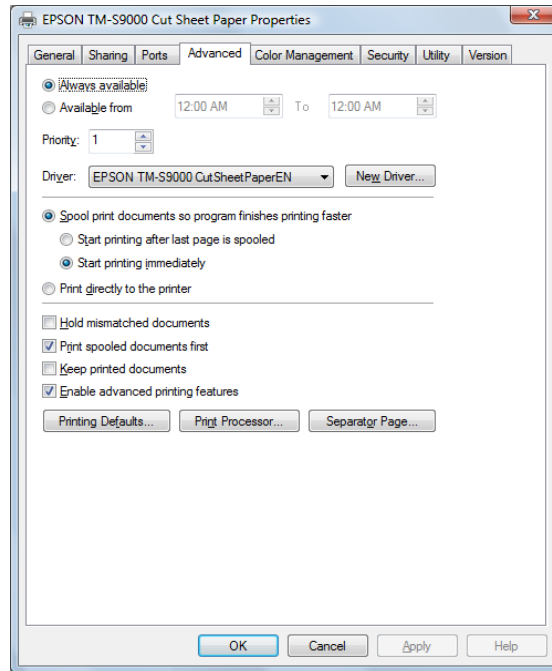
Setting	Description
Add Port...	Creates a new Epson Port.
Delete Port	Deletes an Epson Port.
Configure Port...	Configures an Epson Port.
Enable bidirectional support	Do not uncheck. The PDS will become unusable.
Enable printer pooling	Enables printing to two or more identical print devices through one logical device.

CAUTION

Select the Epson Port Driver (TMSVRTxxx) to be used for printing. Do not use USB. The PDS works only with the Epson Port Driver.

## Advanced

Allows you to configure the detailed settings for printing. Basically, use as they are configured by default.

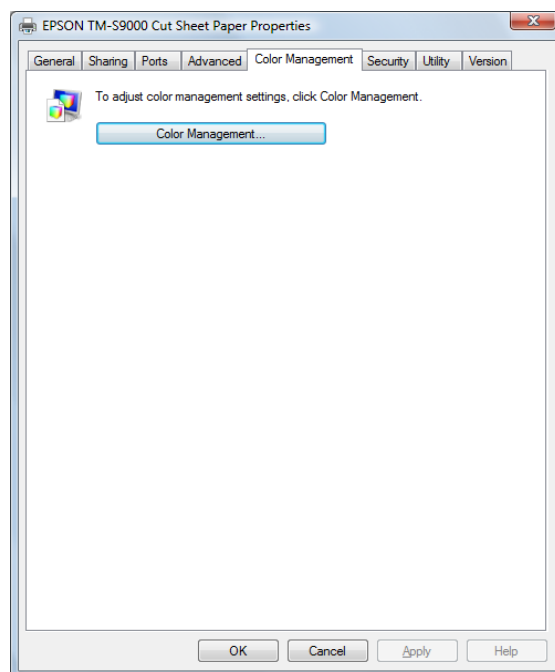


Setting	Description
Always available	Makes the device always available.
Available from	Configures the device for limited availability. If you send a document to a device when it is unavailable, the document will be held (spooled) until the device is available.
Priority	Indicates the current priority setting. Higher-priority documents will print before lower-priority documents.
Driver	Lists the name of the installed printer driver. The printer driver name usually corresponds to the name of the device.
Spool print documents so program finishes printing faster	Specifies that documents should be spooled before being printed.
Start printing after last page is spooled	Specifies that the print device should wait to begin printing until after the last page of the document is spooled. The printing program is unavailable until the document has finished spooling. However, using this option ensures that the whole document is available to the print device. Configurable when (Spool print documents so program finishes printing faster) is set.

Setting	Description
Start printing immediately	Specifies that the print device should begin printing after the first page of the document is spooled. This makes the printing program available sooner. Configurable when (Spool print documents so program finishes printing faster) is set.
Print directly to the device	Specifies that the document should be sent directly to the print device and not spooled. Use this if you cannot print using either of the print spooling options.
Hold mismatched documents	Directs the spooler to check the device setup and match it to the document setup before sending the document to the print device. If the information does not match, the document is held in the queue. A mismatched document in the queue will not prevent correctly matched documents from printing. Configurable when (Spool print documents so program finishes printing faster) is set.
Print spooled documents first	Specifies that the spooler should favor documents that have completed spooling when deciding which document to print next, even if the completed documents are a lower priority than documents that are still spooling. If there are no documents that have completed spooling, the spooler will favor larger spooling documents over smaller ones. Use this option if you want to maximize device efficiency. When this option is disabled, the spooler picks documents based only on priority. Configurable when (Spool print documents so program finishes printing faster) is set.
Keep printed documents	Specifies that the spooler should not delete documents after they are printed. This allows a document to be resubmitted to the device from the device queue instead of from the program. Configurable when (Spool print documents so program finishes printing faster) is set.
Enable advanced printing features	Specifies whether the advanced printing feature is enabled. When enabled, metafile spooling is turned on and options such as Page Order, Booklet Printing, and Pages Per Sheet are available, depending on your device. For normal printing, leave the advanced printing feature set to the default (Enabled). If compatibility problems occur, you can disable the feature. When disabled, metafile spooling is turned off and the printing options might be unavailable. Configurable when (Spool print documents so program finishes printing faster) is set.
Printing Defaults...	Click to configure the Printing Preferences.
Print Processor...	Click to specify the data type. In general, you do not need to change either the default print processor or data type. However, a few programs might require a specialized print processor and a particular data type to print.
Separator Page...	Not available.

## Color Management

Allows you to set color displayed on the screen.

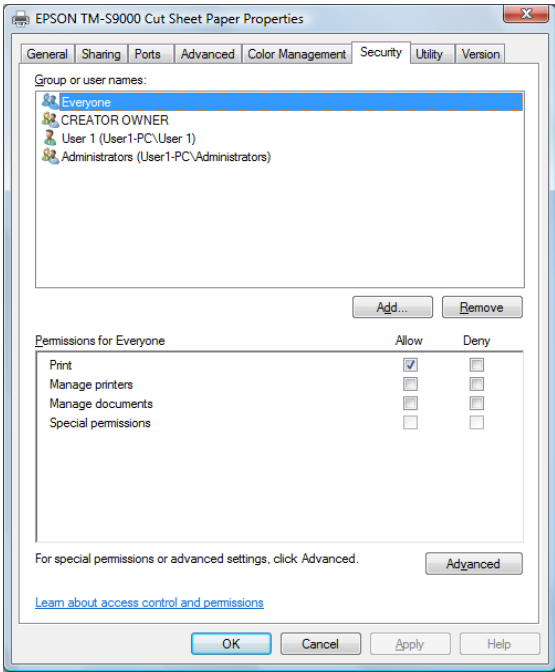


Setting	Description
Color Management	Set the color management.



Security

Security setting for Windows.

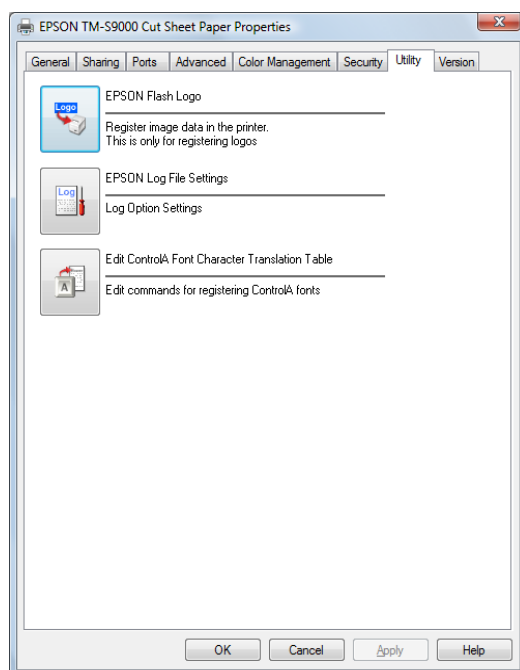


Setting	Description
Group or user names	Lists the users and groups with assigned permissions for this object. The permissions for the highlighted group or user appear in the list box below.
Add	If you want to add permissions for users or groups, click their names.
Remove	Removes highlighted permission entry. More than one permission entry can be connected with a user or group.
Permissions for Administrators	Permissions you can allow or deny for each user or group are listed. To allow or deny the permission, check or clear the appropriate check- box. Shaded checkboxes indicate inherited permissions. To see additional information on permissions or inheritance, click Advanced.
Advanced	Click for viewing and setting special permissions, auditing information, owner information, and permissions effective for this object.

## Utility

Allows you to use EPSON Log File Settings, Edit ControlA Font Character Translation Table, and other utilities.

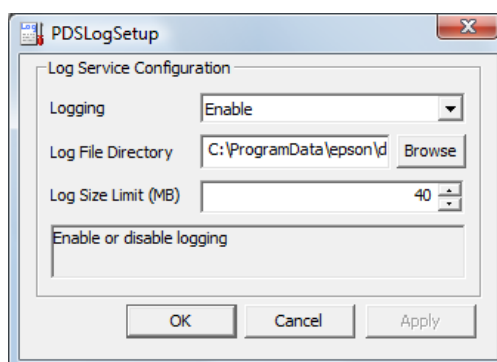
Some utilities may not be supported depending on the device model. In that case, the utility will not be displayed.



Setting	Description
EPSON Flash Logo	Displays TM Flash Logo Setup Utility Ver.3 (" <a href="#">TM Flash Logo Setup Utility Ver.3</a> " on page 103).
EPSON Log File Settings	Opens the Log File Setting screen.
Edit ControlA Font Character Translation Table	Opens the EPSON controlA font setting screen.

## EPSON Log File Setting

Allows you to create a log file which can help you to troubleshoot a problem quickly. See the Status API Manual for more details about the log file.



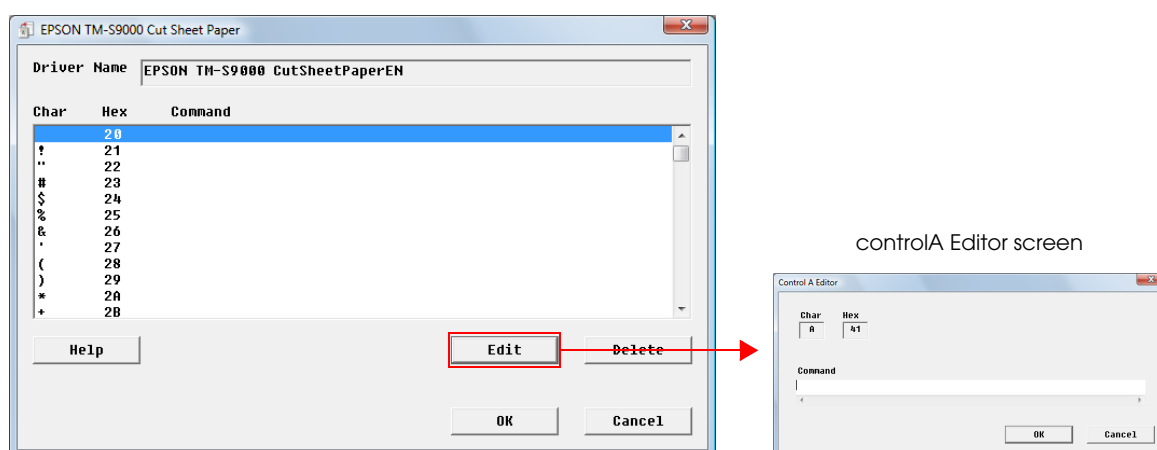
Setting		Description
Logging	Enable (Default)	Enables log output.
	Disable	Disables log output.
Log File Directory	Specify where to output the log file. (Default) <ul style="list-style-type: none"> <li>Windows XP: C:\Documents and Settings\All Users\Application Data\EPSON\devicecontrollog</li> <li>Windows 7 / Vista: C:\ProgramData\EPSON\devicecontrollog</li> <li>Windows 8 C:\ProgramData\epson\devicecontrollog</li> </ul> The ProgramData folder is a hidden folder.	
Log Size Limit (MB)	Specify the upper limit of the log file size. (Range: 10 to 1024, Default: 40) When the upper limit is exceeded, the log file is compressed in zip format. The subsequent log information is saved as a new log file. The file compression date is used as the zip file name. (example: 201107071130.zip)	

## Edit controlA font character translation table

Allows you to edit EPSON controlA Font settings. You can assign ESC/POS commands to the selected controlA Font characters. When the assigned characters are printed, the corresponding ESC/POS commands are executed.

### NOTE

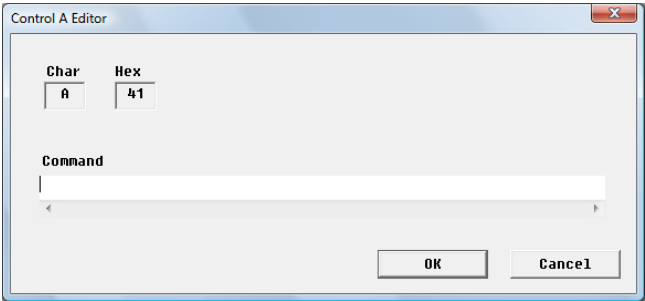
- Up to 255 bytes characters can be assigned.
- ESC/POS commands are not open to the public. Ask your sales representative for more information.



Setting	Description
Driver Name	Displays the printer driver name for which the controlA Font will be configured.
Char	Displays the selected ASCII code as characters.
Hex	Displays the selected ASCII code as hexadecimal.
Command	Displays the ESC/POS command corresponding to the ASCII code. It is displayed in hexadecimal.
Help	Displays the EPSON controlA Font help.
Edit	Displays the controlA Editor screen. Allows the (Command) to be edited.
Delete	Deletes the (Command) selected from the list box.
OK	Saves the configured settings and closes the EPSON controlA Font.
Cancel	Closes EPSON controlA Font without reflecting the changes.

controlA Editor screen

An ESC/POS command to be assigned to the selected character can be entered.



Setting	Description
Char	Displays the selected ASCII code as characters. The content cannot be changed.
Hex	Displays the selected ASCII code as hexadecimal. The content cannot be changed.
Command	Enter the ESC/POS command that will correspond to the ASCII code. Enter using hexadecimal.

