

ePOS-Print SDK for JavaScript User's Manual

Overview

Describes the features and development environment.

Sample Program

Describes how to use the sample program and how to build a system.

Programming Guide

Describes how to write programs in Web application development.

API Reference

Describes the ePOS-Print API.

Canvas API Reference

Describes the ePOS-Print Canvas API.

ePOS-Print Editor

Describes the ePOS-Print Editor.

Appendix

Describes the specifications for printers used for ePOS-Print, how to use the rendering of images in HTML5 Canvas.

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For Safety

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About this Manual

Aim of the Manual

This manual is intended to provide development engineers with all the information necessary for building/ designing an ePOS-Print SDK for JavaScript system or developing/designing an ePOS-Print printer application.

Manual Content

The manual is made up of the following sections:

Chapter 1	Overview
Chapter 2	Sample Program
Chapter 3	Programming Guide
Chapter 4	API Reference
Chapter 5	Canvas API Reference
Chapter 6	ePOS-Print Editor
Appendix	Printer specifications
	TM-P60II Paper settings
	Rendering in HTML5 Canvas

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Overview

This section gives an outline of ePOS-Print SDK for JavaScript and describes the operating environment, provided articles and restrictions.

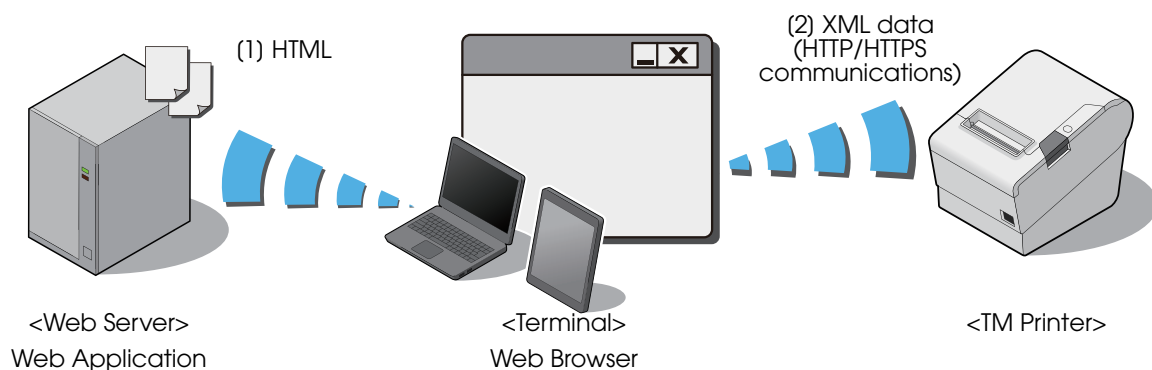
Overview of ePOS-Print

ePOS-Print SDK for JavaScript is intended for developers of Web applications for printing with EPSON TM printers. Applications are developed using the API provided with ePOS-Print SDK.

HTTPS communications are available if the TM printer supports HTTPS communications. *

Different versions of ePOS-Print SDK are ePOS-Print SDK for iOS applications and ePOS-Print SDK for Android applications.

* For the TM printers that support HTTPS communications, see [Printer specifications \(p.183\)](#).



(1): From Web server web applications, JavaScript for printing is embedded in HTML data sent to terminals.

(2): The terminal web browser transmits XML print data to the TM printer.

Features



The installed functions vary depending on the model. For details, refer to [Appendix \(p.183\)](#).

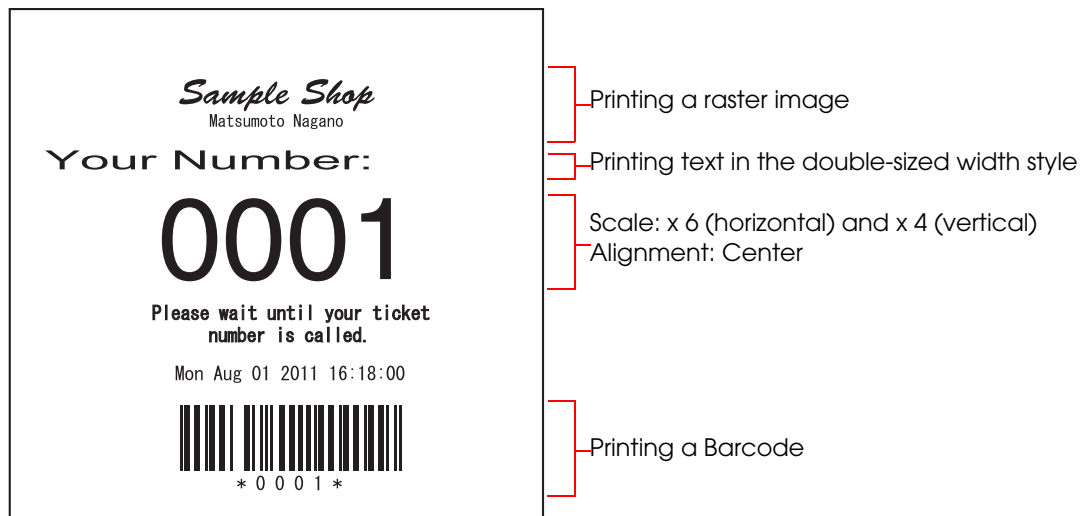
ePOS-Print SDK for JavaScript contains the following printing methods. These may be used successively within a single document, however, they cannot be used simultaneously.

- ❑ ePOS-Print API : This is suited to mainly text printing.
Printing is done with the device font mounted on the TM printer.
Barcodes can also be printed upon developing them as images on the TM printer side.
- ❑ ePOS-Print Canvas API : Highly expressive printing is possible. Images painted on HTML5 Canvas are printed.

Printing functions of ePOS-Print API

- ❑ Print setting (alignment/line feed space/text rotation/page mode)
- ❑ Character data setting (language/font (device font)/double-sizing/scale/smoothing/print position)
- ❑ Character style setting (inversion of black and white/underline/bold)
- ❑ Paper feed setting (in dots/in lines)
- ❑ Image printing (raster image/NV graphics)
- ❑ Barcode printing
(For barcodes that can be printed by each model, refer to [Printer specifications \(p.183\)](#))
- ❑ 2D-code printing
(For 2D-codes that can be printed by each model, refer to [Printer specifications \(p.183\)](#).)
- ❑ Ruled line setting
- ❑ Control of label paper/black mark paper
- ❑ Drawer kick function
- ❑ Buzzer function
- ❑ ESC/POS command transmission
- ❑ Response document acquisition (print result/printer status/system error status)
- ❑ Paper layout setting
- ❑ Recovery from an error
- ❑ Reset

Print Example



Printing functions of ePOS-Print Canvas API

- ☐ Printing of images (raster images) rendered in HTML5 Canvas
- ☐ Control of label paper/black mark paper
- ☐ Feed cut
- ☐ Response document acquisition (print result/printer status/system error status)
- ☐ Paper layout setting
- ☐ Recovery from an error
- ☐ Reset

Print Example



Operating Environment

Applications environment

- ☐ Windows Internet Explorer 9 or later
- ☐ Mozilla Firefox 3.6 or later
- ☐ Google Chrome 7 or later
- ☐ Safari in iOS 4.0 or later
- ☐ Standard browser in Android™ 2.2 or later

TM printer

- ☐ TM printer equipped with wireless LAN interface (IEEE802.11a/b/g/n)
 - TM-T70
 - TM-T70II
 - TM-T88IV
 - TM-T88V
 - TM-T90
 - TM-L90
 - TM-U220
- ☐ TM-m10
- ☐ TM-m30
- ☐ TM-P20
- ☐ TM-P60II
- ☐ TM-P60II with Peeler
- ☐ TM-P80



- ePOS-Print in the TM printer must be turned to "Enable". You cannot control ePOS-Print SDK for JavaScript if it is disabled. For details, refer to [Printer specifications \(p.183\)](#). "Enable" is set as the factory default for the following printer.
 - * TM-m10
 - * TM-m30
- Printing cannot be done from the TM printer USB interface.

Provided Article

Package

File Name	Description
epos-print-x.x.x.js	This is the function execution library.
ePOS-Print_Sample_JS_Vx.x.xE.zip	This is a sample program file.
ePOS-Print_SDK_JS_en_revx.pdf	This Document.

Other Manual

- ☐ ePOS-Print SDK for JavaScript User's Manual (This Document)
- ☐ ePOS-Print XML User's Manual
- ☐ UB-R04 Technical Reference Guide
- ☐ Technical Reference Guide for each TM printer

SampleProgram

ePOS-Print_Sample_JS_Vx.x.xE.zip

The following are included:

- ☐ sample/index.html (Sampleprogram)
- ☐ editor/index.html (ePOS-Print Editor)
- ☐ Readme file
- ☐ Rendering in HTML5 Canvas
 - canvas/canvas-print-text.html(Rendering text)
 - canvas/canvas-print-image.html(Rendering images)
 - canvas/canvas-print-graph.html(Rendering graphics)
 - canvas/canvas-print-hand.html(Rendering handwritten images)
 - canvas/canvas-print-barcode.html(Rendering barcode)
 - canvas/canvas-print-label.html(Rendering label)

Download

For customers in North America, go to the following web site:

<http://www.epsonexpert.com/> and follow the on-screen instructions.

For customers in other countries, go to the following web site:

<https://download.epson-biz.com/?service=pos>

Restrictions

- ❑ Printing cannot be done from the TM printer USB interface. Please print using the wireless LAN interface.
- ❑ The drawer and the buzzer cannot be used together.
- ❑ The buzzer function cannot be used if the printer is not provided with the buzzer.
- ❑ When multiple tones are set for raster images, intermitting printing may occur because the amount of data to print increases and white stripes may appear in the print result.
- ❑ The scan quality of barcodes/2D-codes printed as multiple-tone raster images cannot be guaranteed. Print them as two-tone images.
- ❑ If printing was cancelled, perform the following settings to clear the data left in the printer.
 - In the printer DIP switches (memory switches), configure the Busy condition only for the receive buffer full.
 - Disable the command execution (offline).

Sample Program

This chapter describes how to use the sample program.

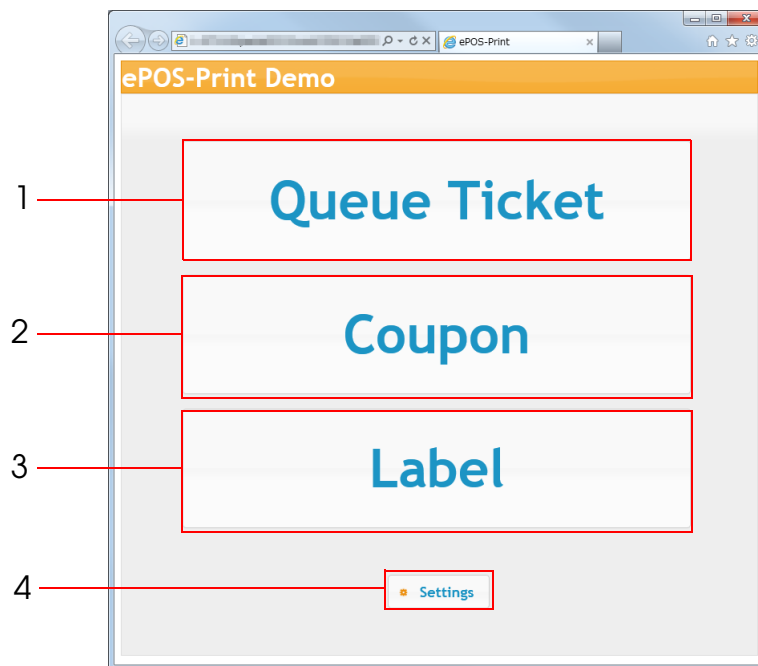


- In this chapter, descriptions are made based on a system configuration using a Web server.
- Descriptions are made assuming that the Web server in this chapter is a Web server configured by using IIS (Microsoft Internet Information Services). If your Web server is used in a different environment, interpret the descriptions accordingly.

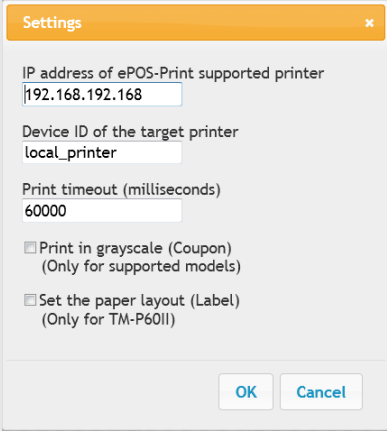
Sample Program System Overview

Sample Program Screen

The screen compositions for the sample program are as follows:



Item	Description
1 Queue Ticket	Prints queue ticket numbers. This is a sample program using the ePOS-Print API.
2 Coupon	Prints coupons. This is a sample program using the ePOS-Print Canvas API.
3 Label	Prints labels. This is a sample program using the ePOS-Print API.

Item	Description
4 Settings 	<p>Displays the "Settings" screen. The screen is used to set the following:</p> <ul style="list-style-type: none">• IP address of the ePOS-Print supported TM printer (Default :<ul style="list-style-type: none">* TM-; DHCP (If an address fails to be assigned via DHCP, the value becomes "192.168.192.168".)* TM Printer: 192.168.192.168)• Device ID of the target printer (Default : local_printer)• Print timeout(milliseconds) (Default : 60000)• Prints coupons in gray scale (Coupon) (Default : No)• Prints labels with specified layout (Label) (Default: No)

Print Image

The sample program prints the following:

Your Number
(ePOS-Print API)



Label*
(ePOS-Print API)



*: Die cut label: mount width 58 mm or above
Label size: width 54 mm x height 25.4 mm or above

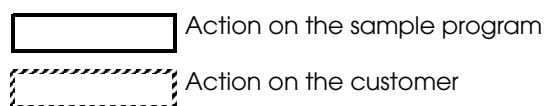
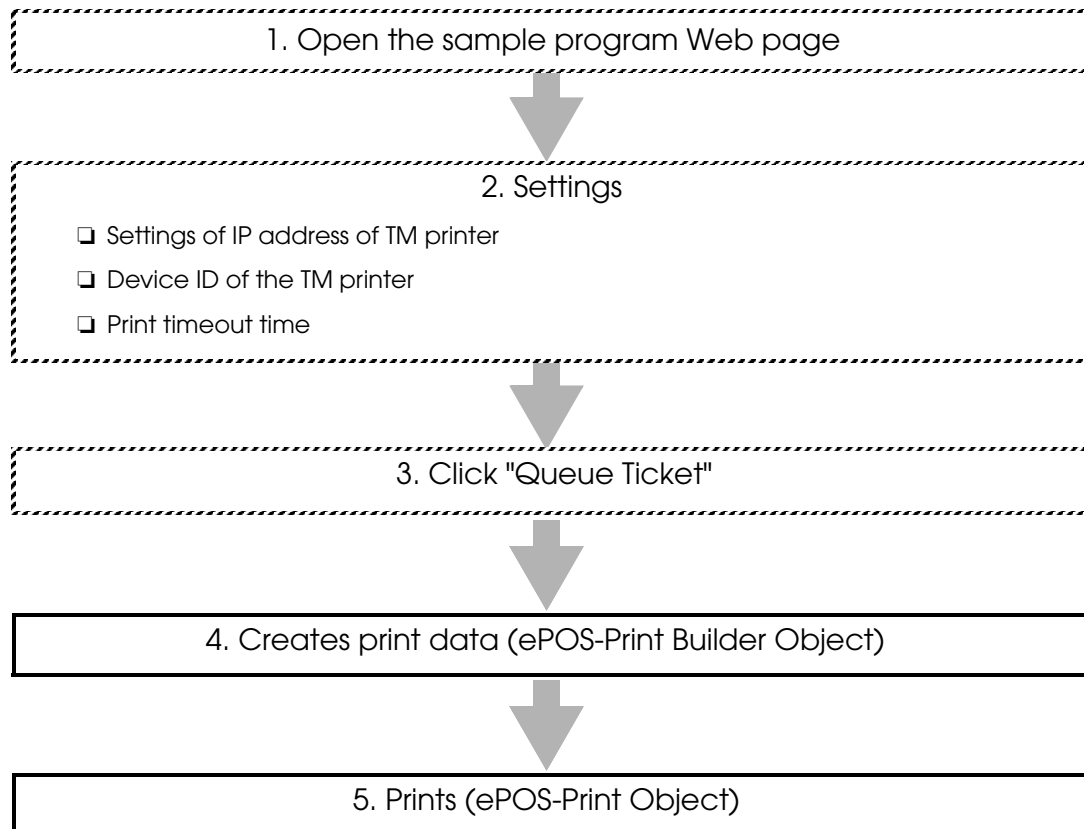
Coupon
(ePOS-Print Canvas API)

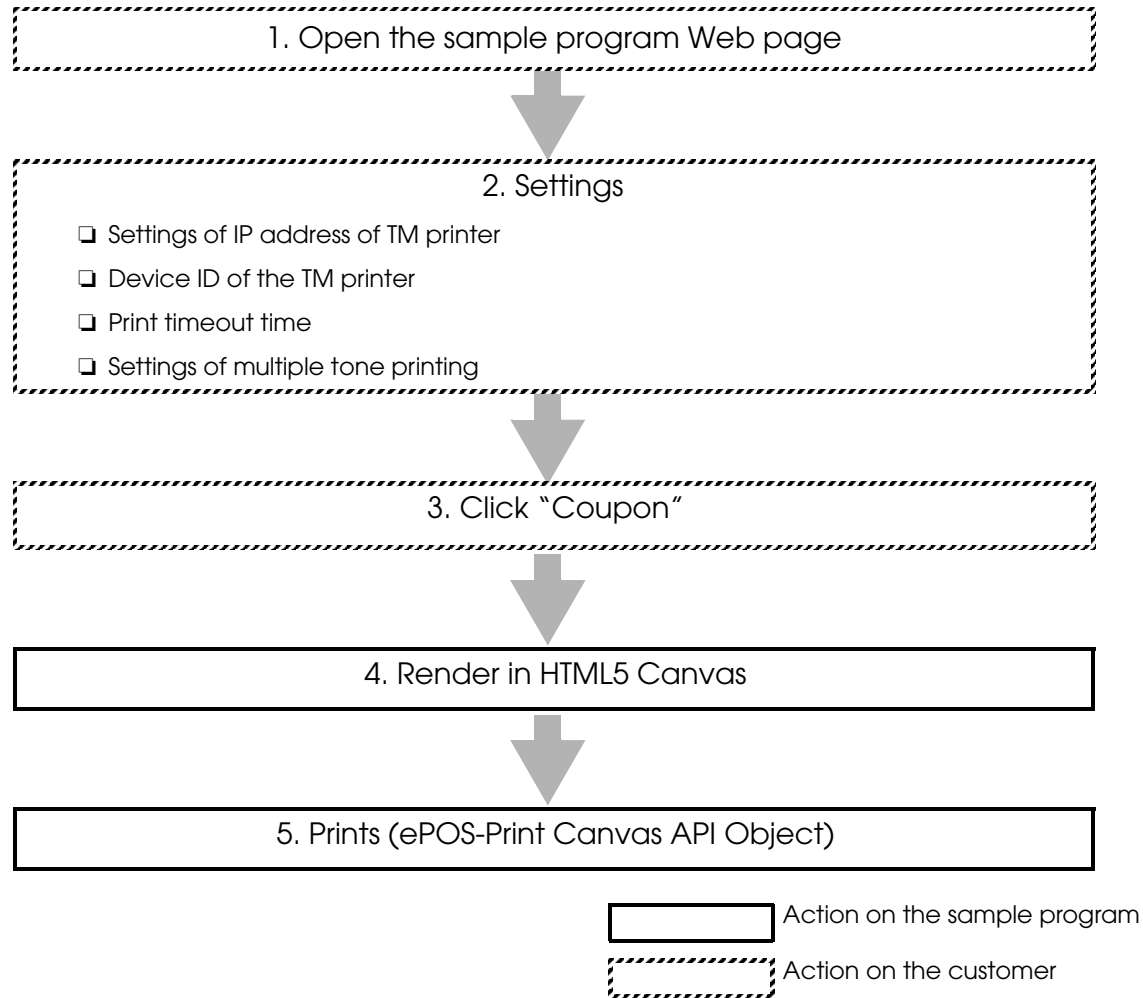


Program Flow

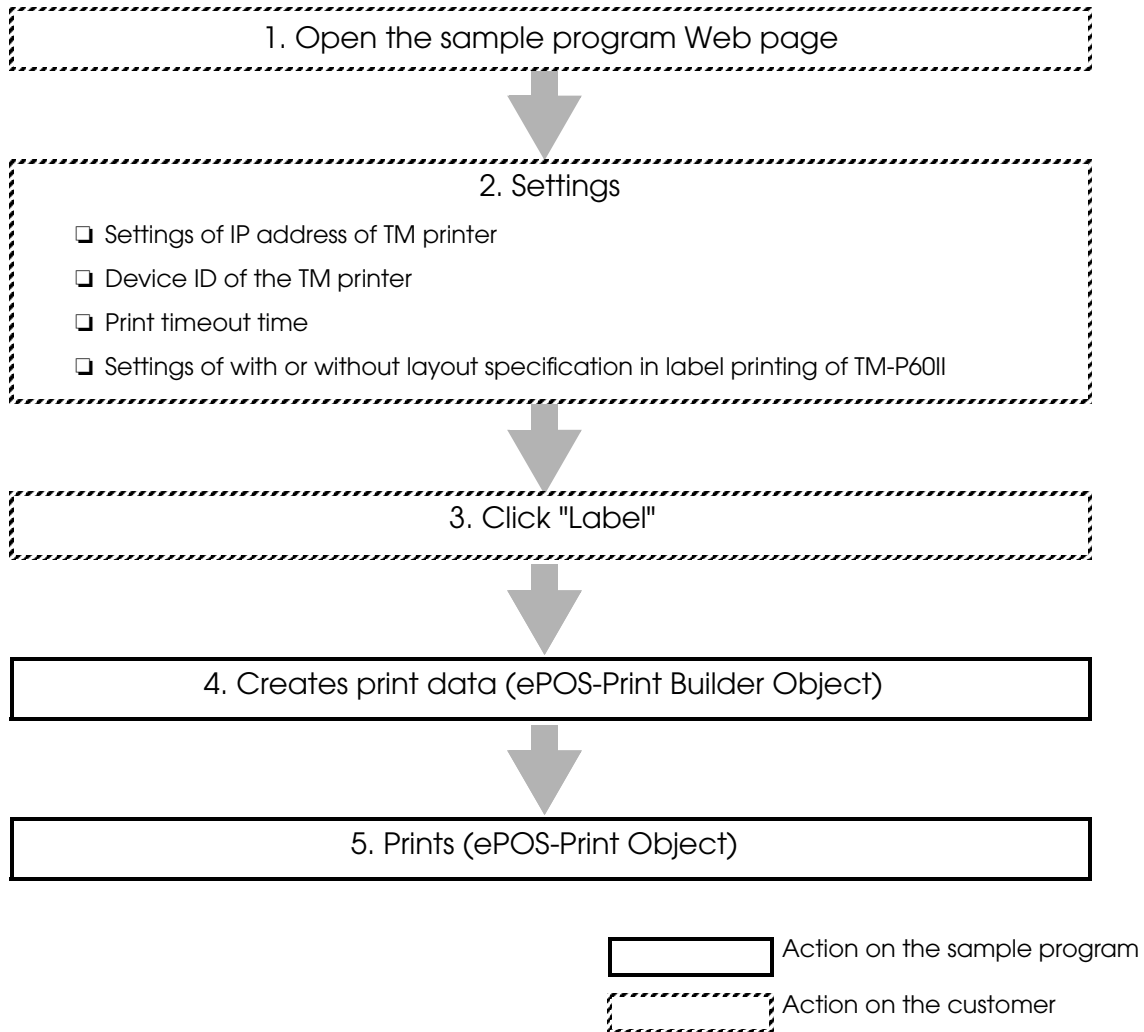
From its initial display state up to print job completion, the sample program flows as below.

Queue ticket number issuance (ePOS-Print API)




Coupon issuance (ePOS-Print Canvas API)

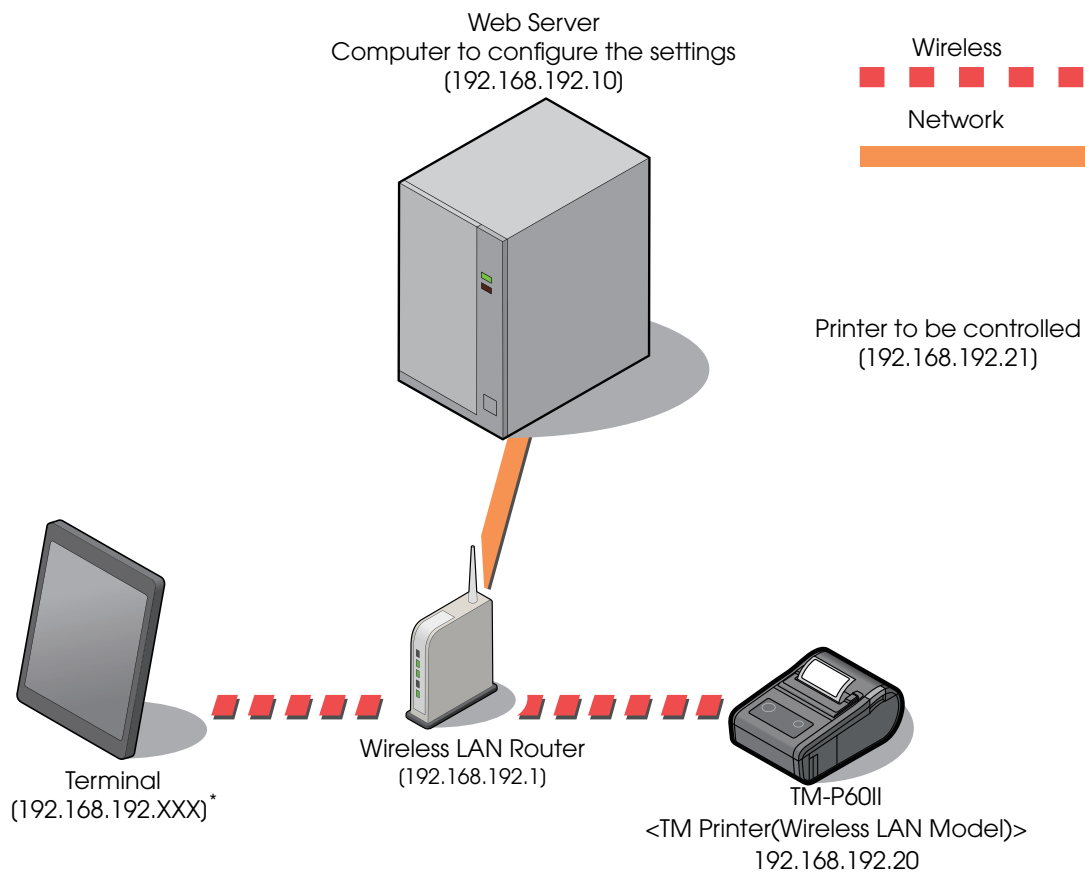
Label issuance (ePOS-Print API)



Operating Environment

The system configuration diagram for the sample programs is as below.

 The figure below also describes an example of IP address settings as network settings.



- ☐ Web server/computer to configure the settings
(Descriptions here are made assuming that the Web server is the same as the computer to configure the settings.)
- ☐ Wireless LAN Router
- ☐ TM Printer(Wireless LAN Model) (1 set)
TM-P60II
- ☐ Terminal
Terminal with an HTML5-supported Web browser

Environment Settings

A flow for configuring the environment settings for the sample program is shown as follows:



The TM printer network settings can be easily configured by connecting with the TM printer via USB and using EpsonNet Config (utility). Download EpsonNet Config in advance.

1. Router Settings

Configure the settings such as SSID, IP address, DHCP, and allocated IP address. For details, refer to the manual for the device you are using.



2. Computer Settings

1. Network Settings

Configure the network settings for the computer such as IP address.



2. Web Server Configuration

Configure a Web server on the computer.



3. Registration of Sample Program (ePOS-Print_Sample_JS_Vx.x.xE.zip) (p.25)



4. Terminal settings

Configure the wireless LAN (Wi-Fi®) settings of the terminal to match the router settings so as to enable network connection. For details, refer to the manual for the device you are using.



5. Network Setting of TM printer (p.26)

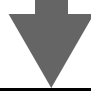
Connect the computer and TM printer by USB cable and configure settings from EpsonNet Config.





6. TM printer ePOS-Print settings (p.28)

Configure settings from the computer Web browser via the network.



7. Sample Program Settings (p.30)

Configuration is done from a Web browser(these settings are not required in this sample program).

Registration of Sample Program (ePOS-Print_Sample_JS_Vx.x.xE.zip)

Register the sample program into the Web server.



Download ePOS-Print_Sample_JS_Vx.x.xE.zip.
For details, refer to Contents in the package (p. 15).

Register the program according to the following procedure:

- 1 Start the Web server.
- 2 Explode the sample program (ePOS-Print_Sample_JS_Vx.x.xE.zip) and then copy the exploded contents into the following folder:
Example: Web server configured by using IIS
System drive:\ Inetpub\wwwroot

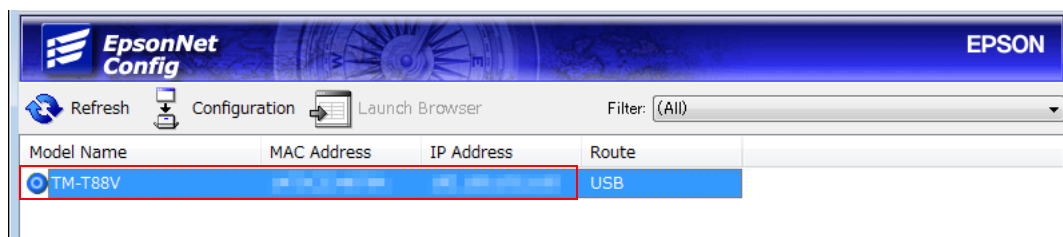


Copy the sample program as a user with administrator authority.

