EPSON
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Advanced Printer Driver 6

Printer Manual

M00116000
Rev.A

Before Use

This chapter describes the information that users need to know before using the EPSON Advanced Printer Driver 6 ("APD6" below).

APD6 Packages

APD6 consists of the following packages.

- Printer driver package
  These packages are prepared for each TM printer model. Installing the printer driver enables easy printing from software applications. The following manuals are provided.
  - Install Manual
    This describes APD6 installation, TM printer registration, and how to automatically install the printer driver.
  - Printer Manual (this manual)
    This describes the APD6 setting procedures and functions.
  - Printer Specification
    This describes the printer driver specifications for each TM printer model.
- Status API package
  This is a special package in APD6 for all TM printers. This must be installed when developing applications that control TM printers using Status API and when APD6 coexists with other Epson drivers. The following manuals are provided.
  - Status API Manual
    This describes how to use Status API to obtain the status of a TM printer from a software application. For the specifications of the APIs available for each TM printer model, see the "Printer Specification" manual contained in the printer driver package.
- Sample program package
  This is a special package in APD6 for all TM printers. This contains sample programs and sample code for developing applications for printing and control of TM printers. Although no manual is provided, it contains HTML files that describe the programs.

Download

For customers in North America, go to the following web site:
www.epson.com/support/
For customers in other countries, go to the following web site:
https://download.epson-biz.com/?service=pos

Meaning of Symbols

 **NOTE**	Indicates supplementary explanations and information you should know.

Assumptions Used in This Manual

- The screens in this manual use the display screens from Windows 10.
- The screen setting items may vary depending on the TM printer model and current settings.

Contents

APD6 Overview

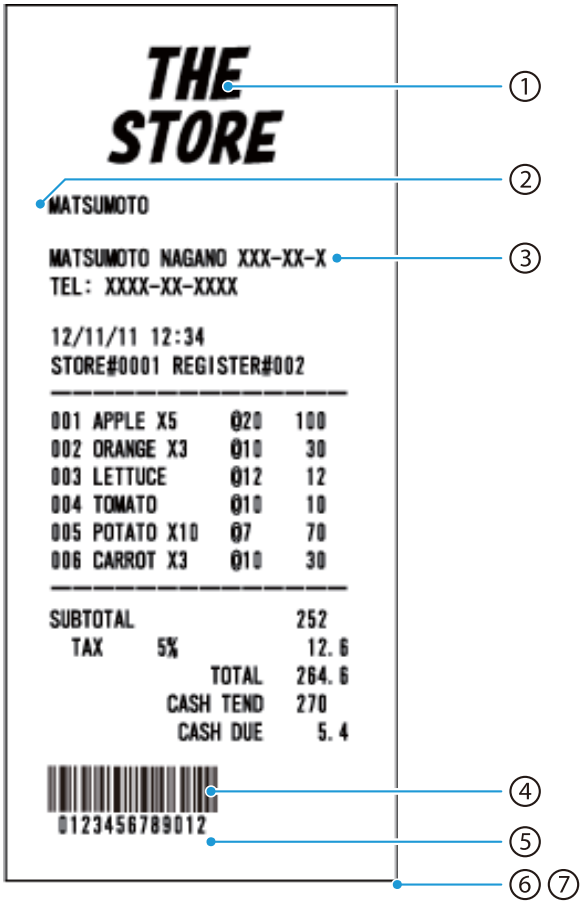
APD6 Features

The EPSON Advanced Printer Driver Version 6 ("APD6" below) is a Windows printer driver for Epson TM printers. APD6 has the following features.

- Enables printing with TM printers from commercially-available applications in the same way as typical Windows printer drivers. (page 10)
- Enables control of auto-cutter and cash drawer without requiring any programming. (page 12, page 14)
- Enables high-quality printing from applications of barcodes (page 36) and 2D symbols (page 41) that match the resolution of the TM printer.
- Enables use from applications of control fonts (page 46) and controlA fonts (page 47) where the user has embedded an ESC/POS command in control characters.
- Enables use of device fonts in the TM printer for printing from .NET environment applications.
- Enables printing in device fonts by using APD6 to convert the font name specified in the user application. (page 27)
- Enables adjustment of the print results while minimizing the changes in user applications such as text size and font settings. (page 29)
- Enables sending of ESC/POS command for each page at the start and end of printing without requiring any programming. (page 49)

Printing Examples

Printing is performed by combining APD6 with the TM printer functions. Printing examples and functions are shown below.



No.	Function	Printing method
1	Logo Printing	A dedicated TM printer utility is used to set to the TM printer. Because the print position and timing are set by the utility, these do not need to be set in APD6.
2	Print start position	This can be set when you want to increase the margin for the print start position. In the default setting, the margin is set to the minimum value. (page 18)
3	Font	This does not need to be set unless device fonts will be used in the same way as in commercially-available applications. This is set when an application will print using a device font. (page 27)
4	Barcode	This enables printing of barcodes, QR codes, and other 2D symbols at a resolution matching the TM printer. The barcode and 2D symbol font are registered to APD6, and the character string to be printed is specified from the application and printed. (page 33)
5	Paper reduction	The dedicated TM printer utility is used to set the space between lines and space at the front and back. Although the top and bottom margins of the print data can be set in APD6, the margins within the data cannot be set in APD6.
6	Cash Drawer	This is set in APD6. (page 14)
7	Auto-cutter	This is set in APD6. (page 13)

OS Differences

The OS procedures in this manual are described using Windows 10. Refer to the following table for the operating procedures when using other OSes.

Item	Description
Devices and Printers	Windows 10 [Start] – [Control Panel] – [Hardware and Sound] – [Devices and Printers] or [Start] – [Settings] – [Devices] – [Printers & scanners] Windows 8.1/ Windows 8 [Desktop] – [Settings] – [Control Panel] – [Hardware and Sound] (or [Hardware]) – [Devices and Printers] Windows 7 [Start] - [Control Panel] – [Hardware and Sound] – [Devices and Printers]

Operating Procedures

This chapter describes the basic operating procedures for the functions provided in APD6.

Opening the Setting Screen

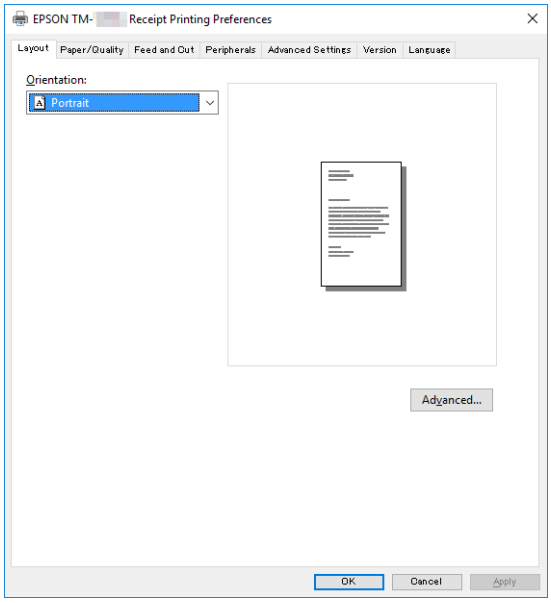
To launch the APD6 setting screen, perform the following procedure.

NOTE	This can also be launched from the print screen of the application. For details, see the manual for your application.

1 **Select [Start] - [Settings] - [Devices] - [Printers & scanners].**
The printers and devices registered in the computer are displayed.

2 **Select the TM printer, and click [Manage] - [Printer Properties].**
The [Properties] screen appears.

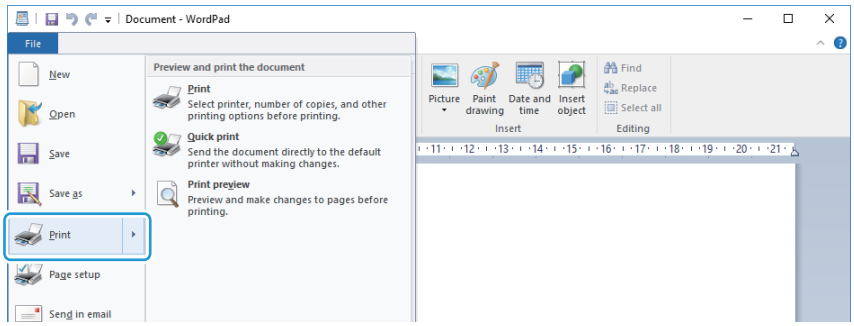
3 **Click [Preferences].**
The [Printing Preferences] screen appears.



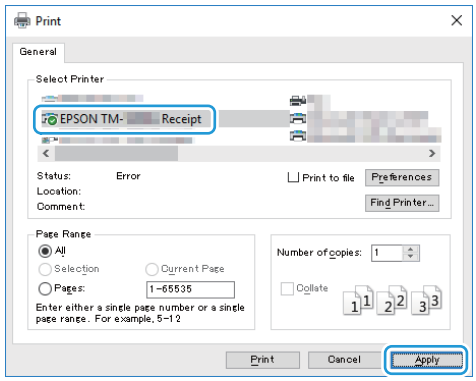
Application Printer Settings

This explains the initial settings for printing from a Windows application to a TM printer.
The TM printer model and paper are set from your application. This example is explained using WordPad.
From the [Start] menu, launch WordPad by selecting [All Programs] - [Accessories] - [WordPad].

1 **Click [File] - [Print].**
The print dialog box is displayed.



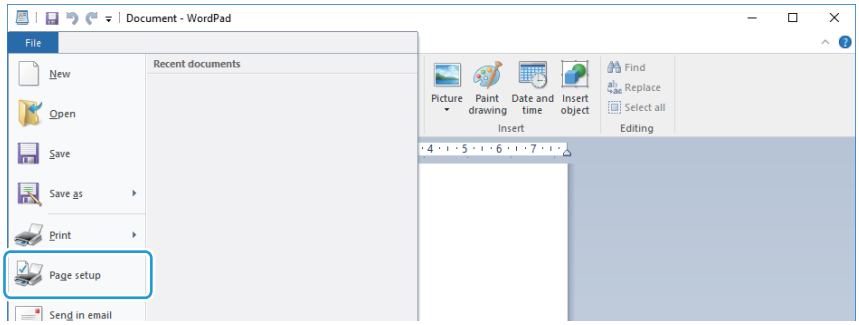
2 **Select the printer that will be used, and click [Apply].**



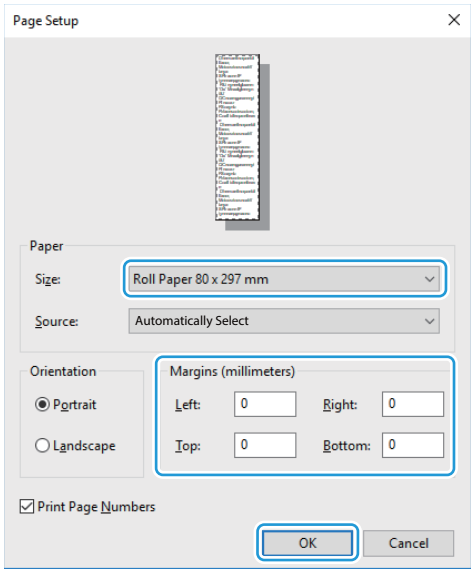
3 **Click [Cancel].**
This returns to the WordPad screen.

4 Click [File] - [Page setup].

The Page Setup dialog box is displayed.