Version

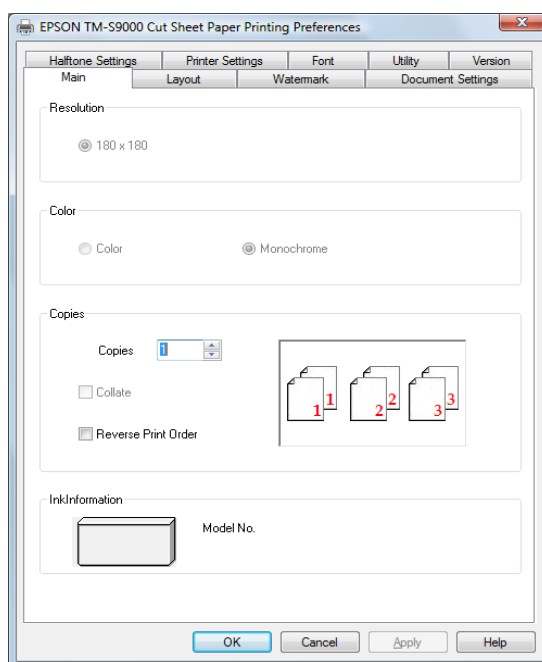
Displays the printer driver version information.



## Printing Preferences

The Printing Preferences screen is displayed by selecting the Properties - [General] tab and clicking the [Printing Preferences...].

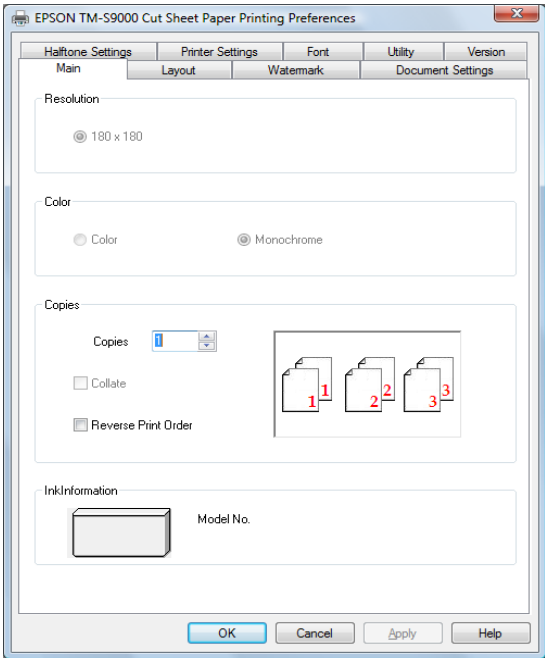
You can configure the following settings in the Printing Preferences screen.



Tab	Description
Main	Configures basic print settings, such as the number of copies, and color setting.
Layout	Configures paper size and rotation of print images.
Water Mark	Configures Water Mark setting.
Document Settings	Configures the Document Settings.
Halftone Settings	Configures the Dither Type and color assignment settings.
Printer Settings	Configures paper width for the device.
Barcode	Configures the Barcode settings. (Displayed only when the device supports the Barcode printing.)
2D-Code	Configures the 2D-Code settings. (Displayed only when the device supports the 2D-Code printing.)
Font	Displays the list of Device fonts.

Main

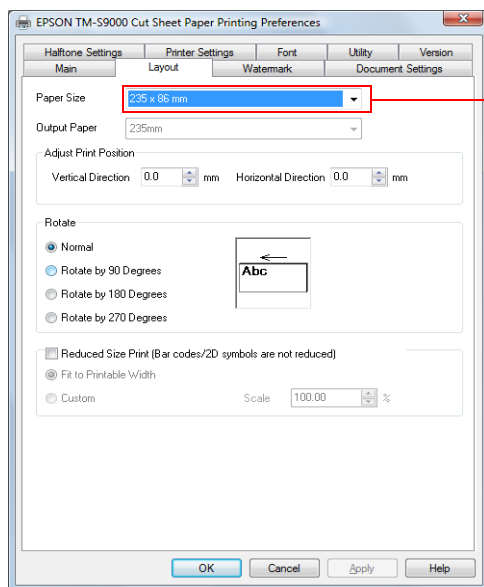
Allows you to configure the print resolution, color mode, and the number of copies.



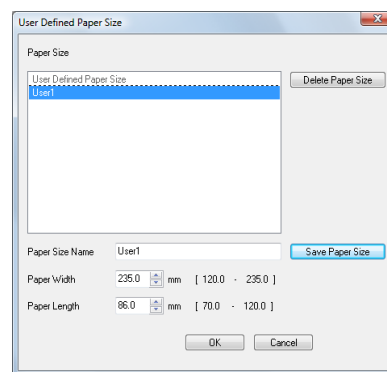
Setting	Description
Resolution	The resolution of the device is specified.
Color	Select (Monochrome) to print using a single color.
Copies	Configures the number of copies.
Collate	Configures the number of copies of document with multiple pages.
Reverse Print Order	Prints the document with multiple pages in backward order.
InkInformation	Displays the InkInformation.

## Layout

Allows you to configure the paper size, rotation, and reduced print settings.



User defined paper size settings.



Setting		Description
Paper Size		Select the paper size from list. The list shows all the paper sizes (including the logic paper sizes and user defined sizes) supported by the printer driver.
	Paper size	The sizes of paper which can be set in the device.
	Logic paper size	The original size of a print image which can be scaled down by the printer driver. An image is scaled down to the size of paper loaded on the device.
	User Defined Paper Size	The paper size defined by the users. Setting the paper size can be made in the User Defined Paper Size screen.
Output Paper		Displays paper types available with the device.
Adjust Print Position		Allows you to fine adjust the print start position. You can adjust the print position without making changes in margins and print area defined by the applications. This also can be used for changing print position of rotated or reduced image.  This adjustment is limited within the printable area of the selected (Paper Size). If you change the (Paper Size) to the smaller one without changing the print position setting, causing the position settings to fall outside the new printable area, the settings will be automatically changed so that the print image fits inside the new printable area. The print position of the logo registered in the device (NV Graphics) will not be changed.



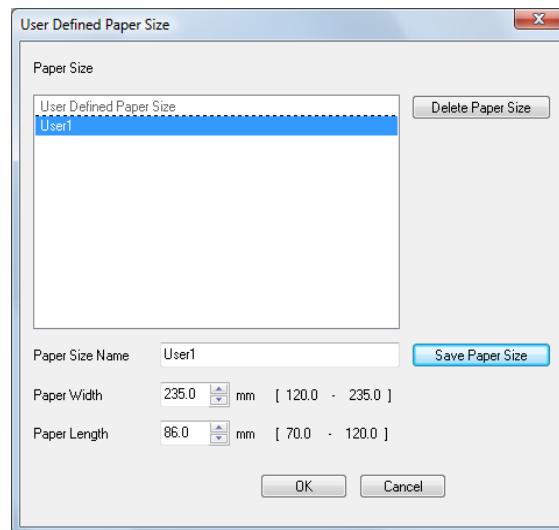
Setting		Description
	Vertical Direction	This adjusts the print position in horizontal direction. Enter a negative value to make the top margin smaller, or positive value to make it larger.
	Horizontal Direction	This adjusts the print position in vertical direction. Enter a negative value to make the left margin smaller, or positive value to make it larger.
Rotate		This configures print direction. The graphic shown on the right changes according to the selected setting. Select a desired setting for rotating a print image. When other than (Normal) is selected, the following message is displayed; "<Print all text as graphics image> will be automatically set to yes. <Paper Conservation> will be automatically changed."
	Normal	This prints in normal direction. This is the default.
	Rotate by 90 Degrees	This rotates a print image as specified.
	Rotate by 180 Degrees	The rotated print image is printed as a graphics image, therefore, the Device fonts, control font, and controlA font cannot be used.
	Rotate by 270 Degrees	
Reduced Size Print *		This configures reduced print, (Fit to Printable Width) or (Custom). When (Reduced Print) is selected, the following message is displayed; "<Print all text as graphics image> will be automatically set to yes.". The reduced print image is printed as a graphics image, therefore, the Device fonts, control font, and controlA font cannot be used. When Logic paper size is selected, deselecting (Reduced Print) automatically changes the paper size to Paper size or User Defined Paper Size.
	Fit to Printable Width	A print image is automatically scaled down so that it fits inside the width of the paper loaded on the device.
	Custom	You can manually set the reduction percentage.

\* Reduced Print setting does not change the size of Barcode and 2D-Code.

## User defined paper size.

Allows the users to define custom paper sizes. Up to 30 sizes can be saved as the User Defined Paper Sizes.

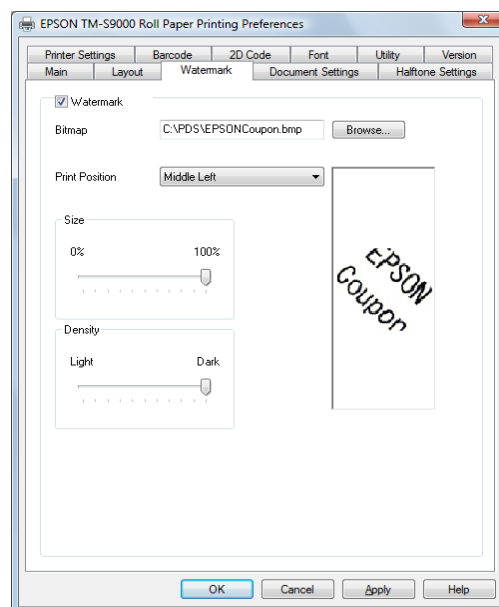
In the Printing Preferences - [Layout] tab, select [User Defined Paper Size] from the Paper Size pull-down menu. The following screen appears.



Setting	Description
Paper Size	This shows the list of saved User defined paper sizes. "To define a new custom size, select "User Defined Paper Size". When one of the saved custom sizes is selected from the list, the configured (Paper Size name), (Paper Width), and (Paper Length) are displayed and you can edit the setting.
Paper Size Name	An arbitrary name of each custom paper size can be specified using up to 24 characters. You can not use the name of the physical paper sizes, already shown in the Paper Sizes list in (Layout) tab.
Paper Width	Specifies a paper width.
Paper Length	Specifies a paper length.
Delete Paper Size	Deletes a selected custom paper size shown in the list.
Save Paper Size	Saves a configured custom paper size. The information of (Paper Size Name), (Paper Width), and (Paper Length) will be saved. If you edit the existing User defined paper size and click this button, the setting is overwritten.
OK	Saves the selected User Defined paper size.
Cancel	Cancels changes made on an existing User Defined paper size.

## Water Mark

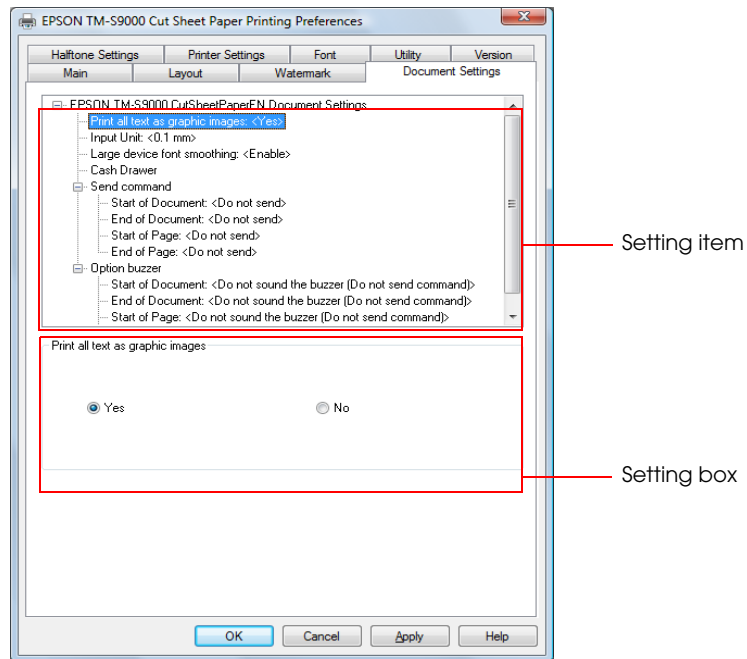
Allows you to set a bitmap file to be used as a Water Mark. The preview window shows the specified Water Mark image reflecting the selected Print Position, Size, and Density.



Setting	Description
Water Mark	<p>Tick the checkbox to set a Water Mark.</p> <p>The following message is displayed; "&lt;Print all text as graphics image&gt; will be automatically set to yes.". When Water Mark is enabled, the print image is printed as a graphics image, therefore, the Device font is replaced with TrueType font, and control font and controlA font cannot be used.</p>
Bitmap	Specifies a bitmap file to be used as a Water Mark.
Print Position	<p>Select a desired print position from the pull-down menu.</p> <p>The following position settings are provided: Top Left/Top Center/Top Right/Middle Left/Middle Center/Middle Right/Bottom Left/Bottom Center/Bottom Right/Tiled</p>
Size	<p>Configures the size of Water Mark in a percentage of print area. The percentage can be specified within the range of 0 to 100. However, if you select "0", the Water Mark becomes too small and cannot be printed.</p> <p>When "100" is specified, the Water Mark will be enlarged or reduced so that it fits in the print area of the selected paper. However, depending on the horizontal to vertical ratio of the Water Mark image, such as a vertically long image, some portions of the image may exceed the print area and may not be printed. The length of paper is not changed according to the length of the Water Mark image.</p>
Density	Configures the density of the Water Mark. The density can be adjusted in the "Light" to "Dark" range.

## Document Settings

The Document Settings allows you to configure the document property. In the upper area of the window, the setting items are displayed in a tree view format, and the current settings of each setting items are shown on the right. If you select a setting item, the setting options for the selected item are displayed in the lower box.

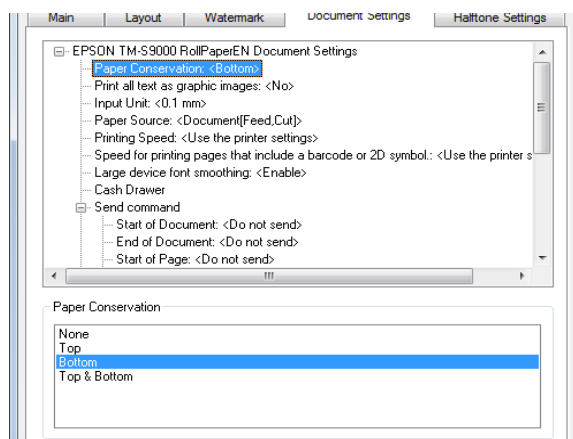


### NOTE

If the connected product does not have the function, the corresponding setting item is not displayed.

## Paper Conservation

You can save paper by skipping page margins. Printing in the Windows environment is made based on standard paper sizes, such as A4, A5 size. Therefore, regardless of whether print data has been received or not, paper is advanced automatically by a predetermined amount each time after a receipt is printed. This function allows you to save paper by disabling the automatic paper feeding.



Setting	Description
None	Does not save paper.
Top	Skips the margin from the beginning of printing to the first print data.
Bottom (Default)	Skips the margin from the last line of the printout to the auto cut point.
Top & Bottom	Skips both margin from the beginning of printing to the first print data and margin from the last line of the print to the auto cut point.