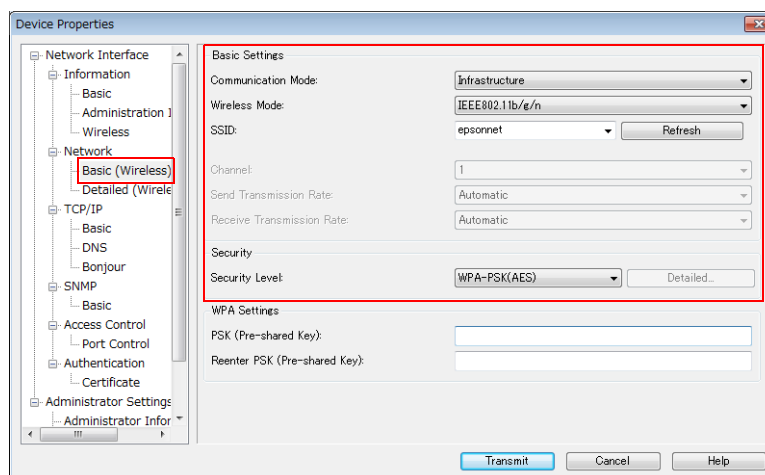
Network Setting of TM printer

Configure the TM printer network settings by the following procedure.

- 1 Connect the TM printer to a PC via the USB cable.
- 2 Turn on the TM printer.
- 3 Start up EpsonNet Config.
- 4 Double-click the TM printer.

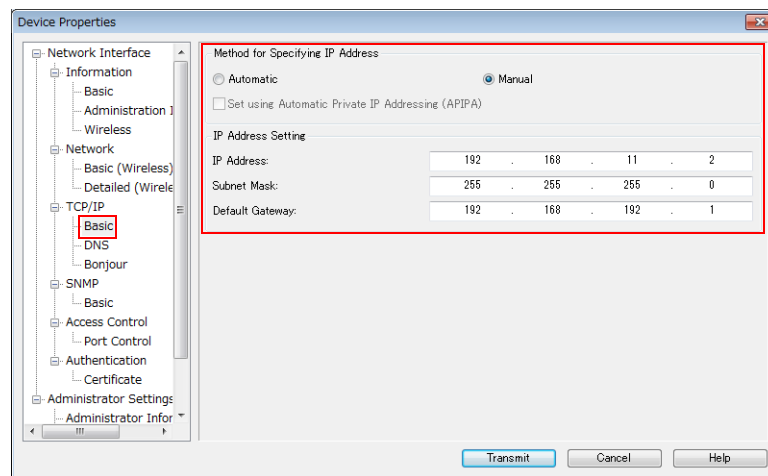


- 5 Click (Network)-(Basic (Wireless)) and configure the SSID and security settings according to the networks.



- 6 Click (Transmit).
The settings are reflected in the TM printer and the screen returns to EpsonNet Config.

- 7** Double-click the TM printer.
- 8** Click (TCP/IP)-(Basic) and set the IP address of the TM printer.



- 9** Click (Transmit).
The settings are reflected in the TM printer and the screen returns to EpsonNet Config.
- 10** Disconnect the USB cable, turn off the TM printer, and then turn it back on.

This brings the TM printer network settings to an end. You can now connect the TM printer to the network.

TM printer ePOS-Print settings

Configure the TM printer ePOS-Print settings via the Web browser.



Configure the ePOS-Print settings via the network. Settings cannot be configured through USB connection.

- 1 Connect the TM printer to the network.
- 2 Start the web browser of the setting computer and input the TM printer IP address into the address bar.
EpsonNet Config (web version) is displayed.
- 3 Click Configuration - Network - (ePOS-Print). The "ePOS-Print" screen is displayed.
Configure the following settings.
 - For TM-m10, TM-m30, and wireless LAN interface (UB-R04)

Configuration - Network ePOS-Print	
Version	
ePOS-Print	Enable
Device ID	local_printer
Printing Method	Thermal (180dpi)
Character Code Tables	Page 0-5, 16-19
Send	

Item	Setting
ePOS-Print	Set to Enable. (Default: Disabled)
Device ID	Align with the system settings. (Default: local_printer)
Printing Method	Set in line with the connected TM printer. (For details, see Printer specifications (p.183)).
Character Code Table	Align with the connected TM printer and set the TM printer's code page. (For details, see Printer specifications (p.183) "ePOS-Print Settings").

- For mobile printer (TM-P20, TM-P60, TM-P60II, TM-P80)

Configuration - Network

ePOS-Print

Version

2.2

ePOS-Print

Enable

Device ID

local_printer

Send

Item	Setting
ePOS-Print	Set to Enable. (Default: Disabled)
Device ID	Align with the system settings. (Default: local_printer)

- 4

Click (Send).
- 5

Turn the TM printer's power off and on again.

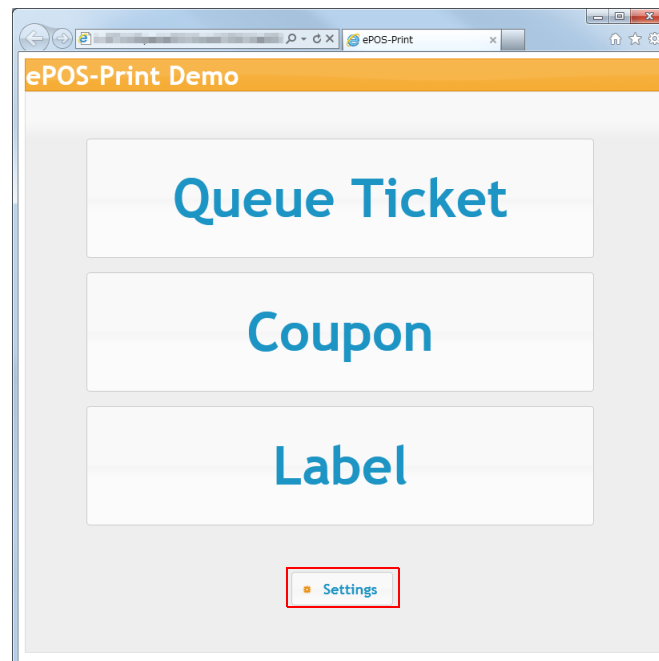
Sample Program Settings

Configure the settings for the sample program according to the procedure below.



In the sample program, "Device ID Settings" are not required. Refer to it if necessary.

- 1 Start the Web server.
- 2 Connect all the printers to the network and turn their power ON.
- 3 Open the following URL page using the Web browser.
<http://Web server IP address/sample/index.html>
- 4 The sample program page opens. Click (Settings).



5 The “Settings” screen appears. Specify the following and click (OK).

Settings

IP address of ePOS-Print supported printer

192.168.192.168

Device ID of the target printer

local_printer

Print timeout (milliseconds)

60000

☐ Print in grayscale (Coupon)

(Only for supported models)

☐ Set the paper layout (Label)

(Only for TM-P60II)

OK

Cancel

Item	Description
IP address of the TM printer	Specifies the IP address of the TM printer. (Default value: 192.168.192.168)
Device ID of the target printer	Specifies the Device ID of the TM printer. (Default value: local_printer)
Print timeout (millisecond)	Specifies the timeout time. (default : 60000)
Print in grayscale (Coupon) (Only for supported models)	Prints coupons in gray scale. (Default: No)
Set the paper layout (Label) (Only for TM-P60II)	Prints labels with specified layout (Default: No)



Programming Guide

This chapter describes how to write programs in the application development using ePOS-Print.

- ePOS-Print API ([p. 33](#))
- ePOS-Print Canvas API ([p. 43](#))

ePOS-Print API

Print Mode

There are two types of print modes: standard and page modes.

Standard mode

In standard mode, characters are printed line by line. The line feed space is adjusted based on the font size and the height of images, barcodes, etc. This mode is suitable for the type of printing such as printing receipts that requires the paper length to change according to the print space.

Page mode

In page mode, you set a print area, lay out data in it, and print the data in a batch operation. Characters, images, and barcodes are laid out in the print positions (coordinates).

Programming Flow

For the ePOS-Print API, programming is performed based on the following work flow:

1. Embedding of ePOS-Print SDK for JavaScript (p.35)



2. Print Document Creation (p.36)

- ❑ To create a text print document: (p.37)
- ❑ To create a graphic print document: (p.37)
- ❑ To create a page mode print document (p.38)



3. Transmission of Print Document (p.39)



4. Reception of Print Result (p.40)



- ePOS-Print supported TM printer checks the status of the TM printer to be used for printing and then starts printing operation.
- A status event helps check the status of the TM printer. For details on the procedure, refer to Reception of Status Event (p. 42).

Embedding of ePOS-Print SDK for JavaScript

This describes embedding of ePOS-Print SDK for JavaScript. The file name is "epos-print-x.x.x.js."

Preparation

To use the ePOS-Print API, place epos-print-x.x.x.js on the Web server.

Embedding into Web pages

Embed the script into the Web page by using the HTML <script> tags.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8" />
<title>TITLE</title>
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
  function buildMessage() {
    var builder = new epson.ePOSBuilder();
    .
    .
  }
</script>
</head>

<body>
  .
  .
</body>
</html>
```

Embed

Print Document Creation

A print document is created using an ePOS-Print Builder object.

Create an ePOS-Print Builder object using the constructor for it; create a print document using the object's methods; and then acquire that print document using the toString method. For details, refer to [List of API functions \(p.51\)](#).

Refer to the following program for print document creation.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8" />
<title>TITLE</title>
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
    function buildMessage() {
        //Create an ePOS-Print Builder object
        var builder = new epson.ePOSBuilder();
        //Create a print document
        builder.addTextLang('en')
        builder.addTextSmooth(true);
        builder.addTextFont(builder.FONT_A);
        builder.addTextSize(3, 3);
        builder.addText('Hello,\tWorld!\n');
        builder.addCut(builder.CUT_FEED);
        //Acquire the print document
        var request = builder.toString();
        alert(request);
    }
</script>
</head>
<body>
    <button onclick="buildMessage()">Run</button>
</body>
</html>
```

————— Create a print document

To create a text print document:

To create a text print document, store the font settings into the command buffer using text methods and then create a print document. Refer to the following program.

For the string "Hello World!", to create a print document based on the following settings:

- ❑ Font: FontA
- ❑ Scale: x 4 (horizontal) and x 4 (vertical)
- ❑ Style: Bold

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
  function buildMessage() {
    //Create an ePOS-Print Builder object
    var builder = new epson.ePOSBuilder();
    //Create a print document
    //<Configure the print character settings>
    builder.addTextLang('en');
    builder.addTextSmooth(true);
    builder.addTextFont(builder.FONT_A);
    builder.addTextSize(4, 4);
    builder.addTextStyle(false, false, true, undefined);
    //<Specify the print data>
    builder.addText('Hello,\tWorld!\n');
    builder.addCut(builder.CUT_FEED);
    //Acquire the print document
    var request = builder.toString();
  }
</script>
```

To create a graphic print document:

To create a graphic print document, store a raster image obtained by rendering an image in HTML5 Canvas into the command buffer using the addImage method. Refer to the following program.

To create a print document for the image file "logo.bmp"

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
  function buildMessage() {
    //Create an ePOS-Print Builder object
    var builder = new epson.ePOSBuilder();
    //Render an image in HTML5 Canvas
    var canvas = document.getElementById('canvas');
    var context = canvas.getContext('2d');
    context.drawImage(document.getElementById('logo'), 0, 0, 200, 70);
    //Create a print document
    builder.addTextAlign(builder.ALIGN_CENTER);
    builder.addImage(context, 0, 0, canvas.width, canvas.height, builder.COLOR_1);
    builder.addCut(builder.CUT_FEED);
    //Acquire the print document
    var request = builder.toString();
  }
</script>
```



This section describes how to print a raster image. In addition, there is also a method of printing graphics registered in the NV memory of the printer. For details, refer to [addLogo method \(p.77\)](#).

To create a page mode print document

When the addPageBegin method is stored in the command buffer, the page mode starts. Store the print area (addPageArea method) and the print start position (addPagePosition method) into the command buffer. Specify the print start position according to the print data. After that, store the methods into the command buffer to create print data. For the end of page mode, store the addPageEnd method into the command buffer.

For the string "Hello World!", to create a print document based on the following settings:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
  function buildMessage() {
    //Create an ePOS-Print Builder object
    var builder = new Epson.ePOSBuilder();
    //Create a print document
    //<The page mode starts>
    builder.addPageBegin();
    //<Specify the page mode print area>
    builder.addPageArea(100, 50, 200, 100);
    //<Specify the page mode print position>
    builder.addPagePosition(0, 42);
    //<Specify the print data>
    builder.addTextLang('en');
    builder.addTextFont(builder.FONT_A);
    builder.addTextSize(4, 4);
    builder.addTextStyle(false, false, true, undefined);
    builder.addText('Hello,\tWorld!\n');
    //<The page mode ends>
    builder.addPageEnd();
    builder.addCut(builder.CUT_FEED);
    //Acquire the print document
    var request = builder.toString();
  }
</script>
```

Transmission of Print Document

A print document is sent using an ePOS-Print object.

Create an ePOS-Print object using the constructor and specify the end point address for the printer to be used for printing as well as the print document into the send method to send the document.

For the details about the printer end point address, refer to [Printer End Point Address \(p.39\)](#).

Refer to the following program.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8" />
<title>TITLE</title>
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
  function buildMessage() {
    //Create a print document
    var builder = new epson.ePOSBuilder();
    builder.addTextLang('en');
    builder.addTextSmooth(true);
    builder.addTextFont(builder.FONT_A);
    builder.addTextSize(3, 3);
    builder.addText('Hello,\tWorld!\n');
    builder.addCut(builder.CUT_FEED);
    var request = builder.toString();

    //Set the end point address
    var address = 'http://192.168.192.168/cgi-bin/epos/
                  service.cgi?devid=local_printer&timeout=10000';
    //Create an ePOS-Print object
    var epos = new epson.ePOSPrint(address);
    //Send the print document
    epos.send(request);
  }
</script>
</head>
<body>
  <button onclick="buildMessage()">Run</button>
</body>
</html>
```

Transmission of print document

Printer End Point Address

Specify the printer end point address in the following format:

http://(domain)/cgi-bin/epos/service.cgi?devid=(device ID)&timeout=(timeout time)

Items to specify	Description
Domain	Specify IP address or domain of TM printer.
Device ID	Specifies the TM printer to be used for printing. Specify device ID of TM printer.
Timeout period	Specifies the time to abort the process in milliseconds. The maximum value is 300 seconds (3000000). The timeout parameter is optional; when it is omitted, 60 seconds (60000) is set. When the timeout period elapses, the print job is canceled; the data already interpreted by the printer before the start of the print abort process is printed.

Reception of Print Result

The print result can be received by setting a callback function using the `onreceive` property (p. 131) of the `ePOS-Print` object. The following information is obtained:

- ❑ Print result
- ❑ Error code
- ❑ Printer status



The printer status can be obtained when communication with the printer is possible.

Refer to the following program. For the details about how to program a callback function in detail, refer to [Error handling \(p.41\)](#).

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8" />
<title>TITLE</title>
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
  function buildMessage() {
    //Create a print document
    var builder = new epos.ePOSBuilder();
    builder.addTextLang('en');
    builder.addTextSmooth(true);
    builder.addTextFont(builder.FONT_A);
    builder.addTextSize(3, 3);
    builder.addText('Hello,\tWorld!\n');
    builder.addCut(builder.CUT_FEED);
    var request = builder.toString();

    var address = 'http://192.168.192.168/cgi-bin/epos/
                  service.cgi?devid=local_printer&timeout=10000';
    //Create an ePOS-Print object
    var epos = new epos.ePOSPrint(address);
    //Set a response receipt callback function
    epos.onreceive = function (res) {
      //When the printing is not successful, display a message
      if (!res.success) {
        alert('A print error occurred');
      }
    }
    //Send the print document
    epos.send(request);
  }
</script>
</head>
<body>
  <button onclick="buildMessage()">Run</button>
</body>
</html>
```

Print result receipt
callback function

Error handling

Refer to the following program for the error handling method by a callback function.

```
//Create an ePOS-Print object
var epos = new epos.ePOSPrint(address);
// Set a response receipt callback function
epos.onreceive = function (res) {
    // Obtain the print result and error code
    var msg = 'Print' + (res.success ? 'Success' : 'Failure') + '\nCode:' + res.code
                                                    + '\nStatus:\n';

    // Obtain the printer status
    var asb = res.status;
    if (asb & epos.ASB_NO_RESPONSE) {
        msg += ' No printer response\n';
    }
    if (asb & epos.ASB_PRINT_SUCCESS) {
        msg += ' Print complete\n';
    }
    if (asb & epos.ASB_DRAWER_KICK) {
        msg += ' Status of the drawer kick number 3 connector pin = "H"\n';
    }
    if (asb & epos.ASB_OFF_LINE) {
        msg += ' Offline status\n';
    }
    if (asb & epos.ASB_COVER_OPEN) {
        msg += ' Cover is open\n';
    }
    if (asb & epos.ASB_PAPER_FEED) {
        msg += ' Paper feed switch is feeding paper\n';
    }
    if (asb & epos.ASB_WAIT_ON_LINE) {
        msg += ' Waiting for online recovery\n';
    }
    if (asb & epos.ASB_PANEL_SWITCH) {
        msg += ' Panel switch is ON\n';
    }
    if (asb & epos.ASB_MECHANICAL_ERR) {
        msg += ' Mechanical error generated\n';
    }
    if (asb & epos.ASB_AUTOCUTTER_ERR) {
        msg += ' Auto cutter error generated\n';
    }
    if (asb & epos.ASB_UNRECOVER_ERR) {
        msg += ' Unrecoverable error generated\n';
    }
    if (asb & epos.ASB_AUTORECOVER_ERR) {
        msg += ' Auto recovery error generated\n';
    }
    if (asb & epos.ASB_RECEIPT_NEAR_END) {
        msg += ' No paper in the roll paper near end detector\n';
    }
    if (asb & epos.ASB_RECEIPT_END) {
        msg += ' No paper in the roll paper end detector\n';
    }
    if (asb & epos.ASB_BUZZER) {
        msg += ' Sounding the buzzer (limited model)\n';
    }
    if (asb & epos.ASB_SPOOLER_IS_STOPPED) {
        msg += ' Stop the spooler\n';
    }
}
//Display in the dialog box
alert(msg);
}
```

Reception of Status Event

The status event notification function is used to check the printer status without printing.
Refer to the following:

```
//Set the end point address
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer
                                                    &timeout=10000';

//Create an ePOS-Print Builder object
var builder = new epson.ePOSBuilder(address);

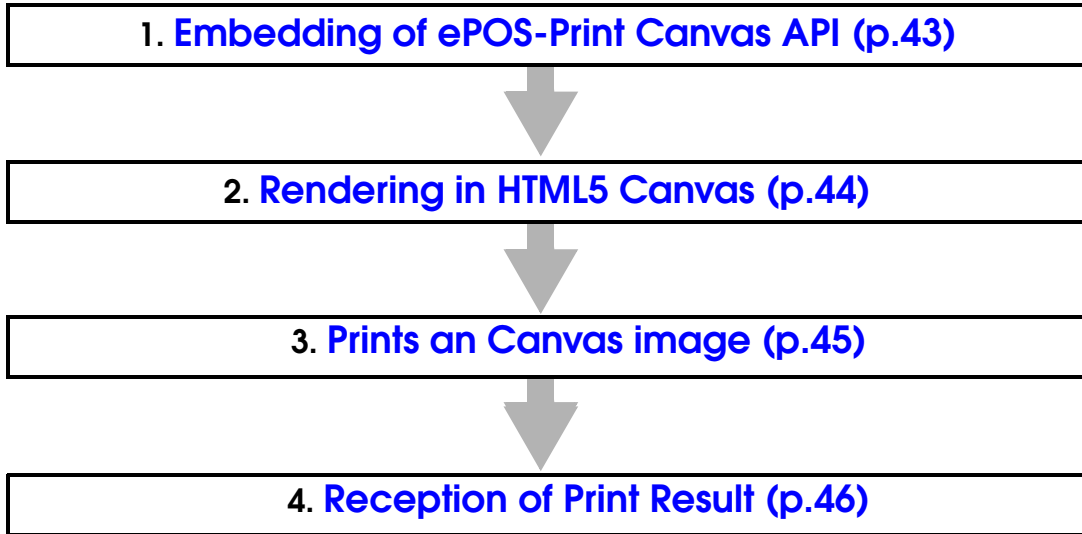
//Set an event callback function (cover open)
epos.oncoveropen = function () {
    alert('coveropen');
};

//Set an event callback function (paper near end)
epos.onpapernearend = function () {
    alert('papernearend');
};

//Enable status event operation
epos.open();
```

ePOS-Print Canvas API

For the ePOS-Print Canvas API, programming is performed based on the following work flow:



A status event helps check the status of the TM printer. For details on the procedure, refer to Reception of Status Event (p. 42).

Embedding of ePOS-Print Canvas API

The ePOS-Print Canvas API is provided as JavaScript. And its file name is "epos-print-x.x.x.js". It is used by embedding epos-print-x.x.x.js into applications.

Preparation

To use the ePOS-Print Canvas API, place epos-print-x.x.x.js on the Web server.

Embedding into Web pages

Embed the script into the Web page by using the HTML <script> tags.

```

<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8" />
<title>TITLE</title>
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
    function drawCanvas() {
        .
        .
    }
</script>
</head>

<body>
    .
    .
</body>
</html>
  
```

Embed

Rendering in HTML5 Canvas

Render an image in HTML5 Canvas.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8" />
<title>TITLE</title>
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
  function drawCanvas() {
    // Rendering in HTML5 Canvas
    //<Obtain the context>
    var canvas = document.getElementById('myCanvas');
    var context = canvas.getContext('2d');
    //<Render an image>
    context.clearRect(0, 0, 512, 480);
    context.drawImage(document.getElementById('coffee'), 0, 0
      , 512, 384);
    context.fillStyle = 'rgba(255, 255, 255, 0.5)';
    context.fillRect(0, 0, 512, 480);
    context.fillStyle = 'rgba(0, 0, 0, 1.0)';
    //<Render a water mark for the image>
    context.drawImage(document.getElementById('wmark'), 0, 0);
    context.drawImage(document.getElementById('wmark'), 256, 324);
    //<Render text>
    context.textAlign = 'center';
    context.textBaseline = 'alphabetic';
    context.font = 'bold normal normal 48px "Times New Roman", serif';
    context.fillText('FREE Coffee', 256, 224);
  }
</script>
</head>
<body>
  <button onclick="drawCanvas()">Run</button>
  <canvas id="myCanvas" width="512" height="480"></canvas>
  
  
</body>
</html>
```

Rendering in HTML5 Canvas

Prints an Canvas image

Content drawn in HTML5 Canvas is printed using the ePOS-Print Canvas API.

Create an ePOS-Print Canvas API object using the constructor; for the Print method, specify the end point address for the printer to be used for printing as well as the canvas content and whether to select paper cut; and then print a document. For the details about the printer end point address, refer to [Printer End Point Address \(p.39\)](#).

Refer to the following program.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8" />
<title>TITLE</title>
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
    function drawCanvas() {
        // Rendering in HTML5 Canvas
        //<Obtain the context>
        var canvas = document.getElementById('myCanvas');
        var context = canvas.getContext('2d');
        .
        .
        .
        //Set the end point address
        var address = 'http://192.168.192.168/cgi-bin/epos/
                      service.cgi?devid=local_printer&timeout=10000';
        //Create an ePOS-Print Canvas API object
        var epos = new epson.CanvasPrint(address);
        //Print
        epos.cut = true;
        epos.print(canvas);
    }
</script>
</head>
<body>
    <button onclick="drawCanvas()">Run</button>
    <canvas id="myCanvas" width="512" height="480"></canvas>
    
    
</body>
</html>
```

Transmission of print document



For the details about the printer end point address, refer to [Printer End Point Address \(p.39\)](#).

Reception of Print Result

The print result can be received by setting a callback function using the `onreceive` property (p. 131) of the ePOS-Print Canvas API object. The following information is obtained:

- ❑ Print result
- ❑ Error code
- ❑ Printer Status



The printer status can be obtained when communication with the printer is possible.

Refer to the following program. For the details about how to program a callback function in detail, refer to [Error handling \(p.41\)](#).

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8" />
<title>TITLE</title>
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
  function drawCanvas() {
    // Rendering in HTML5 Canvas
    //<Obtain the context>
    var canvas = document.getElementById('myCanvas');
    var context = canvas.getContext('2d');

    .
    .
    .

    //Set the end point address
    var address = 'http://192.168.192.168/cgi-bin/epos/
                  service.cgi?devid=local_printer&timeout=10000';
    //Create an ePOS-Print Canvas API object
    var epos = new epson.CanvasPrint(address);
    //Set a response receipt callback function
    epos.onreceive = function (res) {
      //When the printing is not successful, display a message
      if (!res.success) {
        alert('A print error occurred');
      }
    }

    //Print
    epos.cut = true;
    epos.print(canvas);
  }
</script>
</head>
<body>
  <button onclick="drawCanvas()">Run</button>
  <canvas id="myCanvas" width="512" height="480"></canvas>
  
  
</body>
</html>
```

Print result receipt
callback function

Error handling

Refer to the following program for the error handling method by a callback function.

```
var epos = new epos.CanvasPrint(address);
// Set a response receipt callback function
epos.onreceive = function (res) {
    // Obtain the print result and error code
    var msg = 'Print ' + (res.success ? 'Success' : 'Failure') + '\nCode:'
        + res.code + '\nStatus:\n';

    // Obtain the printer status
    var asb = res.status;
    if (asb & epos.ASB_NO_RESPONSE) {
        msg += ' No printer response\n';
    }
    if (asb & epos.ASB_PRINT_SUCCESS) {
        msg += ' Print complete\n';
    }
    if (asb & epos.ASB_DRAWER_KICK) {
        msg += ' Status of the drawer kick number 3 connector pin = "H"\n';
    }
    if (asb & epos.ASB_OFF_LINE) {
        msg += ' Offline status\n';
    }
    if (asb & epos.ASB_COVER_OPEN) {
        msg += ' Cover is open\n';
    }
    if (asb & epos.ASB_PAPER_FEED) {
        msg += ' Paper feed switch is feeding paper\n';
    }
    if (asb & epos.ASB_WAIT_ON_LINE) {
        msg += ' Waiting for online recovery\n';
    }
    if (asb & epos.ASB_PANEL_SWITCH) {
        msg += ' Panel switch is ON\n';
    }
    if (asb & epos.ASB_MECHANICAL_ERR) {
        msg += ' Mechanical error generated\n';
    }
    if (asb & epos.ASB_AUTOCUTTER_ERR) {
        msg += ' Auto cutter error generated\n';
    }
    if (asb & epos.ASB_UNRECOVER_ERR) {
        msg += ' Unrecoverable error generated\n';
    }
    if (asb & epos.ASB_AUTORECOVER_ERR) {
        msg += ' Auto recovery error generated\n';
    }
    if (asb & epos.ASB_RECEIPT_NEAR_END) {
        msg += ' No paper in the roll paper near end detector\n';
    }
    if (asb & epos.ASB_RECEIPT_END) {
        msg += ' No paper in the roll paper end detector\n';
    }
    if (asb & epos.ASB_BUZZER) {
        msg += ' Sounding the buzzer (limited model)\n';
    }
    if (asb & epos.ASB_SPOOLER_IS_STOPPED) {
        msg += ' Stop the spooler\n';
    }
}
//Display in the dialog box
alert(msg);
}
```

Reception of Status Event

The status event notification function is used to check the printer status without printing. Refer to the following.

```
//Set the end point address
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer
                                                    &timeout=10000';

//Create an ePOS-Print Canvas API object
var epos = new epos.CanvasPrint(address);

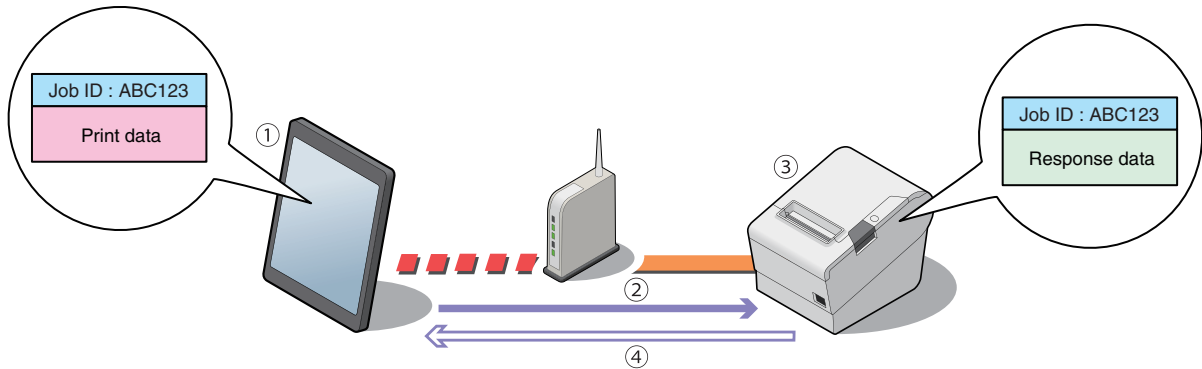
//Set an event callback function (cover open)
epos.oncoveropen = function () {
    alert('coveropen');
};

//Set an event callback function (paper near end)
epos.onpapernearend = function () {
    alert('papernearend');
};

//Enable status event operation
epos.open();
```


Specifying the Print Job ID from the Application

A response containing the specified print job ID will be returned when sending a request from the application by specifying the print job ID. (ePOS-Print Service Ver.4.1 or later versions)



Programming Example

```
var printjobid = 'ABC123';

var builder = new epson.ePOSBuilder();
builder.addText('Hello, World!\n');
builder.addCut();
var request = builder.toString();

var address = 'http://192.168.192.168/cgi-bin/epos/
               service.cgi?devid=local_printer';
var epos = new epson.ePOSPrint(address);
epos.onreceive = function (res) { alert(res.printjobid); };
epos.onerror = function (err) { alert(err.status); };
epos.send(request, printjobid);
```



API Reference

This chapter describes the ePOS-Print API.