5 Set the paper and margins, and click [OK].



The paper width in WordPad is the paper width that was selected in Page Setup.

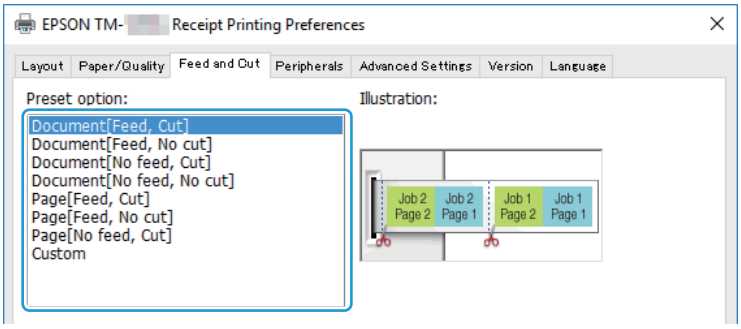
Paper Feed and Cut Settings

This shows how to set the timing of auto-cut and paper feed before and after printing. Use the following procedure to make the settings.

1 **Select the [Feed and Cut] tab from Printing Preferences.**

2 **Select a cut and paper feed method from the settings displayed in the [Preset option] list, and click [OK].**

Select by referring to the illustration of the paper feed and cut displayed in [Illustration].

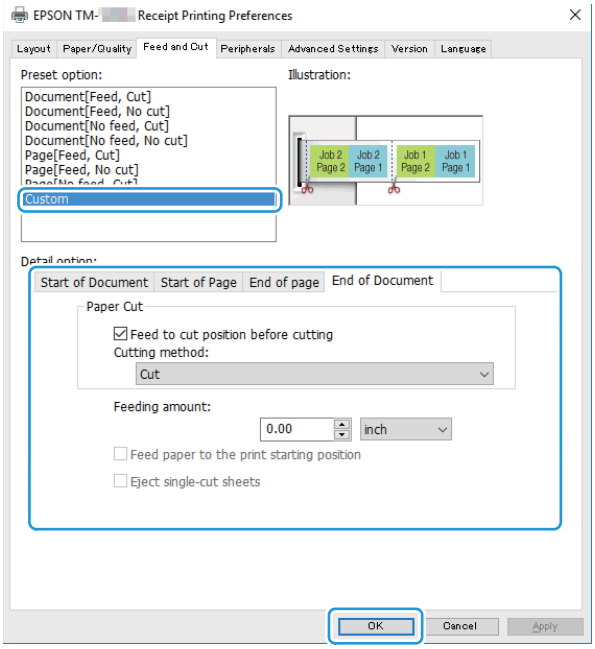


Item	Description
Feed	After the document is printed, paper is fed to the cut position of the auto-cutter.
No feed	After the document is printed, paper is not fed. If the paper is cut in this state, the print data may be cut off.

Customizing the Paper Feed and Cut

Customization can be used to perform operations that are not preset, such as specifying of the paper feed length and changing of the control timing.
Use the following procedure to make the settings.

1 **Select "Custom" from the [Preset option] list.**



2 **Select the control timing from the [Detail option] tab to set up the operation. The settings are described in the following table.**

Item		Description
Timing	Document Start	When the document starts printing
	Page Start	At the beginning of each page in the document
	Page End	At the end of each page in the document
	Document End	When the document finishes printing
Operation	Feed to cut position before cutting	When a check mark is inserted, paper is fed to the cut position of the auto-cutter.
	Cutting method	If "No cut" is selected, the auto-cutter is disabled.
	Feeding amount	The feed length can be specified in millimeters.
	Feed paper to the print starting position	When a check mark is inserted, paper is fed to the top position.
	Eject single-cut sheets	When a check mark is inserted, single cut sheets are discharged.

3 **Click [OK].**

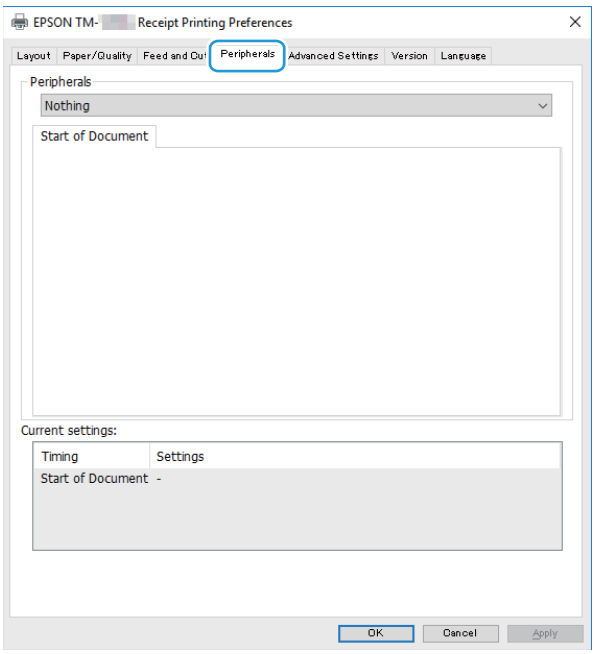
Peripheral Device Operation Settings

This is used to set the operations for the TM printer peripheral devices such as the cash drawer.

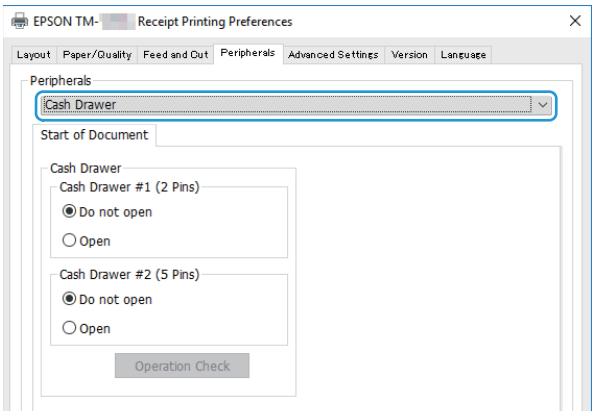
Setting Procedure

Use the following procedure to make the settings.

1 **Select the [Peripherals] tab from Printing Preferences.**

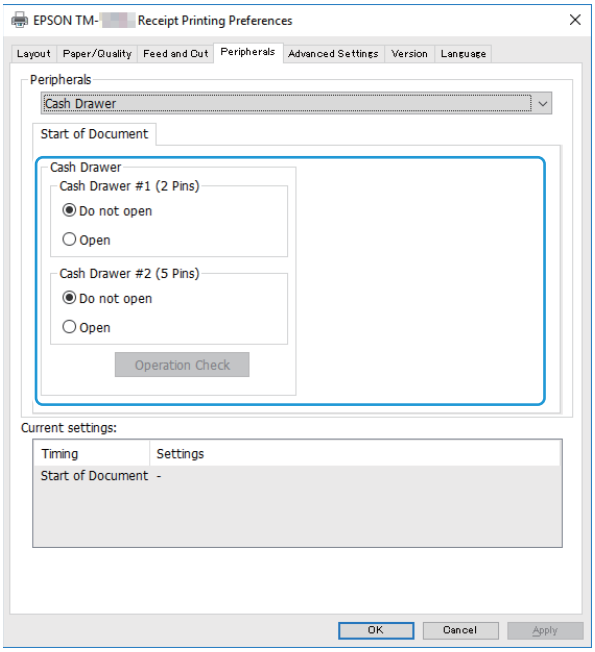


2 **From the [Peripherals] pull-down list, select the combination of peripheral devices to be connected to the TM printer.**



3 Make the settings for the peripheral devices.

The settings are described in the following table.



Peripheral device	Setting item	Description
Cash Drawer #1 (2 pin)	Do not open	Drawer #1 (2 pins) does not open.
	Open	Drawer #1 (2 pins) opens.
Cash Drawer #2 (5 pin)	Do not open	Drawer #2 (5 pins) does not open.
	Open	Drawer #2 (5 pins) opens.

4 Check the information under [Current settings], and click [OK].

User Defined Paper

Fixed-size and other paper can be printed by setting user-defined paper. The print data cannot be enlarged or reduced in size to fit the paper width of the TM printer.

Use the following procedure to register the user-defined paper.

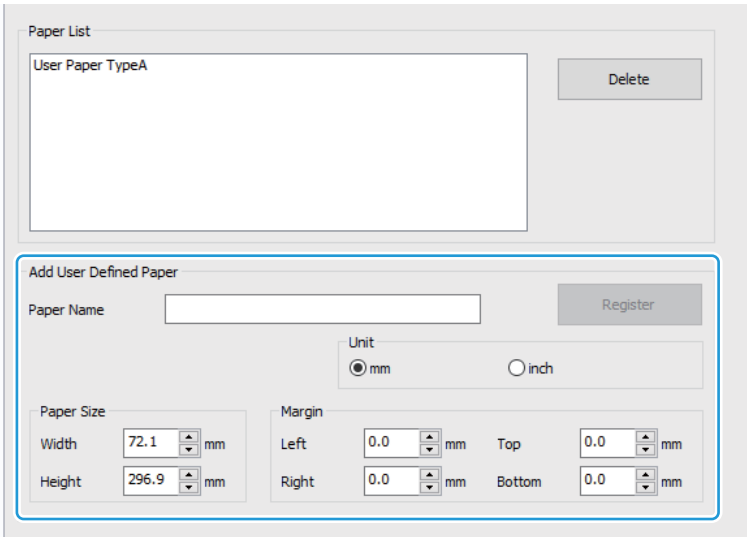
1 **Select [Start] - [Settings] - [Devices] - [Printers & scanners].**
The printers and devices registered in the computer are displayed.

2 **Select the TM printer, and click [Manage] - [Printer Properties].**
The [Properties] screen appears.

3 **Click [Preferences].**
The [Printing Preferences] screen appears.

4 **Select the [Advanced Settings] tab, and click [Advanced Settings].**
The APD6 Utility is launched.

5 **Select [User Defined Paper], and make the following settings.**



Item	Description
Paper Name	This is the name of the user-defined paper. This name is displayed in Printing Preferences - [Layout].
Unit	This specifies the units of the paper width setting.
Paper Size	This specifies the size (width, height) of the user-defined paper.
Margin	This specifies the margin (top, bottom, left, and right) of the user-defined paper.

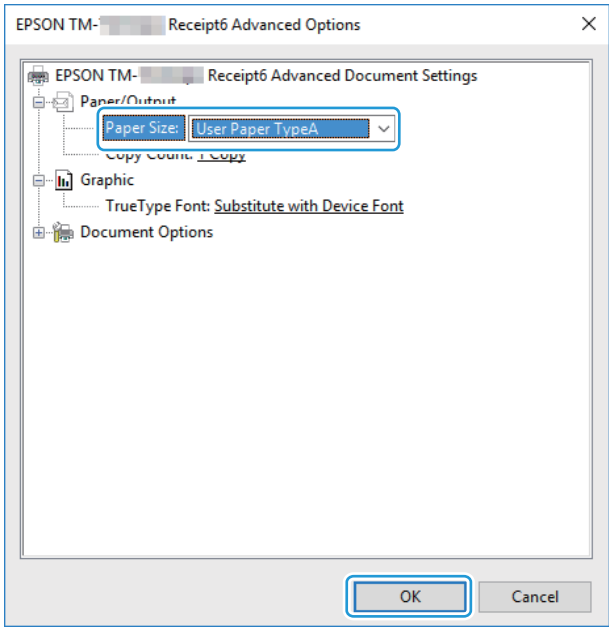
6 **Click [Register].**
The user-defined paper that was set in step 5 is registered and appears under [Paper List].