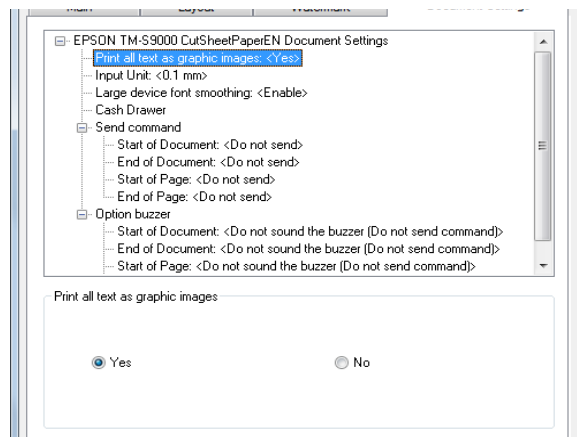
### NOTE

According to the Rotate setting in the Layout tab, the Paper Conservation setting is automatically set as follows.

When the Rotate setting is set to "Normal" or "Rotate by 90 Degrees", the Paper Conservation is set to "Bottom". When "Rotate by 180 Degrees" or "Rotate by 270 Degrees" is specified, the Paper Conservation is set to "Top".

## Print all text as graphic images

All the data will be printed as a graphic images.



Setting	Description
Yes	All print data is printed as a graphics image. The computer creates the print data in the same way as Windows driver does, therefore, the print data size becomes larger. In addition to that, Device fonts are replaced with TrueType fonts, and Device fonts are not displayed in the Font tab.
No * (Default)	Device fonts are printed. The product creates the print data, therefore, the data size becomes smaller. In addition to the Device fonts, you can also use control font, and controlA font. Due to some settings, you may not be able to change the setting from "Yes" to "No". In such case, a message appears to notify you of the setting that prevents the change.

\* When this setting is changed to "Yes" because of other settings, a message appears to notify you of the change.

### CAUTION

"If you select "Yes", you can not use device font / control font / controlA font.

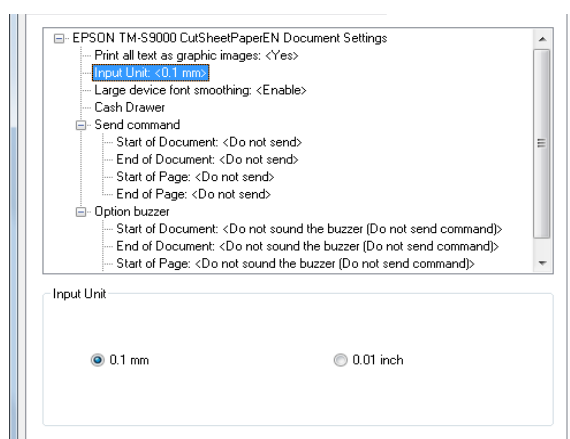
Related PDS settings.

The following settings automatically change this setting to "Yes".

Setting tab	Item
Layout	Rotate
	Reduced print
Water Mark	Water Mark
Barcode	Add Quiet Zone
	Rotation
	Composite (when not installed on the device)
	Type (when not installed on the device)
2D-Code	Add Quiet Zone
	Rotation
	Type (when not installed on the device)

## Input Unit

The unit to express a length in the Property screen can be changed. Paper size or any other length settings are expressed in the selected unit in the user interface.



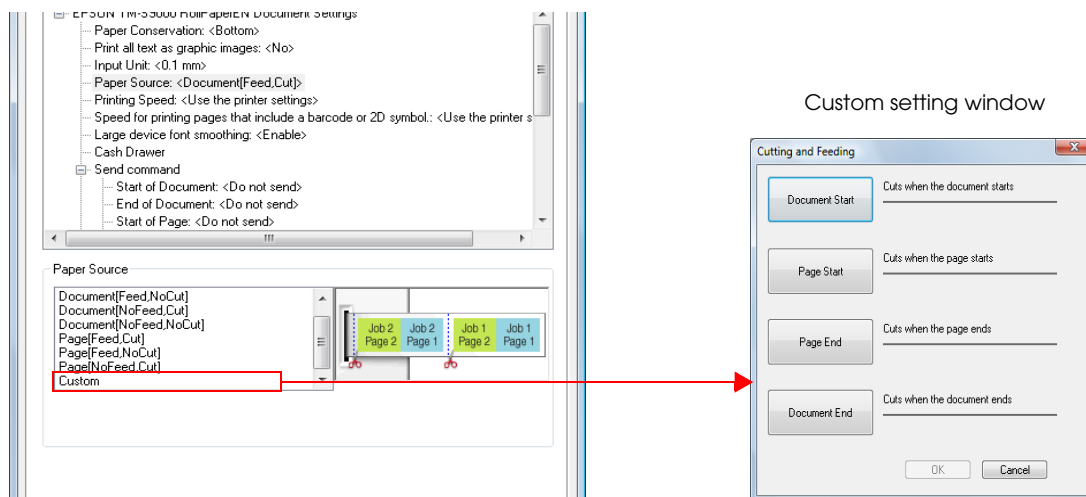
Setting	Description
0.1mm (Default)	The length settings in the user interface can be made in increments of "0.1mm".
0.01inch	The length settings in the user interface can be made in increments of "0.01inch".

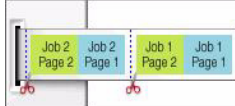
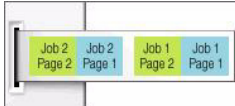
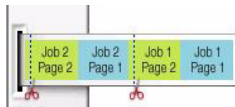
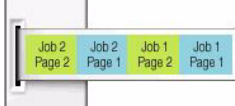
Related PDS settings.

Setting tab	Item
Layout	Paper Size (User Defined Paper Size : Paper Width, Paper Length)
	Adjust Print Position (Vertical Direction, Horizontal Direction)
Barcode	Element Height

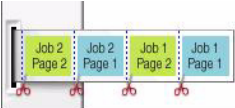
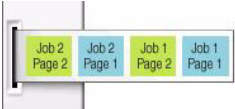
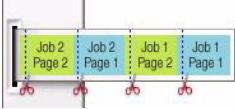
## Paper Source

This setting allows you to select operations of the autocutter and paper feed between pages, and between print jobs.



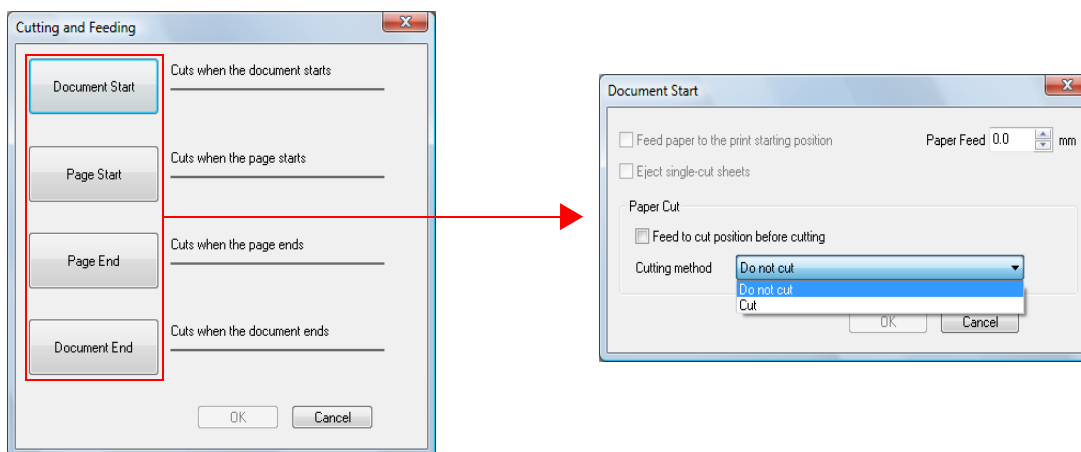
Setting	Description
Document(Feed,Cut)	<p>The paper is advanced and cut each time a print job is finished.</p> 
Document(Feed,No Cut)	<p>The paper is advanced, but not cut each time a print job is finished.</p> 
Document(No Feed,Cut)	<p>The paper is cut, but not advanced each time a print job is finished.</p>  <p>Because of the space between the autocutter and the print head (1 to 2 cm, depends on the product model), a minimum top margin is provided even if you set the top margin to 0. To avoid the waste, this setting allows you to print the top of the next page (e.g. store logos) on the bottom of the previous page and then cut the paper without advancing it. In this way, the top margin created by the physical space of the product can be used.</p>
Document(No Feed,No Cut)	<p>The paper is not advanced and not cut each time a print job is finished.</p> 



Setting	Description
Page(Feed,Cut)	<p>The paper is advanced and cut each time a page is printed.</p> 
Page(Feed,No Cut)	<p>The paper is advanced, but not cut each time a page is printed.</p> 
Page(No Feed,Cut)	<p>The paper is cut, but not advanced each time a page is printed.</p> 
Custom	<p>Use this setting when printing on black mark papers or labels. When this is selected, the Custom setting screen appears.</p>

## Custom

When "Custom" is selected from the Paper Source list for printing on black mark papers, labels or cut sheets of paper, the Custom setting screen appears.



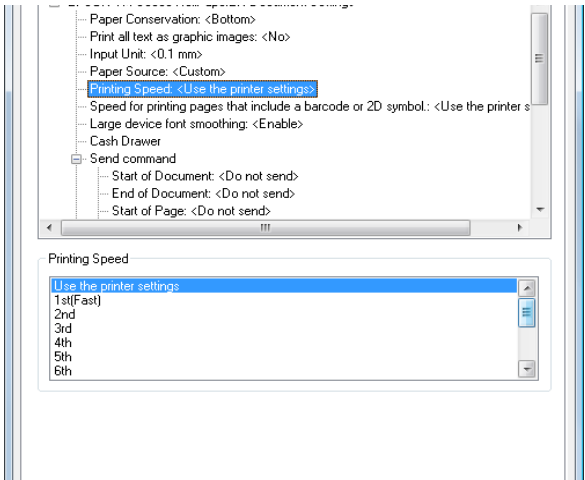
Setting	Description
Feed paper to the print starting position	Specifies whether to advance labels or black mark papers to the print start position. When this box is checked, the paper is advanced to the start position. When not checked, the paper is not advanced.
Paper feed	Specifies the amount of paper to be advanced. When a positive value is specified, the paper is fed in the print direction. When 0 is specified, the paper is not advanced. When a negative value is specified, the paper is fed in the direction opposite to the print direction.
Eject single-cut sheets	Specifies whether to send a form feed command when using cut sheets. When this box is checked, the command is sent. When not checked, the command is not sent.
Feed to cut position before cutting	Specifies whether to advance the paper to the cut position before cutting operation. When this box is checked, the paper is advanced to the cut position. When not checked, the paper is not advanced.
Cutting method	Select the cutting operation. <ul style="list-style-type: none"> <li>• Do not cut</li> <li>• Cut</li> <li>• Feed to black mark and do not cut</li> <li>• Feed to black mark and cut</li> </ul>

## Printing Speed

You can change the print speed (paper feed speed), if that of your product is changeable.

When a large bitmap is printed using a thermal device with the print speed set to higher, the data transmission may not be able to keep up with the print speed. This can cause the device to pause during printing. Should this occur, the bitmap may not be printed correctly.

Adjust the print speed by changing the setting to 1st (fast), then 2nd (slightly slower), and then 3rd (slowest) in that order, until the image is printed properly without causing the device to pause.

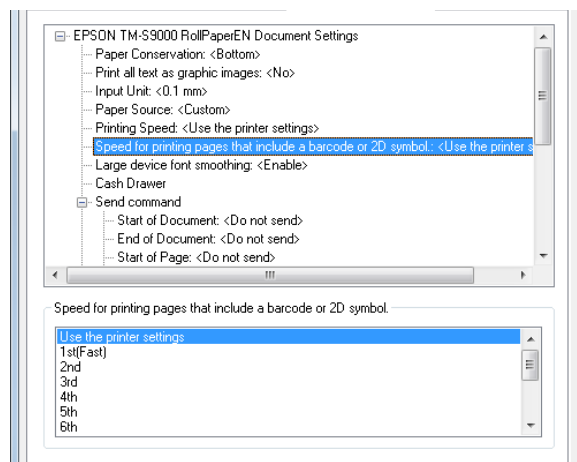


Setting	Description
Use the printer setting. (Default)	The print speed set at the product is applied.
1st to maximum (slowest)	1st is the fastest, and the maximum is the slowest.

---

## Speed for printing pages that include a barcode or 2D symbol

When "Print all text as graphic images" is enabled, you can set the printing speed lower for the pages that include barcode or 2D symbol.

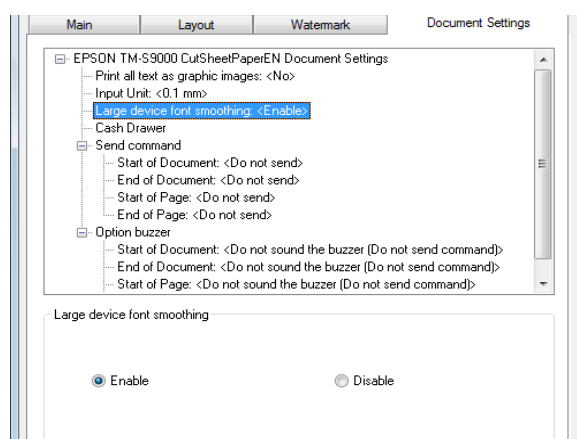


Setting	Description
Use the printer setting. (Default)	The print speed set at the product applied.
1st to maximum (slowest)	1st is the fastest, and the maximum is the slowest.

---

## Large device font smoothing

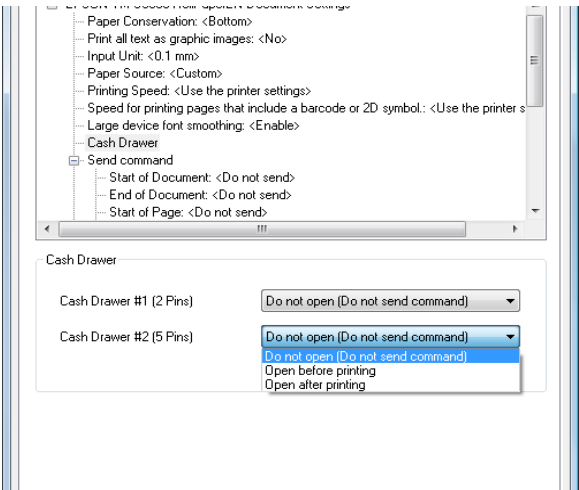
Large device fonts can be clearly and neatly printed.



Setting	Description
Enable (Default)	Performs smoothing of the large Device fonts to print them neatly.
Disable	The corners of large device fonts may be printed with jaggies.

## Cash drawer

You can configure the setting for opening the Cash drawer. A command for opening the Cash drawer is sent to the drawer connected to the product through the DK connector. See the Cash drawer specifications to check the connector number for the Cash drawer.