Concerning ePOS-Print Canvas API, see [Canvas API Reference \(p.143\)](#).

List of API functions

ePOS-Print provides the following objects:

- ❑ ePOS-Print Builder (window.epson.ePOSBuilder) Object ([p. 51](#))
- ❑ ePOS-Print (window.epson.ePOSPrint) Object ([p. 54](#))

window.epson.ePOSBuilder Components

● : Available, - : Not available

Element	API	Description	Standard mode	Page mode	Page	
Constructor						
	ePOS Builder	Initializes an ePOS-Print XML Builder object	●	●	55	
Method						
	Text	addTextAlign	Adds a tag for the text alignment setting.	●	-	56
		addTextLineSpace	Adds a tag for the line feed space setting.	●	●	57
		addTextRotate	Adds a tag for the text rotation setting.	●	-	58
		addText	Adds a tag for printing text.	●	●	59
		addTextLang	Adds a tag for the target language setting.	●	●	60
		addTextFont	Adds a tag for the text font setting.	●	●	62
		addTextSmooth	Adds a tag for the text smoothing setting.	●	●	63
		addTextDouble	Adds a tag for specifying the double-sized text setting.	●	●	64
		addTextSize	Adds a tag for the text scale setting.	●	●	65
		addTextStyle	Adds a tag for the text style setting.	●	●	66
		addTextPosition	Adds a tag for specifying the print position of text.	●	●	68
		addTextVPosition	Adds a tag for specifying the print vertical position of text.	-	●	69
	Paper Feed	addFeedUnit	Adds a tag for paper feeding (in dots).	●	●	70
		addFeedLine	Adds a tag for paper feeding (in lines).	●	●	71
		addFeedPosition	Adds control of label paper/black mark paper to command buffer	●	-	72
		addFeed	Adds a line feed to the command buffer.	●	-	74

● : Available, - : Not available

Element	API		Description	Standard mode	Page mode	Page
Method						
Graphic	addImage	Adds a tag for a raster image to be printed.	●	●	75	
	addLogo	Adds a tag for an NV logo to be printed.	●	●	77	
Barcode	addBarcode	Adds a tag for a barcode to be printed.	●	●	78	
	addSymbol	Adds a tag for a 2D-code to be printed.	●	●	83	
Ruled line	addHLine	Adds a tag for a horizontal line to be printed.	●	-	88	
	addVLineBegin	Adds a tag for starting a vertical line.	●	-	90	
	addVLineEnd	Adds a tag for finishing a vertical line.	●	-	92	
Pagemode	addPageBegin	Adds a tag for switching to page mode.	●	-	94	
	addPageEnd	Adds a tag for finishing page mode.	●	-	95	
	addPageArea	Adds a tag for specifying the print area in page mode.	-	●	96	
	addPageDirection	Adds a tag for specifying the print direction in page mode.	-	●	98	
Page mode	addPagePosition	Adds a tag for specifying the print position in page mode.	-	●	100	
	addPageLine	Adds a tag for drawing a line in page mode.	-	●	102	
	addPageRectangle	Adds a tag for drawing a rectangle in page mode.	-	●	104	
Cut	addCut	Adds a tag for paper cut.	-	●	106	
Drawer kick-out	addPulse	Adds a tag for the drawer kick-out.	●	-	107	
Buzzer	addSound	Adds a tag for turning on the buzzer.	●	-	109	
Layout	addLayout	Adds the paper layout setup to command buffer	●	-	111	
Recovery	addRecovery	Adds a tag for recovering from an error.	●	-	115	
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Send Command	addCommand	Adds commands to the command buffer. Sends ESC/POS commands.	●	●	117	
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	force	Forced transmission mode	121
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	ALIGN_*	alignment	
	COLOR_*	color specification	
	HALFTONE_*	Halftone type	
	MODE_*	Color mode	
	BARCODE_*	Barcode type	
	HRI_*	HRI position	
	SYMBOL_*	2D-code type	
	LEVEL_*	error correction level	
	LINE_*	line style	
	DIRECTION_*	page mode print direction	
	CUT_*	paper cut type	
	DRAWER_*	drawer kick-out connector	
	PULSE_*	drawer kick-out pulse length	
Constant	PATTERN_*	buzzer sound pattern	
	FEED_*	Paper feed position of label paper/black mark paper	
	LAYOUT_*	Type of papers	

Numerical values to be set to parameters

In the ePOS-Print Builder object API, numerical values are set to some parameters. Set values with the following in mind:

☐ Unit

Specify numbers in dots for units that represent length.

(Print position, paper feed space, width and height of images and barcodes, etc.)

☐ Range

Depending on the printer specifications, a specifiable range is predetermined.

For details, refer to [Printer specifications \(p.183\)](#).

☐ Resolution

The resolution varies depending on the printer. It affects the actual print size. The higher the resolution is, the smaller the print size becomes, and vice versa.

For each printer's resolution, refer to [Printer specifications \(p.183\)](#).

window.epson.ePOSPrint Components

Element	API	Description	Page
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Method			
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	enabled	Enabling/disabling of status event	127
	interval	Printer status update interval	128
	status	Status	128
	battery	Battery status	129
	timeout	The connecting was timeout.	129
	drawerOpenLevel	Signal line status of the drawer that generates ondraweropen and ondrawerclosed events.	130
Event			
	onreceive	Response message receipt event	131
	onerror	Communication error event	134
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Constant			
	ASB_*	Status	
	DRAWER_OPEN_LEVEL_*	Signal line status to indicate that the drawer is open	

ePOS-Print Builder Object

This object creates a print document for printer control commands that specify strings or graphics to be printed, paper cut, etc.

Constructor

Constructor for an ePOS-Print Builder object.
Creates a new ePOS-Print Builder object and initializes it.

Syntax

```
ePOSBuilder() ;
```

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
}
//-->
</script>
```

addTextAlign method

Adds the text alignment setting to the command buffer.



- This API setting is applied to raster image/NV logo/barcode/2D-code.
- When using the standard mode, specify addTextAlign in "Position at the beginning of lines".
- In the page mode, addTextAlign method specification cannot be used.
In the page mode, use the addTextPosition method to designate the horizontal print position.



When the page mode is selected for the print mode, to set text rotation, use the addPageDirection method ([p. 98](#)) instead of this API function.

Syntax

addTextAlign(align) ;

Parameter

- align : (Required parameter, Object type : String)
Specifies the text alignment.

Constant(align)	Description
ALIGN_LEFT (default)	Alignment to the left
ALIGN_CENTER	Alignment to the center
ALIGN_RIGHT	Alignment to the right

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter "... " is invalid	Error

Example

To set alignment to the center:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addTextAlign(builder.ALIGN_CENTER);
}
//-->
</script>
```


addTextLineSpace method

Adds the line feed space setting to the command buffer.

Syntax

```
addTextLineSpace(linespc) ;
```

Parameter

- **linespc** : (Required parameter, Object type : Number)
Specifies the line feed space (in dots). Specifies an integer from 0 to 255.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ... " is invalid	Error

Example

To set the line feed space to 30 dots:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new Epson.ePOSBuilder();
    builder.addTextLineSpace(30);
}
//-->
</script>
```

addTextRotate method

Adds the text rotation setting to the command buffer.



- This API setting also applies to barcodes/2D-codes.
- When using the standard mode, specify addTextAlign in "Position at the beginning of lines".
- In the page mode, addTextAlign method specification cannot be used.



When the page mode is selected for the print mode, to set text rotation, use the [addPageDirection method \(p.98\)](#) instead of this API function.

Syntax

```
addTextRotate(rotate);
```

Parameter

- rotate : (Required parameter, Object type : Boolean)
Specifies whether to rotate text.

Setting	Description
true or 11	Specifies rotated printing of text.
false or 0 (default)	Cancels rotated printing of text.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter "... " is invalid	Error

Example

To set text rotation:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addTextRotate(true);
}
//-->
</script>
```

addText method

Adds the printing of text to the command buffer.



After printing text, to print content other than text, execute line feed or paper feed.



In page mode, characters are laid out in the current print position with the reference point being the character baseline dot ([Printer specifications \(p.183\)](#)).

Syntax

addText (data) ;

Parameter

- data : (Required parameter, Object type : String)
Specify a character string to be printed.
For the horizontal tab/line feed, use the following escape sequences:

String	Description
\t	Horizontal tab(HT)
\n	Line feed (LF)
\\	Carriage return

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ... " is invalid	Error

Example

To add character strings:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBUILDER();
    builder.addText('Hello,\t').addText('World\n');
}
//-->
</script>
```

addTextLang method

Adds the language setting to the command buffer.

Syntax

```
addTextLang( lang ) ;
```

Parameter

- lang : (Required parameter, Object type : String)
Specifies the target language.

Setting	Language
en(default)	English(ANK)
de	German (ANK)
fr	French (ANK)
it	Italian (ANK)
es	Spanish (ANK)
ja	Japanese (International character set changes to Japan.)
ja-jp	Japanese (International character set changes to Japan.)
ko	Korean (International character set changes to Korean.)
ko-kr	Korean (International character set changes to Korean.)
zh-hans	Simplified Chinese (International character set changes to China.)
zh-cn	Simplified Chinese (International character set changes to China.)
zh-hant	Traditional Chinese
zh-tw	Traditional Chinese
Language code besides above	English(ANK)



Characters not installed in a printer cannot be printed.



For printable character code, refer to the Technical Reference Guide of your printer.

Depending on language specification, a part of characters is printed as follows.

Language	Characters \$(U+0024)	Characters \ (U+005C)
Japanese	\$	¥
Korean	\$	₩
Simplified Chinese	¥	\
Traditional Chinese	\$	\

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

To set the language as English:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addTextLang('en');
}
//-->
</script>
```

To set the language as Korean:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addTextLang('ko');
}
//-->
</script>
```

To set the language as Simplified Chinese:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addTextLang('zh-hans');
}
//-->
</script>
```

To set the language as Traditional Chinese:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addTextLang('zh-hant');
}
//-->
</script>
```

addTextFont method

Adds the text font setting to the command buffer.

Syntax

addTextFont (font) ;

Parameter

- font : (Required parameter, Object type : String)
Specifies the font.

Constant (font)	Language
FONT_A (default)	Font A
FONT_B	Font B
FONT_C	Font C
FONT_D	Font D
FONT_E	Font E

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

To set the font B:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addTextFont(builder.FONT_B);
}
//-->
</script>
```

addTextSmooth method

Adds the smoothing setting to the command buffer.

Syntax

```
addTextSmooth (smooth) ;
```

Parameter

- **smooth** : (Required parameter, Object type : Boolean)
Specifies whether to enable smoothing.

Setting	Description
true or 1	Specifies smoothing.
false or 0 (default)	Cancels smoothing

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ... " is invalid	Error

Example

To enable smoothing:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBUILDER();
    builder.addTextSmooth(true);
}
//-->
</script>
```

addTextDouble method

Adds the double-sized text setting to the command buffer.

Syntax

addTextDouble(dw, dh);

Parameter

- dw : (Optional parameter, Object type : Boolean)
Specifies the double-sized width.

Setting	Description
true or 1	Specifies the double-sized width.
false or 0 (default)	Cancels the double-sized width
undefined (When not specified)	Retains the current setting for double-sized width.

- dh : (Optional parameter, Object type : Boolean)
Specifies the double-sized height.

Setting	Description
true or 1	Specifies the double-sized height
false or 0 (default)	Cancels the double-sized height
undefined (When not specified)	Retains the current setting for double-sized height



When true or 1 is set for both the dw and dh parameters, double width and height characters are printed.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter "... " is invalid	Error

Example

To set the size as double width and height:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addTextDouble(true, true);
}
//-->
</script>
```


addTextSize method

Adds the text scale setting to the command buffer.

Syntax

addTextSize(width, height);

Parameter

- width : (Optional parameter, Object type : Number)
Specifies the horizontal scale of text.

Setting	Description
Integer from 1 to 8	Horizontal scale (default : 1)
undefined (When not specified)	Retains the current setting for the horizontal scale.

- height : (Optional parameter, Object type : Number)
Specifies the vertical scale of text.

Setting	Description
Integer from 1 to 8	Vertical scale (default : 1)
undefined (When not specified)	Retains the current setting for the vertical scale.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ... " is invalid	Error

Example

To set a horizontal scale of x 4 and a vertical scale of x 4:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addTextSize(4, 4);
}
//-->
</script>
```

addTextStyle method

Adds the text style setting to the command buffer.

Syntax

```
addTextStyle(reverse, ul, em, color);
```

Parameter

- **reverse** : (Optional parameter, Object type : Boolean)
Specifies inversion of black and white for text.

Setting	Description
true or 1	Specifies the inversion of black and white parts of characters.
false or 0 (default)	Cancels the inversion of black and white parts of characters.
undefined (When not specified)	Retains the current setting for inversion of black and white.

- **ul** : (Optional parameter, Object type : Boolean)
Specifies the underline style.

Setting	Description
true or 1	Specifies underlining.
false or 0 (default)	Cancels underlining.
undefined (When not specified)	Retains the current underlining setting.

- **em** : (Optional parameter, Object type : Boolean)
Specifies the bold style.

Setting	Description
true or 1	Specifies emphasized printing of characters.
false or 0 (default)	Cancels emphasized printing of characters.
undefined (When not specified)	Retains the current setting for emphasized printing.

- **color** : (Optional parameter, Object type : String)
Specifies the color.

Setting	Description
COLOR_NONE	Characters are not printed.
COLOR_1 (default)	First color
COLOR_2	Second color
COLOR_3	Third color
COLOR_4	Fourth color
undefined (When not specified)	Retains the current color setting

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

To set the underline style:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addTextStyle(undefined, true);
}
//-->
</script>
```

addTextPosition method

Adds the horizontal print start position of text to the command buffer.

Syntax

addTextPosition(x) ;

Parameter

- x : (Required parameter, Object type : Number)
Specifies the horizontal print start position (in dots).
Specifies an integer from 0 to 65535.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ... " is invalid	Error

Example

To set the print position at 120 dots from the left end:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addTextPosition(120);
}
//-->
</script>
```

addTextVPosition method

Adds the vertical print start position of text to the command buffer.



Use this API function by inserting it between addPageBegin to addPageEnd.

Syntax

addTextVPosition(y) ;

Parameter

- y: (Required parameter, Object type : Number)
Specifies the vertical print start position (in dots).
Specifies an integer from 0 to 65535.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

To set the print position at 120 dots from the top:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addPageBegin();
    builder.addTextVPosition(120);
    builder.addPageEnd();
}
//-->
</script>
```

addFeedUnit method

Adds paper feeding in dots to the command buffer.

Syntax

```
addFeedUnit(unit);
```

Parameter

- unit : (Required parameter, Object type : Number)
Specifies the paper feed space (in dots). Specifies an integer from 0 to 255.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter "... " is invalid	Error

Example

To feed paper by 30 dots:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addFeedUnit(30);
}
//-->
</script>
```

addFeedLine method

Adds paper feeding in lines to the command buffer.

Syntax

```
addFeedLine(line);
```

Parameter

- line : (Required parameter, Object type : Number)
Specifies the paper feed space (in lines). Specifies an integer from 0 to 255.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ... " is invalid	Error

Example

To feed paper by 3 lines:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addFeedLine(3);
}
//-->
</script>
```

addFeedPosition method

Adds label/black mark paper feeding to the command buffer.



- Control of label paper/black mark paper must be done in the standard mode.
- In the page mode, addFeedPosition method specification cannot be used.

Syntax

```
addFeedPosition(pos) ;
```

Parameter

- pos : (Required parameter, Object type : String)
Specifies the feed position.

Setting	Description
FEED_PEEING	Feeds to the peeling position.
FEED_CUTTING	Feeds to the cutting position.
FEED_CURRENT_TOF	Feeds to the top of the current label.
FEED_NEXT_TOF	Feeds to the top of the next label.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ... " is invalid	Error

Example

To print while peeling the label one by one

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addFeedPosition(builder.FEED_CURRENT_TOF);
    builder.addBarcode('0001', builder.BARCODE_CODE39, builder.HRI_BELOW);
    builder.addFeedPosition(builder.FEED_PEELING);
}
//-->
</script>
```

To print labels consecutively

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addFeedPosition(builder.FEED_CURRENT_TOF);
    builder.addBarcode('0001', builder.BARCODE_CODE39, builder.HRI_BELOW);
    builder.addFeedPosition(builder.NEXT_TOF);
    builder.addBarcode('0002', builder.BARCODE_CODE39, builder.HRI_BELOW);
    builder.addFeedPosition(builder.NEXT_TOF);
    builder.addBarcode('0003', builder.BARCODE_CODE39, builder.HRI_BELOW);
    builder.addFeedPosition(builder.NEXT_TOF);
}
//-->
</script>
```

To print tickets with black mark paper

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addFeedPosition(builder.FEED_CURRENT_TOF);
    builder.addBarcode('0001', builder.BARCODE_CODE39, builder.HRI_BELOW);
    builder.addFeedPosition(builder.FEED_CUTTING);
    builder.addCut(builder.CUT_NO_FEED);
}
//-->
</script>
```

addFeed method

Adds a line feed to the command buffer.

Syntax

addFeed() ;

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Example

To start a new line after printing a character string:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
        builder.addText("Hello").addFeed();
        builder.addText("World").addFeed();
    }
//-->
</script>
```

addImage method

Adds raster image printing to the command buffer.

Prints graphics rendered in HTML5 Canvas.



- To print a raster image at high speed, specify `ALIGN_LEFT` for the `addTextAlign` method ([p. 56](#)), and specify a multiple of 8 not exceeding the printer's paper width for the `width` parameter of this API.
- In page mode, a raster image is laid out in the current print position with the reference point being its bottom left dot. The print position will not move.



If an HTML5 Canvas image contains images downloaded from different domains, you cannot print the image. In this case, a security error occurs due to violation of the same origin policy of JavaScript.

Syntax

```
addImage(context, x, y, width, height, color, mode);
```

Parameter

- **context :** (Required parameter, Object type : Context)
Specifies the 2D context of HTML5 Canvas.
- **x :** (Required parameter, Object type : Number)
Specifies the horizontal start position in the print area. Specifies an integer from 0 to 65535.
- **y :** (Required parameter, Object type : Number)
Specifies the vertical start position in the print area. Specifies an integer from 0 to 65535.
- **width :** (Required parameter, Object type : Number)
Specifies the width of the print area. Specifies an integer from 0 to 65535.
- **height :** (Required parameter, Object type : Number)
Specifies the height of the print area. Specifies an integer from 0 to 65535.
- **color :** (Optional parameter, Object type : String)
Specifies the color.

Setting	Description
<code>COLOR_NONE</code>	Characters are not printed.
<code>COLOR_1</code> (default)	First color
<code>COLOR_2</code>	Second color
<code>COLOR_3</code>	Third color
<code>COLOR_4</code>	Fourth color
undefined (When not specified)	First color

- **mode :** (Optional parameter, Object type : String)
Specifies the color mode.

Setting	Description
<code>MODE_MONO</code>	Monochrome (two-tone)
<code>MODE_GRAY16</code>	Gray scale (16-tone)
undefined (When not specified)	Monochrome (two-tone)

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    var canvas = document.getElementById('canvas');
    if (canvas.getContext) {
        var context = canvas.getContext('2d');
        builder.addImage(context, 0, 0, canvas.width, canvas.height);
    }
}
//-->
</script>
```

To print an image 300 dots wide and 300 dots high in page mode:

```
var canvas = document.getElementById('myCanvas');
var context = canvas.getContext('2d');
var builder = new epos.ePOSBuilder();
builder.addPageBegin();
builder.addPageArea(0, 0, 300, 300);
builder.addPagePosition(0, 299);
builder.addImage(context, 0, 0, 300, 300);
builder.addPageEnd();
```

addLogo method

Adds NV logo printing to the command buffer.

Prints a logo registered in the NV memory of the printer.



- Using model-dedicated utility or logo registration utility (TMFLogo), register a logo in the printer in advance.
- In page mode, a logo is laid out in the current print position with the reference point being its bottom left dot.

Syntax

addLogo(key1, key2);

Parameter

- key1 : (Required parameter, Object type : Number)
Specifies the key code 1 of an NV logo. Specifies an integer from 0 to 255.
- key2 : (Required parameter, Object type : Number)
Specifies the key code 2 of an NV logo. Specifies an integer from 0 to 255.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addLogo(48, 48);
}
//-->
</script>
```

addBarcode method

Adds barcode printing to the command buffer.



In page mode, a barcode is laid out in the current print position with the reference point being its bottom left dot (except for HRI).

Syntax

```
addBarcode(data, type, hri, font, width, height);
```

Parameter

- data : (Required parameter, Object type : String)
Specifies the barcode data as a string.

Barcode type	Description
UPC-A	When an 11-digit number is specified, a check digit is automatically added. When a 12-digit number is specified, the 12th digit is processed as a check digit but the check digit is not validated.
UPC-E	Specify 0 as the first digit. Specify the manufacturer code in the digits 2 to 6. Specify (right-align) the item code in the digits 7 to 11. The number of item code digits varies depending on the manufacturer code. Specify 0s in empty digits. When an 11-digit number is specified, a check digit is automatically added. When a 12-digit number is specified, the 12th digit is processed as a check digit but the check digit is not validated.
EAN13	When an 12-digit number is specified, a check digit is automatically added. When a 13-digit number is specified, the 12th digit is processed as a check digit but the check digit is not validated.
JAN13	
EAN8	When a 7-digit number is specified, a check digit is automatically added. When an 8-digit number is specified, the 8th digit is processed as a check digit but the check digit is not validated.
JAN8	
CODE39	When the first character is *, the character is processed as the start character. In other cases, a start character is automatically added.
ITF	Start and stop codes are automatically added. Check digits are not added or validated.
CODABAR	Specify a start character (A to D, a to d). Specify a stop character (A to D, a to d). Check digits are not added or validated.

Barcode type	Description
CODE93	Start and stop characters are automatically added. A check digit is automatically calculated and added.
CODE128	Specify a start character (CODE A, CODE B, CODE C). A stop character is automatically added. A check digit is automatically calculated and added. To encode each of the following characters, specify two characters starting with the character "{": < How to specify special characters > ^{*1} < How to specify CODE C > ^{*2}
GS1-128	A start character, FNC1, a check digit, and a stop character are automatically added. To automatically calculate and add a check digit for an application identifier (AI) and the subsequent data, specify the character "*" in the position of the check digit. You can enclose an application identifier (AI) in parentheses. The parentheses are used as HRI print characters and are not encoded as data. You can insert spaces between an application identifier (AI) and data. The spaces are used as HRI print characters and are not encoded as data. To encode each of the following characters, specify two characters starting with the character "{": < How to specify special characters > ^{*3} < How to specify CODE C > ^{*2}
GS1 DataBar Omnidirectional	Specify a 13-digit global trade item number (GTIN) not including an application identifier (AI) or a check digit.
GS1 DataBar Truncated	
GS1 DataBar Limited	
GS1 DataBar Expanded	You can enclose an application identifier (AI) in parentheses. The parentheses are used as HRI print characters and are not encoded as data. To encode each of the following characters, specify two characters starting with the character "{": < How to specify special characters > ^{*4}

To specify binary data that cannot be represented by character strings, use the following escape sequences.

String	Description
\xnn	Control code
\\	Back slash

*1: How to specify Code128 special characters

Data	Specified character string
FNC1	{C
FNC2	{2
FNC3	{3
FNC4	{4
CODE A	{A
CODE B	{B
CODE C	{I
SHIFT	{S
{	{{

*2: How to specify Code128 CODE C and GS1-128 CODE C.

Data	Specified character string
00	\x00
01	\x01
...	
09	\x09
10	\x0a
...	
98	\x62 or b
99	\x63 or c

*3: How to specify GS1-128 special characters

Data	Specified character string
FNC1	{I
FNC3	{3
({{
)	}D
*	{*
{	{{

*4: How to specify GS1 DataBar Expanded special characters

Data	Specified character string
FNC1	{I
({{
)	}D

- **type :** (Required parameter, Object type : String)
Specifies the barcode type.

Constant (type)	Barcode type
BARCODE_UPC_A	UPC-A
BARCODE_UPC_E	UPC-E
BARCODE_EAN13	EAN13
BARCODE_JAN13	JAN13
BARCODE_EAN8	EAN8
BARCODE_JAN8	JAN8
BARCODE_CODE39	CODE39
BARCODE_ITF	ITF
BARCODE_CODABAR	CODABAR
BARCODE_CODE93	CODE93
BARCODE_CODE128	CODE128
BARCODE_GS1_128	GS1-128
BARCODE_GS1_DATABAR_OMNIDIRECTIONAL	GS1 DataBar Omnidirectional
BARCODE_GS1_DATABAR_TRUNCATED	GS1 DataBar Truncated
BARCODE_GS1_DATABAR_LIMITED	GS1 DataBar Limited
BARCODE_GS1_DATABAR_EXPANDED	GS1 DataBar Expanded

- **hri :** (Optional parameter, Object type : String)
Specifies the HRI position.

Constant (hri)	Description
HRI_NONE (default)	HRI not printed
HRI_ABOVE	Above the barcode
HRI_BELOW	Below the barcode
HRI_BOTH	Both above and below the barcode

- **font :** (Optional parameter, Object type : String)
Specifies the HRI font.