7 **Close the APD6 Utility and [Printing Preferences].**

8 **The [Printing Preferences] screen appears again.**

9 **Select the [Layout] tab, and click [Advanced].**
This displays the Advanced Document Settings screen for the TM printer.

10 **Select the user-defined paper that was registered from Paper Size, and click [OK].**



Print Layout

Print Start Position Settings

The print start position can be shifted without making any changes in the application.

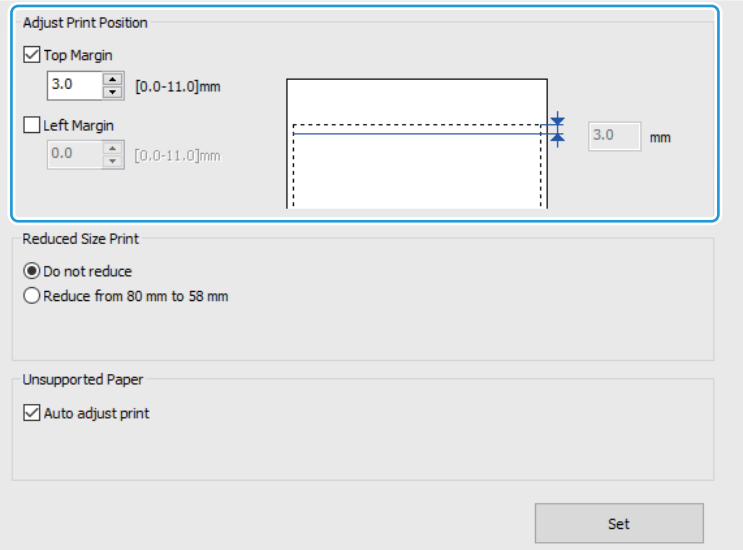
Use the following procedure to set the print start position.

NOTE	This function is for setting margins and adjusting the layout of the printing area of the TM printer. Margins cannot be reduced after they have been set.

1 **Launch the APD6 Utility.**

2 **Select [Layout].**

3 **Insert a check mark for the locations where the margin will be changed, and specify the value.**



4 **Click [Set].**

Printing 80 mm Width Layout on 58mm Width Paper

The layout can be printed at a reduced size on 58 mm width paper without making any changes in the application for the 80 mm width print layout.

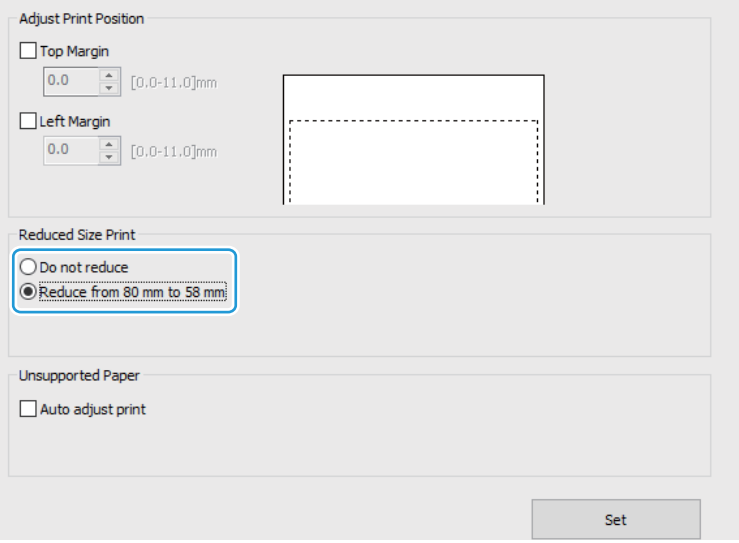
NOTE	This function may not be supported for some TM printer models.

Use the following procedure to set reduced size printing.

1 **Launch the APD6 Utility.**

2 **Select [Layout].**

3 **Select whether reduced size printing will be used.**



4 **Click [Set].**

Printing with the Paper Settings from an Application

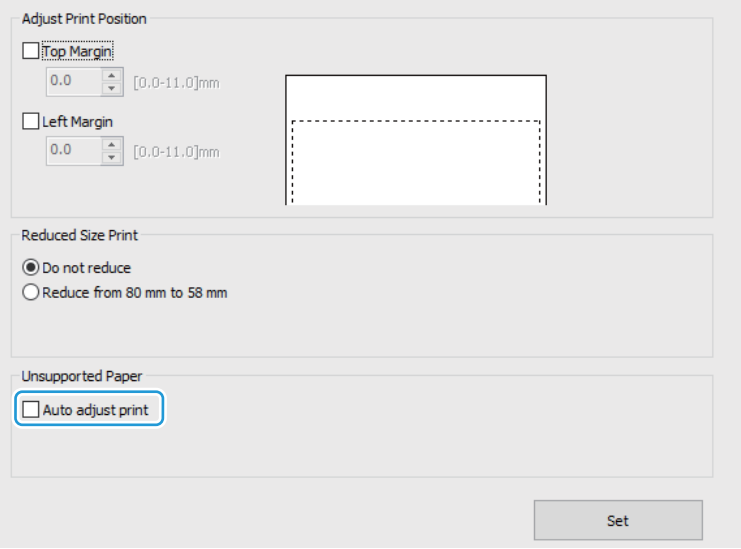
APD automatically adjusts the layout to enable printing even for paper sizes that are not set in APD. This enables you to print with the application settings without using this function.

NOTE	This function may not be supported for some TM printer models.

1 **Launch the APD6 Utility.**

2 **Select [Layout].**

3 **Remove the check mark from [Auto adjust print] under Unsupported Paper. (A check mark is inserted in the default setting.)**



4 **Click [Set].**

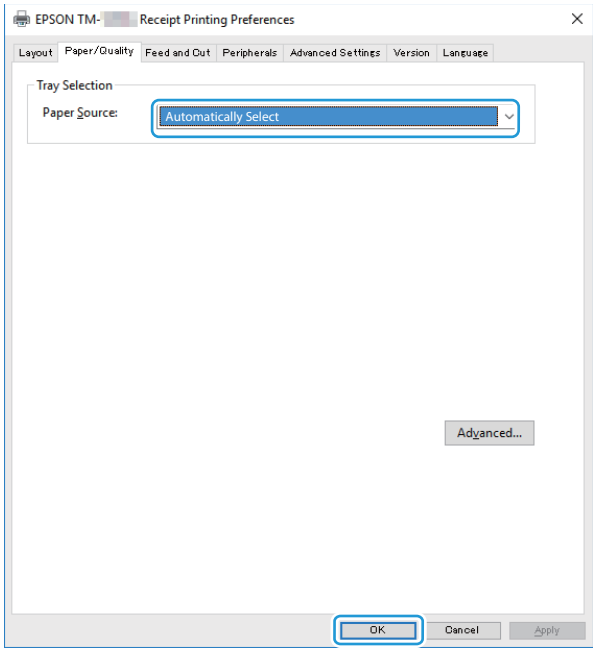
Paper Reduction Settings

You can save paper by reducing the margins at the top and bottom of receipts. In the default setting, the top and bottom margins are reduced.

Use the following procedure to set paper reduction.

1 **Select the [Paper/Quality] tab from Printing Preferences.**

2 **From the [Paper Source] pull-down list, select the setting. After selection, click [OK].**



NOTE	If [Automatically Select] is selected, the position where the margin is reduced is the bottom of the receipt even if it is rotated by 180°.

Print Quantity Settings

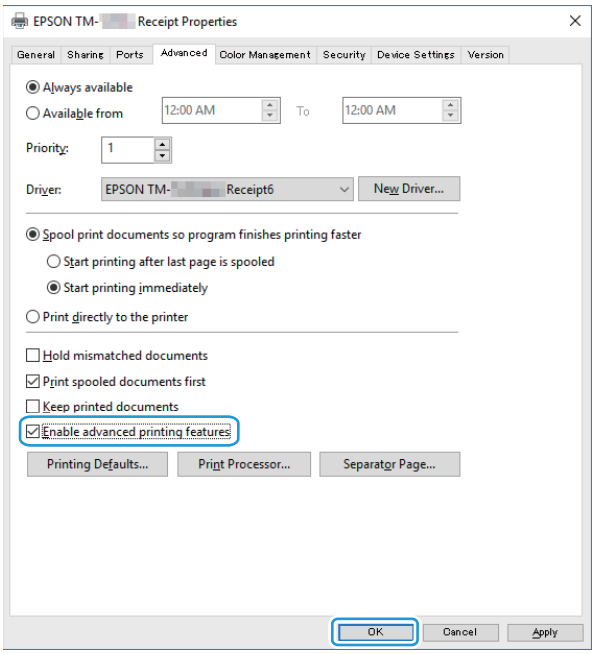
To print the same document multiple times, enable the advanced settings, and set the print quantity.
Use the following procedure to set the print quantity.

1 **Select [Start] - [Devices and Printers].**

2 **Right-click the TM printer, and select [Printer Properties].**

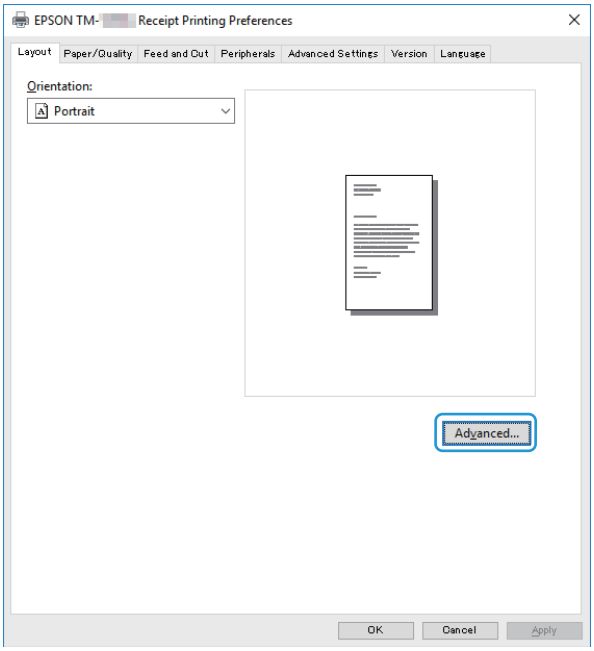
3 **Select the [Advanced] tab.**

4 **Insert a check mark for [Enable advanced printing features], and click [OK].**

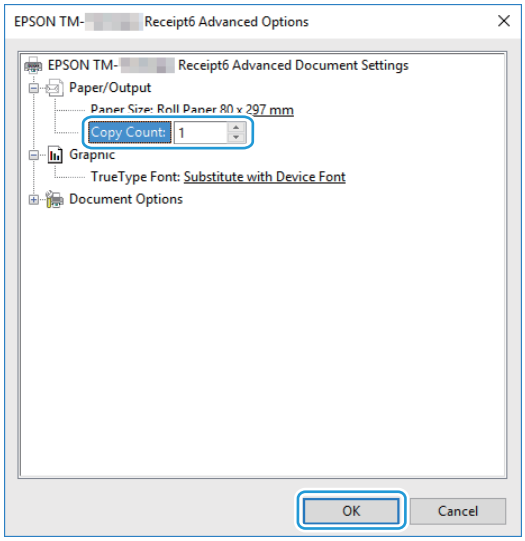


5 **Select the [Layout] tab from Printing Preferences.**

6 **Click [Advanced].**



7 **Enter the number of copies to be printed under Copy Count, and click [OK].**



Device Fonts

Device fonts are a font set that is built into the TM printer.