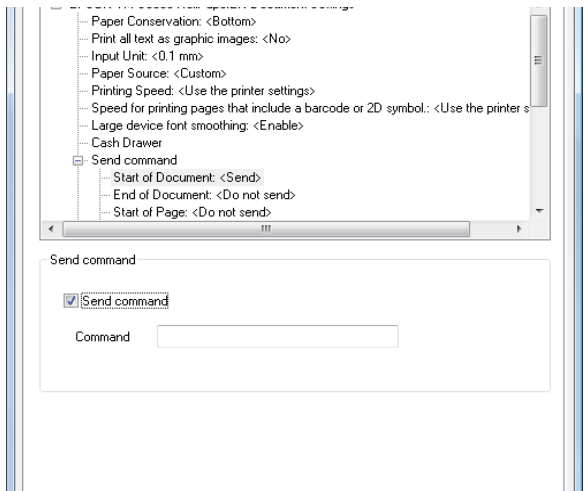
Setting		Description
Cash drawer #1 (2pins)	Do not open (do not send command) (Default)	The drawer does not open.
	Open before printing	The drawer opens when printing starts.
	Open after printing	The drawer opens when printing is finished.
Cash drawer #2 (5pins)	Do not open (do not send command) (Default)	The drawer does not open.
	Open before printing	The drawer opens when printing starts.
	Open after printing	The drawer opens when printing is finished.

# Send command

ESC/POS commands can be sent to the product directly.

NOTE

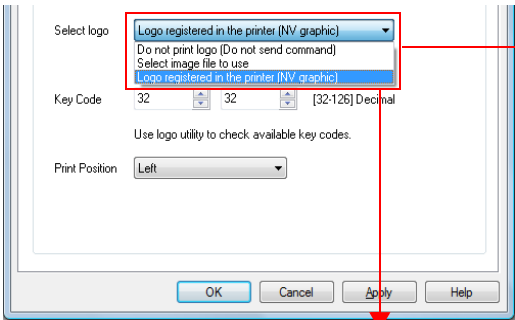
ESC/POS commands are not open to the public. Ask your sales representative for more information.



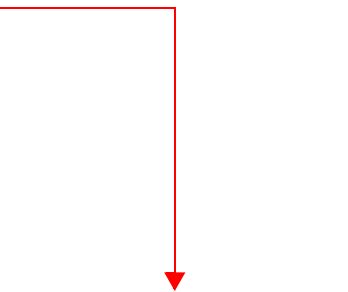
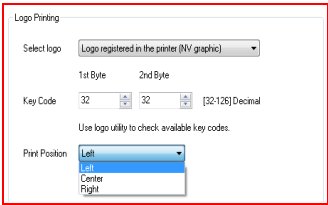
Setting		Description
Start of Document	Send command	Check this box to send a command when printing.
End of Document	Command	Enter a desired ESC/POS command to be sent to the product.
Start of Page		You cannot enter the command without checking the "Send command" box.
End of Page		

# Logo Printing

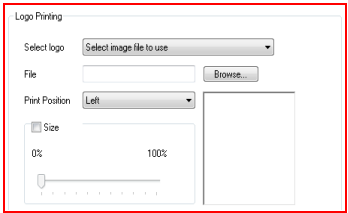
A desired logo can be specified to be printed.



Pop-up window when logo registered in the printer is selected  
NV graphics



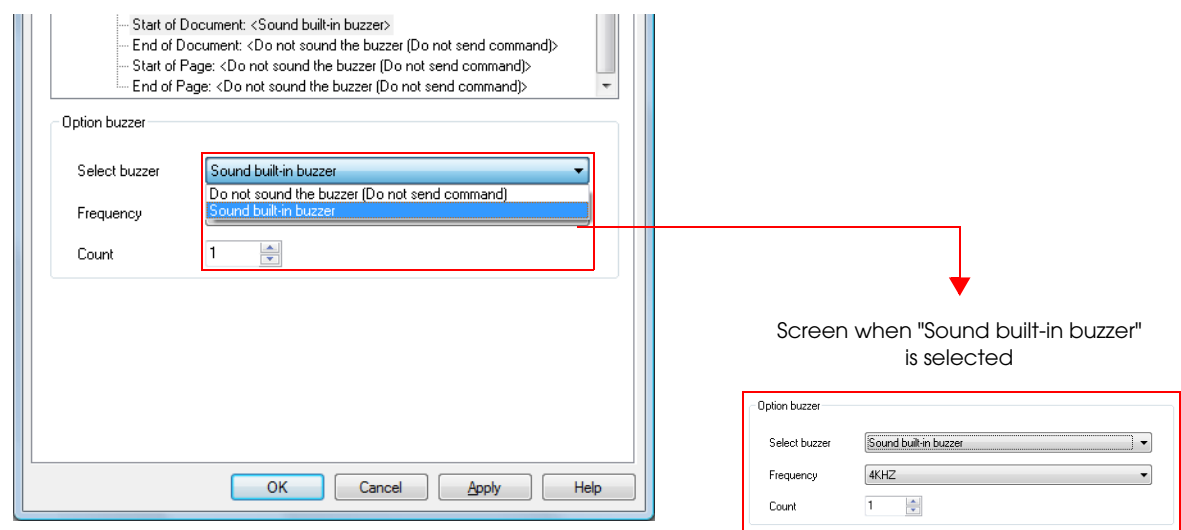
Pop-up window when Select image file for use is selected



Setting		Description
Start of Document End of Document Start of Page End of Page	Do not print logo (Do not send command)	Does not print a logo.
	Select Image file for use	Prints a logo using an image file.
	File	Specify an image file. The following file types are available: Bmp, jpeg, gif, and png.
	Print Position	Specify a logo print position. Select Left, Center, or Right.
	Size	Specify the logo size for printing. Refer to the layout displayed in the preview window.
	Logo registered in the printer	Print a logo registered in the product.
	NV graphics	Specify an NV graphic registered using the TM Flash Logo Setup Utility.
	Key code	Enter the key code of the logo that you want to print.
	Print Position	Specify a logo print position. Select Left, Center, or Right.

# Option buzzer

Set the pattern and number of times the buzzer sounds for the built-in buzzer and external buzzer.

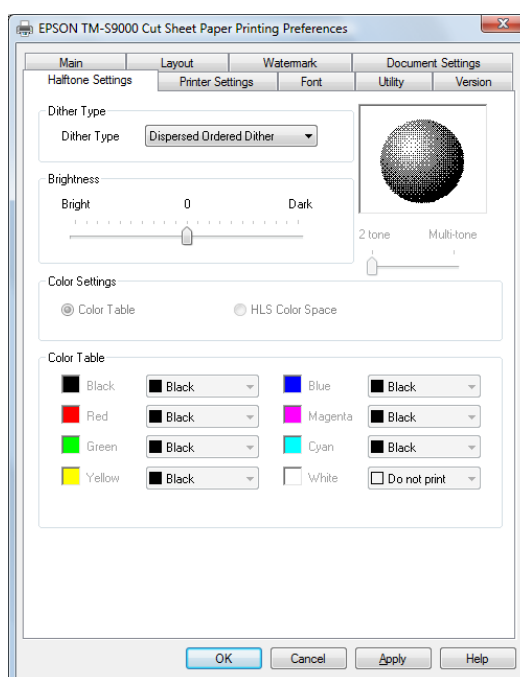


Setting		Description
Start of Document End of Document Start of Page End of Page	Do not sound the buzzer (do not send command) (Default)	Do not sound the buzzer.
	Sound built-in buzzer	Sound the built-in buzzer in the product
	Frequency	Specify the buzzer frequency. The frequency can be selected from the following: 4kHz, 440kHz and 880Hz.
	Count	Specify the number of times the buzzer sounds. Any number from 1 to 63 can be specified.



## Halftone Settings

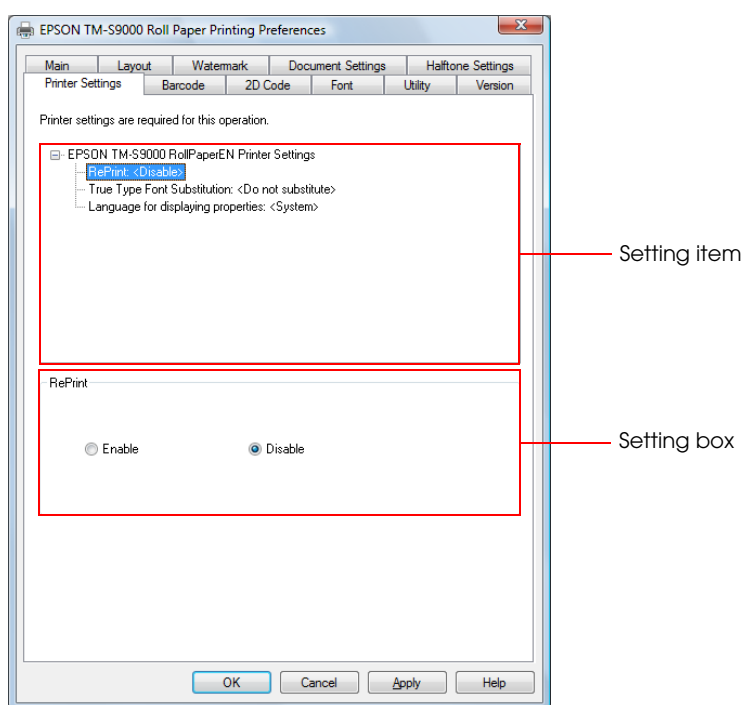
Allows you to select the color treatment and dither type to print color graphics with a single-color. The brightness of the image data can be specified for thermal printers.



Setting	Description
Dither Type	<p>Defines the dithering algorithm. Depending on the dither type selected, the image is displayed with a different pattern of dots. The following 4 options are available.</p> <ul style="list-style-type: none"> <li>• Dispersed Ordered Dither</li> <li>• Clustered Ordered Dither</li> <li>• Error Diffusion</li> <li>• Threshold</li> </ul>
Brightness (A function dedicated for the printer driver for thermal printers)	Sets the brightness of image data. Dots are displayed based on the arrangement set by (Brightness).

## Printer Settings

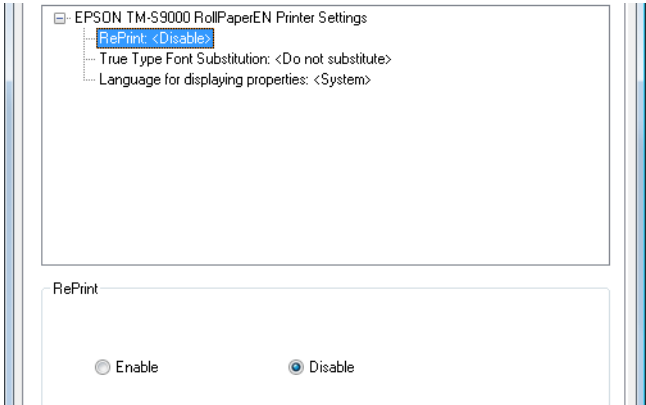
Allows you to make settings of the device. The setting items are displayed in the upper box of the Printer Settings screen. If you select a setting item, the setting options for the selected item are displayed in the lower box.



# RePrint

To reprint the document printed most recently, hold down both the [Feed] button and the [3sec.] button on TM-S9000 simultaneously.

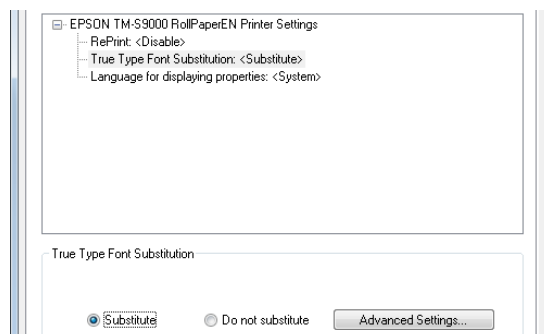
Only TM-S9000RollPaper supports this function.



Setting	Description
Enable	Set to Enabled.
Disable	Set to Disbaled.

## TrueType Font Substitution

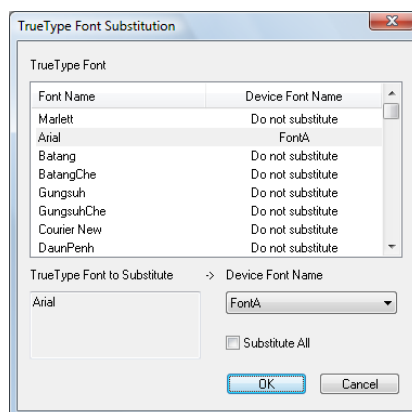
Allows you to replace TrueType Font with Device font, Barcode font, 2D-Code font, control font, or controlA font.



Setting	Description
Substitute (Default)	Replaces TrueType font with Device font, Barcode font, 2D-Code font, control font, or controlA font.
Do not Substitute	Does not replace the TrueType font.
Advanced settings	Displays the "TrueType Font Substitution" screen. This button is enabled when the "Replace" is selected.

### TrueType Font Substitution settings

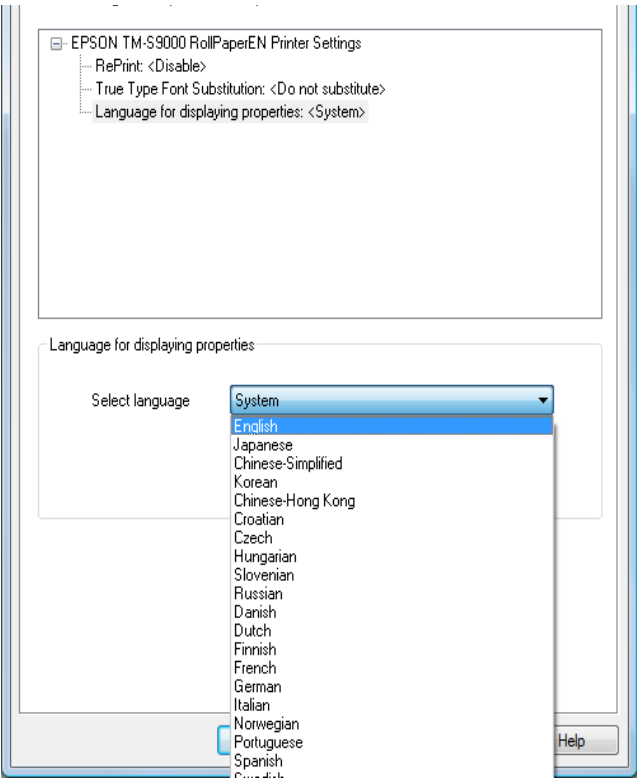
Allows you to configure TrueType substitution settings. In the case that Device fonts cannot be used, the substitution setting is ignored and TrueType fonts are printed as they are.