Constant (font)	Language
FONT_A(default)	Font A
FONT_B	Font B
FONT_C	Font C
FONT_D	Font D
FONT_E	Font E

- **width :** (Optional parameter, Object type : Number)
Specifies the width of each module in dots. Specifies an integer from 2 to 6.
- **height :** (Optional parameter, Object type : Number)
Specifies the barcode height in dots. Specifies an integer from 1 to 255.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

To print barcodes:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBUILDER();
    builder.addBarcode('01234567890', builder.BAROCDE_UPC_A,
        builder.HRI_BELOW, undefined, 2, 64);
    builder.addBarcode('01234500005', builder.BAROCDE_UPC_E);
    builder.addBarcode('201234567890', builder.BAROCDE_EAN13);
    builder.addBarcode('201234567890', builder.BAROCDE_JAN13);
    builder.addBarcode('2012345', builder.BAROCDE_EAN8);
    builder.addBarcode('2012345', builder.BAROCDE_JAN8);
    builder.addBarcode('ABCDE', builder.BAROCDE_CODE39);
    builder.addBarcode('012345', builder.BAROCDE_ITF);
    builder.addBarcode('A012345A', builder.BAROCDE_CODABAR);
    builder.addBarcode('ABCDE', builder.BAROCDE_CODE93);
    builder.addBarcode('{AABCDE', builder.BAROCDE_CODE128);
    builder.addBarcode('{Babcde', builder.BAROCDE_CODE128);
    builder.addBarcode('{C\x0c\x22', builder.BAROCDE_CODE128);
    builder.addBarcode('(01)201234567890*', builder.BAROCDE_GS1_128);
    builder.addBarcode('0201234567890',
        builder.BAROCDE_GS1_DATABAR_OMNIDIRECTIONAL);
    builder.addBarcode('0201234567890',
        builder.BAROCDE_GS1_DATABAR_TRUNCATED);
    builder.addBarcode('0201234567890',
        builder.BAROCDE_GS1_DATABAR_LIMITED);
    builder.addBarcode('(01)2012345678903',
        builder.BAROCDE_GS1_DATABAR_EXPANDED);
}
//-->
</script>
```

addSymbol method

Adds 2D-code printing to the command buffer.



In page mode, a 2D-code is laid out in the current print position with the reference point being its bottom left dot.

Syntax

```
addSymbol(data, type, level, width, height, size);
```

Parameter

- data : (Required parameter, Object type : String)
Specifies 2D-code data as a character string.

2D-Code type	Description
Standard PDF417	Convert the character string to the string in UTF-8, apply the escape sequence, and then encode the string. The data area can contain up to 928 code words in a maximum of 90 rows, each of which can contain up to 30 code words.
Truncated PDF417	
QR Code Model 1	Convert the character string to the string in Shift-JIS, apply the escape sequence, and then encode the string based on the data type as shown below. Number: 0 to 9 Alphanumeric character: 0 to 9, A to Z, space, \$, %, *, +, -, ., /, : Kanji character: Shift-JIS value 8-bit, byte data: 0x00 to 0xff
QR Code Model 2	
Micro QR Code *1	

2D-Code type	Description
MaxiCode Mode 2	Convert the character string to the string in UTF-8, apply the escape sequence, and then encode the string.
MaxiCode Mode 3	
MaxiCode Mode 4	
MaxiCode Mode 5	
MaxiCode Mode 6	<p>In Modes 2 and 3, when the first piece of data is 0>\ x1e01\x1dyy (where yy is a two-digit number), this is processed as the message header, and the subsequent data is processed as the primary message. In other cases, from the first piece of data, data is processed as the primary message.</p> <p>In Mode 2, specify the primary message in the following format: Postal code (1- to 9-digit number) GS:(\x1d) ISO country code (1- to 3-digit number) GS:(\x1d) Service class code (1- to 3-digit number)</p> <p>In Mode 3, specify the primary message in the following format: Postal code (1 to 6 pieces of data convertible by Code Set A) GS:(\x1d) ISO country code (1- to 3-digit number) GS:(\x1d) Service class code (1- to 3-digit number)</p>
GS1 DataBar Stacked	Convert the character string to the string in UTF-8, apply the escape sequence, and then encode the string.
GS1 DataBar Stacked Omnidirectional	
GS1 DataBar Expanded Stacked	<p>Specify a 13-digit global trade item number (GTIN) not including an application identifier (AI) or a check digit.</p> <p>Convert the character string to the string in UTF-8, apply the escape sequence, and then encode the string.</p> <p>You can enclose an application identifier (AI) in parentheses. The parentheses are used as HRI print characters and are not encoded as data. To encode each of the following characters, specify two characters starting with the character "{":</p> <p>FNC1: {1 (: {(): }0</p>
Aztec Code	After converting the character string to UTF-8, conduct the escape sequence and encode.
DataMatrix	After converting the character string to UTF-8, conduct the escape sequence and encode.

*1: ePOS-Print Service Ver.4.1 or later

To specify binary data that cannot be represented by character strings, use the following escape sequences.

String	Description
\xnn	Control code
\\	Back slash

- type : (Required parameter, Object type : String)
Specifies the 2D-code type.

Constant (type)	2D-Code type
SYMBOL_PDF417_STANDARD	Standard PDF417
SYMBOL_PDF417_TRUNCATED	Truncated PDF417
SYMBOL_QRCODE_MODEL_1	QR Code Model 1
SYMBOL_QRCODE_MODEL_2	QR Code Model 2
SYMBOL_QRCODE_MICRO	Micro QR Code
SYMBOL_MAXICODE_MODE_2	MaxiCode Mode 2
SYMBOL_MAXICODE_MODE_3	MaxiCode Mode 3
SYMBOL_MAXICODE_MODE_4	MaxiCode Mode 4
SYMBOL_MAXICODE_MODE_5	MaxiCode Mode 5
SYMBOL_MAXICODE_MODE_6	MaxiCode Mode 6
SYMBOL_GS1_DATABAR_STACKED	GS1 DataBar Stacked
SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL	GS1 DataBar Stacked Omnidirectional
SYMBOL_GS1_DATABAR_EXPANDED_STACKED	GS1 DataBar Expanded Stacked
SYMBOL_AZTECCODE_FULLRANGE	Aztec Code Full-Range mode
SYMBOL_AZTECCODE_COMPACT	Aztec Code Compact mode
SYMBOL_DATAMATRIX_SQUARE	DataMatrix ECC200 square
SYMBOL_DATAMATRIX_RECTANGLE_8	DataMatrix ECC200 rectangle, 8 lines
SYMBOL_DATAMATRIX_RECTANGLE_12	DataMatrix ECC200 rectangle, 12 lines
SYMBOL_DATAMATRIX_RECTANGLE_16	DataMatrix ECC200 rectangle, 16 lines

- **level :** (Optional parameter, Object type : String)
Specifies the error correction level.

Constant (level)	Description
LEVEL_0	PDF417 error correction level 0
LEVEL_1	PDF417 error correction level 1
LEVEL_2	PDF417 error correction level 2
LEVEL_3	PDF417 error correction level 3
LEVEL_4	PDF417 error correction level 4
LEVEL_5	PDF417 error correction level 5
LEVEL_6	PDF417 error correction level 6
LEVEL_7	PDF417 error correction level 7
LEVEL_8	PDF417 error correction level 8
LEVEL_L	QR Code error correction level L
LEVEL_M	QR Code error correction level M
LEVEL_Q	QR Code error correction level Q
LEVEL_H	QR Code error correction level H
LEVEL_DEFAULT	Default level
Integer from 5 to 95	Aztec Code error correction level (Default: 23)



- Select the level according to the 2D-code type.
- For MaxiCode and two-dimensional GS1 DataBar, select LEVEL_DEFAULT.
- Micro QR Code does not support LEVEL_H.

- **width :** (Optional parameter, Object type : Number)
Specifies the module width. Specifies an integer from 0 to 255.

2D-Code type	Valid value range	Default value
PDF417	2 to 8	3
QR Code	1 to 16	3
MaxiCode	Ignored	
2D GS1 DataBar	2 to 8	2
Aztec Code	2 to 16	3
DataMatrix	2 to 16	3

- **height :** (Optional parameter, Object type : Number)
Specifies the module height. Specifies an integer from 0 to 255.

2D-Code type	Valid value range	Default value
PDF417	2 to 8 (Magnification for width)	3
QR Code	Ignored	
MaxiCode		
2D GS1 DataBar		
Aztec Code		
DataMatrix		

- **size :** (Optional parameter, Object type : Number)
Specifies the 2D-code maximum size. Specifies an integer from 0 to 65535.

2D-Code type	Default value	Description
PDF417	0 (Auto)	Specifies the number of code words for each row
QR Code	Ignored	
MaxiCode		
2D GS1 DataBar	0 (Auto)	Specifies the maximum width for the barcode (106 or above)
Aztec Code	Ignored	
DataMatrix		
(Others)	Ignored	

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter "... " is invalid	Error

Example

To print 2D-codes:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addSymbol('ABCDE', builder.SYMBOL_PDF417_STANDARD);
    builder.addSymbol('ABCDE', builder.SYMBOL_QRCODE_MODEL_2,
        builder.LEVEL_Q);
    builder.addSymbol('908063840\x1d850\x1d001\x1d\x04',
        builder.SYMBOL_MAXICODE_MODE_2);
    builder.addSymbol('0201234567890', builder.SYMBOL_
        GS1_DATABAR_STACKED);
    builder.addSymbol('0201234567890',
        builder.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL);
    builder.addSymbol('(01)02012345678903',
        builder.SYMBOL_GS1_DATABAR_EXPANDED_STACKED);
    builder.addSymbol('ABCDE', builder.SYMBOL_AZTECCODE_FULLRANGE, 23);
    builder.addSymbol('ABCDE', builder.SYMBOL_DATAMATRIX_SQUARE);
}
//-->
</script>
```

addHLine method

Adds horizontal line printing to the command buffer.
Draws horizontal lines.



Not available in page mode.

Syntax

```
addHLine(x1, x2, style);
```

Parameter

- x1: (Required parameter, Object type : Number)
Specifies the start position of the horizontal line (in dots). Specifies an integer from 0 to 65535.
- x2: (Required parameter, Object type : Number)
Specifies the end position of the horizontal line (in dots). Specifies an integer from 0 to 65535.
- style: (Optional parameter, Object type : String)
Specifies the line type.

Constant (style)	Description
LINE_THIN	Solid line: Thin
LINE_MEDIUM	Solid line: Medium
LINE_THICK	Solid line: Thick
LINE_THIN_DOUBLE	Double line: Thin
LINE_MEDIUM_DOUBLE	Double line: Medium
LINE_THICK_DOUBLE	Double line: Thick
undefined (When not specified)	Solid line: Thin

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ... " is invalid	Error

Example

To draw double horizontal lines in the following positions:

- Between 100 dots and 200 dots from the left end
- Between 400 dots and 500 dots from the left end

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new Epson.ePOSBuilder();
    builder.addHLine(100, 200, builder.LINE_THIN_DOUBLE);
    builder.addHLine(400, 500, builder.LINE_THIN_DOUBLE);
}
//-->
</script>
```

addVLineBegin method

Adds the beginning of vertical line to the command buffer. Starts to draw vertical lines.



Not available in page mode.



Vertical lines are drawn until their end is specified by addVLineEnd ([p. 92](#)). Use this API function with addVLineEnd.

Syntax

```
addVLineBegin(x, style);
```

Parameter

- **x :** (Required parameter, Object type : Number)
Specifies the start position of the vertical line (in dots). Specifies an integer from 0 to 65535.
- **style :** (Optional parameter, Object type : String)
Specifies the line type.

Constant (style)	Description
LINE_THIN	Solid line: Thin
LINE_MEDIUM	Solid line: Medium
LINE_THICK	Solid line: Thick
LINE_THIN_DOUBLE	Double line: Thin
LINE_MEDIUM_DOUBLE	Double line: Medium
LINE_THICK_DOUBLE	Double line: Thick
undefined (When not specified)	Solid line: Thin

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

To draw thin vertical lines at 100 dots and 200 dots from the left end:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addVLineBegin(100).addVLineBegin(200);
    builder.addFeedUnit(100);
    builder.addVLineEnd(100).addVLineEnd(200);
}
//-->
</script>
```

addVLineEnd method

Adds the end of vertical line to the command buffer. Finishes drawing vertical lines.



Not available in page mode.



Use this API function with addVLineBegin ([p. 90](#)).

Syntax

addVLineEnd(x, style);

Parameter

- x : (Required parameter, Object type : Number)
Specifies the end position of the vertical line (in dots). Specifies an integer from 0 to 65535.
- style : (Optional parameter, Object type : String)
Specifies the type of the line you want to finish drawing.

Constant (style)	Description
LINE_THIN	Solid line: Thin
LINE_MEDIUM	Solid line: Medium
LINE_THICK	Solid line: Thick
LINE_THIN_DOUBLE	Double line: Thin
LINE_MEDIUM_DOUBLE	Double line: Medium
LINE_THICK_DOUBLE	Double line: Thick
undefined (When not specified)	Solid line: Thin

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter "... " is invalid	Error

Example

To draw thin vertical lines at 100 dots and 200 dots from the left end:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addVLineBegin(100).addVLineBegin(200);
    builder.addFeedUnit(100);
    builder.addVLineEnd(100).addVLineEnd(200);
}
//-->
</script>
```

addPageBegin method

Adds the switching to page mode to the command buffer. The page mode process starts.



Vertical lines are processed in page mode until their end is specified by addPageEnd ([p. 95](#)). Use this API function with addPageEnd.

Syntax

```
addPageBegin() ;
```

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Example

To print the characters "ABCDE" in page mode:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addPageBegin();
    builder.addText('ABCDE');
    builder.addPageEnd();
}
//-->
</script>
```

addPageEnd method

Adds the end of page mode to the command buffer. The page mode process ends.



Use this API function with `addPageBegin` ([p. 94](#)).

Syntax

`addPageEnd()` ;

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Example

To print the characters "ABCDE" in page mode:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addPageBegin();
    builder.addText('ABCDE');
    builder.addPageEnd();
}
//-->
</script>
```

addPageArea method

Adds the print area in page mode to the command buffer.

Specifies the print area in page mode (coordinates). After this API function, specify a print data API function such as the addText method.



Specify a print area to cover the content to be printed. If the print data extends beyond the print area, the print result will be such that the print data has been printed incompletely.



Use this API function by inserting it between addPageBegin (p. 94) and addPageEnd (p. 95).

Syntax

```
addPageArea(x, y, width, height);
```

Parameter

- **x :** (Required parameter, Object type : Number)
Specifies the origin of the horizontal axis (in dots). Specifies an integer from 0 to 65535. 0 is the left end of the printer's printable area.
- **y :** (Required parameter, Object type : Number)
Specifies the origin of the vertical axis (in dots). Specifies an integer from 0 to 65535. 0 is the position in which no paper feed has been performed.
- **width :** (Required parameter, Object type : Number)
Specifies the width of the print area (in dots). Specifies an integer from 0 to 65535.
- **height :** (Required parameter, Object type : Number)
Specifies the height of the print area (in dots). Specifies an integer from 0 to 65535.



Determine the width and height of the print area according to the print direction setting. Otherwise, the print data might not be printed completely.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

To specify the print area with the origin (100, 50), a width of 200 dots, and a height of 30 dots and print the characters "ABCDE":

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addPageBegin();
    builder.addPageArea(100, 50, 200, 30);
    builder.addText('ABCDE');
    builder.addPageEnd();
}
//-->
</script>
```

addPageDirection method

Adds the page mode print direction setting to the command buffer. Specifies the print direction in page mode. This function can be omitted if rotation is not required.



Use this API function by inserting it between `addPageBegin` ([p. 94](#)) and `addPageEnd` ([p. 95](#)).

Syntax

`addPageDirection(dir) ;`

Parameter

- `dir` : (Required parameter, Object type : String)
Specifies the print direction in page mode.

Constant (dir)	Description
DIRECTION_LEFT_TO_RIGHT(default)	Left to right (No rotation.Data is printed from the top left corner to the right.)
DIRECTION_BOTTOM_TO_TOP	Bottom to top (Counterclockwise rotation by 90 degrees. Data is printed from the bottom left corner to the top.)
DIRECTION_RIGHT_TO_LEFT	Right to left (Rotation by 180 degrees.Data is printed from the bottom right corner to the left.)
DIRECTION_TOP_TO_BOTTOM	Top to bottom (Clockwise rotation by 90 degrees. Data is printed from the top right corner to the bottom.)

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ... " is invalid	Error

Example

To print the characters "ABCDE" by rotating them 90 degrees clockwise:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addPageBegin();
    builder.addPageArea(100, 50, 30, 200);
    builder.addPageDirection(builder.DIRECTION_TOP_TO_BOTTOM);
    builder.addText('ABCDE');
    builder.addPageEnd();
}
//-->
</script>
```

addPagePosition method

Adds the page mode print-position-set area to the command buffer.

Specifies the print start position (coordinates) in the area specified by the addPageArea method.



Use this API function by inserting it between addPageBegin (p. 94) and addPageEnd (p. 95).

Syntax

```
addPagePosition(x, y);
```

Parameter

- **x :** (Required parameter, Object type : Number)
Specifies the horizontal print position (in dots). Specifies an integer from 0 to 65535.
- **y :** (Required parameter, Object type : Number)
Specifies the vertical print position (in dots). Specifies an integer from 0 to 65535.



Specify the print start position (coordinates) according to the content to be printed. Refer to the following.

- * To print a character string:
Specify the left end of the baseline for the first character. This can be omitted for left-aligned printing of standard-sized characters. To print double-sized height characters, specify a value equal to or greater than 42 for y.
- * To print a barcode:
Specify the bottom left of the symbol. And specify the barcode height for y.
- * To print a graphic/logo:
Specify the bottom left of the graphic data. And specify the graphic data height for y.
- * To print a 2D-code:
Specify the top left of the symbol. This can be omitted when printing from the top left.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

To specify (50,30) for the print start position in the area specified by the `addPageArea` method and print the characters "ABCDE":

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addPageBegin();
    builder.addPageArea(100, 50, 200, 100);
    builder.addPagePosition(50, 30);
    builder.addText('ABCDE');
    builder.addPageEnd();
}
//-->
</script>
```

addPageLine method

Adds line drawing in page mode to the command buffer. Draws a line in page mode.



Diagonal lines cannot be drawn.



Use this API function by inserting it between `addPageBegin` (p. 94) and `addPageEnd` (p. 95).

Syntax

```
addPageLine(x1, y1, x2, y2, style);
```

Parameter

- **x1:** (Required parameter, Object type : Number)
Specifies the horizontal start position of the line (in dots). Specifies an integer from 0 to 65535.
- **y1:** (Required parameter, Object type : Number)
Specifies the vertical start position of the line (in dots). Specifies an integer from 0 to 65535.
- **x2:** (Required parameter, Object type : Number)
Specifies the horizontal end position of the line (in dots). Specifies an integer from 0 to 65535.
- **y2:** (Required parameter, Object type : Number)
Specifies the vertical end position of the line (in dots). Specifies an integer from 0 to 65535.
- **style:** (Optional parameter, Object type : String)
Specifies the line type.

Constant (style)	Description
LINE_THIN	Solid line: Thin
LINE_MEDIUM	Solid line: Medium
LINE_THICK	Solid line: Thick
LINE_THIN_DOUBLE	Double line: Thin
LINE_MEDIUM_DOUBLE	Double line: Medium
LINE_THICK_DOUBLE	Double line: Thick
undefined (When not specified)	Solid line: Thin

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

To draw a thin solid line between the start position (100, 0) and the end position (500, 0):

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addPageBegin();
    builder.addPageLine(100, 0, 500, 0, builder.LINE_THIN);
    builder.addPageEnd();
}
//-->
</script>
```

addPageRectangle method

Adds rectangle drawing in page mode to the command buffer. Draws a rectangle in page mode.



Use this API function by inserting it between `addPageBegin` (p. 94) and `addPageEnd` (p. 95).

Syntax

```
addPageRectangle(x1, y1, x2, y2, style);
```

Parameter

- **x1:** (Required parameter, Object type : Number)
Specifies the horizontal start position of the line (in dots). Specifies an integer from 0 to 65535.
- **y1:** (Required parameter, Object type : Number)
Specifies the vertical start position of the line (in dots). Specifies an integer from 0 to 65535.
- **x2:** (Required parameter, Object type : Number)
Specifies the horizontal end position of the line (in dots). Specifies an integer from 0 to 65535.
- **y2:** (Required parameter, Object type : Number)
Specifies the vertical end position of the line (in dots). Specifies an integer from 0 to 65535.
- **style :** (Optional parameter, Object type : String)
Specifies the line type.

Constant (style)	Description
LINE_THIN	Solid line: Thin
LINE_MEDIUM	Solid line: Medium
LINE_THICK	Solid line: Thick
LINE_THIN_DOUBLE	Double line: Thin
LINE_MEDIUM_DOUBLE	Double line: Medium
LINE_THICK_DOUBLE	Double line: Thick
undefined (When not specified)	Solid line: Thin

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

To draw a rectangle with a thin double line, with the start position (100, 0) and the end position (500, 200) as its vertexes:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addPageBegin();
    builder.addPageLine(100, 0, 500, 200, builder.LINE_THIN_DOUBLE);
    builder.addPageEnd();
}
//-->
</script>
```

addCut method

Adds paper cut to the command buffer. Sets paper cut.



Not available in page mode.

Syntax

addCut (type) ;

Parameter

- type : (Optional parameter, Object type : String)
Specifies the paper cut type.

Setting	Description
CUT_NO_FEED	Cut without feeding (The paper is cut without being fed.)
CUT_FEED	Feed cut (The paper is fed to the cut position and then is cut.)
CUT_RESERVE	Cut reservation (Printing continues until the cut position is reached, at which the paper is cut.)
undefined (When not specified)	Feed cut (The paper is fed to the cut position and then is cut.)

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ... " is invalid	Error

Example

To perform feed cut operation:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addCut(builder.CUT_FEED);
}
//-->
</script>
```

addPulse method

Adds the drawer kick to the command buffer. Sets the drawer kick.



- Not available in page mode.
- The drawer and the buzzer cannot be used together.

Syntax

```
addPulse(drawer, time);
```

Parameter

- **drawer :** (Optional parameter, Object type : String)
Specifies the drawer kick connector.

Setting	Description
DRAWER_1	Pin 2 of the drawer kick-out connector
DRAWER_2	Pin 5 of the drawer kick-out connector
undefined (When not specified)	Pin 2 of the drawer kick-out connector

- **time :** (Optional parameter, Object type : String)
Specifies the ON time of the drawer kick signal.

Setting	Description
PULSE_100	100 ms
PULSE_200	200 ms
PULSE_300	300 ms
PULSE_400	400 ms
PULSE_500	500 ms
undefined (When not specified)	100 ms

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

To send a 100msec pulse signal to the pin 2 of the drawer kick connector:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBUILDER();
    builder.addPulse(builder.DRAWER_1, builder.PULSE_100);
}
//-->
</script>
```

addSound method

Adds the turning on of the buzzer to the command buffer. Sets the buzzer.



- Not available in page mode.
- The buzzer function and the drawer cannot be used together.
- This API function cannot be used if the printer is not provided with the buzzer.

Syntax

```
addSound(pattern, repeat, cycle);
```

Parameter

- pattern : (Optional parameter, Object type : String)
Specifies the buzzer pattern.

Setting	Description
PATTERN_NONE	Stop
PATTERN_A	Pattern A
PATTERN_B	Pattern B
PATTERN_C	Pattern C
PATTERN_D	Pattern D
PATTERN_E	Pattern E
PATTERN_ERROR	Error sound pattern
PATTERN_PAPER_END	Pattern when there is no paper
PATERN_0 *	Pattern 0
PATERN_1	Pattern 1
PATERN_2	Pattern 2
PATERN_3	Pattern 3
PATERN_4	Pattern 4
PATERN_5	Pattern 5
PATERN_6	Pattern 6
PATERN_7	Pattern 7
PATERN_8	Pattern 8
PATERN_9	Pattern 9
PATERN_10	Pattern 10
undefined (When not specified)	Pattern A

*: ePOS-Print Service Ver.5.0 or later

- repeat : (Optional parameter, Object type : String)
Specifies the number of repeats.

Setting	Description
0	The buzzer does not stop.
1 to 255	Number of repeats (For PATTERN_0, the effective range is between 1 to 20.)
undefined (When not specified)	One time



After "0" is specified for repeat, if you want to stop the buzzer, execute this API function and specify PATTERN_NONE for pattern.

- cycle : (Optional parameter, Object type : Number, When not specified : 1000)
Specifies the buzzer sounding cycle. Specifies an integer from 1000 to 25500.



"cycle" is enabled by any of "pattern_0" to "pattern_10" for the buzzer pattern.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ... " is invalid	Error

Example

To repeat the sound pattern A three times:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addSound(builder.PATTERN_A, 3);
}
//-->
</script>
```

addLayout method

Adds paper layout information to the command buffer.



Setting of page layout must be done in the standard mode. In the page mode, addLayout cannot be specified.

Syntax

```
addLayout(type, width, height, margin_top,  
           margin_bottom, offset_cut, offset_label);
```

Parameter

- **type** : (Required parameter, Object type : String)
Specifies the paper type.

Constant (type)	Description
LAYOUT_RECEIPT	Receipt (without black mark)
LAYOUT_RECEIPT_BM	Receipt (with black mark)
LAYOUT_LABEL	Die-cut label (without black mark)
LAYOUT_LABEL_BM	Die-cut label (with black mark)

- **width** : (Optional parameter, Object type : Number, When not specified : 580)
Specifies paper width (in units of 0.1 mm). Specifies an integer from 290 to 600. *
- **height** : (Optional parameter, Object type : Number, When not specified : 0)
Specifies paper height (in units of 0.1 mm).

Paper Type	Valid value range	Description
Receipt (without black mark)	0	Setup not necessary
Receipt (with black mark)	0 (Auto) 284 to 1550 (Manual) *	Distance from the top of black mark to the top of next black mark
Die-cut label (without black mark)		Distance from the top of label to the top of next label
Die-cut label (with black mark)		Distance from the bottom of black mark to the bottom of next black mark.

- **margin_top** : (Optional parameter, Object type : Number, When not specified : 0)
Specifies top margin (in units of 0.1 mm).

Paper Type	Valid value range	Description
Receipt (without black mark)	0	Setup not necessary
Receipt (with black mark)	-150 to 1500 *	Distance from the top of black mark
Die-cut label (without black mark)	0 to 1500 *	Distance from the top of label
Die-cut label (with black mark)	-15 to 1500 *	Distance from the bottom of black mark

- **margin_bottom :** (Optional parameter, Object type : Number, When not specified : 0)
Specifies bottom margin (in units of 0.1 mm).

Paper Type	Valid value range	Description
Receipt (without black mark)	0	Setup not necessary
Receipt (with black mark)	0	
Die-cut label (without black mark)	-15 to 0 *	Distance from the bottom of label (paper feed direction is a positive number)
Die-cut label (with black mark)	-15 to 15 *	Distance from the top of black mark (paper feed direction is a positive number)

- **offset_cut :** (Optional parameter, Object type : Number, When not specified : 0)
Specifies cut position (in units of 0.1 mm).
In case of die cut label paper, it is a distance from the bottom of label.
When a paper has black mark, it is a distance from the beginning of black mark.

Paper Type	Valid value range	Description
Receipt (without black mark)	0	Setup not necessary
Receipt (with black mark)	-290 to 50 *	Distance from the top of black mark to the cutting position
Die-cut label (without black mark)	0 to 50 *	Distance from the bottom of label to the cutting position
Die-cut label (with black mark)	0 to 50 *	Distance from the top of black mark to the cutting position

- **offset_label* :** (Optional parameter, Object type : Number, When not specified : 0)
Specifies label bottom position (sd) per 0.1 mm unit.

Paper Type	Valid value range	Description
Receipt (without black mark)	0	Setup not necessary
Receipt (with black mark)	0	
Die-cut label (without black mark)	0	
Die-cut label (with black mark)	0 to 15 *	Distance from the top of black mark to the bottom of label

*: Valid value of range is depending on the printer model. For detail, refer to [Printer specifications \(p.183\)](#).

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

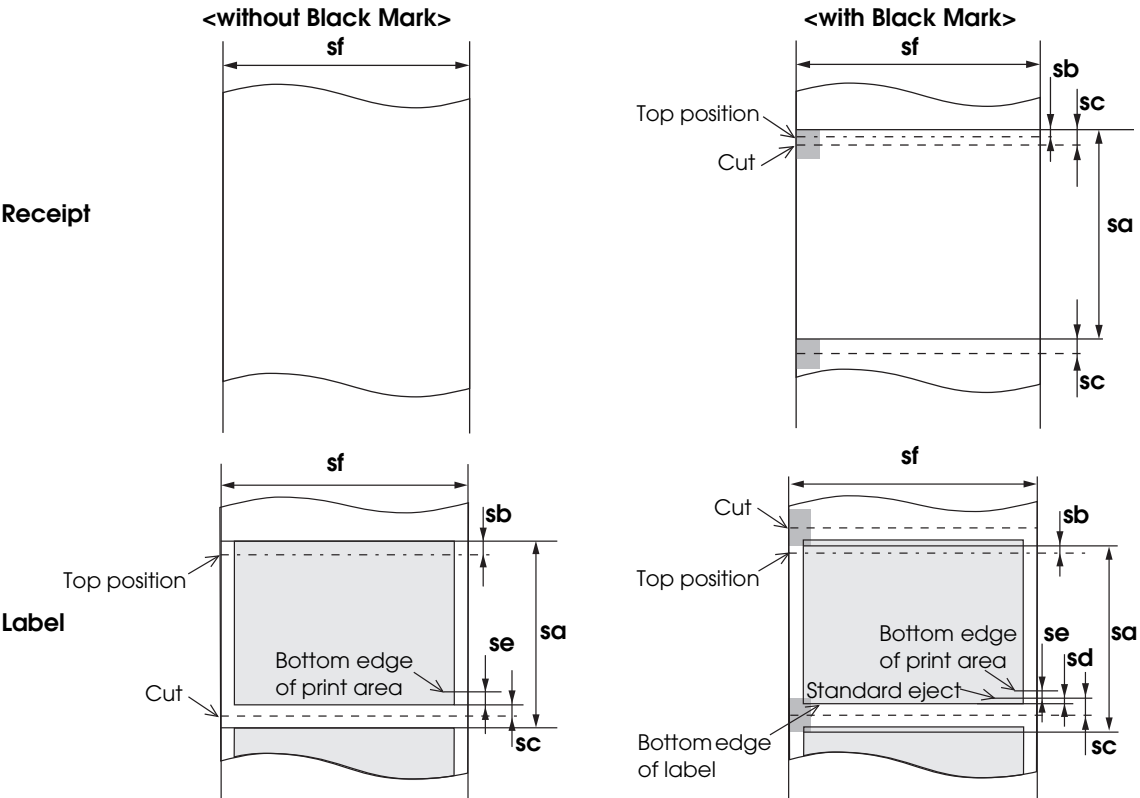
Exception

Exception	Object type
Parameter " ... " is invalid	Error

Detailed description

See below for the parameters that can be specified for each type of paper, and the positions for those parameters.

Mark	Parameter
sf	width
sa	height
sb	margin_top
se	margin_bottom
sc	offset_cut
sd	offset_label



Example

To set 58 mm receipt (without black mark):

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addLayout(builder.LAYOUT_RECEIPT, 580);
}
//-->
</script>
```

To set 58 mm receipt (with black mark):

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addLayout(builder.LAYOUT_RECEIPT_BM, 580, 0, 15, 0);
}
//-->
</script>
```

To set 58 mm die-cut label (without black mark):

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addLayout(builder.LAYOUT_LABEL, 580, 0, 15, -15, 25);
}
//-->
</script>
```

To set 58 mm die-cut label (with black mark):

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.addLayout(builder.LAYOUT_LABEL_BM, 580, 0, 15, -15, 25, 15);
}
//-->
</script>
```

addRecovery method

Adds the recovery from errors to the command buffer.



Enable forced transmission mode to use this API. The printer recovers from errors that can be recovered from and clears the buffer.

Syntax

`addRecovery()` ;

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

Recovers from errors that can be recovered from and clears the buffer:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.force = true;
    builder.addRecovery();
}
//-->
</script>
```

addReset method

Adds the printer reset to the command buffer.



Other printing commands in the print document are ignored.

Syntax

```
addReset ( ) ;
```

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

Resets the printer:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epos.ePOSBuilder();
    builder.addReset();
}
//-->
</script>
```

addCommand method

Adds commands to the command buffer. Sends ESC/POS commands.



Refer to the following URL for details of the ESC/POS command.
https://reference.epson-biz.com/modules/ref_escpos/index.php?content_id=2

Syntax

addCommand(data) ;

Parameter

- data : (Optional parameter, Object type : String)
Specifies ESC/POS command as a character string.

Return value

Return value	Object type
ePOS-Print Builder Object	ePOS Builder

Exception

Exception	Object type
Parameter " ..." is invalid	Error

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    var doc = builder.addCommand('ABC\x44\x45\x0a');
}
//-->
</script>
```

toString method

Obtains a print document generated by an ePOS-Print Builder object.

Syntax

toString() ;

Return value

Return value	Object type
Document to be printed	String

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    var doc = builder.toString();
}
//-->
</script>
```

halftone property

Halftone processing method.

Object type

String

Description

The halftone processing method to be applied to monochrome (two-tone) printing is specified. The default value is HALFTONE_DITHER.

Constant	Description
HALFTONE_DITHER (default)	Dithering, suitable for printing graphics only.
HALFTONE_ERROR_DIFFUSION	Error diffusion, suitable for printing text and graphics together.
HALFTONE_THRESHOLD	Threshold, suitable for printing text only.

Example

To set the halftone type as error diffusion:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
var builder = new Epson.ePOSBuilder();
var canvas = document.getElementById('canvas');
if (canvas.getContext) {
    var context = canvas.getContext('2d');
    builder.halftone = Epson.HALFTONE_ERROR_DIFFUSION;
    builder.addImage(context, 0, 0, canvas.width, canvas.height);
}
}
//-->
</script>
```

brightness property

Brightness correction value.