NOTE	• The device fonts vary depending on the TM printer model. For details, see "Printer Specification". • For details on the number of dots in device fonts, see the Technical Reference Guide for the respective TM printer.

Device fonts provide fonts for each character size. Like TrueType fonts, the character size is specified by selecting a font instead of specifying a point size separately from the font.

The available sizes of the device fonts are shown in the following table.

Width/Height	Standard	Double (2x)	4x
Standard	FontA11	FontA12	
Double (2x)	FontA21	FontA22	FontA24
4x		FontA42	FontA44

- Printing Device Fonts in a Win32 Environment
- Printing Device Fonts in a .NET Environment

Printing Device Fonts in a Win32 Environment

Device fonts can be specified directly in Win32 environment applications.

Use the following procedure to print in applications.

1 **Set the following items in the print data of the application.**

- Device font
- Points
- Language

NOTE	The points specified may vary even with the same font depending on the TM printer model. The points of the device font can be confirmed by launching the APD6 Utility and selecting the device font to be used from the fonts in [Font Replacement] - [True Type Font Substitution].

2 **After making the settings, execute printing.**

Printing Device Fonts in a .NET Environment

Device fonts cannot be used directly in .NET environment applications. The font replacement function in APD6 can be used to enable printing using device fonts even from .NET environment applications.

Setting Procedure

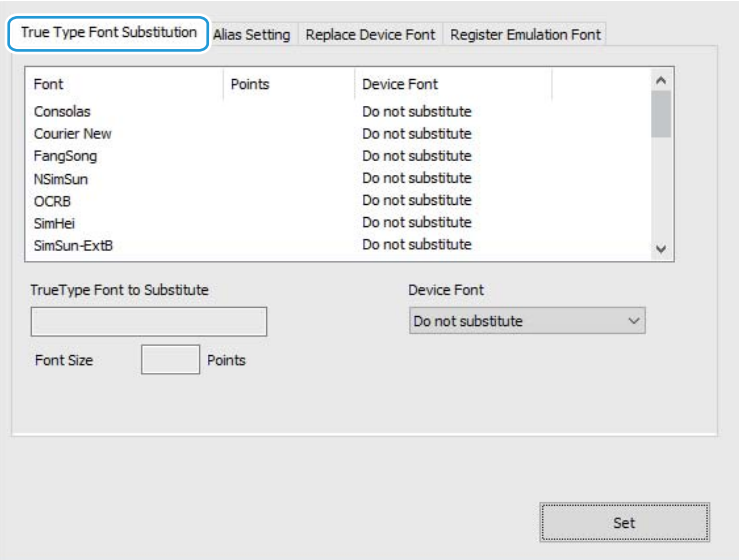
Use the following procedure to set font replacement.

1 **Launch the APD6 Utility.**

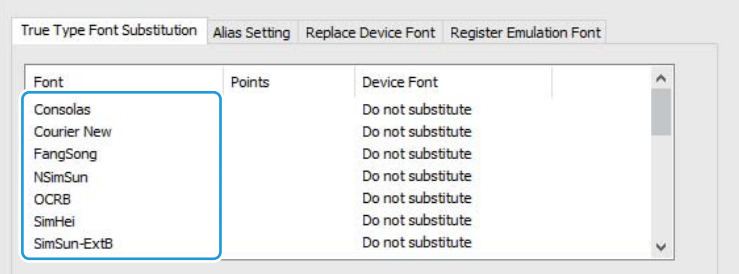
2 **Select [Font Replacement].**

3 **Select the [True Type Font Substitution] tab.**

The registered TrueType fonts are displayed in a list.

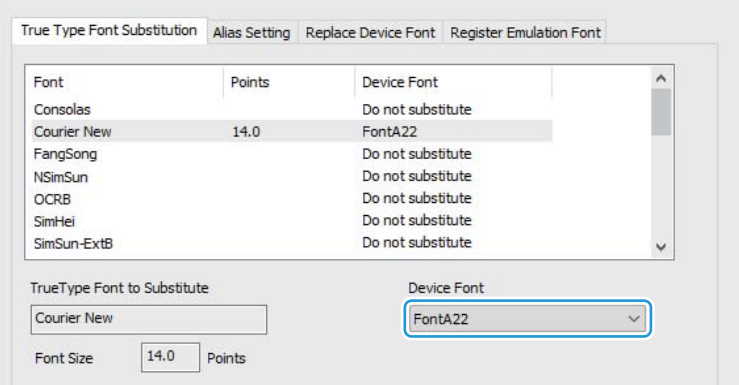


4 **From the list, select a TrueType font that will be replaced.**



NOTE	The original TrueType font will print the device font only. For this reason, select a TrueType font that is not used in applications.

5 **Specify the device font that will replace the selected font from the [Device Font] pull-down list.**



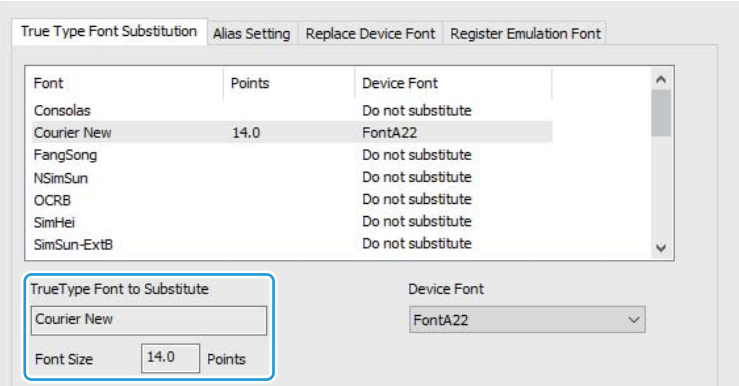
6 **Click [Set].**
This completes the font replacement setting.

Printing

Use the following procedure to print in applications.

1 **Input the print data from an application. Set the following items in the print data.**

Item	Setting value
Font	TrueType font used to replace a device font (This can be confirmed from the screen below in the APD6 Utility.)
Points	Points displayed in the setting screen for the device font (This can be confirmed from the screen below in the APD6 Utility.)
Language	Western



NOTE	If a point setting besides those in [Font Size] above is used, the correct printing result may not be obtained.

2 **After making the settings, execute printing.**

Setting an Alias Name to a Font

An alias name can be set for a device font. This enables printing using a device font without changing the font name in the application.

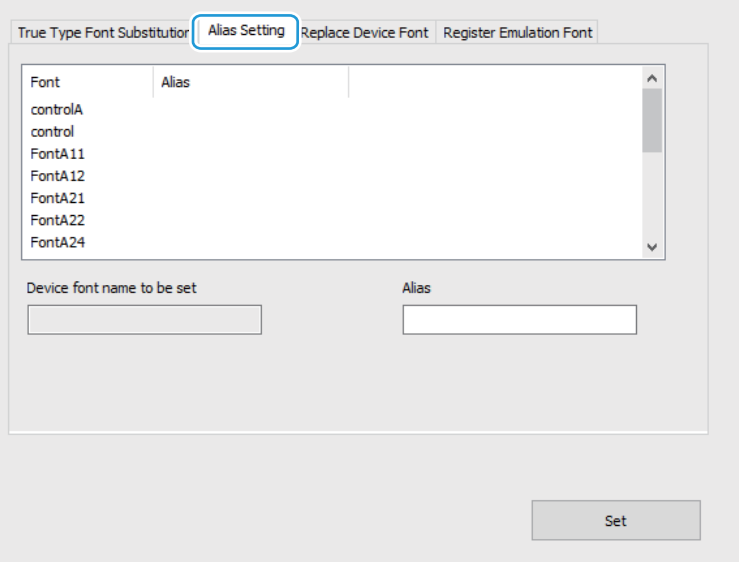
NOTE	Alias names can be specified when registering the fonts for barcode fonts and 2D symbol fonts. For details, see "Barcode Font Settings" on page 33 and "2D Symbol Font Settings" on page 39.

Use the following procedure to set the alias name.

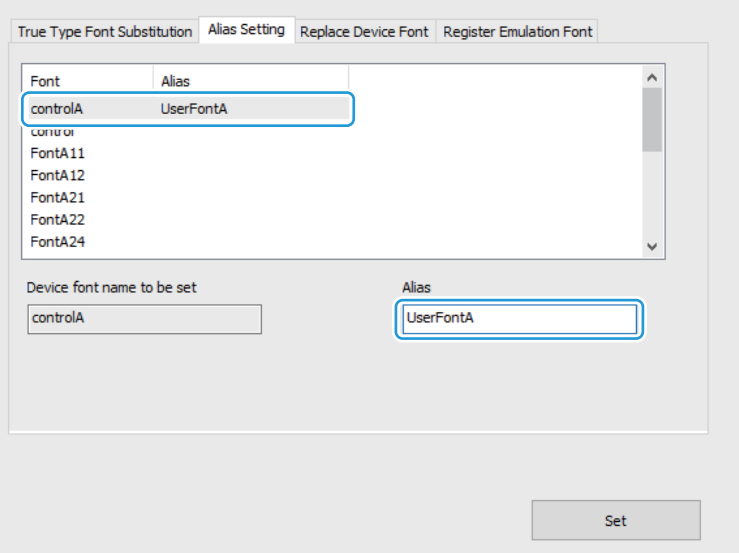
1 **Launch the APD6 Utility.**

2 **Select [Font Replacement].**

3 **Select the [Alias Setting] tab.**



4 **Select the device font that will be set with an alias, and enter the alias name in the [Alias] text box.**



5 **Click [Set].**

Creating an Emulation Font

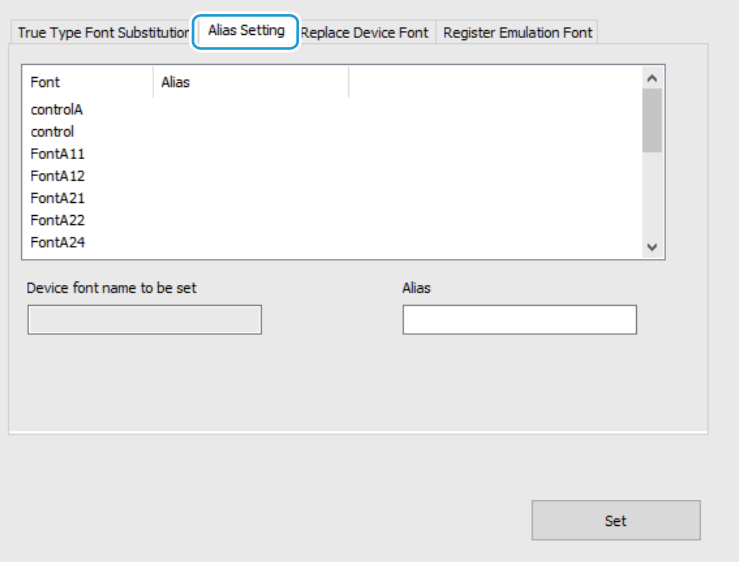
The font size (dot units for width and height) and font type (TrueType font) can be specified to match the number of columns to be printed.

Use the following procedure to create an emulation font.