Setting	Description
TrueType Font	Displays the TrueType font list. Select TrueType fonts to be replaced.
TrueType Font for substitution	Displays the fonts selected by the "TrueType Font" list.
Device Font Name	Specify the device fonts to be replaced, "Barcode","Control","ControlA" and "2D-Code".
Substitute All	Replace all the TrueType Font on the "TrueType Font" list to the fonts selected on (Device Font Name). If you put a check mark next to this item, (TrueType Font) will be grayed out.

# Language for displaying properties

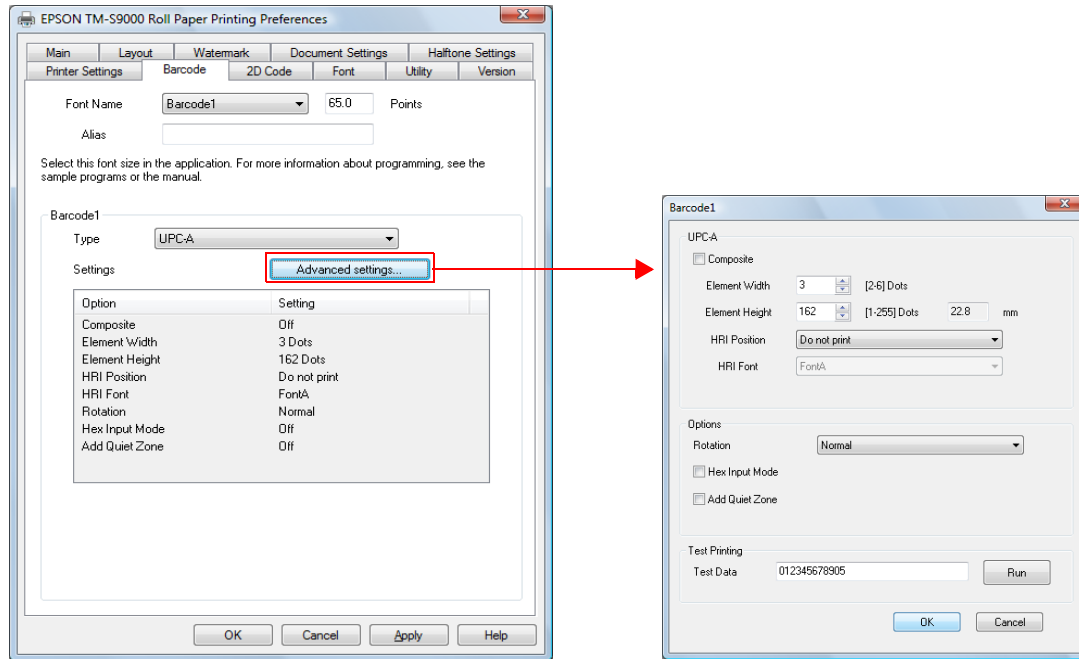
Allows you to select from 24 languages for text on screen and help dialog.



Setting	Description
Select language	Select a language from the pull-down list for text on screen and help dialog. You can select from the following 24 languages. English, Japanese, Chinese-Simplified, Korean, Chinese-Hongkon, Croatian, Czech, Hungarian, Slovenian, Russian, Danish, Dutch, Finnish, French, German, Italian, Norwegian, Portuguese, Spanish, Swedish, Turkish, Thai, Vietnamese, Chinese-Traditional

## Barcode

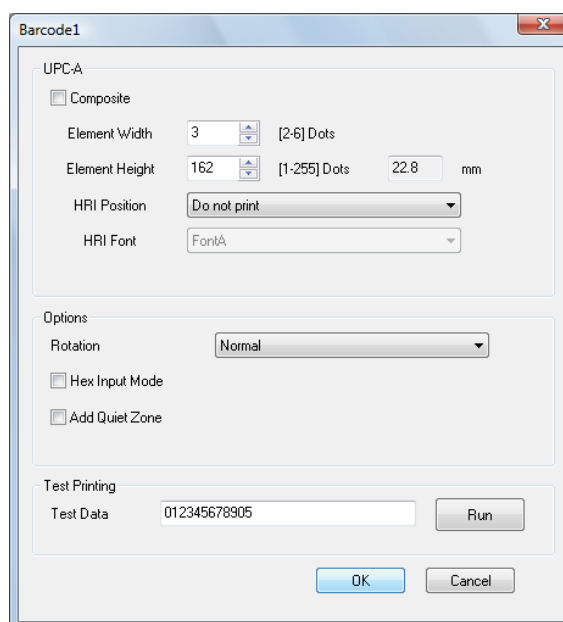
Allows you to configure Barcode fonts. The Barcode type and size can be registered. Up to eight types of Barcodes (Barcode 1 to 8) can be registered using the PDS.



Setting	Description
Font Name	Select a desired Barcode font from the pull-down list. The point value changes according to the height of the element.
Alias	An alias name can be specified for the selected Barcode font. Up to 31 characters can be entered. Alphanumeric characters, spaces, and the following symbols can be used. Available characters: !"#\$%&'()*+,-./:;<=>?@(\)^_`{ }~
Type	Select a desired Barcode type from the pull-down list (UPC-A, UPC-E, JAN13 (EAN), JAN8 (EAN), Code39, ITF, Codabar, Code93, Code128, GS1-128, GS1 DataBar Omni-directional, GS1 DataBar Truncated, GS1 DataBar Expanded, GS1 DataBar Limited. Select "Not Use" when not specifying the Barcode type.
Advanced settings	Displays the Barcode advanced setting screen that allows you to select the Barcode size, HRI characters and so on.
Settings	Displays the Barcode font settings.

## Barcode advanced setting

The Barcode advanced setting screen is displayed by clicking the Advanced settings button. This allows you to select the Barcode size, HRI characters and so on.



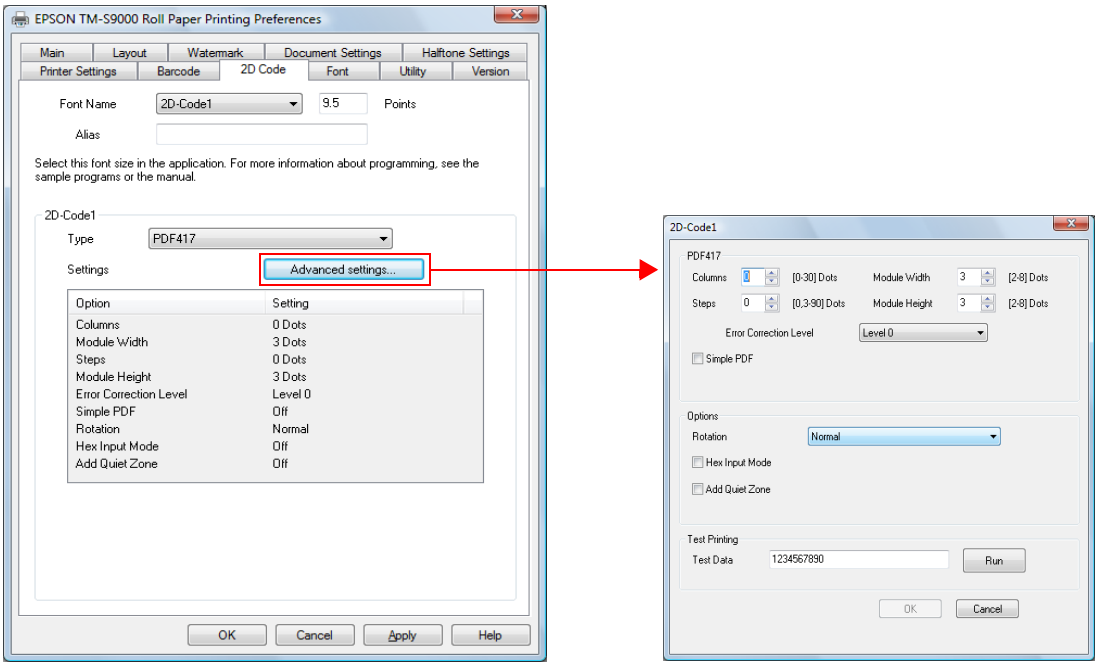
Setting	Description
Composite	Generates a GS1 composite symbol. Type selection between CC-A, CC-B or CC-C is automatically done based on the data.
Element Width	Specify the width of thin elements by the number of dots. The settable range is between 2 to 6. The width of a barcode is determined with this value and the number of characters in the barcode. If the width of the barcode becomes wider than the printable area of the paper, the barcode cannot be printed or may be printed even out of the area.
Element Height	Specify the height of elements by the number of dots. The settable range is between 1 to 255 (unit: dot). The specified dots is displayed in the actual size (mm, the number of points) when printed.
HRI Position	Specifies the position of the HRI characters (Barcode data) from the pull-down list (Do not print, Above the Barcode, Below the Barcode, Both above and below the Barcode).
HRI Font	Specifies the font of the HRI characters from the pull-down list (FontA, FontB). This option is grayed out when "No printing" is selected in the (HRI Position).

Setting		Description
Rotation		Specifies the print direction of Barcode. When other than "Normal" is selected in the Rotation setting, the following message is displayed: "<Print all text as graphics image> will be automatically set to yes."  When other than "Normal" is specified for the Rotation setting both in the (Layout) tab and the (Barcode) - (Advanced settings), the both settings are applied to the printed Barcode at a time.
	Normal	Prints the Barcode without rotating it.
	Rotate by 90 Degrees	Rotates the Barcode to print it. The whole print data is printed as a graphics image, therefore, the Device fonts, control font, and controlA font cannot be used.
	Rotate by 180 Degrees	
	Rotate by 270 Degrees	
Hex Input Mode		Allows the Barcode characters to be entered in binary. Ex : "00010203" → 0x00 0x01 0x02 0x03
Add Quiet Zone		Check this box to add a quiet zone, the blank margin on either side of a Barcode, required to be properly read by a Barcode reader. The quiet zone is added without changing the Barcode position.
Test Printing		Prints a set Barcode as test printing.
	Test Data	Inputs data for test printing.
	Run	Prints input data.



## 2D-Code

Allows you to configure 2D-Code fonts. The 2D-Code type and size can be registered. Up to eight types of Barcodes (2D-Code 1 to 8) can be registered using the PDS.



Setting	Description
Font Name	Select a desired 2D-Code font from the pull-down list. The point value changes according to the height of the 2D-Code.
Alias	An alias name can be specified for the selected 2D-Code font. Up to 31 characters can be entered. Alphanumeric characters, spaces, and the following symbols can be used. Available characters: !"#\$%&'()*+,-./:;<=>?@(\)^_`{ }~
Type	Select a desired 2D-Code type from the pull-down list (PDF417, QR Code, Maxi Code, GS1 DataBar Stacked, GS1 DataBar Stacked Omni-directional, GS1 DataBar Expanded Stacked). Select "Not Use" when not specifying the type. .
Advanced settings	Displays the 2D-Code advanced setting screen that allows you to make the detailed settings for each type of the 2D-Code.
Settings	Displays the current 2D-Code font settings.

## 2D-Code advanced settings

The 2D-Code advanced setting screen is displayed by clicking the Advanced settings button.

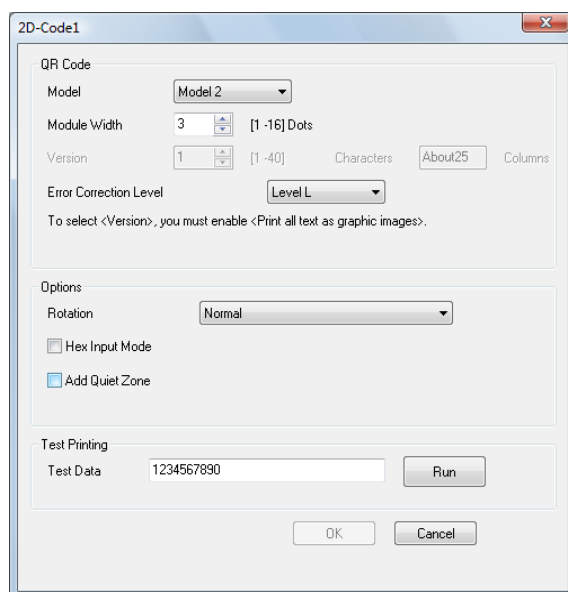
### PDF417

The screenshot shows a dialog box titled "2D-Code1" with a close button in the top right corner. Inside the dialog, there is a section for "PDF417" settings. This section includes four spinners: "Columns" (set to 0, range [0-30] Dots), "Steps" (set to 0, range [0,3-90] Dots), "Module Width" (set to 3, range [2-8] Dots), and "Module Height" (set to 3, range [2-8] Dots). Below these is a dropdown menu for "Error Correction Level" set to "Level 0". There is a checkbox for "Simple PDF" which is currently unchecked. Below the PDF417 section is an "Options" section with a "Rotation" dropdown set to "Normal", and two unchecked checkboxes: "Hex Input Mode" and "Add Quiet Zone". At the bottom is a "Test Printing" section with a "Test Data" text field containing "1234567890" and a "Run" button. At the very bottom of the dialog are "OK" and "Cancel" buttons.

Setting	Description
Column	Specifies the number of columns of PDF417 to be printed. The setting can be changed within the range of 0 to 30.
Steps	Specifies the number of steps of PDF417 to be printed. The setting can be changed within the range of 0 to 30.
Module Width	Specifies the cell (module) width of PDF417 to be printed. The setting can be changed within the range of 2 to 8.
Module Height	Specifies the cell (module) height of PDF417 to be printed. The setting can be changed within the range of 2 to 8.
Error Correction Level	Specifies the error correction level for PDF417 (Level 0 to Level 8).
Simple PDF	Specifies the option of PDF417 to be printed.

Setting		Description
Rotation		Specifies the print direction of 2D-Code. When other than "Normal" is selected in the Rotation setting, the following message is displayed: "<Print all text as graphics image> will be automatically set to yes." When other than "Normal" is specified for the Rotation setting both in the (Layout) tab and the (2D-Code) - (Advanced settings), the both settings are applied to the printed 2D-Code at a time.
	Normal	Prints the 2D-Code without rotating it.
	Rotate by 90 Degrees	Rotates the 2D-Code to print it. The whole print data is printed as a graphics image, therefore, the Device fonts, control font, and controlA font cannot be used.
	Rotate by 180 Degrees	
	Rotate by 270 Degrees	
Hex Input Mode		Allows the 2D-Code characters to be entered in binary. Ex : "00010203" → 0x00 0x01 0x02 0x03
Add Quiet Zone		Check this box to add a quiet zone, the blank margin around the 2D-Code, required to be properly read by a 2D-Code reader. The quiet zone is added without changing the 2D-Code position.
Test Printing		Prints a set PDF417 as test printing.
	Test Data	Inputs data for test printing.
	Run	Prints input data.