Object type

Number

Description

A gamma value in the range 0.1-10.0 is specified for the brightness correction value.
The default value is 1.0.

Example

To set brightness as 2.2:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
var builder = new Epson.ePOSBuilder();
var canvas = document.getElementById('canvas');
if (canvas.getContext) {
    var context = canvas.getContext('2d');
    builder.brightness = 2.2;
    builder.addImage(context, 0, 0, canvas.width, canvas.height);
}
}
//-->
</script>
```


force property

This is the forced transmission mode.

Object type

Boolean

Description

If you enable forced transmission mode, print commands are forcibly sent to the printer.



- Use forced transmission mode when the printer is offline. It will result in an error if the printer is online.
- The following functions are enabled in forced transmission mode.
 - * Drawer kick-out ([addPulse method \(p.107\)](#))
 - * Stopping the buzzer ([addSound method \(p.109\)](#))
 - * Recovery from errors that can be recovered from ([addRecovery method \(p.115\)](#))
 - * Reset ([addReset method \(p.116\)](#))
 - * Sending commands in real time ([addCommand method \(p.117\)](#))

Example

Performs a drawer kick-out when the paper is at the end:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
    var builder = new epson.ePOSBuilder();
    builder.force = true;
    builder.addPulse();
}
//-->
</script>
```

message property

Command buffer.

Object type

String

Description

Commands, which are usually added by methods of the ePOS-Print Builder object, can be operated directly from this property for addition or deletion.

Example

To clear the command and reset it to the initial state:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function buildMessage() {
var builder = new epos.ePOSBuilder();
    builder.addText('ABCDE');
    builder.message = '';
}
//-->
</script>
```

ePOS-Print Object

Sends a print document created using an ePOS-Print Builder object to control the printer and monitor the transmission result or the communication status.

Constructor

Constructor for an ePOS-Print object. Creates a new ePOS-Print object and initializes it.

Syntax

ePOSPrint (address) ;

Parameter

- address : (Optional parameter, Object type : String)
Specifies the URL of the printer to send a print document to.
The URL is as follows:

**http://(IP address of ePOS-Print supported TM printer)/cgi-bin/epos/
service.cgi?devid=(device ID of printer to be used for
printing)&timeout=(timeout time)**

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function sendMessage() {
    var address = 'http://192.168.192.168/cgi-bin/epos/
                  service.cgi?devid=local_printer';
    var epos = new epos.ePOSPrint(address);
}
//-->
</script>
```

send method

Sends a print document created using an ePOS-Print Builder object.



A print document is obtained by executing the toString method (p. 118) of the ePOS-Print Builder object.

Syntax

1 **send**(request);

2 **send**(request, printjobid);

Parameter

- request : (Required parameter, Object type : String)
Specifies the print document.
- printjobid : (Optional parameter, Object type : String)
Specify the print job ID (ePOS-Print Service Ver.4.1 or later)
You can use from 1 to 30 alphanumeric characters, underscore, hyphen, and period.

Exception

Exception	Object type
Parameter "..." is invalid	Error
XMLHttpRequest is not supported	Error

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function printHelloWorld() {

    var builder = new Epson.ePOSBuilder();
    builder.addText('Hello, World!\n');
    builder.addCut();
    var request = builder.toString();

    var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
    var epos = new Epson.ePOSPrint(address);
    epos.onreceive = function (res) { alert(res.success); };
    epos.onerror = function (err) { alert(err.status); };
    epos.send(request);
}
//-->
</script>
```

open method

Enables status event operation.

Sends the status of the printer specified by the address property using an event.

Updates the status at the interval specified by the interval property.

Syntax

```
open ( ) ;
```

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.oncoveropen = function () {
    alert('coveropen');
  };

function startMonitor() {
  epos.open();
}

function stopMonitor() {
  epos.close();
}
//-->
</script>
```

close method

Disables status event operation.

Syntax

```
close() ;
```

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new Epson.ePOSPrint(address);
  epos.oncoveropen = function () {
    alert('coveropen');
  };

function startMonitor() {
  epos.open();
}

function stopMonitor() {
  epos.close();
}
//-->
</script>
```

address property

URL of the printer.

Object type

String

Description

The URL of the printer to be used for printing is specified.

The URL is shown as follows:

```
http://(IP address of ePOS-Print supported TM printer)/cgi-bin/epos/
service.cgi?devid=(device ID of printer to be used for
printing)&timeout=(timeout time)
```

The default value is the address specified by the constructor.

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var epos = new epson.ePOSPrint();
  epos.address = 'http://192.168.192.168/cgi-bin/epos/
service.cgi?devid=local_printer';
  epos.oncoveropen = function () { alert('coveropen'); };
  epos.open();
//-->
</script>
```

enabled property

Retains the enabled/disabled setting for status event operation.

Object type

Boolean

Description

The enabled/disabled setting for status event operation is retained using a logical value. This is read-only.

The default value is false.

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.oncoveropen = function () { alert('coveropen'); };
  epos.open();
  alert(epos.enabled);
//-->
</script>
```

interval property

Specifies the interval of upgrading the status.

Object type

Number

Description

The interval of upgrading the status is specified in milliseconds.

Default value: 3000 (three seconds)

Minimum value: 1000 (one second or longer)

When an invalid value is specified, it is assumed to be 3000.

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var epos = new epson.ePOSPrint(address);
epos.interval = 1000;
epos.oncoveropen = function () { alert('coveropen'); };
epos.open();
//-->
</script>
```

status property

Hold the TM printer's status.

Object type

Number

Description

This is the status last obtained from the printer. This is read-only.

Default value: 0

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var epos = new epson.ePOSPrint(address);
epos.onoffline = function () {
    alert(epos.status);
};
epos.open();
//-->
</script>
```


battery property

Hold the TM printer's battery status.

Object type

Number

Description

Battery status obtained from the last printer status. This is read-only.

Default value: 0

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.ePOSPrint(address);
  epos.onbatterylow = function () {
    alert(epos.battery);
  };
  epos.open();
//-->
</script>
```

timeout property

Specifies connection timeout.

Object type

Number

Description

Specifies connection timeout with ePOS-Print supported printer in milliseconds. When the transmission of print document by send method times out, onerror even is generated.

Default value: 300000 (5 minutes)

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var builder = new epos.ePOSBuilder();
  builder.addText('Hello, World!\n');
  builder.addCut();
  var request = builder.toString();

  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.ePOSPrint(address);
  epos.timeout = 60000;
  epos.onreceive = function (res) { alert(res.success); };
  epos.onerror = function (err) { alert(err.status); };
  epos.send(request);
//-->
</script>
```

drawerOpenLevel property

Using Low or High, specify the signal line status.

Object type

Number

Description

Using Low or High, specify the signal line status of the drawer that generates the `ondraweropen` and `ondrawerclosed` events.

Setting	Signal line status	Description
DRAWER_OPEN_LEVEL_LOW (Default)	HIGH -> LOW	ondraweropen event is generates.
	LOW -> HIGH	ondrawerclosed event is generates.
DRAWER_OPEN_LEVEL_HIGH	HIGH -> LOW	ondrawerclosed event is generates.
	LOW -> HIGH	ondraweropen event is generates.

Example

```
epos.drawerOpenLevel = epos.DRAWER_OPEN_LEVEL_HIGH;
```

onreceive event

This property registers the callback function and obtains a response message receipt event.

Syntax

Function (response)

Parameter of the callback function

Parameters: response ([See ?Properties of the response object? on page 131.](#))
 Name: Response message
 Object type: Object

Properties of the response object

Property	Name	Object type
success (p. 131)	Print result	Boolean
code (p. 131)	Error code	String
status (p. 132)	Status	Number
battery (p. 132)	Battery status	Number
printjobid (p. 132)	Print job ID	String

- Value of success

Value	Description
true or 1	Printing succeeded.
false or 0	Printing failed.

- Value of code

Value	Description
'EPTR_AUTOMATICAL'	An automatically recoverable error occurred
'EPTR_COVER_OPEN'	A cover open error occurred
'EPTR_CUTTER'	An autocutter error occurred
'EPTR_MECHANICAL'	A mechanical error occurred
'EPTR_REC_EMPTY'	No paper in roll paper end sensor
'EPTR_UNRECOVERABLE'	An unrecoverable error occurred
'SchemaError'	The request document contains a syntax error
'DeviceNotFound'	The printer with the specified device ID does not exist
'PrintSystemError'	An error occurred on the printing system
'EX_BADPORT'	An error was detected on the communication port
'EX_TIMEOUT'	A print timeout occurred

- Value of status

Constant (status)	Description
ASB_NO_RESPONSE	No response from the TM printer
ASB_PRINT_SUCCESS	Printing is successfully completed
ASB_DRAWER_KICK	Status of the 3rd pin of the drawer kick-out connector = "H"
ASB_BATTERY_OFFLINE	Battery offline status (only for applicable devices)
ASB_OFF_LINE	Offline
ASB_COVER_OPEN	The cover is open
ASB_PAPER_FEED	Paper is being fed by a paper feed switch operation
ASB_WAIT_ON_LINE	Waiting to be brought back online
ASB_PANEL_SWITCH	The paper feed switch is being pressed (ON)
ASB_MECHANICAL_ERR	A mechanical error occurred
ASB_AUTOCUTTER_ERR	An autocutter error occurred
ASB_UNRECOVER_ERR	An unrecoverable error occurred
ASB_AUTORECOVER_ERR	An automatically recoverable error occurred
ASB_RECEIPT_NEAR_END	No paper in roll paper near end sensor
ASB_RECEIPT_END	No paper in roll paper end sensor
ASB_BUZZER	A buzzer is on (only for applicable devices)
ASB_WAIT_REMOVE_LABEL	Waiting for label to be removed (only for applicable devices)
ASB_NO_LABEL	No paper in label peeling sensor (only for applicable devices)
ASB_SPOOLER_IS_STOPPED	The spooler has stopped

- Value of battery
Status of power

Value (battery)	Description
0x30XX	The AC adapter is connected
0x31XX	The AC adapter is connected

Remaining battery

Value (battery)	Description
0xXX36	Battery amount 6
0xXX35	Battery amount 5
0xXX34	Battery amount 4
0xXX33	Battery amount 3
0xXX32	Battery amount 2
0xXX31	Battery amount 1 (Near end)
0xXX30	Battery amount 0 (Real end)



0 is shown when the model doesn't have a battery installed.

- Value of printjobid

Value	Description
'...'	print job ID
"	No print job ID

Example

To create and send a print document.

To display the print result in a message box.

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function printHelloWorld() {

var builder = new epson.ePOSBuilder();
builder.addText('Hello, World!\n');
builder.addCut();
var request = builder.toString();

var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var epos = new epson.ePOSPrint(address);
epos.onreceive = function (res) {
    var success = res.success;
    var code = res.code;
    var status = res.status;
    alert(success);
}
epos.send(request);
}
//-->
</script>
```

onerror event

This property registers the callback function and obtains a communication error event.

Syntax

Function (error)

Parameter of the callback function

Parameters: error ([See ?Properties of the error object? on page 134.](#))

Name: Communication error information

Object type: Object

Properties of the error object

Property	Name	Object type
status	HTTP Status	Number
responseText	Response text	String

Example

To create and send a print document.

To display the HTTP status code in a message box when a communication error occurs.

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function printHelloWorld() {

var builder = new epson.ePOSBuilder();
builder.addText('Hello, World!\n');
builder.addCut();
var request = builder.toString();

var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var epos = new epson.ePOSPrint(address);
epos.onerror = function (err) {
    var status = err.status;
    var text = err.responseText;
    alert(status);
}
epos.send(request);
}
//-->
</script>
```

onstatuschange event

Registers a callback function to obtain a status change event.

Syntax

Function (status)

Parameter of the callback function

Parameters:	status
Name:	Status
Object type:	Number

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.onstatuschange = function (status) {
    alert(status);
  };
  epos.open();
//-->
</script>
```

onbatterystatuschange event

Registers call back function and obtains battery status change event.

Object type

Function (battery)

Parameter of the callback function

Parameters:	battery
Name:	Batterystatus
Object type:	Number

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.onbatterystatuschange = function (battery) {
    alert(battery);
  };
  epos.open();
//-->
</script>
```

ononline event

Registers a callback function to obtain a online event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.ononline = function () {
    alert('online');
  };
  epos.open();
//-->
</script>
```

onoffline event

Registers a callback function to obtain a offline event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.onoffline = function () {
    alert('offline');
  };
  epos.open();
//-->
</script>
```


onpoweroff event

Registers a callback function to obtain a non-response event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.onpoweroff = function () {
    alert('poweroff');
  };
  epos.open();
//-->
</script>
```

oncoverok event

Registers a callback function to obtain a cover close event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.oncoverok = function () {
    alert('coverok');
  };
  epos.open();
//-->
</script>
```

oncoveropen event

Registers a callback function to obtain a cover open event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.oncoveropen = function () {
    alert('coveropen');
  };
  epos.open();
//-->
</script>
```

onpaperok event

Registers a callback function to obtain a paper remaining event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.onpaperok = function () {
    alert('paperok');
  };
  epos.open();
//-->
</script>
```

onpapernearend event

Registers a callback function to obtain a paper near end event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.onpapernearend = function () {
    alert('papernearend');
  };
  epos.open();
//-->
</script>
```

onpaperend event

Registers a callback function to obtain a paper end event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.onpaperend = function () {
    alert('paperend');
  };
  epos.open();
//-->
</script>
```

ondrawerclosed event

Registers a callback function to obtain a drawer close event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.ondrawerclosed = function () {
    alert('drawerclosed');
  };
  epos.open();
//-->
</script>
```

ondraweropen event

Registers a callback function to obtain a drawer open event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.ondraweropen = function () {
    alert('draweropen');
  };
  epos.open();
//-->
</script>
```

onbatteryok event

Registers call back function and obtains remaining battery event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.onbatteryok = function () {
    alert('batteryok');
  };
  epos.open();
//-->
</script>
```

onbatterylow event

Registers call back function and obtains no remaining battery event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epson.ePOSPrint(address);
  epos.onbatterylow = function () {
    alert('batterylow');
  };
  epos.open();
//-->
</script>
```



Canvas API Reference

This chapter describes the ePOS-Print Canvas API.
Concerning ePOS-Print API, see [API Reference \(p.51\)](#).

List of ePOS-Print Canvas API functions

The ePOS-Print Canvas API provides the following object:

- ❑ ePOS-Print Canvas API (`window.epson.CanvasPrint`) object ([p. 143](#))

window.epson.CanvasPrint Components

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Property			
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	status	Status	151
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Event			
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Element	API	Description	Page
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Constant			
	ASB_*	Response document status	
	HALFTONE_*	Halftone type	
	MODE_*	Color mode	
	ALIGN_*	Position alignment	
	COLOR_*	Color specification	
	FEED_*	Paper feed position of label paper/black mark paper	
	PAPER_*	Type of papers	
	DRAWER_OPEN_LEVEL_*	Signal line status to indicate that the drawer is open	

ePOS-Print Canvas API Object

Prints a print image rendered in HTML5 Canvas and monitors the print result or the communication status.

Constructor

Constructor for an ePOS-Print Canvas API object.

Creates a new ePOS-Print Canvas API object and initializes it.

Syntax

CanvasPrint (address) ;

Parameter

- address : (Optional parameter, Object type : String)
Specifies the address property (URL of printer to be used for printing).
The URL is as follows:

```
http://(ePOS-Print supported TM printer)/cgi-bin/epos/service.cgi?devid=(device
ID of printer to be used for printing)&timeout=(timeout time)
```

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function printCanvas() {
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
}
//-->
</script>
```

print method

Print the images painted on HTML5 Canvas in accordance with the property settings.



If an HTML5 Canvas image contains images downloaded from different domains, you cannot print the image. In this case, a security error occurs due to violation of the same origin policy of JavaScript.

Syntax

- 1 **print**(canvas) ;
- 2 **print**(canvas, printjobid) ;
- 3 **print**(canvas, cut, mode) ;



3 is the syntax of compatible version.

Parameter

- canvas : (Required parameter, Object type : canvas)
Specify the HTML5 Canvas object to be printed.
- printjobid : (Optional parameter, Object type : String)
Specify the print job ID (ePOS-Print Service Ver.4.1 or later)
You can use from 1 to 30 alphanumeric characters, underscore, hyphen, and period.
- cut : (Optional parameter, Object type : Boolean)
Sets whether to cut paper.

Setting	Description
true or 1	Cuts the paper after printing
false or 0	Does not cut the paper after printing
undefined	Does not cut the paper after printing

- mode : (Optional parameter, Object type : String)
Specifies the color mode.

Setting	Description
MODE_MONO	Monochrome (two-tone)
MODE_GRAY16	Multiple tones (16-tone)
undefined	Monochrome (two-tone)

Exception

Exception	Object type
Parameter " ... " is invalid	Error
XMLHttpRequest is not supported	Error
Canvas is not supported	Error

Example

To print Canvas(ID='myCanvas'):

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function printCanvas() {
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var canvas = document.getElementById('myCanvas');

var epos = new Epson.CanvasPrint(address);
epos.onreceive = function (res) { alert(res.success); };
epos.onerror = function (err) { alert(err.status); };
epos.print(canvas);
}
//-->
</script>
```

open method

Enables status event operation.

Sends the status of the printer specified by the address property using an event.

Updates the status at the interval specified by the interval property.

Syntax

```
open ( ) ;
```

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var epos = new Epson.CanvasPrint(address);
    epos.oncoveropen = function () {
        alert('coveropen');
    };

function startMonitor() {
    epos.open();
}

function stopMonitor() {
    epos.close();
}
//-->
</script>
```

close method

Disables status event operation.

Syntax

```
close ( ) ;
```

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var epos = new Epson.CanvasPrint(address);
    epos.oncoveropen = function () {
        alert('coveropen');
    };

function startMonitor() {
    epos.open();
}

function stopMonitor() {
    epos.close();
}
//-->
</script>
```

recover method

Recovers from an error.

Recovers from errors that can be recovered from and clears the buffer.

Syntax

```
recover( ) ;
```

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var epos = new epson.CanvasPrint(address);
    epos.oncoveropen = function () {
        alert('coveropen');
    };

function recover() {
    epos.recover();
}
//-->
</script>
```

reset method

Resets the printer.

Syntax

```
reset( ) ;
```

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var epos = new epson.CanvasPrint(address);
    epos.oncoveropen = function () {
        alert('coveropen');
    };

function reset() {
    epos.reset();
}
//-->
</script>
```

address property

URL of the printer.

Object type

String

Description

The URL of the printer to be used for printing is specified.

The URL is shown as follows:

```
http://(IP address of ePOS-Print supported TM printer)/cgi-bin/epos/
service.cgi?devid=(device ID of printer to be used for
printing)&timeout=(timeout time)
```

The default value is the address specified by the constructor.

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
var epos = new epson.CanvasPrint();
epos.address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
epos.oncoveropen = function () { alert('coveropen'); };
epos.open();
//-->
</script>
```

enabled property

Retains the enabled/disabled setting for status event operation.

Object type

Boolean

Description

The enabled/disabled setting for status event operation is retained using a logical value. This is read-only.

The default value is false.

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var epos = new epson.CanvasPrint(address);
epos.oncoveropen = function () { alert('coveropen'); };
epos.open();
alert(epos.enabled);
//-->
</script>
```

interval property

Specifies the interval of upgrading the status.

Object type

Number

Description

The interval of upgrading the status is specified in milliseconds.

Default value: 3000 (three seconds)

Minimum value: 1000 (one second or longer)

When an invalid value is specified, it is assumed to be 3000.

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new Epson.CanvasPrint(address);
  epos.interval = 1000;
  epos.oncoveropen = function () { alert('coveropen'); };
  epos.open();
//-->
</script>
```

status property

Hold the TM printer's status.

Object type

Number

Description

This is the status last obtained from the printer. This is read-only.

Default value: 0

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new Epson.CanvasPrint(address);
  epos.onoffline = function () {
    alert(epos.status);
  };
  epos.open();
//-->
</script>
```

battery property

Hold the TM printer's battery status.

Object type

Number

Description

Battery status obtained from the last printer status. This is read-only.

Default value: 0

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
  epos.onbatterylow = function () {
    alert(epos.battery);
  };
  epos.open();
//-->
</script>
```

timeout property

Specifies connection timeout.

Object type

Number

Description

Specifies connection timeout with ePOS-Print supported printer in milliseconds.

When the transmission of print document by print method times out, onerror even is generated.

Default value: 300000 (5 minutes)

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.timeout = 60000;
  epos.onreceive = function (res) { alert(res.success); };

  epos.onerror = function (err) { alert(err.status); };
  epos.print(canvas);
//-->
</script>
```


halftone property

Halftone processing method.

Object type

String

Description

The halftone processing method to be applied to monochrome (two-tone) printing is specified. The default value is HALFTONE_DITHER.

Constant	Description
HALFTONE_DITHER	Dithering, suitable for printing graphics only.
HALFTONE_ERROR_DIFFUSION	Error diffusion, suitable for printing text and graphics together.
HALFTONE_THRESHOLD	Threshold, suitable for printing text only.

Example

To set the halftone type as error diffusion:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.halftone = epos.HALFTONE_ERROR_DIFFUSION;
  epos.print(canvas);
//-->
</script>
```

brightness property

Brightness correction value.

Object type

Number

Description

A gamma value in the range 0.1-10.0 is specified for the brightness correction value.
The default value is 1.0.

Example

To set brightness as 2.2:

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.brightness = 2.2;
  epos.print(canvas);
//-->
</script>
```

cut property

It sets with or without paper cut.

Object type

Boolean

Description

It specifies with or without paper cut.

Value	Description
true/1	Cut paper after printing
false/0 (Default)	Do not cut paper

Example

It sets paper cut after printing.

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.cut = true;
  epos.print(canvas);
//-->
</script>
```

mode property

It sets the color mode.

Object type

String

Description

It specifies the color mode.

Value	Description
MODE_MONO (Default)	Monochrome (2-tone)
MODE_GRAY16	Multiple tones (16-tone)

Example

Prints with multiple tones.

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.mode = epos.MODE_GRAY16;
  epos.print(canvas);
//-->
</script>
```

align property

It sets the position alignment.

Object type

String

Description

It specifies the position alignment.

Value	Description
ALIGN_LEFT (Default)	Alignment to the left
ALIGN_CENTER	Alignment to the center
ALIGN_RIGHT	Alignment to the right

Example

Prints with center alignment.

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.align = epos.ALIGN_CENTER;
  epos.print(canvas);
//-->
</script>
```

color property

It sets printing color.

Object type

String

Description

It specifies printing color.

Value	Description
COLOR_NONE	No printing
COLOR_1	1st color
COLOR_2	2nd color
COLOR_3	3rd color
COLOR_4	4th color

Example

Prints with the 2nd color.

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.color = epos.COLOR_2;
  epos.print(canvas);
//-->
</script>
```

feed property

It sets paper feed of label paper/black mark paper.

Object type

String

Description

Paper feed position of label paper/black mark paper.

Value	Description
FEED_PEELING	Feeds to the peeling position.
FEED_CUTTING	Feeds to the cutting position.
FEED_CURRENT_TOF (Default)	Feeds to the top of the current label.
FEED_NEXT_TOF	Feeds to the top of the next label.

Example

After printing a label, it feeds paper to the peeling position.

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.paper = epos.PAPER_LABEL;
  epos.feed = epos.FEED_PEELING;
  epos.print(canvas);
  //-->
</script>
```

paper property

It sets paper type.

Object type

String

Description

It specifies paper type.

Value	Description
PAPER_RECEIPT (Default)	Receipt (without black mark)
PAPER_RECEIPT_BM	Receipt (with black mark)
PAPER_LABEL	Die-cut label (without black mark)
PAPAER_LABEL_BM	Die-cut label (with black mark)

Example

Prints a label.

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.paper = epos.PAPER_LABEL;
  epos.feed = epos.FEED_PEELING;
  epos.print(canvas);
//-->
</script>
```

layout property

It sets paper layout.

Object type

Object

Description

It specifies paper layout.

Property of layout being setup

Property	Name	Object type
width	Paper width	Number
height	Paper height	Number
margin_top	Top margin	Number
margin_bottom	Bottom margin	Number
offset_cut	Cutting position	Number
offset_label	Bottom position of label	Number

- Value of width (Object type : Number, When not specified : 580)
Specifies paper width (in units of 0.1 mm). Specifies an integer from 290 to 600. *
- Value of height (Object type : Number, When not specified : 0)
Specifies paper height (in units of 0.1 mm).

Paper type	Valid value range	Description
Receipt (without black mark)	0	Setup not necessary
Receipt (with black mark)	0 (auto) 284 to 1550 (manual) *	Distance from the top of black mark to the top of next black mark
Die-cut label (without black mark)		Distance from the top of label to the top of next label
Die-cut label (with black mark)		Distance from the bottom of black mark to the bottom of next black mark

- Value of margin_top (Object type : Number, When not specified : 0)
Specifies top margin (in units of 0.1 mm).

Paper type	Valid value range	Description
Receipt (without black mark)	0	Setup not necessary
Receipt (with black mark)	-150 to 1500 *	Distance from the top of black mark
Die-cut label (without black mark)	0 to 1500 *	Distance from the top of label
Die-cut label (with black mark)	-15 to 1500 *	Distance from the bottom of black mark

- Value of `margin_bottom` (Object type : Number, When not specified : 0)
Specifies bottom margin (in units of 0.1 mm).

Paper type	Valid value range	Description
Receipt (without black mark)	0	Setup not necessary
Receipt (with black mark)	0	
Die-cut label (without black mark)	-15 to 0 *	Distance from the bottom of label (paper feed direction is a positive number)
Die-cut label (with black mark)	-15 to 15 *	Distance from the top of black mark (paper feed direction is a positive number)

- Value of `offset_cut` (Object type : Number, When not specified : 0)
Specifies cut position (in units of 0.1 mm).
In case of die cut label paper, it is a distance from the bottom of label.
When a paper has black mark, it is a distance from the beginning of black mark.

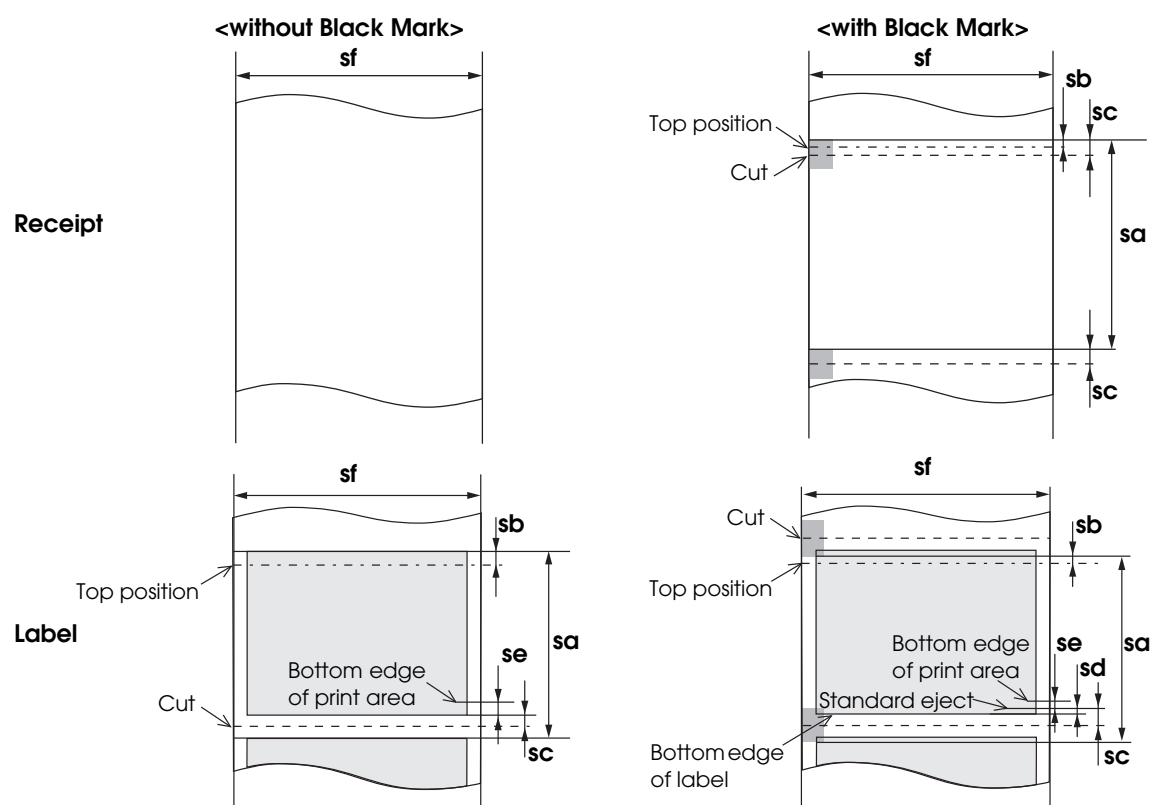
Paper type	Valid value range	Description
Receipt (without black mark)	0	Setup not necessary
Receipt (with black mark)	-290 to 50 *	Distance from the top of black mark to the top of next black mark
Die-cut label (without black mark)	0 to 50 *	Distance from the bottom of label to the cutting position
Die-cut label (with black mark)	0 to 50 *	Distance from the top of black mark to the cutting position

- Value of `offset_label` (Object type : Number, When not specified : 0)
Specifies label bottom position (sd) per 0.1 mm unit.

Paper type	Valid value range	Description
Receipt (without black mark)	0	Setup not necessary
Receipt (with black mark)	0	
Die-cut label (without black mark)	0	
Die-cut label (with black mark)	0 to 15 *	Distance from the top of black mark to the bottom of label

*: Valid value of range is depending on the printer model. For detail, refer to "Appendix - Printer Specifications".

Layout property positions that can be designated for each type of paper



Mark	Parameter
sf	width
sa	height
sb	margin_top
se	margin_bottom
sc	offset_cut
sd	offset_label

Example**To set 58 mm receipt (without black mark):**

```

<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.paper = epos.PAPER_RECEIPT;
  epos.layout = { width: 580 };
  epos.cut = true;
  epos.print(canvas);
//-->
</script>

```

To set 58 mm receipt (with black mark):

```

<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.paper = epos.PAPER_RECEIPT_BM;
  epos.layout = { width: 580, height: 0, margin_top:15, offset_cut: 0 };
  epos.cut = true;
  epos.print(canvas);
//-->
</script>

```

To set 58 mm die-cut label (without black mark):

```

<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.paper = epos.PAPER_LABEL;
  epos.layout = { width: 580, height: 0, margin_top: 15, margin_bottom: -15,
                  offset_cut: 25 };
  epos.cut = true;
  epos.print(canvas);
//-->
</script>

```

To set 58 mm die-cut label (with black mark):

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var canvas = document.getElementById('myCanvas');

  var epos = new epos.CanvasPrint(address);
  epos.paper = epos.PAPER_LABEL_BM;
  epos.layout = { width: 580, height: 0, margin_top: 15, margin_bottom: -15
                  offset_cut: 25, offset_label: 15 };
  epos.cut = true;
  epos.print(canvas);
//-->
</script>
```

drawerOpenLevel property

Using Low or High, specify the signal line status.