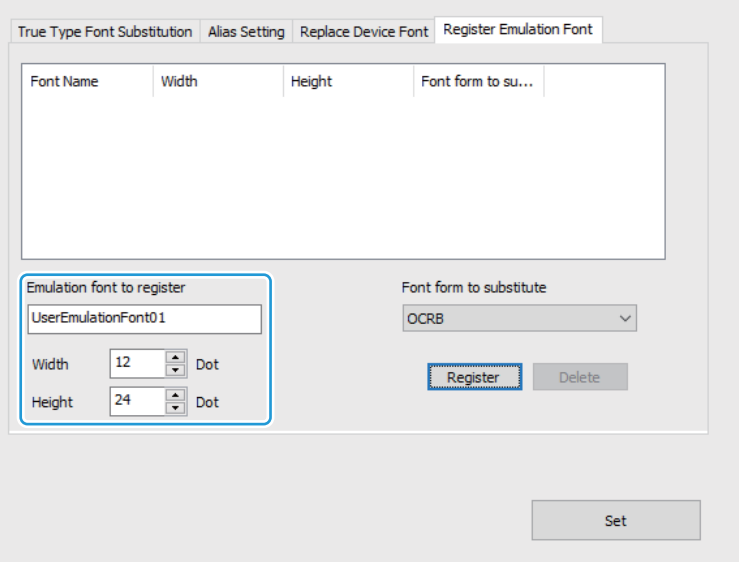
1 **Launch the APD6 Utility.**

2 **Select [Font Replacement].**

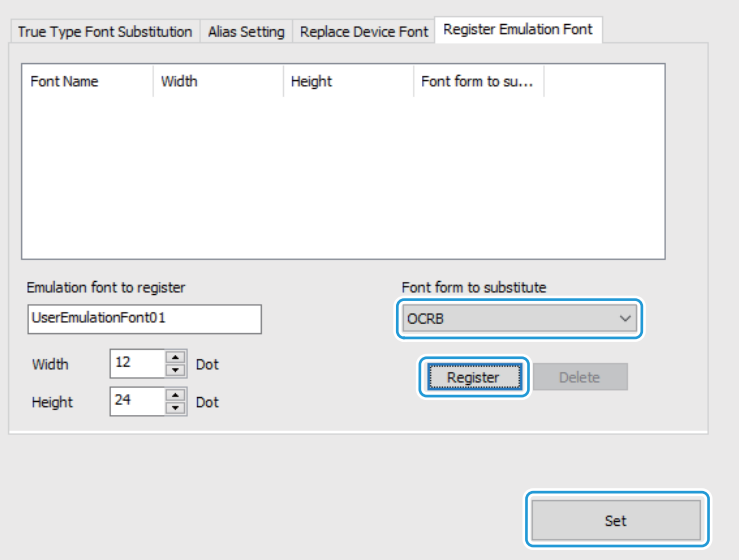
3 **Select the [Register Emulation Font] tab.**



4 **Enter a font name into the [Emulation font to register] text box, and specify the size.**



5 **Select a TrueType font to be replaced from the [Font form to substitute] pull-down list, and click [Register].**



6 **Click [Set].**

Device Font Replacement Function

This function replaces a device font with a TrueType font when printing. When the device font is replaced, this function prints by adjusting the TrueType font to the character size of the device font for minimizing any imbalance in the character layout. This is useful when the printing layout is not formatted correctly due to subtle differences in font size.

Use the following procedure to set device font replacement.

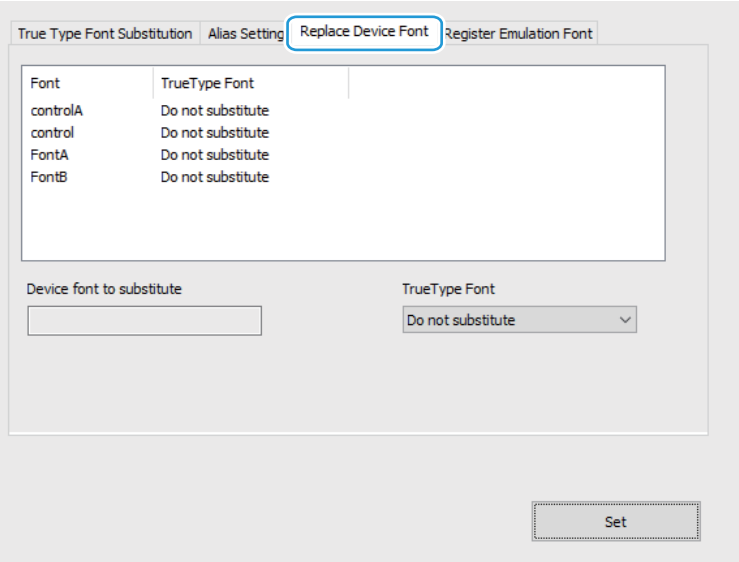
1 **Launch the APD6 Utility.**

2 **Select [Font Replacement].**

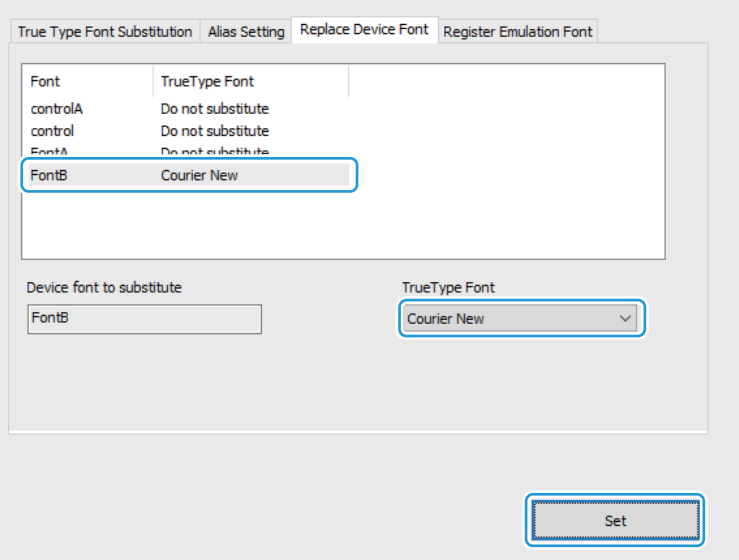
3 **Select the [Replace Device Font] tab.**

A list of replaceable device fonts appears.

NOTE	APD6 displays a list of monospaced fonts only.



4 **Select a device font to be replaced from the list. Specify a TrueType font to replace this font from the [TrueType Font] pull-down list.**



5 **Click [Set].**

Barcode Printing

This shows how to set a barcode font using APD6. A barcode can be printed even without installing a barcode encoder in the application or preparing any graphic data for a barcode. This enables printing of barcodes with high scanning accuracy compared to setting barcode data in an application.

NOTE	To use barcodes in a .NET environment, see "Using Barcodes in a .NET Environment" on page 37.

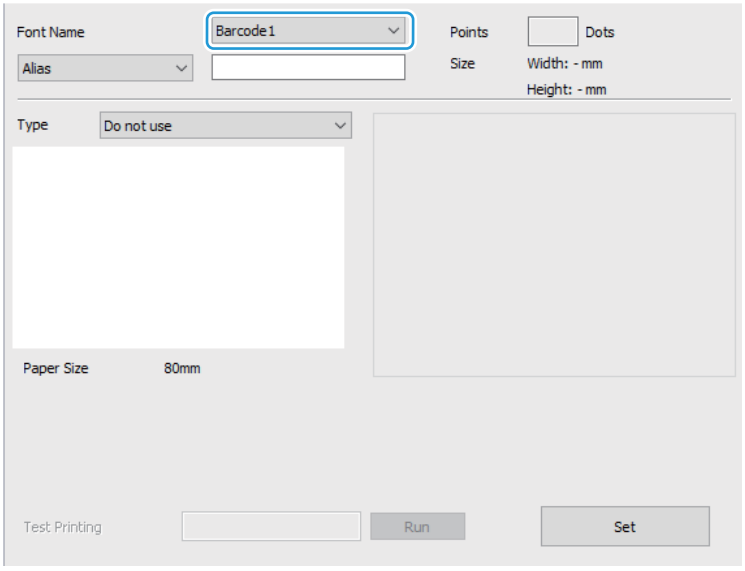
Barcode Font Settings

This shows how to set a barcode font using the APD6 Utility.
Use the following procedure to set the barcode font.

1 **Launch the APD6 Utility.**

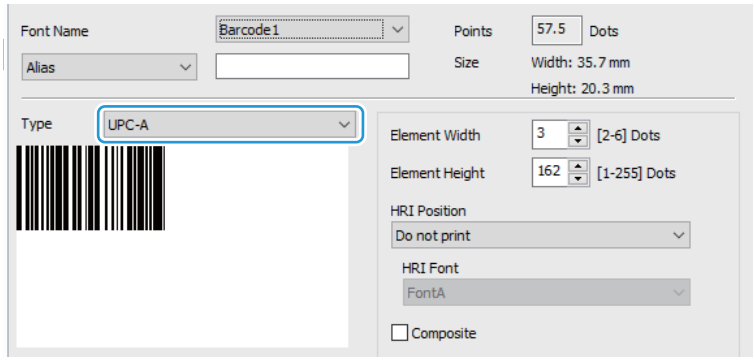
2 **Select [Barcode].**

3 **Select one of [Barcode 1] to [Barcode 8] from Font Name.**

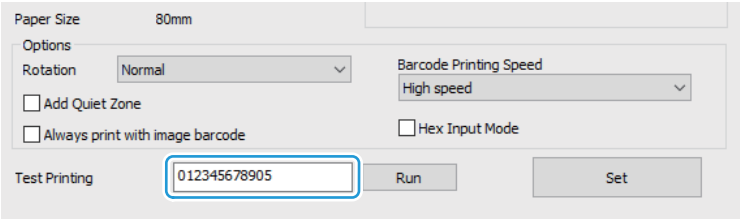


NOTE	Any alias name can be set to the barcode font (Barcode 1 to Barcode 8). To set, select "Alias" from the pull-down list located below the [Font Name], and set the desired alias name.

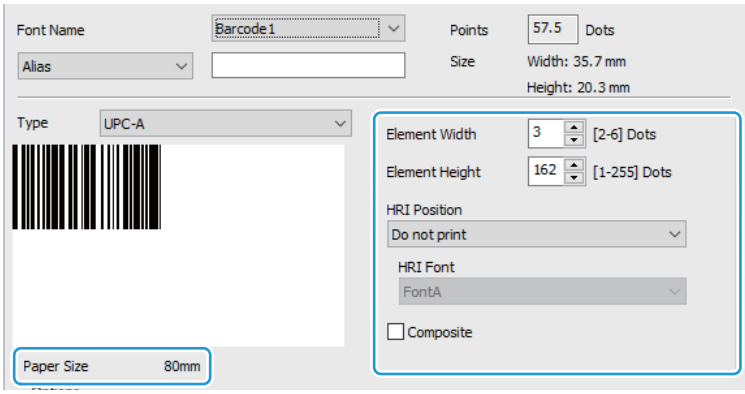
4 Select a barcode type from [Type].