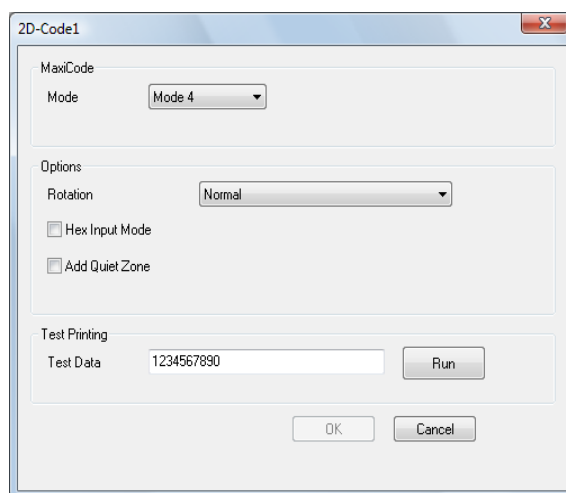
## QR Code



Setting		Description
Model		Specifies a QR Code model (Model1 or Model 2).
Module Width		Configures the cell (module) of QR Code to be printed. The setting can be changed within the range of 1 to 16.
Version		Specifies the QR Code version. Depending on the QR Code version, the number of characters to be used for the 2D-Code changes. The settable versions are 1 to 16 when the "Model 1" is selected in the (Model), and 1 to 40 when the "Model 2" is selected.
Error Correction Level		Specifies the error correction level for QR Code (Level L, Level M, Level Q, Level H).
Rotation		Specifies the print direction of 2D-Code. When other than "Normal" is selected in the Rotation setting, the following message is displayed: "<Print all text as graphics image> will be automatically set to yes."
		When other than "Normal" is specified for the Rotation setting both in the (Layout) tab and the (2D-Code) - (Advanced settings), the both settings are applied to the printed 2D-Code at a time.
	Normal	Prints the 2D-Code without rotating it.
	Rotate by 90 Degrees	Rotates the 2D-Code to print it. The whole print data is printed as a graphics image, therefore, the Device fonts, control font, and controlA font cannot be used.
	Rotate by 180 Degrees	
	Rotate by 270 Degrees	
Hex Input Mode		Allows the 2D-Code characters to be entered in binary. Ex : "00010203" → 0x00 0x01 0x02 0x03

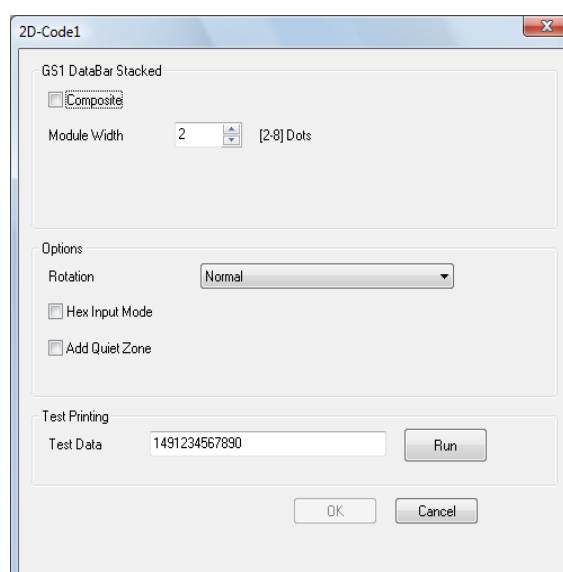
Setting		Description
Add Quiet Zone		Check this box to add a quiet zone, the blank margin around the 2D-Code, required to be properly read by a 2D-Code reader. The quiet zone is added without changing the 2D-Code position.
Test Printing		Prints a set QR Code as test printing.
	Test Data	Inputs data for test printing.
	Run	Prints input data.

## Maxi Code



Setting		Description
Mode		Specifies Mode (2 to 6) of Maxi Code. Check the (Hex Input Mode ) box when specifying "Mode2" and "Mode3".
Rotation*		Specifies the print direction of 2D-Code. When other than "Normal" is selected in the Rotation setting, the following message is displayed: "<Print all text as graphics image> will be automatically set to yes." When other than "Normal" is specified for the Rotation setting both in the (Layout) tab and the (2D-Code) - (Advanced settings), the both settings are applied to the printed 2D-Code at a time.
	Normal	Prints the 2D-Code without rotating it.
	Rotate by 90 Degrees	Rotates the 2D-Code to print it. The whole print data is printed as a graphics image, therefore, the Device fonts, control font, and controlA font cannot be used.
	Rotate by 180 Degrees	
Hex Input Mode		Allows the 2D-Code characters to be entered in binary. Ex : "00010203" → 0x00 0x01 0x02 0x03
Add Quiet Zone		Check this box to add quiet zone, the blank margin around the 2D-Code, required to be properly read by a 2D-Code reader. The quiet zone is added without changing the 2D-Code position.
Test Printing		Prints a set Maxi Code as test printing.
	Test Data	Inputs data for test printing.
	Run	Prints input data.

## GS1 DataBar Stacked



Setting		Description
Composite		Adds a composite symbol to a two-dimensional symbol.
Module Width		Specifies the cell (module) width of GS1 DataBar Stacked to be printed. The setting can be changed within the range of 2 to 8.
Rotation*		Specifies the print direction of 2D-Code. When other than "Normal" is selected in the Rotation setting, the following message is displayed: "<Print all text as graphics image> will be automatically set to yes." When other than "Normal" is specified for the Rotation setting both in the (Layout) tab and the (2D-Code) - (Advanced settings), the both settings are applied to the printed 2D-Code at a time.
	Normal	Prints the 2D-Code without rotating it.
	Rotate by 90 Degrees	Rotates the 2D-Code to print it. The whole print data is printed as a graphics image, therefore, the Device fonts, control font, and controlA font cannot be used.
	Rotate by 180 Degrees	
	Rotate by 270 Degrees	
Hex Input Mode		Allows the 2D-Code characters to be entered in binary. Ex : "00010203" → 0x00 0x01 0x02 0x03
Add Quiet Zone		Check this box to add a quiet zone, the blank margin around the 2D-Code, required to be properly read by a 2D-Code reader. The quiet zone is added without changing the 2D-Code position.
Test Printing		Prints a set GS1 DataBar Stacked as test printing.
	Test Data	Inputs data for test printing.
	Run	Prints input data.

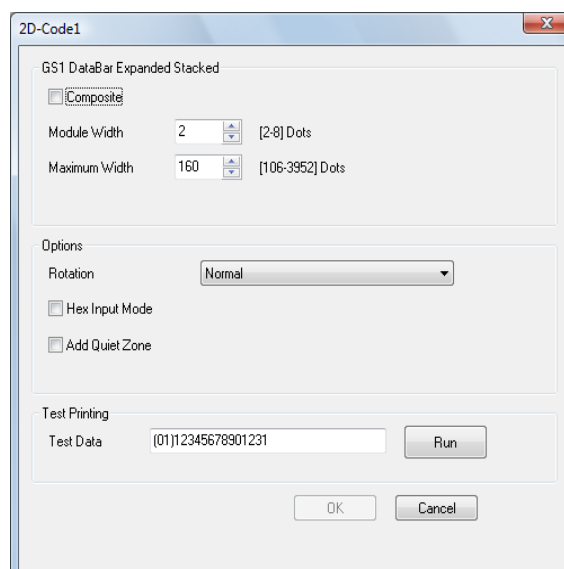
## GS1 DataBar Stacked Omni-directional

The screenshot shows a dialog box titled "2D-Code1" with a close button (X) in the top right corner. The main title inside the dialog is "GS1 DataBar Stacked Omni-directional". Below this title, there is a checkbox labeled "Composite" which is currently unchecked. Underneath, the "Module Width" is set to "2" with a small up/down arrow icon, and a label "[2-8] Dots" to its right. A section titled "Options" contains a "Rotation" dropdown menu currently set to "Normal", and two unchecked checkboxes: "Hex Input Mode" and "Add Quiet Zone". At the bottom, there is a "Test Printing" section with a "Test Data" input field containing the text "1491234567890" and a "Run" button. At the very bottom of the dialog are "OK" and "Cancel" buttons.

Setting		Description
Composite		Adds a composite symbol to a two-dimensional symbol.
Module Width		Specifies the cell (module) width of GS1 DataBar Stacked Omni-directional to be printed. The setting can be changed within the range of 2 to 8.
Rotation*		Specifies the print direction of 2D-Code. When other than "Normal" is selected in the Rotation setting, the following message is displayed: "<Print all text as graphics image> will be automatically set to yes." When other than "Normal" is specified for the Rotation setting both in the (Layout) tab and the (2D-Code) - (Advanced settings), the both settings are applied to the printed 2D-Code at a time.
	Normal	Prints the 2D-Code without rotating it.
	Rotate by 90 Degrees	Rotates the 2D-Code to print it. The whole print data is printed as a graphics image, therefore, the Device fonts, control font, and controlA font cannot be used.
	Rotate by 180 Degrees	
	Rotate by 270 Degrees	
Hex Input Mode		Allows the 2D-Code characters to be entered in binary. Ex : "00010203" → 0x00 0x01 0x02 0x03
Add Quiet Zone		Check this box to add a quiet zone, the blank margin around the 2D-Code, required to be properly read by a 2D-Code reader. The quiet zone is added without changing the 2D-Code position.
Test Printing		Prints a set GS1 DataBar Stacked Omni-directional as test printing.
	Test Data	Inputs data for test printing.
	Run	Prints input data.



## GS1 DataBar Expanded Stacked

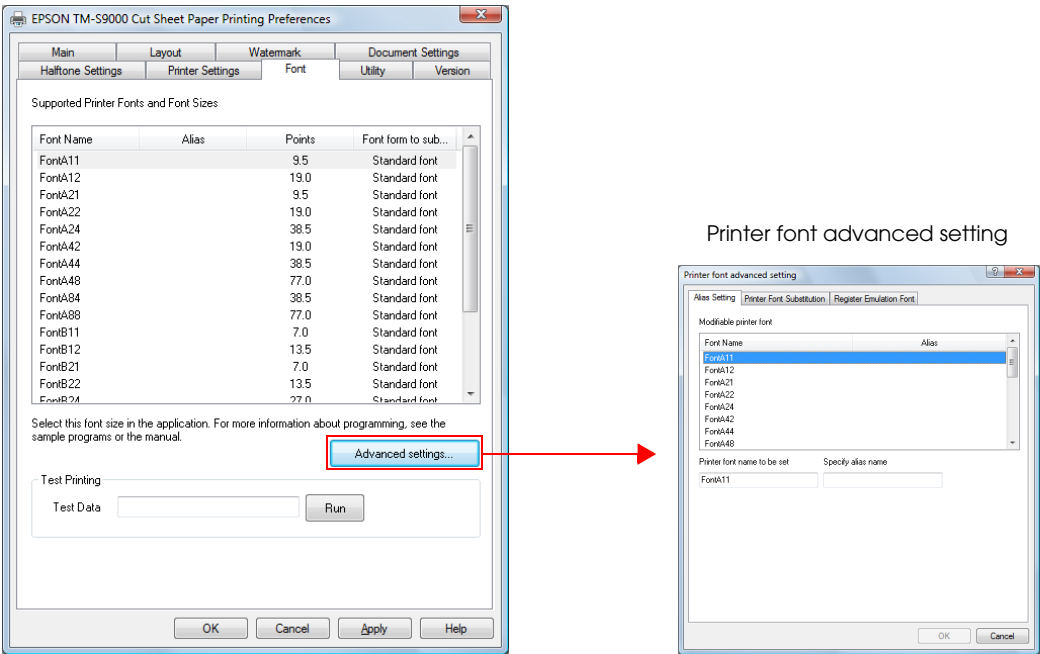


Setting		Description	
Composite		Adds a composite symbol to a two-dimensional symbol.	
Module Width		Specifies the cell (module) width of GS1 DataBar Expanded Stacked to be printed. The setting can be changed within the range of 2 to 8.	
Maximum Width		Specifies maximum width of GS1 DataBar Expanded Stacked to be printed. The setting can be changed within the range of 106 to 3952.	
Rotation*		Specifies the print direction of 2D-Code. When other than "Normal" is selected in the Rotation setting, the following message is displayed: "<Print all text as graphics image> will be automatically set to yes."  When other than "Normal" is specified for the Rotation setting both in the (Layout) tab and the (2D-Code) - (Advanced settings), the both settings are applied to the printed 2D-Code at a time.	
		Normal	Prints the 2D-Code without rotating it.
		Rotate by 90 Degrees	Rotates the 2D-Code to print it. The whole print data is printed as a graphics image, therefore, the Device fonts, control font, and controlA font cannot be used.
		Rotate by 180 Degrees	
Rotate by 270 Degrees			
Hex Input Mode		Allows the 2D-Code characters to be entered in binary. Ex : "00010203" → 0x00 0x01 0x02 0x03	
Add Quiet Zone		Check this box to add a quiet zone, the blank margin around the 2D-Code, required to be properly read by a 2D-Code reader. The quiet zone is added without changing the 2D-Code position.	

Setting		Description
Test Printing		Prints a set GS1 DataBar Expanded Stacked as test printing.
	Test Data	Inputs data for test printing.
	Run	Prints input data.

Font

The device fonts; supported by product, their points, and the code pages are listed. An alias can be specified for a device font in the printer font advanced settings. In addition, alias names can be specified to the device fonts. When using device fonts, specify their points in "Supported Printer Fonts and Font Sizes". When programming, designate the fonts and their points specified here.



Setting		Description
Advanced settings		Displays the Printer font advanced setting screen.
Test Printing		Prints the device font as test printing.
	Test Data	Inputs data for test printing.
	Run	Prints input data.

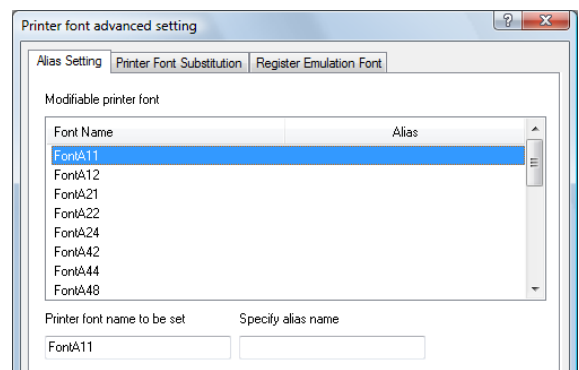
---

# Printer font advanced setting

Click the Advanced settings button to open the Printer font advanced setting screen.