Object type

Number

Description

Using Low or High, specify the signal line status of the drawer that generates the `ondraweropen` and `ondrawerclosed` events.

Setting	Signal line status	Description
DRAWER_OPEN_LEVEL_LOW (Default)	HIGH -> LOW	ondraweropen event is generates.
	LOW -> HIGH	ondrawerclosed event is generates.
DRAWER_OPEN_LEVEL_HIGH	HIGH -> LOW	ondrawerclosed event is generates.
	LOW -> HIGH	ondraweropen event is generates.

Example

```
epos.drawerOpenLevel = epos.DRAWER_OPEN_LEVEL_HIGH;
```

onreceive event

This property registers the callback function and obtains a response message receipt event.

Syntax

Function (response)

Parameter of the callback function

Parameter: response (See "Properties of the response object" on page 166.)

Name: Response message

Object type: Object

Properties of the response object

Parameter	Name	Object type
success (p. 166)	Print result	Boolean
code (p. 166)	Error code	String
status (p. 167)	Status	Number
battery (p. 167)	Battery status	Number
printjobid (p. 167)	Print job ID	String

- Value of success

Value	Description
true or 1	Printing succeeded.
false or 0	Printing failed.

- Value of code

Value	Description
'EPTR_AUTOMATICAL'	An automatically recoverable error occurred
'EPTR_COVER_OPEN'	A cover open error occurred
'EPTR_CUTTER'	An autocutter error occurred
'EPTR_MECHANICAL'	A mechanical error occurred
'EPTR_REC_EMPTY'	No paper in roll paper end sensor
'EPTR_UNRECOVERABLE'	An unrecoverable error occurred
'SchemaError'	The request document contains a syntax error
'DeviceNotFound'	The printer with the specified device ID does not exist
'PrintSystemError'	An error occurred on the printing system
'EX_BADPORT'	An error was detected on the communication port
'EX_TIMEOUT'	A print timeout occurred

- Value of Status

Constant (status)	Description
ASB_NO_RESPONSE	No response from the TM printer
ASB_PRINT_SUCCESS	Printing is successfully completed
ASB_DRAWER_KICK	Status of the 3rd pin of the drawer kick-out connector = "H"
ASB_BATTERY_OFFLINE	Off line status from remaining battery (only for applicable devices)
ASB_OFF_LINE	Offline
ASB_COVER_OPEN	The cover is open
ASB_PAPER_FEED	Paper is being fed by a paper feed switch operation
ASB_WAIT_ON_LINE	Waiting to be brought back online
ASB_PANEL_SWITCH	The paper feed switch is being pressed (ON)
ASB_MECHANICAL_ERR	A mechanical error occurred
ASB_AUTOCUTTER_ERR	An autocutter error occurred
ASB_UNRECOVER_ERR	An unrecoverable error occurred
ASB_AUTORECOVER_ERR	An automatically recoverable error occurred
ASB_RECEIPT_NEAR_END	No paper in roll paper near end sensor
ASB_RECEIPT_END	No paper in roll paper end sensor
ASB_BUZZER	A buzzer is on (only for applicable devices)
ASB_WAIT_REMOVE_LABEL	Waiting period for removal of label (only for applicable devices)
ASB_NO_LABEL	No paper in label peeling sensor (only for applicable devices)
ASB_SPOOLER_IS_STOPPED	The spooler has stopped (Not used)

- Value of battery
Status of power

Value (battery)	Description
0x30XX	AC adapter is connected
0x31XX	AC adapter is not connected

Remaining battery

Value (battery)	Description
0xXX36	Remaining battery 6
0xXX35	Remaining battery 5
0xXX34	Remaining battery 4
0xXX33	Remaining battery 3
0xXX32	Remaining battery 2
0xXX31	Remaining battery 1 (Near end)
0xXX30	Remaining battery 0 (Real end)



0 is shown when the model doesn't have a battery installed.

- Value of printjobid

Value	Description
'...'	Print job ID (No print job ID for null character strings)

Example

To print Canvas(ID=myCanvas):

To display the print result in a message box.

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function printCanvas() {
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var canvas = document.getElementById('myCanvas');

var epos = new epos.CanvasPrint(address);
epos.onreceive = function (res) {
    var success = res.success;
    var code = res.code;
    var status = res.status;
    alert(success);
};
epos.print(canvas);
}
//-->
</script>
```


onerror event

This property registers the callback function and obtains a communication error event.

Syntax

Function (error)

Parameter of the callback function

Parameter: error ([See "Properties of the error object" on page 169.](#))
 Name: Communication error information
 Object type: Object

Properties of the error object

property	Name	Object type
status	HTTP status	Number
responseText	Response text	String

Example

To print Canvas(ID=myCanvas):

To display the HTTP status code in a message box when a communication error occurs.

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
function printCanvas() {
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var canvas = document.getElementById('myCanvas');

var epos = new epos.CanvasPrint(address);
epos.onerror = function (err) {
  var status = err.status;
  var text = err.responseText;
  alert(status);
};
epos.print(canvas);
}
//-->
</script>
```

onstatuschange event

Registers a callback function to obtain a status change event.

Syntax

Function (status)

Parameter of the callback function

Parameters:	status
Name:	Status
Object type:	Number

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var epos = new epos.CanvasPrint(address);
epos.onstatuschange = function (status) {
    alert(status);
};
epos.open();
//-->
</script>
```

onbatterystatuschange event

Registers call back function and obtains battery status change event.

Syntax

Function (battery)

Parameter of the callback function

Parameters:	battery
Name:	Battery status
Object type:	Number

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
var epos = new epos.CanvasPrint(address);
epos.onbatterystatuschange = function (battery) {
    alert(battery);
};
epos.open();
//-->
</script>
```

onbatteryok event

Registers call back function and obtains remaining battery event.

Syntax

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
  epos.onbatteryok = function () {
    alert('batteryok');
  };
  epos.open();
  //-->
</script>
```

onbatterylow event

Registers call back function and obtains no remaining battery event.

Syntax

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
  epos.onbatterylow = function () {
    alert('batterylow');
  };
  epos.open();
  //-->
</script>
```

ononline event

Registers a callback function to obtain a online event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
  epos.ononline = function () {
    alert('online');
  };
  epos.open();
//-->
</script>
```

onoffline event

Registers a callback function to obtain a offline event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
  epos.onoffline = function () {
    alert('offline');
  };
  epos.open();
//-->
</script>
```

onpoweroff event

Registers a callback function to obtain a non-response event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
  epos.onpoweroff = function () {
    alert('poweroff');
  };
  epos.open();
//-->
</script>
```

oncoverok event

Registers a callback function to obtain a cover close event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
  epos.oncoverok = function () {
    alert('coverok');
  };
  epos.open();
//-->
</script>
```

oncoveropen event

Registers a callback function to obtain a cover open event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
  epos.oncoveropen = function () {
    alert('coveropen');
  };
  epos.open();
//-->
</script>
```

onpaperok event

Registers a callback function to obtain a paper remaining event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
  epos.onpaperok = function () {
    alert('paperok');
  };
  epos.open();
//-->
</script>
```

onpapernearend event

Registers a callback function to obtain a paper near end event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new Epson.CanvasPrint(address);
  epos.onpapernearend = function () {
    alert('papernearend');
  };
  epos.open();
//-->
</script>
```

onpaperend event

Registers a callback function to obtain a paper end event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new Epson.CanvasPrint(address);
  epos.onpaperend = function () {
    alert('paperend');
  };
  epos.open();
//-->
</script>
```

ondrawerclosed event

Registers a callback function to obtain a drawer close event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
  epos.ondrawerclosed = function () {
    alert('drawerclosed');
  };
  epos.open();
//-->
</script>
```

ondraweropen event

Registers a callback function to obtain a drawer open event.

Object type

Function ()

Example