5 To set a variable-length barcode, enter data containing the number of columns to be printed in [Test Printing].

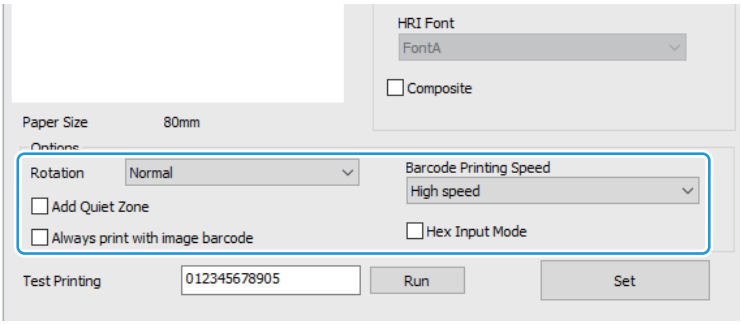


6 Check the [Size] and [Preview] sections, and configure the following settings so that the barcode fits within [Paper Size].



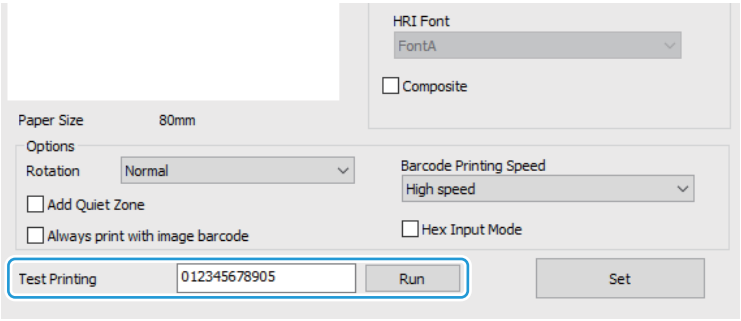
Item	Description
Element Width	This specifies the width of the narrowest element of the barcode. The units are the minimum dots of the TM printer. The barcode width is determined by this setting and the number of characters in the barcode. If the barcode width becomes wider than the width of the printing area of the paper, the barcode may not be printed, or the barcode may run off the paper when printing.
Element Height	This specifies the height of the barcode. The units are the minimum dots of the TM printer. The number of points of the barcode font is determined by the element height.
HRI Position	This sets whether HRI characters are printed and their position.
HRI Font	This sets the font of HRI characters.
Composite	This prints the barcode for composite symbols.

7 Set the following options for the barcode font.



Item	Description
Rotation	This sets the printing direction of barcodes.
Add Quiet Zone	When a check mark is inserted here, this creates the space needed for barcode scanning on the right and left sides of the barcode.
Always print with image barcode	When a check mark is inserted here, the barcode is always printed as an image.
Barcode Printing Speed	This sets the printing speed of barcodes. Set to a slower printing speed when the barcode cannot be scanned or when combining with [Rotation]. Select the speed from [High speed] and [Fine] depending on the TM printer type.
Hex Input Mode	When a check mark is inserted here, the barcode character string is input as a binary code.

8 To make a test print of the barcode that was set, enter the barcode data, and click [Run].

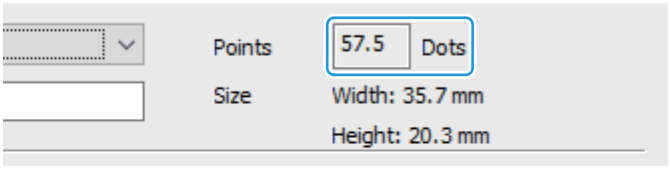


9 Click [Set].

The barcode font is registered.

Barcode Printing

1 **Input the barcode data to the print data of an application. Set the following items in the barcode data.**

Item	Setting value
Font	Barcode font (Barcode 1 to Barcode 8)
Points	Points displayed in the setting screen for the barcode font (Points displayed within the red box in the figure below) 
Language	Western

2 **After making the settings, execute printing.**

Using Barcodes in a .NET Environment

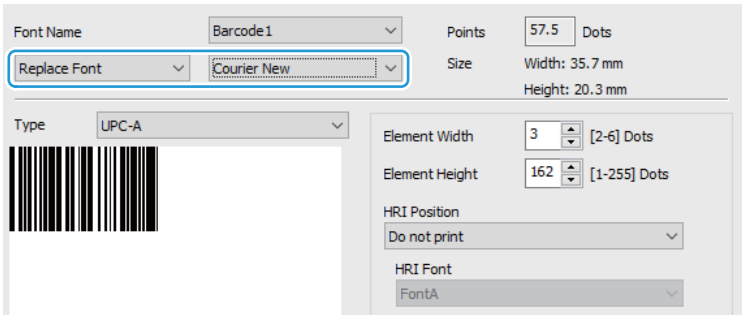
Barcode fonts cannot be used directly in .NET environments. In APD6, barcodes can be printed in .NET environments by replacing the barcode font with a TrueType font. The replaced TrueType font cannot be used to print characters.

Setting Procedure

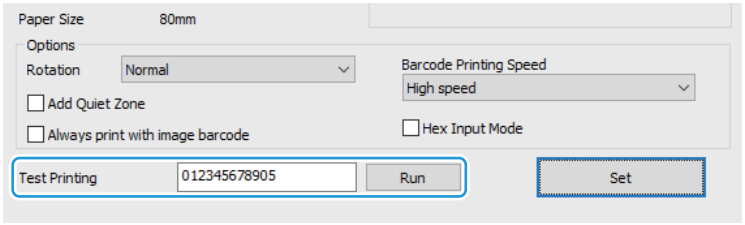
1 **Before starting, decide which font will be used to replace the barcode font.**

2 **Set the barcode font.**
(See steps 1 to 6 in "Barcode Font Settings" on page 33.)

3 **Select "Replace Font" from the pull-down list located below the [Font Name], and select a TrueType font to replace the barcode font from the pull-down list on the right.**



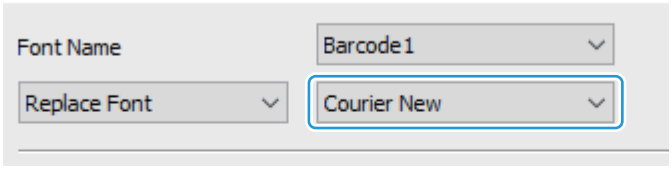
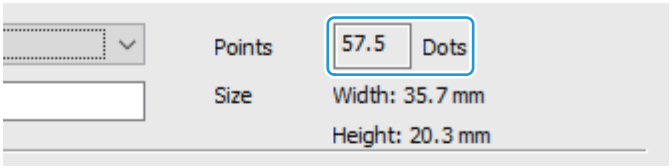
4 **To make a test print of the barcode that was set, enter the barcode data, and click [Run].**



5 **Click [Set] to register the barcode font.**

Printing

1 **Input the barcode data to the print data of an application. Set the following items in the barcode data.**

Item	Setting value
Font	TrueType font used to replace the barcode font (This can be confirmed from the screen below in the APD6 Utility.) 
Points	Points displayed in the setting screen for the barcode font (Points displayed within the red box in the figure below) 
Language	Western

2 **After making the settings, execute printing.**

2D Symbol Printing

This shows how to set the font for 2D symbols using APD6. A 2D symbol can be printed even without installing a 2D symbol encoder in the application or preparing any graphic data for a 2D symbol. This enables printing of 2D symbols with high scanning accuracy compared to setting 2D symbol data in an application.

NOTE	To use 2D symbol fonts in a .NET environment, see "Using 2D Symbols in a .NET Environment" on page 42.

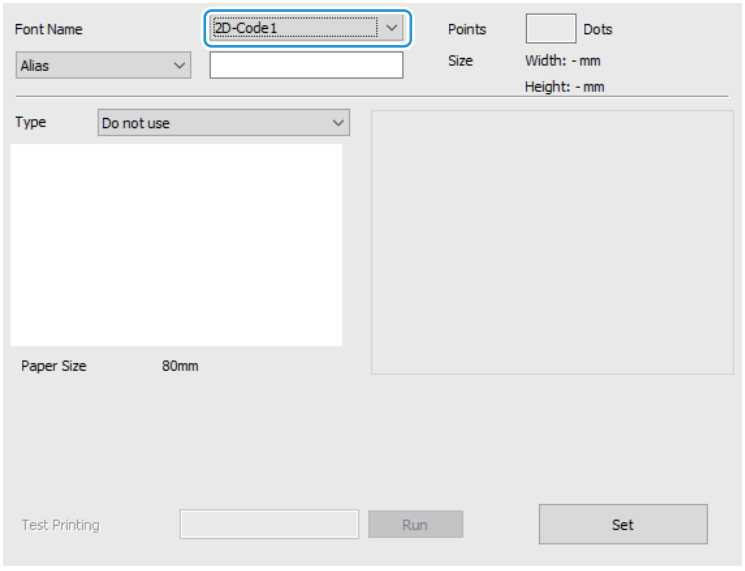
2D Symbol Font Settings

This shows how to set the font for 2D symbols using the APD6 Utility.
Use the following procedure to set the 2D symbol font.

1 **Launch the APD6 Utility.**

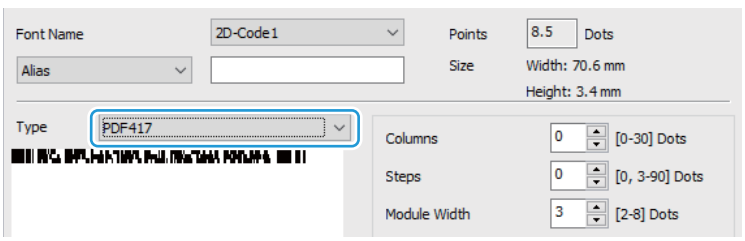
2 **Select [2-dimensional symbol].**

3 **Select one of [2D-Code 1] to [2D-Code 8] from Font Name.**

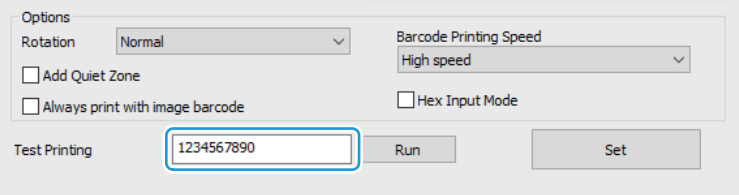


NOTE	Any alias name can be set to the 2D symbol font (2D-Code 1 to 2D-Code 8). To set, select "Alias" from the pull-down list located below the [Font Name], and set the desired alias name.

4 **Select a 2D symbol type from [Type].**

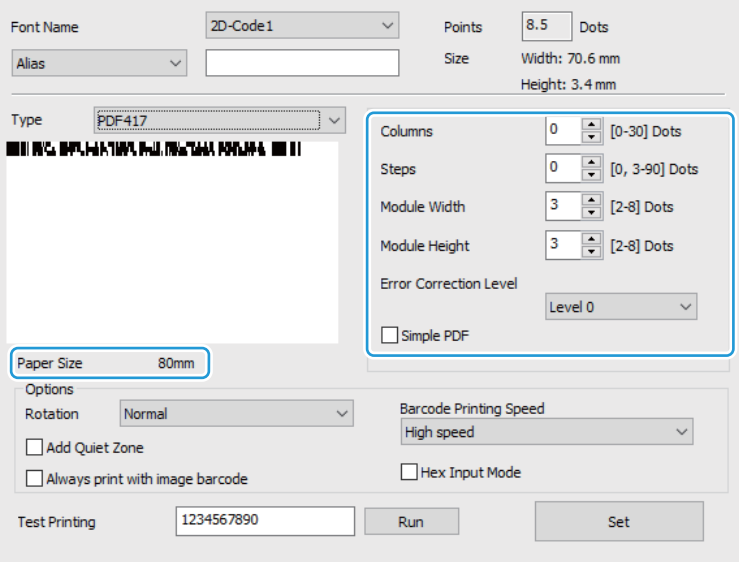


5 Enter data containing the number of columns to be printed in [Test Printing].

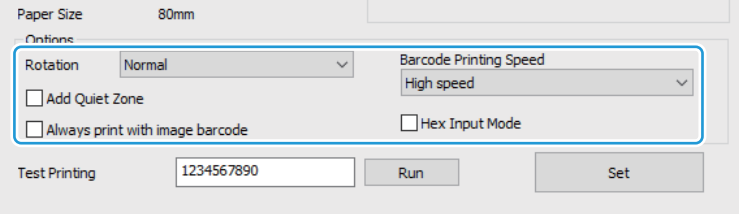


6 Check the [Size] and [Preview] sections, and configure the detailed settings so that the 2D symbol fits within [Paper Size].