## Alias Setting

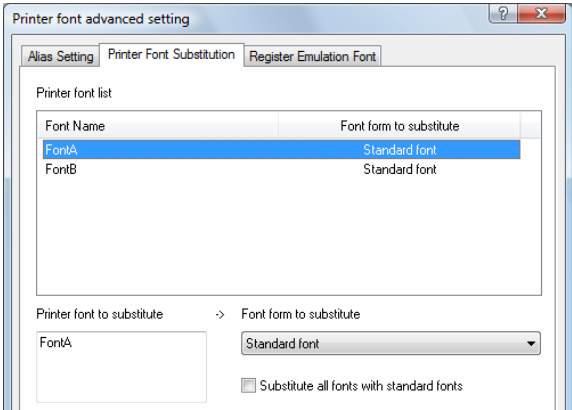
Specify an alias for a device font. This allows you to print using a device font without changing the application font name.



Setting	Description
Modifiable printer font	The device fonts to which their alias names can be specified are displayed.
Printer font name to be set	The fonts selected from the "Modifiable printer font" list are displayed.
Specify alias name	Specify an alias name.

Printer Font Substitution

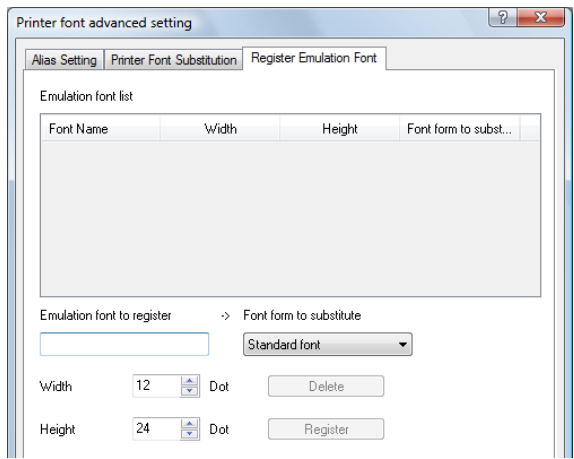
Specify a TrueType font to be substituted for a device font. Printer font substitution is possible when "Print all text as graphic images" is set to "Yes" in the [Document Settings] tab of [Printing Preferences].



Setting	Description
Printer font list	Lists the replaceable device fonts.
Printer font to substitute	The font selected in the "Printer font list" appears.
Font form to substitute	Specify the substitute font.

## Register Emulation Font

Specify the font name, font size (height and width in dots), and font design (TrueType font). Set this to change a font name and size.



Setting	Description
Emulation font list	A list of the registered emulation fonts appears.
Emulation font to register	Specify the emulation font name to register.
Width	Specify the width in dots.
Height	Specify the height in dots.
Font form to substitute	Specify the substitute font from the pull-down list.

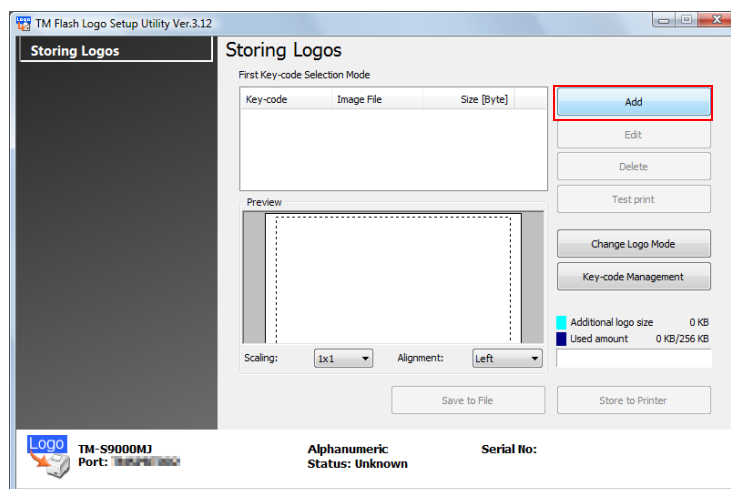
# TM Flash Logo Setup Utility Ver.3

This chapter explains how to store logos and how to use TM Flash Logo Setup Utility Ver.3. TM Flash Logo Setup Utility Ver.3 allows users to print and delete the logos stored in the device but not to edit, restore or save them in a file format.

## Storing Logos

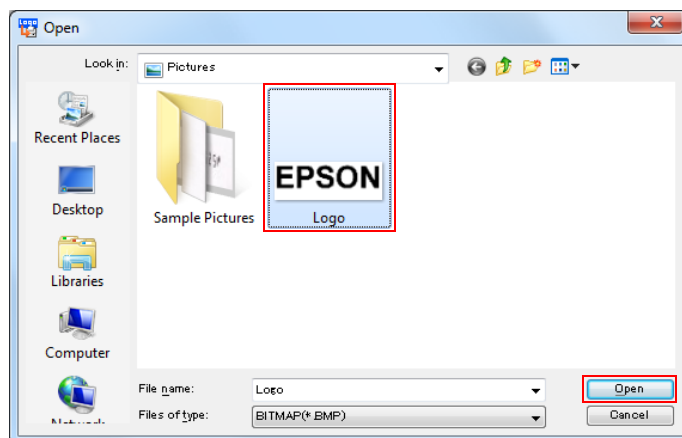
Follow the procedure below to save your logo file to the NV memory.

- 1** Prepare your logo file.  
A size of 2047 (W) x 831 (H) dots ((Key-code Nonuse Mode (not recommended)): 1023 (W) x 288 (H) dots) or less can be specified, and the format can be bmp, jpeg, gif or png.
- 2** From the printer driver properties, select (Utility)-(EPSON Flash Logo).  
The (TM Flash Logo Setup Utility Ver.3) screen appears.
- 3** Click the (Add) button.



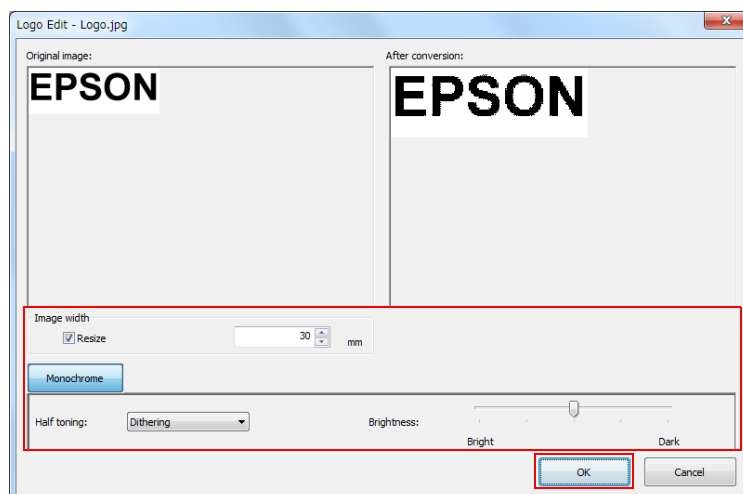
#### 4 Specify the image data to be used as a logo.

If the logo width is greater than the paper width (greater than 512 dots for 80 mm width, or greater than 360 dots for 58 mm width), a warning message will appear. Click the (OK) button and reduce the logo size in the (Logo Edit) screen of step 5.



#### 5 The (Logo Edit) screen appears.

Edit the logo image while checking the image previewed on the upper portion of the screen. When finished, click the (OK) button.

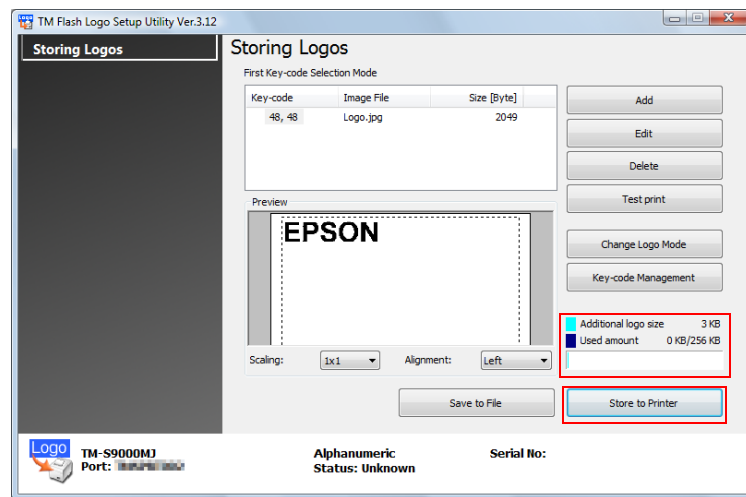


You can edit the followings.

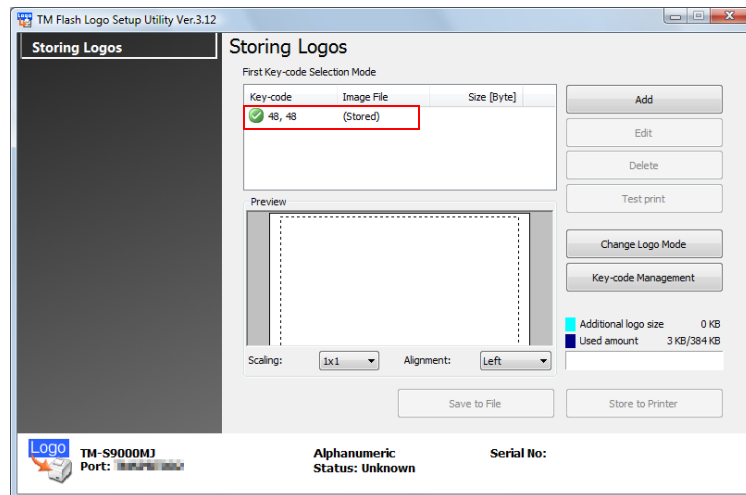
Setting	Description
Resize	Specifies whether or not the image is resized. If the image width is greater than the paper width and resizing is not specified, the part of the image that exceeds the paper width will be cut off.
Width	Specifies the width to which the image is resized (in mm).
Half toning	Configures the halftone setting of the image.
Brightness	Configures the brightness of the image. Select from 5 levels.



- 6 The logo data is added on the list. When storing multiple logo data, repeat Step 3 through 5.
- 7 After storing all the logo data to be added to the device, check the indicator on the right side of the screen to see if the data size is acceptable to be stored on the device, and then click the (Store to Printer) button.

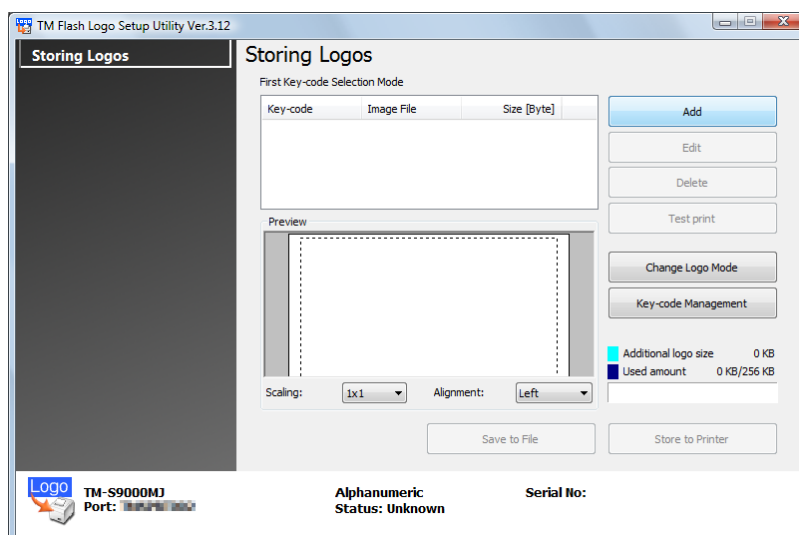


- 8 The logo data is stored to the device.

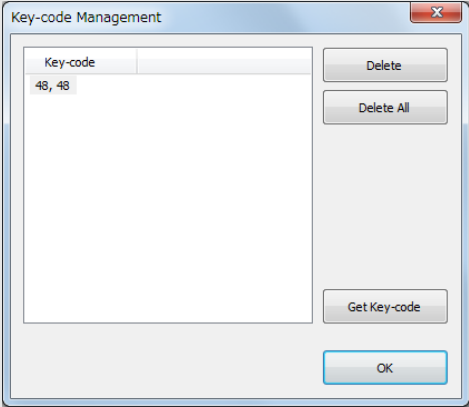


# Reference

This section explains about the settings of TM Flash Logo Setup Utility.



Setting	Description
Add	Adds the logo data.
Edit	Edits the halftone and brightness settings of the selected logo data.
Delete	Deletes the selected logo data from the list or deletes logos stored on the device.
Test print	Prints the selected logos.
Change Logo Mode	Displays "Select Mode for Storing Logo" screen to allow you to change the setting mode of the (Storing Logos). The current setting is displayed below (Storing Logos). <div data-bbox="786 1359 1141 1615" data-label="Image"> </div>
First Key-code Selection Mode	Specifies the logo identifying code.
Printer Driver for TM-S Series Control Font Setting Mode	The Printer Driver for TM-S Series allows you to assign a control font (h to l) to your logo instead of using a key code.

Setting	Description
Key-code Management	<p>You can check the Key-code of the logo stored in the device, or delete the logos.</p> 
Preview	Displays the logo image to be stored on the device. Logo images stored on the device are not displayed.
Save to File	Saves the configured logo data as a file to store it to the device. The data can also be stored as a bmp file.
Store to Printer	Stores the configured logo data to the device.



# Printer Specification

This book explains the setting items of Device Font, Control Font, ControlA Font, Resolution, Paper Size, Rotate, Reduce, Water Mark, and command ID.

## CAUTION

- Some settings are not available for some printer models.
- Administrator permission is required for property settings of the printer driver.