```
<script type="text/javascript" src="epos-print-x.x.x.js"></script>
<script type="text/javascript">
<!--
  var address = 'http://192.168.192.168/cgi-bin/epos/service.cgi?devid=local_printer';
  var epos = new epos.CanvasPrint(address);
  epos.ondraweropen = function () {
    alert('draweropen');
  };
  epos.open();
//-->
</script>
```


ePOS-Print Editor

This section describes how to use ePOS-Print Editor included in the contents in the package.

This tool allows you to create an ePOS-Print API (p. 51) sample code as you like. Use this tool for your Web application development.

ePOS-Print Editor Operating Environment

□ Web Browser

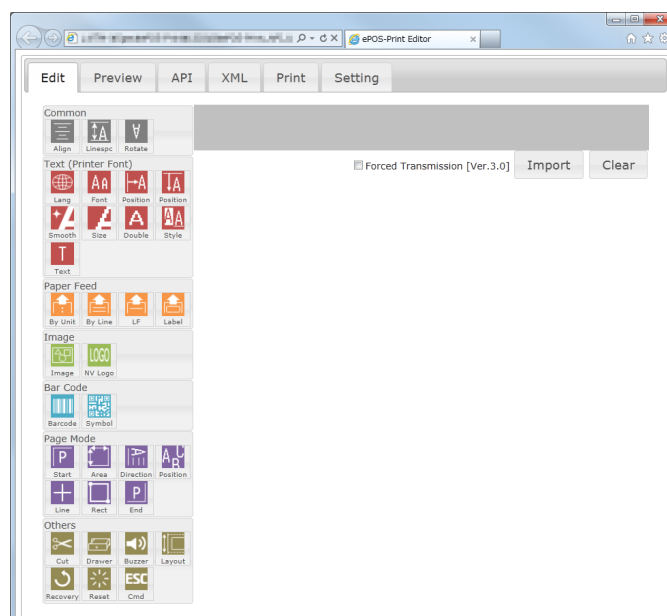
- Windows Internet Explorer 9 or later
- Mozilla Firefox 13 or later
- Google Chrome 19 or later
- Apple Safari 5.1.7 or later
- iPad Safari in iOS 5.1 or later

Displaying ePOS-Print Editor



- If opening a page with ePOS-Print Editor's HTML file placed on the local disk, some functionality does not operate due to your Web browser's security policy. Place the HTML file of ePOS Editor to a folder under Web server.
- In Google Chrome, when a preview image including pictures is displayed, a "SECURITY_ERR: DOM Exception 18" error occurs.
- In Windows Internet Explorer 9, when printing is performed, a "SCRIPT5: Access is denied." error occurs.

- 1 Open the following URL page using the Web browser.
[http://\(Web server IP address\)/editor/index.html](http://(Web server IP address)/editor/index.html)
- 2 ePOS-Print Editor appears.



Setting

Perform the print setting and the preview setting. Select the (Setting) tab to display the Setting screen.

Preview

Model, Paper width (Liner width)
TM-T88V (80mm)

Print

IP address of ePOS-Print supported printer
192.168.192.168

Device ID of the target printer
local_printer

Print timeout (milliseconds)
60000

☐ Monitor the status
Drawer open status Low

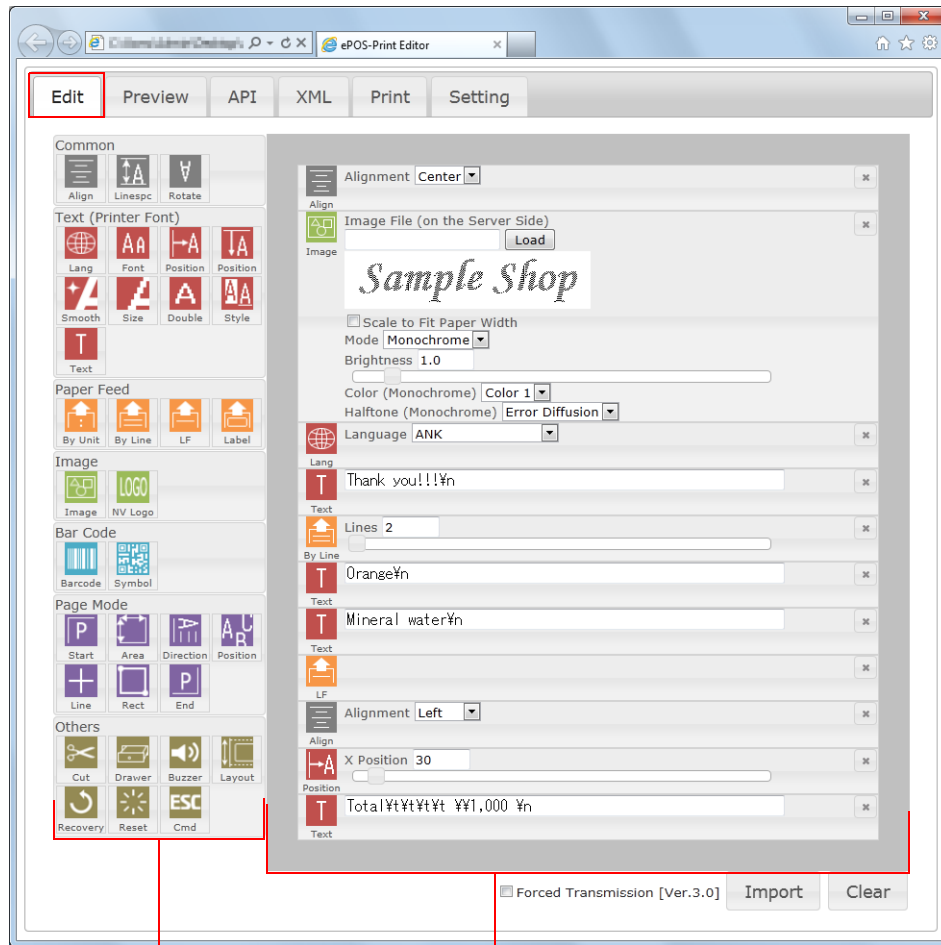
☐ Use print job ID [v4.1-]

ePOS-Print Editor Version 5.0.0E Copyright© SEIKO EPSON CORPORATION 2012. All rights reserved.
This web page is using jQuery UI and jQuery UI Touch Punch.

Item	Description
Model, Paper width (Liner width)	Select printer model to be used and paper width (for label paper, the mount width). The Preview screen resizes according to the paper width set to the model.
IP address of ePOS-Print supported TM printer	Specify the IP address of the printer. Be sure to specify this item.
Device ID of the target printer	Specify the device ID of the printer. Be sure to specify this item.
Print timeout (milliseconds)	Specify the print timeout time in milliseconds. The maximum value is 60000 (60 seconds).
Monitor the status	When this check box is checked, the printer's status is monitored.
Drawer open status (Low / High)	Using Low or High, specify the signal line status of the drawer that generates the ondraweropen and ondrawerclosed events. Change this according to the specifications of the drawer that you are using.
Use print job ID	Check this for a print job ID to be assigned when printing.

Creating a Sample Code

Select the (Edit) tab to display the Edit screen. Create an ePOS-Print API sample code in the Edit screen.



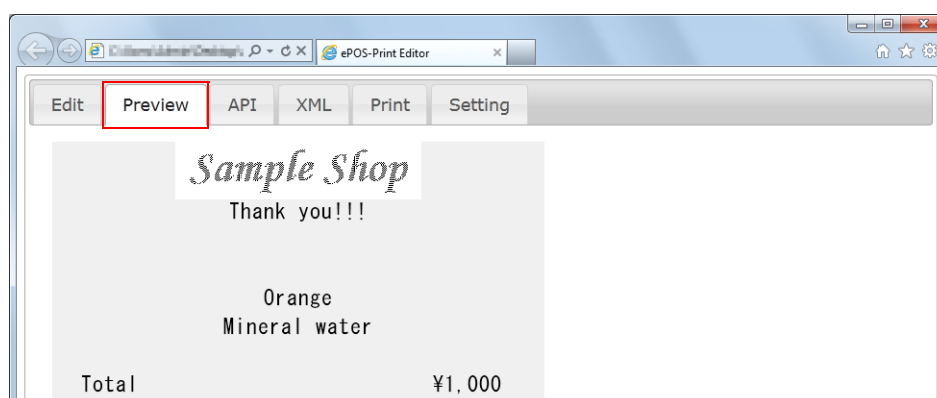
Menu area

Edit area

Item	Description
Menu area	Displays the available functions. Click an icon to add it to the bottom of the edit area, and drag an icon to insert it anywhere in the edit area.
Edit area	Displays the functions selected in the menu area. Drag an element to change its position. An element can be deleted using the x button located on its right side.
Import	Using ePOS-Print XML, ePOS-Print Editor can import XML data stored in the past. For details, refer to Import (p.182) .
Clear	Deletes the edited details.
Forced Transmission	Sets forced transmission mode.

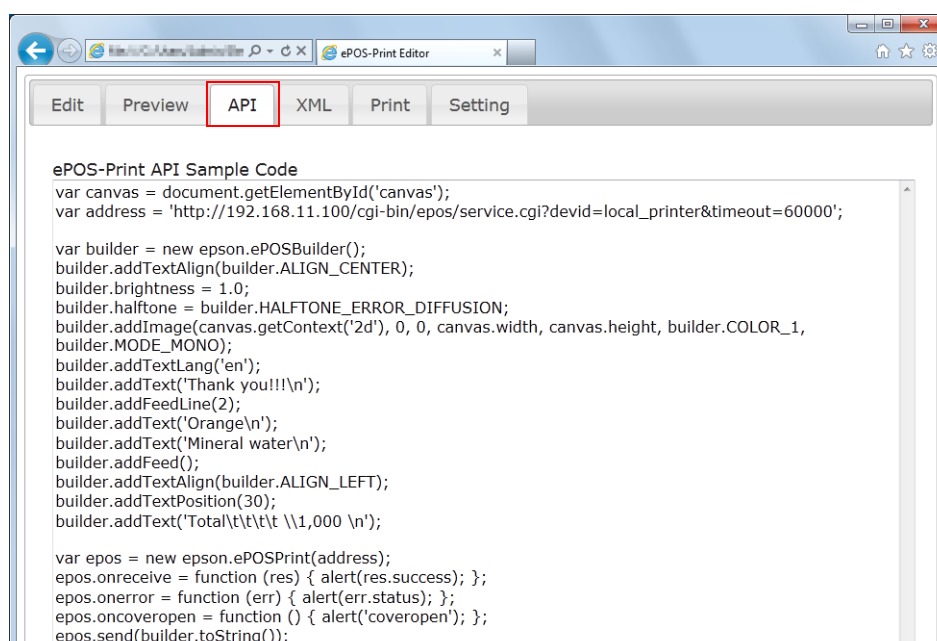
Create a sample code as follows:

- 1 Click an icon in the menu area to add an element in the edit area.
The position of the added function can be changed by dragging.
- 2 Configure the added element.
Example: When the NV logo is added, set the key code.
- 3 Select the (Preview) tab to check the preview image.
When a printer is connected, you can also check the image by printing.
For details, refer to [Print \(p.181\)](#).



- Logo printing, barcode printing, 2D-code printing, ESC command, buzzer sound, drawer kick, and paper cut are displayed as icons.
- The layout may change depending on the preview settings.
(For details, refer to [Setting \(p.178\)](#)).

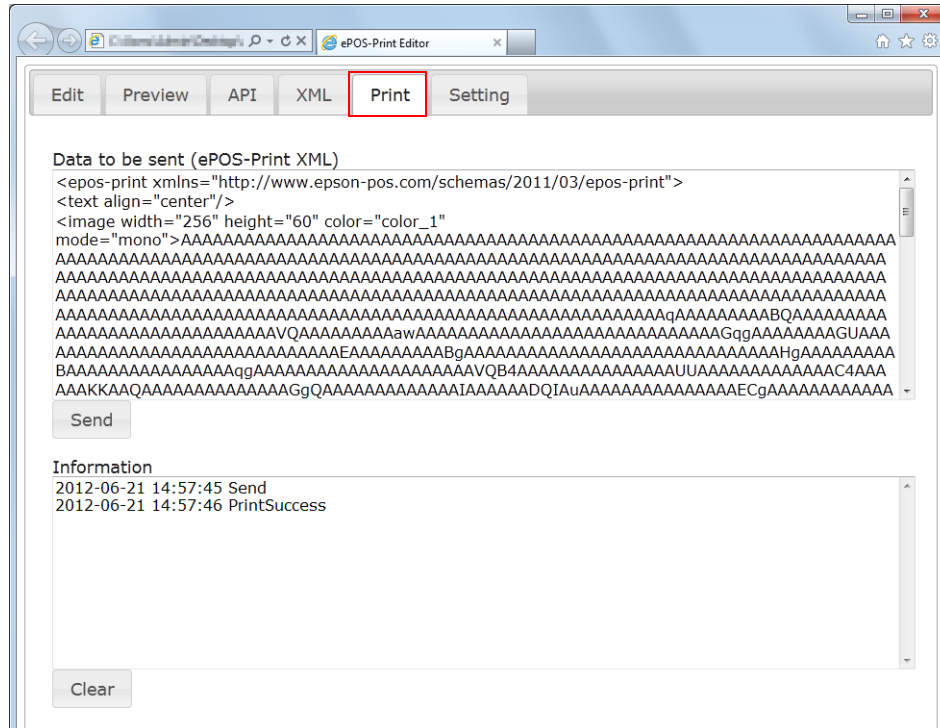
- 4 Select the (API) tab. The ePOS-Print API sample code appears. Use it by copying.



The ePOS-Print XML print document is used for importing. If necessary, select the XML tab and save the content of the ePOS-Print XML print document by copying.

Print

Using the printer, print the print document according to the printer's settings to perform test printing. (For details on the printer settings, refer to [Setting \(p.178\)](#)).



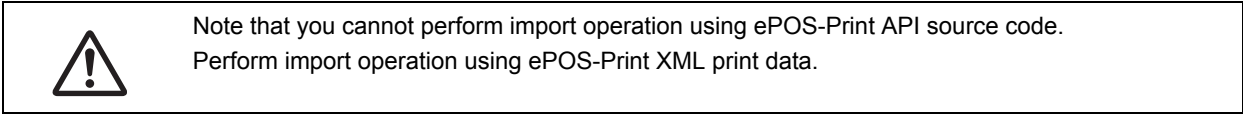
Item	Description
Data to be sent (ePOS-Print XML)	The ePOS-Print XML document is displayed.
Send	Sends data to the printer and performs printing.
Information	Displays the print status.
Clear	Deletes the content in the (Information) box.


Perform printing as follows:

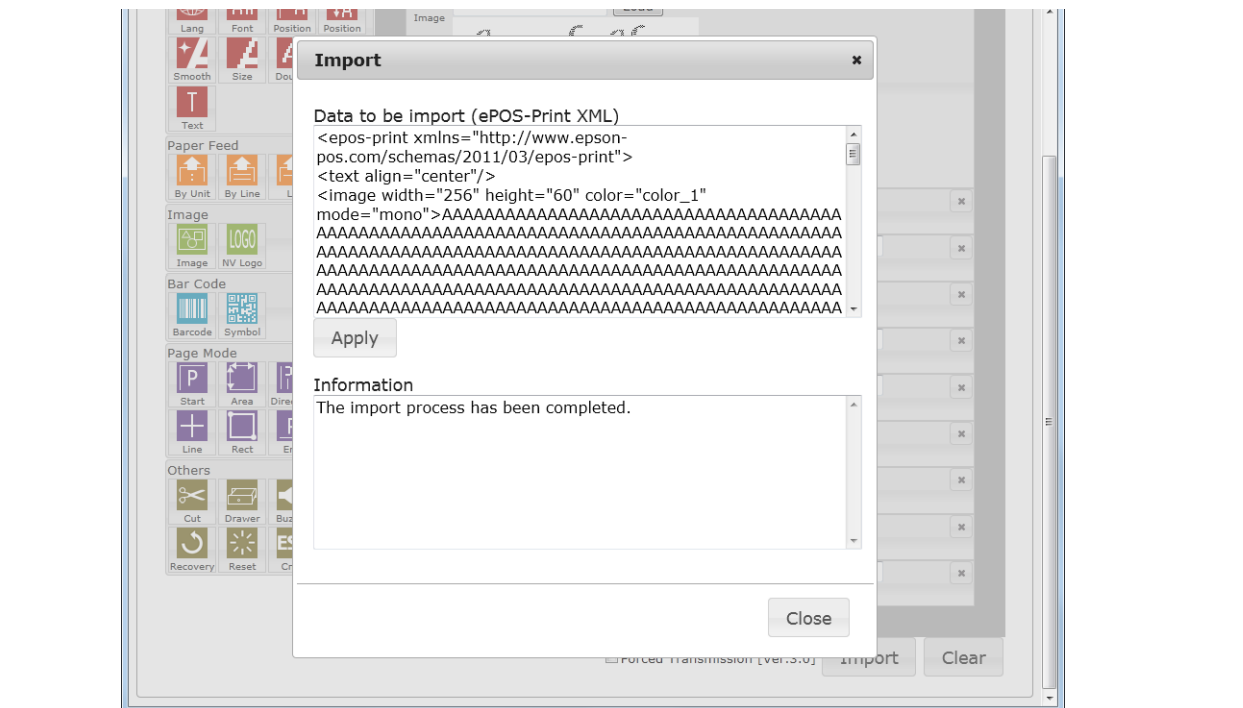
- 1 Select the (Print) tab.
- 2 Check the content in the (Data to be sent (ePOS-Print XML)) box and press the (Send) button.
The ePOS-Print XML print document created using the (Edit) tab page is displayed in "Data to be sent (ePOS-Print XML)".
- 3 The print document is printed to ePOS-Print supported TM printer. The acquired status is displayed in the Information box.

Import

ePOS-Print Editor can import and re-edit the ePOS-Print XML print document once created.



 Note that you cannot perform import operation using ePOS-Print API source code.
Perform import operation using ePOS-Print XML print data.



Item	Description
Data to be import (ePOS-Print XML)	Paste and check the ePOS-Print XML print document to be imported.
Apply	Imports the ePOS-Print XML print document.
Information	Displays the import information.
Close	Closes the Import screen.

ePOS-Print Editor can import an ePOS-Print XML print document as follows:

- 1 Select the (Edit) tab and click the (Import) button.
- 2 The "Import" screen appears. Paste the ePOS-Print XML print document in the (Data to be import (ePOS-Print XML)) box.
- 3 Click the (Apply) button.
- 4 The "Confirmation" screen appears. Click the (Yes) button.

Appendix

Printer specifications

Model	Page	Model	Page	Model	Page
TM-L90 ANK model	p. 184	TM-L90 Multi-language model	p. 184	TM-L90 4** ANK model	p. 188
TM-L90 4** Multi-language model	p. 188	TM-m10	p. 192	TM-m30	p. 196
TM-P20 ANK model	p. 200	TM-P20 Multi-language model	p. 200	TM-P60II ANK model	p. 204
TM-P60II with Peeler ANK model	p. 204	TM-P60II Multi-language model	p. 204	TM-P60II with Peeler Multi-language model	p. 204
TM-P80 ANK model	p. 208	TM-P80 Multi-language model	p. 208	TM-T70 ANK model	p. 212
TM-T70 Multi-language model	p. 216	TM-T70II ANK model	p. 220	TM-T70II Multi-language model	p. 224
TM-T88IV ANK model	p. 228	TM-T88IV Multi-language model	p. 228	TM-T88V ANK model	p. 232
TM-T88V Multi-language model	p. 232	TM-T90 ANK model	p. 236	TM-T90 Multi-language model	p. 236
TM-U220	p. 240				

TM-L90 (ANK model / Multi-language model)

		Receipt	Die-cut label
Interface		Wireless LAN	
Resolution		203 dpi x 203 dpi (W x H)	
Print Width		256 dots (38 mm) to 576 dots (80 mm)	224 dots (38 mm) to 560 dots (80 mm)
Font		Font A, Font B For more information about what character codes can be printed, refer to the user's manual that came with the printer.	
Characters in a Line	Font A	ANK: 48 characters Kanji ^{*1} : 24 characters	ANK: 46 characters Kanji ^{*1} : 23 characters
	Font B	ANK: 64 characters Kanji ^{*1} : 36 characters	ANK: 62 characters Kanji ^{*1} : 35 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji ^{*1} : 24 dots x 24 dots (W x H)	
	Font B	ANK: 9 dots x 17 dots (W x H) Kanji ^{*1} : 16 dots x 16 dots (W x H)	
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji ^{*1} : At the 21st dot from the top of the character	
	Font B	ANK: At the 16th dot from the top of the character Kanji ^{*1} : At the 15th dot from the top of the character	
Default Line Feed Space		30 dots	
Color Specification		First color Second color, Second color (when two-color printing is set)	
Page Mode Default Area		576 dots x 738 dots (W x H)	560 dots x 738 dots (W x H)
	when two- color printing is set	576 dots x 369 dots (W x H)	560 dots x 369 dots (W x H)
Page Mode Maximum Area		576 dots x 1476 dots (W x H)	560 dots x 1476 dots (W x H)
	when two- color printing is set	576 dots x 738 dots (W x H)	560 dots x 738 dots (W x H)
Raster Image		Monochrome image, Two color image	
Logo		Monochrome image, Two color image (To perform two-color printing, change the settings of the printer using the memory switch setting utility.)	
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128	

		Receipt	Die-cut label
2D-Code		PDF417, QR Code, MaxiCode	
Ruled Line		Not supported	
Page Mode	Line	Not supported	
	Rectangle		
Paper Cut		Cut, Feed cut	
Drawer Kick-Out		Supported	
Buzzer		Not supported	
Paper Layout Settings ^{*2}		Not supported (With automatic setup mode)	
Forced transmission mode		Supported	
Recovery from an error		Supported	
Reset		Supported	
Command		Supported	

*1: Differs depending on the Multilingual Model specifications.

*2: Before printing, it is necessary to set the layout information for paper type and size in the printer. For details, refer to the Technical Reference Guide for the printer.

- When using label paper for the first time (except when replacing label paper of the same type).
- When you change the paper type (full-surface label paper/receipt paper, label paper, receipt paper with black mark).
- When changing the size of the label paper.
- When you change the liner for one of different transmittance.

ePOS-Print Setting

Item	Value
Printing Method	Thermal (203 dpi)
Character Code Tables	Page 0-5, 16-19

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addBarcode method	p. 78
addTextAlign method	p. 56	addSymbol method	p. 83
addTextLineSpace method	p. 56	addPageBegin method	p. 94
addTextRotate method	p. 58	addPageEnd method	p. 92
addText method	p. 59	addPageArea method	p. 96
addTextLang method	p. 60	addPageDirection method	p. 98
addTextFont method	p. 62	addPagePosition method	p. 100
addTextSmooth method	p. 63	addCut method	p. 106
addTextDouble method	p. 64	addPulse method	p. 107
addTextSize method	p. 65	addSound method	p. 109
addTextStyle method	p. 66	addLayout method	p. 111
addTextPosition method	p. 68	addRecovery method	p. 115
addTextVPosition method	p. 69	addReset method	p. 116
addFeedUnit method	p. 70	addCommand method	p. 117
addFeedLine method	p. 71	toString method	p. 118
addFeedPosition method	p. 72	halfTone property	p. 119
addFeed method	p. 74	brightness property	p. 120
addImage method	p. 75	force property	p. 121
addLogo method	p. 77	message property	p. 122

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139

ePOS-Print Object	Page	ePOS-Print Object	Page
timeout property	p. 129	onpaperend event	p. 139
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	feed property	p. 158
print method	p. 146	paper property	p. 159
open method	p. 148	layout property	p. 160
close method	p. 148	onreceive event	p. 166
recover method	p. 149	onerror event	p. 169
reset method	p. 149	onstatuschange event	p. 170
address property	p. 150	ononline event	p. 172
enabled property	p. 150	onoffline event	p. 172
interval property	p. 151	onpoweroff event	p. 173
status property	p. 151	oncoverok event	p. 173
timeout property	p. 152	oncoveropen event	p. 174
halftone property	p. 153	onpaperok event	p. 174
brightness property	p. 154	onpapernearend event	p. 175
cut property	p. 154	onpaperend event	p. 175
mode property	p. 155	ondrawerclosed event	p. 176
align property	p. 156	ondraweropen event	p. 176
color property	p. 157		

TM-L90 4** (ANK model / Multi-language model)

		Receipt	Die-cut label
Interface		Wireless LAN	
Resolution		203 dpi x 203 dpi (W x H)	
Print Width		256 dots (38 mm) to 576 dots (80 mm)	224 dots (38 mm) to 560 dots (80 mm)
Font		Font A, Font B For more information about what character codes can be printed, refer to the user's manual that came with the printer.	
Characters in a Line	Font A	ANK: 48 characters Kanji ^{*1} : 24 characters	ANK: 46 characters Kanji ^{*1} : 23 characters
	Font B	ANK: 64 characters Kanji ^{*1} : 36 characters	ANK: 62 characters Kanji ^{*1} : 35 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji ^{*1} : 24 dots x 24 dots (W x H)	
	Font B	ANK: 9 dots x 17 dots (W x H) Kanji ^{*1} : 16 dots x 16 dots (W x H)	
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji ^{*1} : At the 21st dot from the top of the character	
	Font B	ANK: At the 16th dot from the top of the character Kanji ^{*1} : At the 15th dot from the top of the character	
Default Line Feed Space		30 dots	
Color Specification		First color	
Page Mode Default Area		576 dots x 738 dots (W x H)	560 dots x 738 dots (W x H)
	when two- color printing is set	576 dots x 369 dots (W x H)	560 dots x 369 dots (W x H)
Page Mode Maximum Area		576 dots x 1476 dots (W x H)	560 dots x 1476 dots (W x H)
	when two- color printing is set	576 dots x 738 dots (W x H)	560 dots x 738 dots (W x H)
Raster Image		Monochrome image, Gray scale image	
Logo		Monochrome image, Gray scale image	
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128, GS1-128, GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Limited, GS1 DataBar Expanded	

		Receipt	Die-cut label
2D-Code		PDF417, QR Code, MaxiCode, GS1 DataBar, DataMatrix (Composite Symbology not supported)	
Ruled Line		Not supported	
Page Mode	Line	Not supported	
	Rectangle		
Paper Cut		Cut, Feed cut	
Drawer Kick-Out		Supported	
Buzzer		Not supported	
Paper Layout Settings *2		Not supported (With automatic setup mode)	
Forced transmission mode		Supported	
Recovery from an error		Supported	
Reset		Supported	
Command		Supported	

*1: Differs depending on the Multilingual Model specifications.

*2: Before printing, it is necessary to set the layout information for paper type and size in the printer. For details, refer to the Technical Reference Guide for the printer.

- When using label paper for the first time (except when replacing label paper of the same type).
- When you change the paper type (full-surface label paper/receipt paper, label paper, receipt paper with black mark).
- When changing the size of the label paper.
- When you change the liner for one of different transmittance.

ePOS-Print Setting

Item	Value
Printing Method	Thermal (203 dpi)
Character Code Tables	Page 0-5, 16-19

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addBarcode method	p. 78
addTextAlign method	p. 56	addSymbol method	p. 83
addTextLineSpace method	p. 56	addPageBegin method	p. 94
addTextRotate method	p. 58	addPageEnd method	p. 92
addText method	p. 59	addPageArea method	p. 96
addTextLang method	p. 60	addPageDirection method	p. 98
addTextFont method	p. 62	addPagePosition method	p. 100
addTextSmooth method	p. 63	addCut method	p. 106
addTextDouble method	p. 64	addPulse method	p. 107
addTextSize method	p. 65	addSound method	p. 109
addTextStyle method	p. 66	addLayout method	p. 111
addTextPosition method	p. 68	addRecovery method	p. 115
addTextVPosition method	p. 69	addReset method	p. 116
addFeedUnit method	p. 70	addCommand method	p. 117
addFeedLine method	p. 71	toString method	p. 118
addFeedPosition method	p. 72	halfTone property	p. 119
addFeed method	p. 74	brightness property	p. 120
addImage method	p. 75	force property	p. 121
addLogo method	p. 77	message property	p. 122

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139

ePOS-Print Object	Page	ePOS-Print Object	Page
timeout property	p. 129	onpaperend event	p. 139
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	feed property	p. 158
print method	p. 146	paper property	p. 159
open method	p. 148	layout property	p. 160
close method	p. 148	onreceive event	p. 166
recover method	p. 149	onerror event	p. 169
reset method	p. 149	onstatuschange event	p. 170
address property	p. 150	ononline event	p. 172
enabled property	p. 150	onoffline event	p. 172
interval property	p. 151	onpoweroff event	p. 173
status property	p. 151	oncoverok event	p. 173
timeout property	p. 152	oncoveropen event	p. 174
halftone property	p. 153	onpaperok event	p. 174
brightness property	p. 154	onpapernearend event	p. 175
cut property	p. 154	onpaperend event	p. 175
mode property	p. 155	ondrawerclosed event	p. 176
align property	p. 156	ondraweropen event	p. 176
color property	p. 157		

TM-m10

		58 mm
Interface	Ethernet model	Ethernet
	Wi-Fi model ^{*1}	Wireless LAN, Ethernet
Resolution		203 dpi x 203 dpi (W x H)
Print Width		420 dots
Font		Font A, Font B, Font C For more information about what character codes can be printed, refer to the user's manual that came with the printer.
Characters in a Line	Font A	ANK: 35 characters Kanji ^{*2} : 17 characters
	Font B	ANK: 42 characters Kanji ^{*3} : 21 characters
	Font C	ANK: 46 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji ^{*2} : 24 dots x 24 dots (W x H)
	Font B	ANK: 10 dots x 24 dots (W x H) Kanji ^{*3} : 20 dots x 24 dots (W x H)
	Font C	ANK: 9 dots x 17 dots (W x H)
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji ^{*2} : At the 21st dot from the top of the character
	Font B	ANK: At the 21th dot from the top of the character Kanji ^{*3} : At the 21st dot from the top of the character
	Font C	At the 16th dot from the top of the character
Default Line Feed Space		30 dots
Color Specification		First color
Page Mode Default Area		420 dots x 2400 dots (W x H)
Page Mode Maximum Area		420 dots x 2400 dots (W x H)
Raster image		Monochrome image, Gray scale image
Logo		Monochrome image, Gray scale image
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128, GS1-128, GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Limited, GS1 DataBar Expanded

		58 mm
2D-Code		PDF417, QR Code, MaxiCode, Data Matrix, Aztec Code, GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked (Composite Symbology not supported)
Ruled Line		Not supported
Page Mode	Line	Not supported
	Rectangle	
Paper Cut		Cut, Feed cut
Drawer Kick-Out		Supported
Buzzer		Optional (Pattern A ~ Pattern E, Error, No paper, Stop)
Paper Layout Settings		Not supported
Forced transmission mode		Supported
Recovery from an error		Supported
Reset		Supported
Command		Supported

*1: The Wi-Fi interface is disabled when the Ethernet cable is connected.

*2: Differs depending on the Multilingual model specification.

*3: Only for Japanese model.

ePOS-Print Setting

Item	Value
Printing Method	Thermal (203 dpi)
Character Code Tables	Page 0-5, 16-19, 20-21, 26,30-31, 11-15, 32-53

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addBarcode method	p. 78
addTextAlign method	p. 56	addSymbol method	p. 83
addTextLineSpace method	p. 56	addPageBegin method	p. 94
addTextRotate method	p. 58	addPageEnd method	p. 92
addText method	p. 59	addPageArea method	p. 96
addTextLang method	p. 60	addPageDirection method	p. 98
addTextFont method	p. 62	addPagePosition method	p. 100
addTextSmooth method	p. 63	addCut method	p. 106
addTextDouble method	p. 64	addPulse method	p. 107
addTextSize method	p. 65	addSound method	p. 109
addTextStyle method	p. 66	addRecovery method	p. 115
addTextPosition method	p. 68	addReset method	p. 116
addTextVPosition method	p. 69	addCommand method	p. 117
addFeedUnit method	p. 70	toString method	p. 118
addFeedLine method	p. 71	halfTone property	p. 119
addFeed method	p. 74	brightness property	p. 120
addImage method	p. 75	force property	p. 121
addLogo method	p. 77	message property	p. 122

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139

ePOS-Print Object	Page	ePOS-Print Object	Page
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	align property	p. 156
print method	p. 146	onreceive event	p. 166
open method	p. 148	onerror event	p. 169
close method	p. 148	onstatuschange event	p. 170
recover method	p. 149	ononline event	p. 172
reset method	p. 149	onoffline event	p. 172
address property	p. 150	onpoweroff event	p. 173
enabled property	p. 150	oncoverok event	p. 173
interval property	p. 151	oncoveropen event	p. 174
status property	p. 151	onpaperok event	p. 174
timeout property	p. 152	onpapernearend event	p. 175
halftone property	p. 153	onpaperend event	p. 175
brightness property	p. 154	ondrawerclosed event	p. 176
cut property	p. 154	ondraweropen event	p. 176
mode property	p. 155		

TM-m30

		58 mm	80 mm
Interface ^{*1}		Ethernet, Wireless LAN	
Resolution		203 dpi x 203 dpi (W x H)	
Print Width		420 dots	576 dots
Font		Font A, Font B, Font C For more information about what character codes can be printed, refer to the user's manual that came with the printer.	
Characters in a Line	Font A	ANK: 35 characters Kanji ^{*2} : 17 characters	ANK: 48 characters Kanji ^{*2} : 24 characters
	Font B	ANK: 42 characters Kanji ^{*3} : 21 characters	ANK: 57 characters Kanji ^{*3} : 28 characters
	Font C	ANK: 46 characters	ANK: 64 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji ^{*2} : 24 dots x 24 dots (W x H)	
	Font B	ANK: 10 dots x 24 dots (W x H) Kanji ^{*3} : 20 dots x 24 dots (W x H)	
	Font C	ANK: 9 dots x 17 dots (W x H)	
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji ^{*2} : At the 21st dot from the top of the character	
	Font B	ANK: At the 21th dot from the top of the character Kanji ^{*3} : At the 21st dot from the top of the character	
	Font C	At the 16th dot from the top of the character	
Default Line Feed Space		30 dots	
Color Specification		First color	
Page Mode Default Area		420 dots x 2400 dots (W x H)	576 dots x 2400 dots (W x H)
Page Mode Maximum Area		420 dots x 2400 dots (W x H)	576 dots x 2400 dots (W x H)
Raster image		Monochrome image, Gray scale image	
Logo		Monochrome image, Gray scale image	
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128, GS1-128, GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Limited, GS1 DataBar Expanded	
2D-Code		PDF417, QR Code, MaxiCode, Data Matrix, Aztec Code, GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked (Composite Symbology not supported)	

		58 mm	80 mm
Ruled Line		Not supported	
Page Mode	Line	Not supported	
	Rectangle		
Paper Cut		Cut, Feed cut	
Drawer Kick-Out		Supported	
Buzzer		Optional (Pattern A ~ Pattern E, Error, No paper, Stop)	
Paper Layout Settings		Not supported	
Forced transmission mode		Supported	
Recovery from an error		Supported	
Reset		Supported	
Command		Supported	

*1: The Wi-Fi interface is disabled when the Ethernet cable is connected.

*2: Differs depending on the Multilingual model specification.

*3: Only for Japanese model.

ePOS-Print Setting

Item	Value
Printing Method	Thermal (203 dpi)
Character Code Tables	Page 0-5, 16-19, 20-21, 26,30-31, 11-15, 32-53

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addBarcode method	p. 78
addTextAlign method	p. 56	addSymbol method	p. 83
addTextLineSpace method	p. 56	addPageBegin method	p. 94
addTextRotate method	p. 58	addPageEnd method	p. 92
addText method	p. 59	addPageArea method	p. 96
addTextLang method	p. 60	addPageDirection method	p. 98
addTextFont method	p. 62	addPagePosition method	p. 100
addTextSmooth method	p. 63	addCut method	p. 106
addTextDouble method	p. 64	addPulse method	p. 107
addTextSize method	p. 65	addSound method	p. 109
addTextStyle method	p. 66	addRecovery method	p. 115
addTextPosition method	p. 68	addReset method	p. 116
addTextVPosition method	p. 69	addCommand method	p. 117
addFeedUnit method	p. 70	toString method	p. 118
addFeedLine method	p. 71	halfTone property	p. 119
addFeed method	p. 74	brightness property	p. 120
addImage method	p. 75	force property	p. 121
addLogo method	p. 77	message property	p. 122

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139

ePOS-Print Object	Page	ePOS-Print Object	Page
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	align property	p. 156
print method	p. 146	onreceive event	p. 166
open method	p. 148	onerror event	p. 169
close method	p. 148	onstatuschange event	p. 170
recover method	p. 149	ononline event	p. 172
reset method	p. 149	onoffline event	p. 172
address property	p. 150	onpoweroff event	p. 173
enabled property	p. 150	oncoverok event	p. 173
interval property	p. 151	oncoveropen event	p. 174
status property	p. 151	onpaperok event	p. 174
timeout property	p. 152	onpapernearend event	p. 175
halftone property	p. 153	onpaperend event	p. 175
brightness property	p. 154	ondrawerclosed event	p. 176
cut property	p. 154	ondraweropen event	p. 176
mode property	p. 155		

TM-P20 (ANK model / Multi-language model)

		58 mm
Interface		Wireless LAN
Resolution		203 dpi x 203 dpi (W x H)
Print Width		384 dots
Font		Font A, Font B, Font C, Font D, Font E For more information about what character codes can be printed, refer to the user's manual that came with the printer.
Characters in a Line	Font A	ANK: 32 characters Kanji *: 16 characters
	Font B	ANK: 42 characters
	Font C	ANK: 42 characters
	Font D	ANK: 38 characters
	Font E	ANK: 48 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji *: 24 dots x 24 dots (W x H)
	Font B	ANK: 9 dots x 24 dots (W x H)
	Font C	ANK: 9 dots x 17 dots (W x H)
	Font D	ANK: 10 dots x 24 dots (W x H)
	Font E	ANK: 8 dots x 16 dots (W x H)
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji *: At the 21st dot from the top of the character
	Font B	At the 21st dot from the top of the character
	Font C	At the 16th dot from the top of the character
	Font D	At the 21st dot from the top of the character
	Font E	At the 15th dot from the top of the character
Default Line Feed Space		30 dots
Color Specification		First color
Page Mode Default Area		384 dots x 2400 dots (W x H)
Page Mode Maximum Area		384 dots x 2400 dots (W x H)
Raster Image		Monochrome image
Logo		Monochrome image

		58 mm
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128, GS1-128, GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Limited, GS1 DataBar Expanded
2D-Code		PDF417, QR Code, MaxiCode, GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked, Aztec Code, DataMatrix (Composite Symbology not supported)
Ruled Line		Not supported
Page Mode	Line	Supported (Only solid line)
	Rectangle	
Paper Cut		Feed cut (Feeds paper to cutting position)
Drawer Kick-Out		Not supported
Buzzer		Support (Pattern 1 ~ Pattern 10, Stop)
Paper Layout Settings		Supported
Forced transmission mode		Supported
Recovery from an error		Supported
Reset		Supported
Command		Supported

* Only for Multi-language model.

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addSymbol method	p. 83
addTextAlign method	p. 56	addPageBegin method	p. 94
addTextLineSpace method	p. 56	addPageEnd method	p. 92
addTextRotate method	p. 58	addPageArea method	p. 96
addText method	p. 59	addPageDirection method	p. 98
addTextLang method	p. 60	addPagePosition method	p. 100
addTextFont method	p. 62	addPageLine method	p. 102
addTextSmooth method	p. 63	addPageRectangle method	p. 104
addTextDouble method	p. 64	addCut method	p. 106
addTextSize method	p. 65	addSound method	p. 109
addTextStyle method	p. 66	addLayout method	p. 111
addTextPosition method	p. 68	addRecovery method	p. 115
addTextVPosition method	p. 69	addReset method	p. 116
addFeedUnit method	p. 70	addCommand method	p. 117
addFeedLine method	p. 71	toString method	p. 118
addFeedPosition method	p. 72	halfTone property	p. 119
addFeed method	p. 74	brightness property	p. 120
addImage method	p. 75	force property	p. 121
addLogo method	p. 77	message property	p. 122
addBarcode method	p. 78		

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	onbatterystatuschange event	p. 135
open method	p. 125	ononline event	p. 136
close method	p. 126	onoffline event	p. 136
address property	p. 127	onpoweroff event	p. 137
enabled property	p. 127	oncoverok event	p. 137
interval property	p. 128	oncoveropen event	p. 138

ePOS-Print Object	Page	ePOS-Print Object	Page
status property	p. 128	onpaperok event	p. 138
battery property	p. 129	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139
onreceive event	p. 131	onbatteryok event	p. 141
onerror event	p. 134	onbatterylow event	p. 141

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	paper property	p. 159
print method	p. 146	layout property	p. 160
open method	p. 148	onreceive event	p. 166
close method	p. 148	onerror event	p. 169
recover method	p. 149	onstatuschange event	p. 170
reset method	p. 149	onbatterystatuschange event	p. 170
address property	p. 150	onbatteryok event	p. 171
enabled property	p. 150	onbatterylow event	p. 171
interval property	p. 151	ononline event	p. 172
status property	p. 151	onoffline event	p. 172
battery property	p. 152	onpoweroff event	p. 173
timeout property	p. 152	oncoverok event	p. 173
halftone property	p. 153	oncoveropen event	p. 174
brightness property	p. 154	onpaperok event	p. 174
cut property	p. 154	onpapernearend event	p. 175
align property	p. 156	onpaperend event	p. 175
feed property	p. 158		

TM-P60II/ TM-P60II with Peeler (ANK model / Multi-language model)

		Receipt	Die-cut label
Interface		Wireless LAN	
Resolution		203 dpi x 203 dpi (W x H)	
Print Width		432 dots	160 dots ~ 400 dots
Font		Font A, Font B, Font C For more information about what character codes can be printed, refer to the user's manual that came with the printer.	
Characters in a Line	Font A	ANK: 36 characters Kanji *: 18 characters	ANK: 33 characters Kanji *: 16 characters
	Font B	ANK: 43 characters	ANK: 40 characters
	Font C	ANK: 54 characters	ANK: 50 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji *: 24 dots x 24 dots (W x H)	
	Font B	ANK: 10 dots x 24 dots (W x H)	
	Font C	ANK: 8 dots x 16 dots (W x H)	
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji *: At the 21st dot from the top of the character	
	Font B	At the 21st dot from the top of the character	
	Font C	At the 15th dot from the top of the character	
Default Line Feed Space		30 dots	
Color Specification		First color	
Page Mode Default Area		432 dots x 1624 dots (W x H)	400 dots x 1624 dots (W x H)
Page Mode Maximum Area		432 dots x 1624 dots (W x H)	400 dots x 1624 dots (W x H)
Raster Image		Monochrome image	
Logo		Monochrome image	
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128, GS1-128, GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Limited, GS1 DataBar Expanded	
2D-Code		PDF417, QR Code, MaxiCode, GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked, Aztec Code, DataMatrix (Composite Symbology not supported)	
Ruled Line		Not supported	

		Receipt	Die-cut label
Page Mode	Line	Supported (Only solid line)	
	Rectangle		
Paper Cut	TM-P60II	Cut, Feed cut	
	TM-P60II with Peeler	Feed cut (Feeds paper to cutting position)	
Drawer Kick-Out		Not supported	
Buzzer		Support (Pattern 1 ~ Pattern 10, Stop)	
Paper Layout Settings	TM-P60II	Not supported	
	TM-P60II with Peeler	Supported	
Forced transmission mode		Supported	
Recovery from an error		Supported	
Reset		Supported	
Command		Supported	

* Only for Multi-language model.

Paper Layout

Paper type	Receipt paper (without black mark)	Receipt paper (with black mark)	Die-cut label paper (without black mark)	Die-cut label paper (with black mark)
width (sf)	290 to 600	290 to 600	290 to 600	290 to 600
height (sa)	0	0, 284 to 1550	0, 284 to 1550	0, 284 to 1550
margin_top (sb)	0	-130 to 1500	0 to 1500	-15 to 1500
margin_bottom (se)	0	0	-15 to 0	-15 to 15
offset_cut (sc)	0	-256 to 50	0 to 50	0 to 50
offset_label (sd)	0	0	0	0 to 15

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addSymbol method	p. 83
addTextAlign method	p. 56	addPageBegin method	p. 94
addTextLineSpace method	p. 56	addPageEnd method	p. 92
addTextRotate method	p. 58	addPageArea method	p. 96
addText method	p. 59	addPageDirection method	p. 98
addTextLang method	p. 60	addPagePosition method	p. 100
addTextFont method	p. 62	addPageLine method	p. 102
addTextSmooth method	p. 63	addPageRectangle method	p. 104
addTextDouble method	p. 64	addCut method	p. 106
addTextSize method	p. 65	addSound method	p. 109
addTextStyle method	p. 66	addLayout method *	p. 111
addTextPosition method	p. 68	addRecovery method	p. 115
addTextVPosition method	p. 69	addReset method	p. 116
addFeedUnit method	p. 70	addCommand method	p. 117
addFeedLine method	p. 71	toString method	p. 118
addFeedPosition method *	p. 72	halfTone property	p. 119
addFeed method	p. 74	brightness property	p. 120
addImage method	p. 75	force property	p. 121
addLogo method	p. 77	message property	p. 122
addBarcode method	p. 78		

* Only for TM-P60II with Peeler

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	onbatterystatuschange event	p. 135
open method	p. 125	ononline event	p. 136
close method	p. 126	onoffline event	p. 136
address property	p. 127	onpoweroff event	p. 137
enabled property	p. 127	oncoverok event	p. 137

ePOS-Print Object	Page	ePOS-Print Object	Page
interval property	p. 128	oncoveropen event	p. 138
status property	p. 128	onpaperok event	p. 138
battery property	p. 129	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139