NOTE	The setting items vary depending on the 2D symbol type. For details, see "Detailed Settings for 2D Symbols" on page 44.

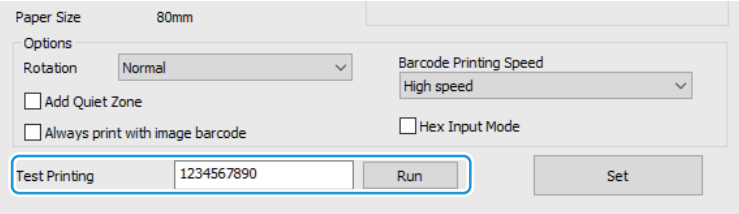


7 Set the following options for the 2D symbol font.



Item	Description
Rotation	This sets the printing direction of the 2D symbol.
Add Quiet Zone	When a check mark is inserted here, this creates the space needed for 2D symbol scanning on the top, bottom, right, and left sides of the 2D symbol.
Always print with image barcode	When a check mark is inserted here, the 2D symbol is always printed as an image.
Barcode Printing Speed	This sets the printing speed of the 2D symbol. Set to a slower printing speed when the 2D symbol cannot be scanned or when combining with [Rotation].
Hex Input Mode	When a check mark is inserted here, the 2D symbol character string is input as a binary code.

8 **To make a test print of the 2D symbol that was set, enter the 2D symbol data, and click [Run].**



9 **Click [Set] to register the 2D symbol font.**

2D Symbol Printing

1 **Input the 2D symbol data to the print data of an application. Set the following items in the 2D symbol data.**

Item	Setting value
Font	2D symbol code (2D-Code 1 to 2D-Code 8)
Points	Points displayed in the setting screen for the 2D symbol font (Points displayed within the red box in the figure below) 
Language	Western

2 **After making the settings, execute printing.**

Using 2D Symbols in a .NET Environment

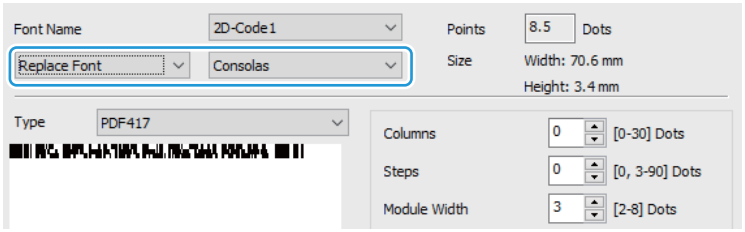
2D symbol fonts cannot be used in .NET environments. In APD6, 2D symbols can be printed in .NET environments by using the font replacement function to replace the 2D symbol font with a TrueType font (Western).

Setting Procedure

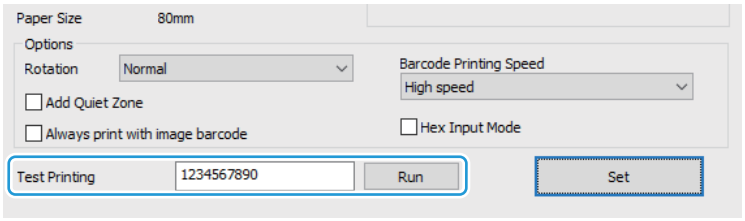
1 **Before starting, decide which font will be used to replace the 2D symbol font.**

2 **Set a 2D symbol font.**
(See steps 1 to 6 in "2D Symbol Font Settings" on page 39.)

3 **Select "Replace Font" from the pull-down list located below the [Font Name], and select a TrueType font to replace the 2D symbol font from the pull-down list on the right.**



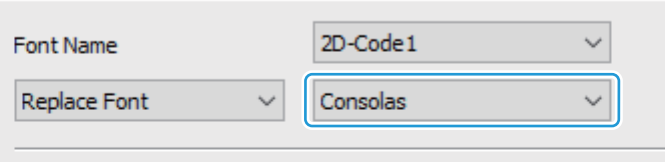
4 **To make a test print of the 2D symbol that was set, enter the 2D symbol data, and click [Run].**



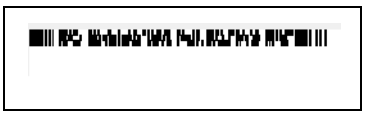
5 **Click [Set] to register the 2D symbol font.**

Printing

1 **Input the 2D symbol data to the print data of an application. Set the following items in the 2D symbol data.**

Item	Setting value
Font	TrueType font used to replace the 2D symbol code (This can be confirmed from the screen below in the APD6 Utility.) 
Points	Points displayed in the setting screen for the 2D symbol font (Points displayed within the red box in the figure below) 
Language	Western

2 **After making the settings, execute printing.**



Detailed Settings for 2D Symbols

2D symbol	Item	Description
PDF417	Columns	Sets the number of columns for PDF417 that is printed.
	Steps	Sets the number of steps for PDF417 that is printed.
	Module Width	Sets the width of the PDF417 cell (module) that is printed.
	Module Height	Sets the height of the PDF417 cell (module) that is printed.
	Error Correction Level	Sets the error correction level (0 to 8) of the PDF417. Set to a higher level when the data size of the 2D symbol is large.
	Simple PDF	Sets the 2D symbol to simple PDF.
QR Code	Model	Specifies the QR code model (Model 1, Model 2).
	Module Width	Sets the cell (module) width of the QR code model that is printed.
	Version	Specifies the QR code version.
	Error Correction Level	Sets the error correction level (Level L, Level M, Level Q, and Level H) of the QR code.
	Characters	Shows the approximate number of characters that can be used in a QR code.
MaxiCode	Mode	Specifies the MaxiCode mode (2 to 6). To select "Mode 2" or "Mode 3", insert a check mark for [Hex Input Mode].
GS1 DataBar Stacked	Module Width	Sets the GS1 DataBar Stacked model cell (module) that is printed.
	Composite	Prints the 2D symbol for a composite symbol.
GS1 DataBar Stacked Omni-directional	Module Width	Sets the GS1 DataBar Stacked Omni-directional model cell (module) that is printed.
	Composite	Prints the 2D symbol for a composite symbol.
GS1 DataBar Expanded Stacked	Module Width	Sets the GS1 DataBar Expanded Stacked model cell (module) that is printed.
	Maximum Width	Sets the maximum width of the GS1 DataBar Expanded Stacked model cell (module) that is printed.
	Composite	Prints the 2D symbol for a composite symbol.
Aztec Code	Symbol Type	Selects the Aztec Code type (Full Range Mode or Compact Mode).
	Module Width	Sets the size of the Aztec Code cell (module).
	Error Correction Level	Sets the error correction level of the Aztec Code. Higher values result in higher reproduction rates.
	Number of Layers	Specifies the number of layers for the Aztec Code.

2D symbol	Item	Description
Data Matrix	Symbol Type	Specifies the symbol type (Square or Rectangle).
	Module Width	Sets the size of the Data Matrix cell (module).
	Number of Cells	Specifies the symbol size.

Sending Commands

APD6 can control a TM printer by sending commands.

Commands are sent using the following methods.

- Using a control font to control a TM printer (page 46)
- Using a controlA font to control a TM printer (page 47)
- Using ESC/POS command to control a TM printer (page 49)

Using a Control Font to Control a TM Printer

A control font is a font where control commands of a TM printer are embedded in specific control characters. The print data from the application contains the control characters of the control font, and when these control characters are specified during printing, they perform control of the TM printer.

NOTE	The control font varies depending on the TM printer model. For details, see "Printer Specification".

Using the Control Font

1 **Specify a control font for controlling the TM printer in the print data of the application.**

2 **Set the following items for the specified control characters.**

Item	Setting value
Font	control
Points	1
Language	Western

3 **Execute printing.**

The commands defined by the control font are sent for performing control of the TM printer.

Using a ControlA Font to Control a TM Printer

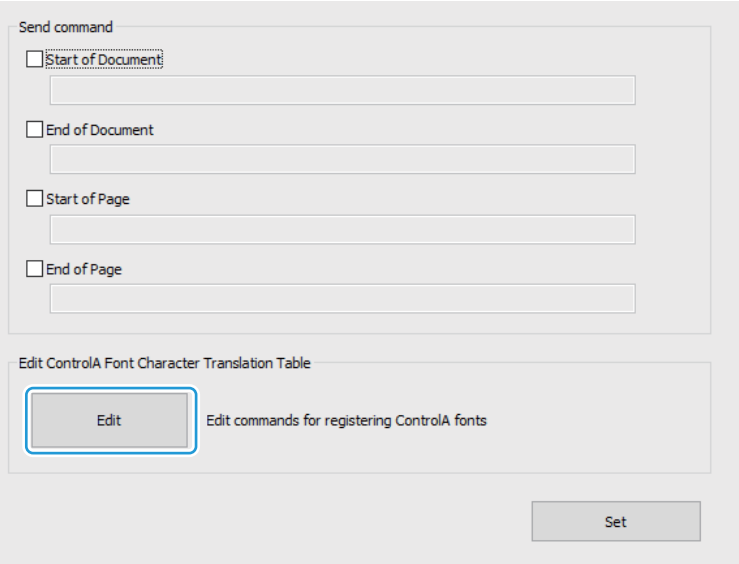
A controlA font is a font where an ESC/POS command is set to control characters selected by the user. When the control character of the controlA font is specified in the print data and printed, the ESC/POS command is executed.