Item	Description																																																
Driver Name	EPSON TM-S9000 CutSheetPaperEN																																																
Device Font	<div>Prohibited when rotation is selected.</div> <div>Prohibited when resizing a font in a smaller size or when Water Mark is selected.</div> <table><tr><td>FontA11</td><td>FontA12</td><td>FontA21</td><td>FontA22</td><td>FontA24</td><td>FontA42</td></tr><tr><td>FontA44</td><td>FontA48</td><td>FontA84</td><td>FontA88</td><td>FontB11</td><td>FontB12</td></tr><tr><td>FontB21</td><td>FontB22</td><td>FontB24</td><td>FontB42</td><td>FontB44</td><td>FontB48</td></tr><tr><td>FontB84</td><td>FontB88</td><td></td><td></td><td></td><td></td></tr></table> <div>Code Page WPC1252</div> <table><tr><td>FontA11(255)</td><td>FontA12(255)</td><td>FontA21(255)</td><td>FontA22(255)</td><td>FontA24(255)</td><td>FontA42(255)</td></tr><tr><td>FontA44(255)</td><td>FontA48(255)</td><td>FontA84(255)</td><td>FontA88(255)</td><td>FontB11(255)</td><td>FontB12(255)</td></tr><tr><td>FontB21(255)</td><td>FontB22(255)</td><td>FontB24(255)</td><td>FontB42(255)</td><td>FontB44(255)</td><td>FontB48(255)</td></tr><tr><td>FontB84(255)</td><td>FontB88(255)</td><td></td><td></td><td></td><td></td></tr></table> <div><div>• Space Page (255)</div></div>	FontA11	FontA12	FontA21	FontA22	FontA24	FontA42	FontA44	FontA48	FontA84	FontA88	FontB11	FontB12	FontB21	FontB22	FontB24	FontB42	FontB44	FontB48	FontB84	FontB88					FontA11(255)	FontA12(255)	FontA21(255)	FontA22(255)	FontA24(255)	FontA42(255)	FontA44(255)	FontA48(255)	FontA84(255)	FontA88(255)	FontB11(255)	FontB12(255)	FontB21(255)	FontB22(255)	FontB24(255)	FontB42(255)	FontB44(255)	FontB48(255)	FontB84(255)	FontB88(255)				
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	<table><tr><th>Char</th><th>Function</th><th>Char</th><th>Function</th></tr><tr><td>4</td><td>Transmits FF</td><td>j</td><td>NV graphics 2 printing (48,50)</td></tr><tr><td>5</td><td>Transmits HT</td><td>k</td><td>NV graphics 3 printing (48,51)</td></tr><tr><td>6</td><td>Transmits LF</td><td>l</td><td>NV graphics 4 printing (48,52)</td></tr><tr><td>7</td><td>Transmits CR</td><td>w</td><td>Position alignment left</td></tr><tr><td>a</td><td>Open Drawer 5pin(50ms)</td><td>x</td><td>Position alignment center</td></tr><tr><td>b</td><td>Open Drawer 5pin(100ms)</td><td>y</td><td>Position alignment right</td></tr><tr><td>c</td><td>Open Drawer 5pin(150ms)</td><td>A</td><td>Open Drawer 2pin(50ms)</td></tr><tr><td>d</td><td>Open Drawer 5pin(200ms)</td><td>B</td><td>Open Drawer 2pin(100ms)</td></tr><tr><td>e</td><td>Open Drawer 5pin(250ms)</td><td>C</td><td>Open Drawer 2pin(150ms)</td></tr><tr><td>h</td><td>NV graphics 0 printing (48,48)</td><td>D</td><td>Open Drawer 2pin(200ms)</td></tr><tr><td>i</td><td>NV graphics 1 printing (48,49)</td><td>E</td><td>Open Drawer 2pin(250ms)</td></tr></table>	Char	Function	Char	Function	4	Transmits FF	j	NV graphics 2 printing (48,50)	5	Transmits HT	k	NV graphics 3 printing (48,51)	6	Transmits LF	l	NV graphics 4 printing (48,52)	7	Transmits CR	w	Position alignment left	a	Open Drawer 5pin(50ms)	x	Position alignment center	b	Open Drawer 5pin(100ms)	y	Position alignment right	c	Open Drawer 5pin(150ms)	A	Open Drawer 2pin(50ms)	d	Open Drawer 5pin(200ms)	B	Open Drawer 2pin(100ms)	e	Open Drawer 5pin(250ms)	C	Open Drawer 2pin(150ms)	h	NV graphics 0 printing (48,48)	D	Open Drawer 2pin(200ms)	i	NV graphics 1 printing (48,49)	E	Open Drawer 2pin(250ms)
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ControlA Font	<div>Font Name : controlA , Point : 1</div> <div><div>• Characters defined by ControlA Font Character Translation Table.</div><div>• No operations for characters not defined. No printing for spaces.</div><div>• No paper feeding for any functions that do not include paper feeding.</div><div>• Prohibited when rotation is selected.</div><div>• Prohibited when resizing a font in a smaller size or when Water Mark is selected.</div></div>																																																
Resolution	180x180DPI																																																

Item	Description
<b>Paper Size</b>	<p>235mm x 86mm</p> <p>Paper Size 235mm x 86mm (1665dot x 609dot)</p> <p>Printing Width 214.9mm (1523dot)</p> <p>Margin top 17.1mm(121dot) bottom 18.1mm(128dot)</p> <p>left 10.0mm(71dot) right 10.0mm(71dot)</p> <p>213mm x 86mm</p> <p>Paper Size 213mm x 86mm (1509dot x 609dot)</p> <p>Printing Width 192.9mm (1367dot)</p> <p>Margin top 17.1mm(121dot) bottom 18.1mm(128dot)</p> <p>left 10.0mm(71dot) right 10.0mm(71dot)</p> <p>152mm x 70mm</p> <p>Paper Size 152mm x 70mm (1077dot x 496dot)</p> <p>Printing Width 131.9mm (935dot)</p> <p>Margin top 1.1mm(8dot) bottom 18.1mm(128dot)</p> <p>left 10.0mm(71dot) right 10.0mm(71dot)</p> <p>User Defined Paper Size</p> <p>Width 120.0 ~ 235.0mm, Height 70.0 ~ 120.0mm</p> <p>Logic paper size (when resizing in a smaller size)</p> <p>Postcard 100 x 148 mm</p>
<b>Rotate</b>	<p>Normal Rotate by 90 Degrees</p> <p>Rotate by 180 Degrees Rotate by 270 Degrees</p>
<b>Reduce Printing</b>	<p>ON/OFF</p> <p>Fit to Printable Width/Custom(10 - 100%)</p>
<b>Water Mark</b>	<p>Supported</p> <ul style="list-style-type: none"> <li>When Water Mark is specified to the printer, the printer cannot use Device Font, Control Font and ControlA Font</li> </ul>

Item	Description					
Driver Name	EPSON TM-S9000 RollPaperEN					
Device Font	Prohibited when rotation is selected. Prohibited when resizing a font in a smaller size or when Water Mark is selected.					
	FontA11	FontA12	FontA21	FontA22	FontA24	FontA42
	FontA44	FontA48	FontA84	FontA88	FontB11	FontB12
	FontB21	FontB22	FontB24	FontB42	FontB44	FontB48
	FontB84	FontB88				
	• Code Page WPC1252					
	FontA11(255)	FontA12(255)	FontA21(255)	FontA22(255)	FontA24(255)	FontA42(255)
	FontA44(255)	FontA48(255)	FontA84(255)	FontA88(255)	FontB11(255)	FontB12(255)
	FontB21(255)	FontB22(255)	FontB24(255)	FontB42(255)	FontB44(255)	FontB48(255)
	FontB84(255)	FontB88(255)				
	• Space Page (255)					
Barcode Font	Barcode Font Points determined. When specifying a value other than this, the Barcode is not printed.					
	Barcode1~Barcode8			Layout possible Barcode Codabar Code39 ITF JAN13(EAN) JAN8(EAN) UPC-A UPC-E Code39 Code93 Code128 GS1-128 GS1DataBar Omni-directional GS1DataBar Truncated GS1DataBar Expanded GS1DataBar Limited		
2D-Code Font	2D-Code1~2D-Code8			Layout possible 2D-Code PDF417 QRCode GS1 DataBar Stacked GS1 DataBar Omni-directional GS1 DataBar Expanded Stacked		
Control Font	Font Name : control , Point : 1					
	• No operations for characters other than those mentioned above.					
	• Prohibited when rotation is selected.					
	• Prohibited when resizing a font in a smaller size or when Water Mark is selected.					
	Char	Function			Char	Function
	5	Transmits HT			k	NV graphics 3 printing (48,51)
	6	Transmits LF			l	NV graphics 4 printing (48,52)
	7	Transmits CR			w	Position alignment left
	a	Open Drawer 5pin(50ms)			x	Position alignment center
	b	Open Drawer 5pin(100ms)			y	Position alignment right
	c	Open Drawer 5pin(150ms)			A	Open Drawer 2pin(50ms)
	d	Open Drawer 5pin(200ms)			B	Open Drawer 2pin(100ms)
	e	Open Drawer 5pin(250ms)			C	Open Drawer 2pin(150ms)
	g	No paper feeding + Partial cut			D	Open Drawer 2pin(200ms)
	h	NV graphics 0 printing (48,48)			E	Open Drawer 2pin(250ms)
i	NV graphics 1 printing (48,49)			P	Paper feeding +Partial cut	
j	NV graphics 2 printing (48,50)					
ControlA Font	Font Name : controlA , Point : 1					
	• Characters defined by ControlA Font Character Translation Table.					
	• No operations for characters not defined. No printing for spaces.					
	• No paper feeding for any functions that do not include paper feeding.					
	• Prohibited when rotation is selected.					
	• Prohibited when resizing a font in a smaller size or when Water Mark is selected.					
Resolution	180x180DPI					





## Devmode API command ID for driver

Command ID supported by drivers are as follows:

Command ID	Paper Size	Rotate	Paper Conservation	Input Unit	Paper Source	Printing Speed	The cutsheet reverse eject	True Type Font Substitution	Gradation setting
Printer Driver									
EPSON TM-S9000 Cut Sheet	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-S9000 Roll Paper	✓	✓	✓	✓	✓	✓	-	✓	✓
EPSON TM-H6000II Receipt (for TM-S9000)	✓	✓	✓	✓	✓	✓	-	✓	-
EPSON TM-H6000II Slip (for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-H6000II Validation(for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-H6000III Receipt (for TM-S9000)	✓	✓	✓	✓	✓	✓	-	✓	-
EPSON TM-H6000III Slip (for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-H6000III Slip Rotate (for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-H6000III Validation (for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-H6000IV Receipt (for TM-S9000)	✓	✓	✓	✓	✓	✓	-	✓	✓
EPSON TM-H6000IV Slip (for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-H6000IV Slip Rotate (for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-H6000IV Validation (for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-U325 Receipt (for TM-S9000)	✓	✓	✓	✓	✓	-	-	✓	-
EPSON TM-U325 Validation(for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-U375 Receipt (for TM-S9000)	✓	✓	✓	✓	✓	-	-	✓	-
EPSON TM-U375 Slip (for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-U375 Validation(for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-U675 Receipt (for TM-S9000)	✓	✓	✓	✓	✓	-	-	✓	-
EPSON TM-U675 Slip(for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-
EPSON TM-U675 Validation(for TM-S9000)	✓	✓	-	✓	-	-	-	✓	-



# Restrictions

This chapter describes the restrictions that apply to the PDS.

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## OS Settings

1. With Windows 8/ Windows 7/ Vista/ XP, use [Enable advanced printing features] (EMF spool) in the printer driver Properties - [Advanced] tab set to ON. Setting otherwise (RAW spool) applies the following restrictions to the GDI functions:
  - Raster operation cannot be printed as specified by StrtchBlt()/BitBlt().
  - When transferring bit information from display device context to the printer device context using StretchBlt(), the GDI function returns "Failure" and prevents the driver from printing.
2. When printing multiple pages, if you change the paper orientation from one page to another and/or other settings using ResetDC(), the print result may be incorrect. In such cases, set RAW spool (with Windows XP/Vista, set [Enable advanced printing features] to OFF) although some restrictions apply. See the previous paragraph for the restrictions.
3. When printing a device font in Microsoft Word, the following setting is necessary.
  - For Word 2003 or earlier:  
From [Tools] - [Options] - [Compatibility], select "Microsoft Word 6.0/95" in [Recommended Options for] or make a check in "Use printer metrics to lay out document" in [Options].
  - For Word 2007:  
From [Word Options] - [Advanced] - [Compatibility Options for], select "Microsoft Word 6.0/95" or "Custom" in [Lay out this document as if created in], and make a check in "Use printer metrics to lay out document" in [Layout Options].
  - For Word 2010:  
From [File] - [Options] - [Advanced] - [Compatibility Options for], select "Microsoft Word 6.0/95" or "Custom" in [Lay out this document as if created in], and make a check in "Use printer metrics to lay out document" in [Layout Options].
4. If you print more than one Excel sheet at the same time when different print settings are set for each sheet, the setting for the last sheet is effective.
5. When printing with Microsoft ACCESS, the text in the print result may be misaligned or align left may not be possible.
6. Operation in a Windows XP multi-user environment is not guaranteed.
7. When creating multiple queues and executing printing on one printer, make sure not to use a Microsoft standard USB port and the TMSVRT port simultaneously.

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Restrictions in the environment where redirected from a server  
(Environment such as Terminal Service and the remote desktop)

1. When printing a device font with some applications, the characters may not be printed completely since the print position setting may be changed. and character may not printed.
2. Functions to print by sending the print data directly to the printer, such as WritePrinter cannot be used.
3. The properties for the printer driver cannot be set. Setting for the server reflects in that for the properties.
4. The utilities in the [Utility] tab in the properties of the printer driver cannot be used.
5. Help for the printer driver is not displayed.
6. If [Substitute All] is executed by selecting the [Printer Settings] tab - [TrueType Font Substitution] - [Advanced settings] - [TrueType Font Substitution] settings under the terminal service environment, the print result may get garbled. In such a case, replace the fonts individually or print it as a graphic.

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## Printing

1. Print data outside of the printable area will not be printed.
2. When printing on receipt paper, blank space appears at the top of the paper which is greater than the top margin setting value. This is caused by the fact that the paper cutting position (autocutter) and the printing position (printer head) are separated and the distance between them results in extra margin.
3. Device fonts cannot be used in rotated, condensed or enlarged printing. Use Windows fonts.
4. If a device font and graphics data (Windows font or ruled line, etc.) are defined on the same line, the print result may be misaligned.
5. Euro currency symbol cannot be printed.
6. The paper size displayed in the printer driver Properties - [General] tab may differ from what is stated in the "Printer Specification." In such cases, select the paper size stated in the user's manual.
7. With Windows 8/ Windows 7/ Vista/ XP, printing of codes 80H, 8EH, or 9EH from an application when device Font A or B, or blank page Font A or B [255] is specified may not operate correctly.
8. [Separator Page] in the printer driver Properties - [Advanced] tab is not available.
9. With some applications, several device font size options are displayed, however, device font is always printed in a fixed size regardless of your size selection.
10. With some applications, print settings such as "Collate" and "Orientation" configured on the application side may differ from the printer driver settings. In such cases, the settings on the application side take priority. However, it is not possible to print beyond the device's capabilities. (For example, printing in landscape format using device font)
11. Even when you specify bold or italic font settings, it will not be reflected in the printings. The underline is printed but the position is offset.
12. The color format is fixed to 24 BPP. So check that dmColor setting for Devmode is set to "Color" on the application side.
13. When water mark and 2-D symbol are used in a single data, the printout could be misaligned (displaced).
14. When you print a narrow width Barcode with a high-resolution device, all of the HRI characters may not be printed. In such case, specify narrow width fonts; FontB/C for the HRI characters.

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15. If you manually remove printed paper when the paper source selection is set to [No Eject] with the slip driver, the following printing will not be performed correctly.  
In that case, turn off the power of the device, and then turn it on again.
  16. If you print color logos with a device that does not support color printing of slip/validation/endorsement and so on, only the black parts will be printed.