ControlA Font Settings

1 **Launch the APD6 Utility.**

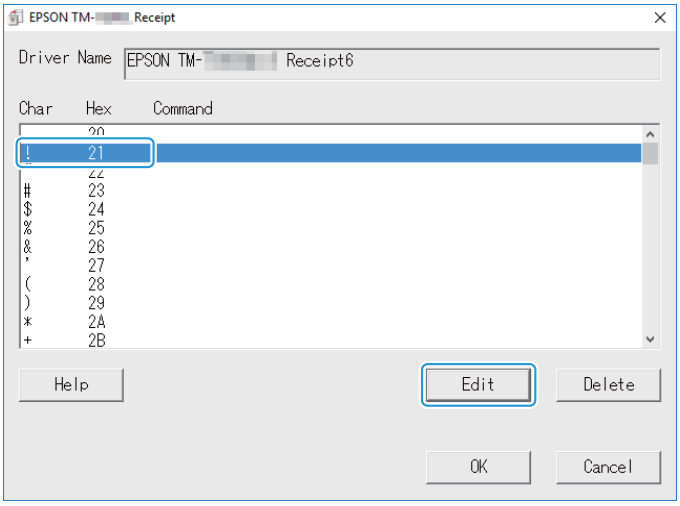
2 **Select [Send command].**

3 **Click [Edit].**

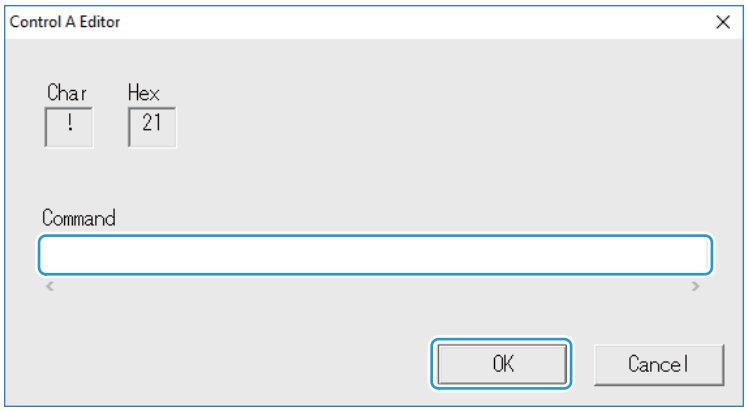


The control font setting screen appears.

4 **Select a character defined as the controlA font, and click [Edit].**
In this example, the character "!" is set as the controlA font.



5 **The Control A Editor is opened. Enter the ESC/POS command in hexadecimal format into the [Command] text box. After entry, click [OK].**



6 **This returns to the Utility screen. Click [OK].**

7 **This returns to the APD6 Utility screen. Click [Set].**
The ESC/POS command is set to the character "!".

Using the ControlA Font

1 **Enter a control character to be used as the controlA font in the print data of the application.**

2 **Set the following items for the specified control characters.**
In this example, the character "!" is set.

Item	Setting value
Font	controlA
Points	1
Language	Western

3 **Execute printing.**
The commands defined by the controlA font are sent for performing control of the TM printer.

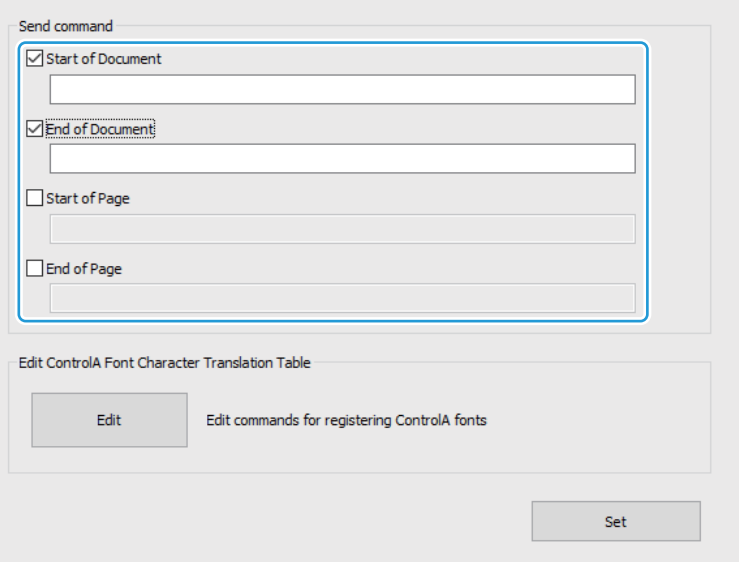
Using ESC/POS Command to Control a TM Printer

An ESC/POS command can be sent when printing starts or ends to control a TM printer. These settings are shown below.

1 **Launch the APD6 Utility.**

2 **Select [Send command].**

3 **Insert a check mark for the timing when the command will be sent, and enter the ESC/POS command in hexadecimal format into the text box.**



4 **Click [Set].**

5 **Execute printing.**

The commands that were set are sent for performing control of the TM printer.

Log Output

This chapter describes how to output log files and read their content.

Overview

Log files are recorded by tracing between the application and APD6. A log file is used to record the obtained data and other information.

Log File Output

Log File Output Folders

- Windows 10/Windows 8.1/Windows 8
  C:\ProgramData\epson\devicecontrollog
- Windows 7/Windows Vista:
  C:\ProgramData\EPSON\devicecontrollog
- Windows XP:
  C:\Documents and Settings\All Users?Application Data\EPSON\devicecontrollog

Log File Name

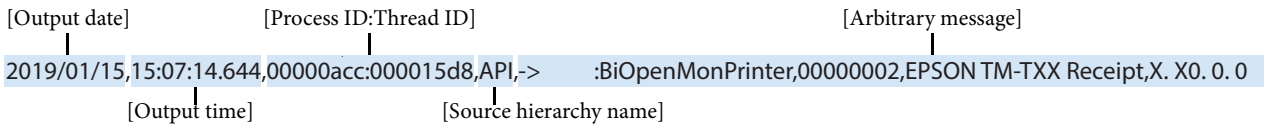
- File name
  stdCompressed_date_and_time.zip (Example: std20130301160755.zip)

Viewing Log Files

A record in a log file is presented in the following format.

Format

Date,Time,Process ID:Thread ID,Source hierarchy name,Arbitrary message,Binary data



NOTE	• The arbitrary message in the log is output in a format based on the element of the log. For details, see "Arbitrary Messages" on page 51. • Binary data is print data, and it may be omitted in certain cases.

Arbitrary Messages

The arbitrary message in the log is output in a format based on the element of the log.

Element	Description
Function call	This is output when a public function of each module is called. Format: ->,Handle_value,,Function_name,Parameter_1,Parameter_2,...
Function return	This is output when a process returns from a public function of each module. Format: <-,Handle_value,Return_value,Function_name,Parameter_1,Parameter_2,...

Log Output Example

```
2013/03/01,15:07:14.644,00000acc:000015d8,API,->        :BiOpenMonPrinter,00000002,EPSON TM-T88V Receipt,5. 00. 0. 0
2013/03/01,15:07:16.535,00000acc:000015d8,API,
                        <- ESDPRT001:BiOpenMonPrinter,00000002,EPSON TM-T88V Receipt,<00000001>
2013/03/01,15:07:25.363,00000acc:000015d8,API,-> ESDPRT001:BiGetStatus,00000001,00000000
2013/03/01,15:07:25.363,00000acc:000015d8,API,<- ESDPRT001:BiGetStatus,00000001,00000004,<00000000>
2013/03/01,15:07:32.301,00000acc:000015d8,API,-> ESDPRT001:BiSetStatusBackFunction,00000001,00409130
2013/03/01,15:07:32.301,00000acc:000015d8,API,<- ESDPRT001:BiSetStatusBackFunction,00000001,00409130,<00000000>
2013/03/01,15:07:32.301,00000acc:000015a8,API,-> ESDPRT001:CallbackStatus,00000001,00000004
2013/03/01,15:07:32.332,00000acc:000015a8,API,<- ESDPRT001:CallbackStatus,00000001,00000004,<0000000000000000>
2013/03/01,15:07:46.333,000010c8:0000104c,SPL,
                        -> TmLmStartDocPort(00000001, EPSON TM-T88V Receipt, 2, 1, {Test PageTest Page,,(null)})
2013/03/01,15:07:46.380,000010c8:0000104c,SPL,-- LM::UpdatePrinterStatus(EPSON TM-T88V Receipt, 00000400)
2013/03/01,15:07:46.380,000010c8:0000104c,SPL,<- TmLmStartDocPort(00000001) <TRUE>
2013/03/01,15:07:48.395,000010c8:00000760,SPL,-> TmLmWritePort(00000001, 0A3A0000, 51619, 02EBF48C)
2013/03/01,15:07:48.395,000010c8:00000760,SPL,<- TmLmWritePort(00000001, 51619) <TRUE>
2013/03/01,15:07:48.395,000010c8:00000760,SPL,-> TmLmEndDocPort(00000001)
2013/03/01,15:07:48.395,000010c8:00000760,SPL,<- TmLmEndDocPort(00000001) <TRUE>
2013/03/01,15:07:50.708,000010c8:00001420,SPL,-- LM::UpdatePrinterStatus(EPSON TM-T88V Receipt, 00000000)
2013/03/01,15:07:50.786,00000acc:000015a8,API,-> ESDPRT001:CallbackStatus,00000001,00000006
2013/03/01,15:07:50.786,00000acc:000015a8,API,<- ESDPRT001:CallbackStatus,00000001,00000006,<0000000000000000>
2013/03/01,15:07:50.786,00000acc:000015a8,API,-> ESDPRT001:CallbackStatus,00000001,00000004
2013/03/01,15:07:50.786,00000acc:000015a8,API,<- ESDPRT001:CallbackStatus,00000001,00000004,<0000000000000000>
2013/03/01,15:08:12.849,00000acc:000015d8,API,-> ESDPRT001:BiCancelStatusBack,00000001
2013/03/01,15:08:12.849,00000acc:000015d8,API,<- ESDPRT001:BiCancelStatusBack,00000001,<00000000>
2013/03/01,15:08:18.881,00000acc:000015d8,API,-> ESDPRT001:BiCloseMonPrinter,00000001
2013/03/01,15:08:19.037,00000acc:000015d8,API,<-        :BiCloseMonPrinter,00000001,<00000000>
```

Restrictions

This chapter describes the restrictions on APD6.

Environment and OS Settings

1. When connecting a TM printer with a serial interface using Windows 7, printing may be unable to be performed properly for certain combinations of computers and TM printers. In such cases, printing can be performed by disabling FIFO in the Windows COM port advanced settings.

2. When using a serial connection, when the OS recovers from a sleep or hibernate status, the printer may print "??".

3. When printing a device font in Microsoft Word, the following settings are required.
   From the Office button, go to [Word Options] - [Advanced] - [Compatibility options for], and select "Microsoft Word 6.0/95" or "Custom" in [Lay out this document as if created in], and insert a check mark for "Use printer metrics to lay out document" in [Layout Options].

Restrictions in Environments where Redirected from Server (Environments such as Terminal Service and Remote Desktop)

The device fonts of the TM printer cannot be used in EasyPrint. Font Replacement and other functions used in APD6 are not available.

Printing

1. Print data that is outside the print area is not 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 due to the separation between the paper cutting position (auto-cutter) and the printing position (print head), and the distance between them results in the extra margin.

3. Device fonts cannot be used in rotated or condensed printing. Use Windows fonts.

4. If a device font and graphics data (Windows font, ruled lines, etc.) are defined in the same line, the print result may be misaligned.

5. Align center or left using control fonts cannot be used with graphics printing.

6. [Separator Page] in the printer driver [Advanced] is not available.

7. In some applications, several device font size options are displayed. However, the device font is always printed in a fixed size regardless of your size selection.

8. In some applications, print settings such as "Collate" and "Orientation" configured on the application side may differ from the APD6 settings. In such cases, the settings on the application side take priority. However, it is not possible to print beyond the printer's capabilities.
   (For example, printing in landscape orientation using a device font)

9. Even if you specify italics in the print data for a device font, it will not be printed.

10. When you print a narrow-width barcode using a high-resolution TM printer, all of the HRI characters may be unable to be printed. In such cases, specify a narrow-width FontB for the HRI characters.

Appendix

Acknowledgements

This utility incorporates compression code from the Info-ZIP group.

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Windows Template Library

This application uses the Microsoft Windows Template Library (WTL).

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