onreceive event	p. 131	onbatteryok event	p. 141
onerror event	p. 134	onbatterylow event	p. 141

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	paper property	p. 159
print method	p. 146	layout property	p. 160
open method	p. 148	onreceive event	p. 166
close method	p. 148	onerror event	p. 169
recover method	p. 149	onstatuschange event	p. 170
reset method	p. 149	onbatterystatuschange event	p. 170
address property	p. 150	onbatteryok event	p. 171
enabled property	p. 150	onbatterylow event	p. 171
interval property	p. 151	ononline event	p. 172
status property	p. 151	onoffline event	p. 172
battery property	p. 152	onpoweroff event	p. 173
timeout property	p. 152	oncoverok event	p. 173
halftone property	p. 153	oncoveropen event	p. 174
brightness property	p. 154	onpaperok event	p. 174
cut property	p. 154	onpapernearend event	p. 175
align property	p. 156	onpaperend event	p. 175
feed property	p. 158		

TM-P80 (ANK model / Multi-language model)

		Receipt 80 mm
Interface		Wireless LAN
Resolution		203 dpi x 203 dpi (W x H)
Print Width		576 dots
Font		Font A, Font B For more information about what character codes can be printed, refer to the user's manual that came with the printer.
Characters in a Line	Font A	ANK: 48 characters Kanji *: 24 characters
	Font B	ANK: 64 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji *: 24 dots x 24 dots (W x H)
	Font B	ANK: 9 dots x 17 dots (W x H)
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji *: At the 21st dot from the top of the character
	Font B	At the 15 th dot from the top of the character
Default Line Feed Space		30 dots
Color Specification		First color
Page Mode Default Area		576 dots x 1662 dots (W x H)
Page Mode Maximum Area		576 dots x 1662 dots (W x H)
Raster Image		Monochrome image
Logo		Monochrome image
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128, GS1-128, GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Limited, GS1 Databar Expanded
2D-Code		PDF417, QR Code, MaxiCode, Data Matrix, Aztec Code, GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked (Composite Symbolism not supported)
Ruled Line		Not supported
Page Mode	Line	Supported (Only solid line)
	Rectangle	

		Receipt 80 mm
Paper Cut	manualcutter model	Feed cut (Feeds paper to cutting position)
	autocutter model	Cut, Feed cut
Drawer Kick-Out		Not supported
Buzzer		Support (Pattern1 ~ Pattern 10, Stop)
Paper Layout Settings		Supported (Only for receipt paper)
Forced transmission mode		Supported
Recovery from an error		Supported
Reset		Supported
Command		Supported

* Only for Multi-language model.

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addSymbol method	p. 83
addTextAlign method	p. 56	addPageBegin method	p. 94
addTextLineSpace method	p. 56	addPageEnd method	p. 92
addTextRotate method	p. 58	addPageArea method	p. 96
addText method	p. 59	addPageDirection method	p. 98
addTextLang method	p. 60	addPagePosition method	p. 100
addTextFont method	p. 62	addPageLine method	p. 102
addTextSmooth method	p. 63	addPageRectangle method	p. 104
addTextDouble method	p. 64	addCut method	p. 106
addTextSize method	p. 65	addSound method	p. 109
addTextStyle method	p. 66	addLayout method	p. 111
addTextPosition method	p. 68	addRecovery method	p. 115
addTextVPosition method	p. 69	addReset method	p. 116
addFeedUnit method	p. 70	addCommand method	p. 117
addFeedLine method	p. 71	toString method	p. 118
addFeedPosition method *	p. 72	halfTone property	p. 119
addFeed method	p. 74	brightness property	p. 120
addImage method	p. 75	force property	p. 121
addLogo method	p. 77	message property	p. 122
addBarcode method	p. 78		

* Only for black mark paper

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	onbatterystatuschange event	p. 135
open method	p. 125	ononline event	p. 136
close method	p. 126	onoffline event	p. 136
address property	p. 127	onpoweroff event	p. 137
enabled property	p. 127	oncoverok event	p. 137

ePOS-Print Object	Page	ePOS-Print Object	Page
interval property	p. 128	oncoveropen event	p. 138
status property	p. 128	onpaperok event	p. 138
battery property	p. 129	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139
onreceive event	p. 131	onbatteryok event	p. 141
onerror event	p. 134	onbatterylow event	p. 141

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	paper property	p. 159
print method	p. 146	layout property	p. 160
open method	p. 148	onreceive event	p. 166
close method	p. 148	onerror event	p. 169
recover method	p. 149	onstatuschange event	p. 170
reset method	p. 149	onbatterystatuschange event	p. 170
address property	p. 150	onbatteryok event	p. 171
enabled property	p. 150	onbatterylow event	p. 171
interval property	p. 151	ononline event	p. 172
status property	p. 151	onoffline event	p. 172
battery property	p. 152	onpoweroff event	p. 173
timeout property	p. 152	oncoverok event	p. 173
halftone property	p. 153	oncoveropen event	p. 174
brightness property	p. 154	onpaperok event	p. 174
cut property	p. 154	onpapernearend event	p. 175
align property	p. 156	onpaperend event	p. 175
feed property	p. 158		

TM-T70 (ANK model)

		80 mm
Interface		Wireless LAN
Resolution		180 dpi x 180 dpi (W x H)
Print Width		512 dots
Font		Font A, Font B For more information about what character codes can be printed, refer to the user's manual that came with the printer.
Characters in a Line	Font A	ANK: 42 characters
	Font B	ANK: 56 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H)
	Font B	ANK: 9 dots x 17 dots (W x H)
Character Baseline	Font A	At the 21st dot from the top of the character
	Font B	At the 16th dot from the top of the character
Default Line Feed Space		30 dots
Color Specification		First color
Page Mode Default Area		512 dots x 831 dots (W x H)
Page Mode Maximum Area		512 dots x 1662 dots (W x H)
Raster image		Monochrome image
Logo		Monochrome image
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128
2D-Code		PDF417, QR Code
Ruled Line		Not supported
Character Baseline	Line	Not supported
	Rectangle	
Paper Cut		Cut, Feed cut
Drawer Kick-Out		Supported
Buzzer		Not supported
Paper Layout Settings		Not supported
Forced transmission mode		Supported
Recovery from an error		Supported
Reset		Supported

	80 mm
Command	Supported

ePOS-Print Setting

Item	Value
Printing Method	Thermal (180 dpi)
Character Code Tables	Page 0-5, 16-19

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addBarcode method	p. 78
addTextAlign method	p. 56	addSymbol method	p. 83
addTextLineSpace method	p. 56	addPageBegin method	p. 94
addTextRotate method	p. 58	addPageEnd method	p. 92
addText method	p. 59	addPageArea method	p. 96
addTextLang method	p. 60	addPageDirection method	p. 98
addTextFont method	p. 62	addPagePosition method	p. 100
addTextSmooth method	p. 63	addCut method	p. 106
addTextDouble method	p. 64	addPulse method	p. 107
addTextSize method	p. 65	addRecovery method	p. 115
addTextStyle method	p. 66	addReset method	p. 116
addTextPosition method	p. 68	addCommand method	p. 117
addTextVPosition method	p. 69	toString method	p. 118
addFeedUnit method	p. 70	halfTone property	p. 119
addFeedLine method	p. 71	brightness property	p. 120
addFeed method	p. 74	force property	p. 121
addImage method	p. 75	message property	p. 122
addLogo method	p. 77		

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139

ePOS-Print Object	Page	ePOS-Print Object	Page
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	align property	p. 156
print method	p. 146	onreceive event	p. 166
open method	p. 148	onerror event	p. 169
close method	p. 148	onstatuschange event	p. 170
recover method	p. 149	ononline event	p. 172
reset method	p. 149	onoffline event	p. 172
address property	p. 150	onpoweroff event	p. 173
enabled property	p. 150	oncoverok event	p. 173
interval property	p. 151	oncoveropen event	p. 174
status property	p. 151	onpaperok event	p. 174
timeout property	p. 152	onpapernearend event	p. 175
halftone property	p. 153	onpaperend event	p. 175
brightness property	p. 154	ondrawerclosed event	p. 176
cut property	p. 154	ondraweropen event	p. 176

TM-T70 (Multi-language model)

		80 mm
Interface		Wireless LAN
Resolution		203 dpi x 203 dpi (W x H)
Print Width		576 dots
Font		Font A, Font B For more information about what character codes can be printed, refer to the user's manual that came with the printer.
Characters in a Line	Font A	ANK: 48 characters Kanji: 24 characters
	Font B	ANK: 64 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji: 24 dots x 24 dots (W x H)
	Font B	ANK: 9 dots x 17 dots (W x H)
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji: At the 21st dot from the top of the character
	Font B	At the 16th dot from the top of the character
Default Line Feed Space		30 dots
Color Specification		First color
Page Mode Default Area		576 dots x 1662 dots (W x H)
Page Mode Maximum Area		576 dots x 1662 dots (W x H)
Raster image		Monochrome image
Logo		Monochrome image
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128
2D-Code		PDF417, QR Code
Ruled Line		Not supported
Page Mode	Line	Not supported
	Rectangle	
Paper Cut		Cut, Feed cut
Drawer Kick-Out		Supported
Buzzer		Not supported
Paper Layout Settings		Not supported
Forced transmission mode		Supported

	80 mm
Recovery from an error	Supported
Reset	Supported
Command	Supported

ePOS-Print Setting

Item	Value
Printing Method	Thermal (203 dpi)
Character Code Tables	Page 0-5, 16-19

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addBarcode method	p. 78
addTextAlign method	p. 56	addSymbol method	p. 83
addTextLineSpace method	p. 56	addPageBegin method	p. 94
addTextRotate method	p. 58	addPageEnd method	p. 92
addText method	p. 59	addPageArea method	p. 96
addTextLang method	p. 60	addPageDirection method	p. 98
addTextFont method	p. 62	addPagePosition method	p. 100
addTextSmooth method	p. 63	addCut method	p. 106
addTextDouble method	p. 64	addPulse method	p. 107
addTextSize method	p. 65	addRecovery method	p. 115
addTextStyle method	p. 66	addReset method	p. 116
addTextPosition method	p. 68	addCommand method	p. 117
addTextVPosition method	p. 69	toString method	p. 118
addFeedUnit method	p. 70	halfTone property	p. 119
addFeedLine method	p. 71	brightness property	p. 120
addFeed method	p. 74	force property	p. 121
addImage method	p. 75	message property	p. 122
addLogo method	p. 77		

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139

ePOS-Print Object	Page	ePOS-Print Object	Page
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	align property	p. 156
print method	p. 146	onreceive event	p. 166
open method	p. 148	onerror event	p. 169
close method	p. 148	onstatuschange event	p. 170
recover method	p. 149	ononline event	p. 172
reset method	p. 149	onoffline event	p. 172
address property	p. 150	onpoweroff event	p. 173
enabled property	p. 150	oncoverok event	p. 173
interval property	p. 151	oncoveropen event	p. 174
status property	p. 151	onpaperok event	p. 174
timeout property	p. 152	onpapernearend event	p. 175
halftone property	p. 153	onpaperend event	p. 175
brightness property	p. 154	ondrawerclosed event	p. 176
cut property	p. 154	ondraweropen event	p. 176

TM-T70II (ANK model)

		80 mm
Interface		Wireless LAN
Resolution		180 dpi x 180 dpi (W x H)
Print Width		512 dots
Font		Font A, Font B For more information about what character codes can be printed, refer to the user's manual that came with the printer.
Characters in a Line	Font A	ANK: 42 characters
	Font B	ANK: 56 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H)
	Font B	ANK: 9 dots x 17 dots (W x H)
Character Baseline	Font A	At the 21st dot from the top of the character
	Font B	At the 15th dot from the top of the character
Default Line Feed Space		30 dots
Color Specification		First color
Page Mode Default Area		512 dots x 1662 dots (W x H)
Page Mode Maximum Area		512 dots x 1662 dots (W x H)
Raster image		Monochrome image, Gray scale image
Logo		Monochrome image, Gray scale image
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128, GS1-128, GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Limited, GS1 DataBar Expanded
2D-Code		PDF417, QR Code, MaxiCode, GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked (Composite Symbology not supported)
Ruled Line		Not supported
Page Mode	Line	Not supported
	Rectangle	
Paper Cut		Cut, Feed cut
Drawer Kick-Out		Supported
Buzzer		Optional (Pattern A ~ Pattern E, Error, No paper, Stop)
Paper Layout Settings		Not supported

	80 mm
Forced transmission mode	Supported
Recovery from an error	Supported
Reset	Supported
Command	Supported

ePOS-Print Setting

Item	Value
Printing Method	Thermal (180 dpi)
Character Code Tables	Page 0-5, 16-19, 20-21, 26,30-31, 11-15, 32-53

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addBarcode method	p. 78
addTextAlign method	p. 56	addSymbol method	p. 83
addTextLineSpace method	p. 56	addPageBegin method	p. 94
addTextRotate method	p. 58	addPageEnd method	p. 92
addText method	p. 59	addPageArea method	p. 96
addTextLang method	p. 60	addPageDirection method	p. 98
addTextFont method	p. 62	addPagePosition method	p. 100
addTextSmooth method	p. 63	addCut method	p. 106
addTextDouble method	p. 64	addPulse method	p. 107
addTextSize method	p. 65	addSound method	p. 109
addTextStyle method	p. 66	addRecovery method	p. 115
addTextPosition method	p. 68	addReset method	p. 116
addTextVPosition method	p. 69	addCommand method	p. 117
addFeedUnit method	p. 70	toString method	p. 118
addFeedLine method	p. 71	halfzone property	p. 119
addFeed method	p. 74	brightness property	p. 120
addImage method	p. 75	force property	p. 121
addLogo method	p. 77	message property	p. 122

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139

ePOS-Print Object	Page	ePOS-Print Object	Page
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	align property	p. 156
print method	p. 146	onreceive event	p. 166
open method	p. 148	onerror event	p. 169
close method	p. 148	onstatuschange event	p. 170
recover method	p. 149	ononline event	p. 172
reset method	p. 149	onoffline event	p. 172
address property	p. 150	onpoweroff event	p. 173
enabled property	p. 150	oncoverok event	p. 173
interval property	p. 151	oncoveropen event	p. 174
status property	p. 151	onpaperok event	p. 174
timeout property	p. 152	onpapernearend event	p. 175
halftone property	p. 153	onpaperend event	p. 175
brightness property	p. 154	ondrawerclosed event	p. 176
cut property	p. 154	ondraweropen event	p. 176
mode property	p. 155		

TM-T70II (Multi-language model)

		80 mm
Interface		Wireless LAN
Resolution		203 dpi x 203 dpi (W x H)
Print Width		576 dots
Font		Font A, Font B For more information about what character codes can be printed, refer to the user's manual that came with the printer.
Characters in a Line	Font A	ANK: 48 characters Kanji *: 24 characters
	Font B	ANK: 64 characters
	Special font A *	48 characters
	Special font B *	64 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji *: 24 dots x 24 dots (W x H)
	Font B	ANK: 9 dots x 17 dots (W x H)
	Special font A *	12 dots x 24 dots (W x H)
	Special font B *	9 dots x 24 dots (W x H)
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji *: At the 21st dot from the top of the character
	Font B	At the 16th dot from the top of the character
	Special font A *	At the 21st dot from the top of the character
	Special font B *	At the 21st dot from the top of the character
Default Line Feed Space		30 dots
Color Specification		First color
Page Mode Default Area		576 dots x 1662 dots (W x H)
Page Mode Maximum Area		576 dots x 1662 dots (W x H)
Raster image		Monochrome image, Gray scale image
Logo		Monochrome image, Gray scale image
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128, GS1-128, GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Limited, GS1 DataBar Expanded

		80 mm
2D-Code		PDF417, QR Code, MaxiCode, GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked (Composite Symbology not supported)
Ruled Line		Not supported
Page Mode	Line	Not supported
	Rectangle	
Paper Cut		Cut, Feed cut
Drawer Kick-Out		Supported
Buzzer		Optional (Pattern A ~ Pattern E, Error, No paper, Stop)
Paper Layout Settings		Not supported
Forced transmission mode		Supported
Recovery from an error		Supported
Reset		Supported
Command		Supported

* Differs depending on the Multilingual Model specifications.

ePOS-Print Setting

Item	Value
Printing Method	Thermal (203 dpi)
Character Code Tables	Page 0-5, 16-19, 20-21, 26,30-31, 11-15, 32-53

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addBarcode method	p. 78
addTextAlign method	p. 56	addSymbol method	p. 83
addTextLineSpace method	p. 56	addPageBegin method	p. 94
addTextRotate method	p. 58	addPageEnd method	p. 92
addText method	p. 59	addPageArea method	p. 96
addTextLang method	p. 60	addPageDirection method	p. 98
addTextFont method	p. 62	addPagePosition method	p. 100
addTextSmooth method	p. 63	addCut method	p. 106
addTextDouble method	p. 64	addPulse method	p. 107
addTextSize method	p. 65	addSound method	p. 109
addTextStyle method	p. 66	addRecovery method	p. 115
addTextPosition method	p. 68	addReset method	p. 116
addTextVPosition method	p. 69	addCommand method	p. 117
addFeedUnit method	p. 70	toString method	p. 118
addFeedLine method	p. 71	halfzone property	p. 119
addFeed method	p. 74	brightness property	p. 120
addImage method	p. 75	force property	p. 121
addLogo method	p. 77	message property	p. 122

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139

ePOS-Print Object	Page	ePOS-Print Object	Page
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	align property	p. 156
print method	p. 146	onreceive event	p. 166
open method	p. 148	onerror event	p. 169
close method	p. 148	onstatuschange event	p. 170
recover method	p. 149	ononline event	p. 172
reset method	p. 149	onoffline event	p. 172
address property	p. 150	onpoweroff event	p. 173
enabled property	p. 150	oncoverok event	p. 173
interval property	p. 151	oncoveropen event	p. 174
status property	p. 151	onpaperok event	p. 174
timeout property	p. 152	onpapernearend event	p. 175
halftone property	p. 153	onpaperend event	p. 175
brightness property	p. 154	ondrawerclosed event	p. 176
cut property	p. 154	ondraweropen event	p. 176
mode property	p. 155		

TM-T88IV (ANK model / Multi-language model)

		58 mm	80 mm
Interface		Wireless LAN	
Resolution		180 dpi x 180 dpi (W x H)	
Print Width		360 dots	512 dots
Font		Font A, Font B For more information about what character codes can be printed, refer to the user's manual that came with the printer.	
Characters in a Line	Font A	ANK: 30 characters Kanji *: 15 characters	ANK: 42 characters Kanji *: 21 characters
	Font B	ANK: 40 characters	ANK: 56 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji *: 24 dots x 24 dots (W x H)	
	Font B	ANK: 9 dots x 17 dots (W x H)	
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji *: At the 21st dot from the top of the character	
	Font B	At the 16th dot from the top of the character	
Default Line Feed Space		30 dots	
Color Specification		First color First color, Second color (when two-color printing is set)	
Page Mode Default Area		360 dots x 831 dots (W x H)	512 dots x 831 dots (W x H)
	when two-color printing is set	360 dots x 415 dots (W x H)	512 dots x 415 dots (W x H)
Page Mode Maximum Area		360 dots x 1662 dots (W x H)	512 dots x 1662 dots (W x H)
	when two-color printing is set	360 dots x 831 dots (W x H)	512 dots x 831 dots (W x H)
Raster image		Monochrome image, two-color image	
Logo		Monochrome image, two-color image (To perform two-color printing, change the settings of the printer using the memory switch setting utility.)	
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128	
2D-Code		PDF417, QR Code	
Ruled Line		Not supported	
Page Mode	Line	Not supported	
	Rectangle		
Paper Cut		Cut, Feed cut	

	58 mm	80 mm
Drawer Kick-Out	Supported	
Buzzer	Not supported	
Paper Layout Settings	Not supported	
Forced transmission mode	Supported	
Recovery from an error	Supported	
Reset	Supported	
Command	Supported	

* Only for Multi-language model.

ePOS-Print Setting

Item	Value
Printing Method	Thermal (180 dpi)
Character Code Tables	Page 0-5, 16-19

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addBarcode method	p. 78
addTextAlign method	p. 56	addSymbol method	p. 83
addTextLineSpace method	p. 56	addPageBegin method	p. 94
addTextRotate method	p. 58	addPageEnd method	p. 92
addText method	p. 59	addPageArea method	p. 96
addTextLang method	p. 60	addPageDirection method	p. 98
addTextFont method	p. 62	addPagePosition method	p. 100
addTextSmooth method	p. 63	addCut method	p. 106
addTextDouble method	p. 64	addPulse method	p. 107
addTextSize method	p. 65	addRecovery method	p. 115
addTextStyle method	p. 66	addReset method	p. 116
addTextPosition method	p. 68	addCommand method	p. 117
addTextVPosition method	p. 69	toString method	p. 118
addFeedUnit method	p. 70	halfTone property	p. 119
addFeedLine method	p. 71	brightness property	p. 120
addFeed method	p. 74	force property	p. 121
addImage method	p. 75	message property	p. 122
addLogo method	p. 77		

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139

ePOS-Print Object	Page	ePOS-Print Object	Page
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	color property	p. 157
print method	p. 146	onreceive event	p. 166
open method	p. 148	onerror event	p. 169
close method	p. 148	onstatuschange event	p. 170
recover method	p. 149	ononline event	p. 172
reset method	p. 149	onoffline event	p. 172
address property	p. 150	onpoweroff event	p. 173
enabled property	p. 150	oncoverok event	p. 173
interval property	p. 151	oncoveropen event	p. 174
status property	p. 151	onpaperok event	p. 174
timeout property	p. 152	onpapernearend event	p. 175
halftone property	p. 153	onpaperend event	p. 175
brightness property	p. 154	ondrawerclosed event	p. 176
cut property	p. 154	ondraweropen event	p. 176
align property	p. 156		

TM-T88V (ANK model / Multi-language model)

		58 mm	80 mm
Interface		Wireless LAN	
Resolution		180 dpi x 180 dpi (W x H)	
Print Width		360 dots	512 dots
Font		Font A, Font B For more information about what character codes can be printed, refer to the user's manual that came with the printer.	
Characters in a Line	Font A	ANK: 30 characters Kanji *: 15 characters	ANK: 42 characters Kanji *: 21 characters
	Font B	ANK: 40 characters Kanji *: 22 characters	ANK: 56 characters Kanji *: 32 characters
	Special font A*	30 characters	42 characters
	Special font B*	40 characters	56 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji *: 24 dots x 24 dots (W x H)	
	Font B	ANK: 9 dots x 17 dots (W x H) Kanji *: 16 dots x 16 dots (W x H)	
	Special font A*	12 dots x 24 dots (W x H)	
	Special font B*	9 dots x 24 dots (W x H)	
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji *: At the 21st dot from the top of the character	
	Font B	ANK: At the 16th dot from the top of the character Kanji *: At the 15th dot from the top of the character	
	Special font A*	At the 20th dot from the top of the character	
	Special font B*	At the 20th dot from the top of the character	
Default Line Feed Space		30 dots	
Color Specification		First color	
Page Mode Default Area		360 dots x 831 dots (W x H)	512 dots x 831 dots (W x H)
Page Mode Maximum Area		360 dots x 1662 dots (W x H)	512 dots x 1662 dots (W x H)
Raster image		Monochrome image, Gray scale image	

		58 mm	80 mm
Logo		Monochrome image, Gray scale image	
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128, GS1-128, GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Limited, GS1 DataBar Expanded	
2D-Code		PDF417, QR Code, MaxiCode, GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked (Composite Symbology not supported)	
Ruled Line		Not supported	
Page Mode	Line	Not supported	
	Rectangle		
Paper Cut		Cut, Feed cut	
Drawer Kick-Out		Supported	
Buzzer		Optional (Pattern A ~ Pattern E, Error, No paper, Stop)	
Paper Layout Settings		Not supported	
Forced transmission mode		Supported	
Recovery from an error		Supported	
Reset		Supported	
Command		Supported	

* Differs depending on the Multilingual Model specifications.

ePOS-Print Setting

Item	Value
Printing Method	Thermal (180 dpi)
Character Code Tables	Page 0-5, 16-19, 20-21, 26,30-31, 11-15, 32-53

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addBarcode method	p. 78
addTextAlign method	p. 56	addSymbol method	p. 83
addTextLineSpace method	p. 56	addPageBegin method	p. 94
addTextRotate method	p. 58	addPageEnd method	p. 92
addText method	p. 59	addPageArea method	p. 96
addTextLang method	p. 60	addPageDirection method	p. 98
addTextFont method	p. 62	addPagePosition method	p. 100
addTextSmooth method	p. 63	addCut method	p. 106
addTextDouble method	p. 64	addPulse method	p. 107
addTextSize method	p. 65	addSound method	p. 109
addTextStyle method	p. 66	addRecovery method	p. 115
addTextPosition method	p. 68	addReset method	p. 116
addTextVPosition method	p. 69	addCommand method	p. 117
addFeedUnit method	p. 70	toString method	p. 118
addFeedLine method	p. 71	halfTone property	p. 119
addFeed method	p. 74	brightness property	p. 120
addImage method	p. 75	force property	p. 121
addLogo method	p. 77	message property	p. 122

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139

ePOS-Print Object	Page	ePOS-Print Object	Page
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	align property	p. 156
print method	p. 146	onreceive event	p. 166
open method	p. 148	onerror event	p. 169
close method	p. 148	onstatuschange event	p. 170
recover method	p. 149	ononline event	p. 172
reset method	p. 149	onoffline event	p. 172
address property	p. 150	onpoweroff event	p. 173
enabled property	p. 150	oncoverok event	p. 173
interval property	p. 151	oncoveropen event	p. 174
status property	p. 151	onpaperok event	p. 174
timeout property	p. 152	onpapernearend event	p. 175
halftone property	p. 153	onpaperend event	p. 175
brightness property	p. 154	ondrawerclosed event	p. 176
cut property	p. 154	ondraweropen event	p. 176
mode property	p. 155		

TM-T90 (ANK model / Multi-language model)

		58 mm	60 mm	80 mm
Interface		Wireless LAN		
Resolution		180 dpi x 180 dpi (W x H)		
Print Width		360 dots	384 dots	512 dots
Font		Font A, Font B For more information about what character codes can be printed, refer to the user's manual that came with the printer.		
Characters in a Line	Font A	ANK: 30 characters Kanji *: 15 characters	ANK: 32 characters Kanji *: 16 characters	ANK: 42 characters Kanji *: 21 characters
	Font B	ANK: 40 characters	ANK: 42 characters	ANK: 56 characters
Character Size	Font A	ANK: 12 dots x 24 dots (W x H) Kanji *: 24 dots x 24 dots (W x H)		
	Font B	ANK: 9 dots x 17 dots (W x H)		
Character Baseline	Font A	ANK: At the 21st dot from the top of the character Kanji *: At the 21st dot from the top of the character		
	Font B	At the 16th dot from the top of the character		
Default Line Feed Space		30 dots		
Color Specification		First color First color, Second color (when two-color printing is set)		
Page Mode Default Area		360 dots x 831 dots (W x H)	384 dots x 831 dots (W x H)	512 dots x 831 dots (W x H)
	when two-color printing is set	360 dots x 415 dots (W x H)	384 dots x 415 dots (W x H)	512 dots x 415 dots (W x H)
Page Mode Maximum Area		360 dots x 1662 dots (W x H)	384 dots x 1662 dots (W x H)	512 dots x 1662 dots (W x H)
	when two-color printing is set	360 dots x 831 dots (W x H)	384 dots x 831 dots (W x H)	512 dots x 831 dots (W x H)
Raster Image		Monochrome image, Two color image		
Logo		Monochrome image, Two color image (To perform two-color printing, change the settings of the printer using the memory switch setting utility.)		
Barcode		UPC-A, UPC-E, EAN13, JAN13, EAN8, JAN8, CODE39, ITF, CODABAR, CODE93, CODE128		
2D-Code		PDF417		

		58 mm	60 mm	80 mm
Ruled Line		Not supported		
Page Mode	Line	Not supported		
	Rectangle			
Paper Cut		Cut, Feed cut		
Drawer Kick-Out		Supported		
Buzzer		Supported via Drawer Kick-Out		
Paper Layout Settings		Not supported		
Forced transmission mode		Supported		
Recovery from an error		Supported		
Reset		Supported		
Command		Supported		

* Differs depending on the Multilingual Model specifications.

ePOS-Print Setting

Item	Value
Printing Method	Thermal (180 dpi)
Character Code Tables	Page 0-5, 16-19

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addBarcode method	p. 78
addTextAlign method	p. 56	addSymbol method	p. 83
addTextLineSpace method	p. 56	addPageBegin method	p. 94
addTextRotate method	p. 58	addPageEnd method	p. 92
addText method	p. 59	addPageArea method	p. 96
addTextLang method	p. 60	addPageDirection method	p. 98
addTextFont method	p. 62	addPagePosition method	p. 100
addTextSmooth method	p. 63	addCut method	p. 106
addTextDouble method	p. 64	addPulse method	p. 107
addTextSize method	p. 65	addSound method	p. 109
addTextStyle method	p. 66	addRecovery method	p. 115
addTextPosition method	p. 68	addReset method	p. 116
addTextVPosition method	p. 69	addCommand method	p. 117
addFeedUnit method	p. 70	toString method	p. 118
addFeedLine method	p. 71	halfzone property	p. 119
addFeed method	p. 74	brightness property	p. 120
addImage method	p. 75	force property	p. 121
addLogo method	p. 77	message property	p. 122

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139

ePOS-Print Object	Page	ePOS-Print Object	Page
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	color property	p. 157
print method	p. 146	onreceive event	p. 166
open method	p. 148	onerror event	p. 169
close method	p. 148	onstatuschange event	p. 170
recover method	p. 149	ononline event	p. 172
reset method	p. 149	onoffline event	p. 172
address property	p. 150	onpoweroff event	p. 173
enabled property	p. 150	oncoverok event	p. 173
interval property	p. 151	oncoveropen event	p. 174
status property	p. 151	onpaperok event	p. 174
timeout property	p. 152	onpapernearend event	p. 175
halftone property	p. 153	onpaperend event	p. 175
brightness property	p. 154	ondrawerclosed event	p. 176
cut property	p. 154	ondraweropen event	p. 176
align property	p. 156		

TM-U220

		58 mm	70 mm	76 mm
Interface		Wireless LAN		
Resolution		80 dpi x 72 dpi (W x H)		
Print Width		150 dots	180 dots	200 dots
Font		Font A, Font B For more information about what character codes can be printed, refer to the user's manual that came with the printer.		
Characters in a Line	Font A	ANK: 25 characters Kanji *: 18 characters	ANK: 30 characters Kanji *: 22 characters	ANK: 33 characters Kanji *: 25 characters
	Font B	ANK: 30 characters	ANK: 36 characters	ANK: 40 characters
Character Size	Font A	ANK: 4.5 dots x 9 dots (W x H) Kanji *: 16 dots x 16 dots (W x H)		
	Font B	ANK: 3.5 dots x 9 dots (W x H)		
Character Baseline	Font A	ANK: Bottom of the characters Kanji *: At the 15th dot from the top of the character		
	Font B	Bottom of the characters		
Default Line Feed Space		12 dots		
Color Specification		First color First color, Second color (When using a two-color ribbon cassette)		
Page Mode Default Area		Not supported		
Page Mode Maximum Area		Not supported		
Raster Image		Monochrome image		
Logo		Not supported		
Barcode		Not supported		
2D-Code		Not supported		
Ruled Line		Not supported		
Page Mode	Line	Not supported		
	Rectangle			
Paper Cut		Cut, Feed cut		
Drawer Kick-Out		Supported		
Buzzer		Not supported		
Paper Layout Settings		Not supported		
Forced transmission mode		Not supported		

	58 mm	70 mm	76 mm
Recovery from an error	Not supported		
Reset	Supported		
Command	Supported		

* Differs depending on the Multilingual Model specifications.



[addText method](#) has the following restrictions.

- reverse parameter: Not supported

ePOS-Print Setting

Item	Value
Printing Method	Impact
Character Code Tables	Page 0-5, 16-19

Supported ePOS-Print Builder API List

ePOS-Print Builder Object	Page	ePOS-Print Builder Object	Page
Constructor	p. 55	addFeed method	p. 74
addTextAlign method	p. 56	addImage method	p. 75
addTextLineSpace method	p. 56	addCut method	p. 106
addTextRotate method	p. 58	addPulse method	p. 107
addText method	p. 59	addReset method	p. 116
addTextLang method	p. 60	addCommand method	p. 117
addTextFont method	p. 62	toString method	p. 118
addTextStyle method	p. 66	halfTone property	p. 119
addFeedUnit method	p. 70	brightness property	p. 120
addFeedLine method	p. 71	message property	p. 122

Supported ePOS-Print API List

ePOS-Print Object	Page	ePOS-Print Object	Page
Constructor	p. 123	onstatuschange event	p. 135
send method	p. 124	ononline event	p. 136
open method	p. 125	onoffline event	p. 136
close method	p. 126	onpoweroff event	p. 137
address property	p. 127	oncoverok event	p. 137
enabled property	p. 127	oncoveropen event	p. 138
interval property	p. 128	onpaperok event	p. 138
status property	p. 128	onpapernearend event	p. 139
timeout property	p. 129	onpaperend event	p. 139
onreceive event	p. 131	ondrawerclosed event	p. 140
onerror event	p. 134	ondraweropen event	p. 140

Supported ePOS-Print Canvas API List

ePOS-Print Canvas API Object	Page	ePOS-Print Canvas API Object	Page
Constructor	p. 145	color property	p. 157
print method	p. 146	onreceive event	p. 166
open method	p. 148	onerror event	p. 169
close method	p. 148	onstatuschange event	p. 170
reset method	p. 149	ononline event	p. 172
address property	p. 150	onoffline event	p. 172
enabled property	p. 150	onpoweroff event	p. 173
interval property	p. 151	oncoverok event	p. 173
status property	p. 151	oncoveropen event	p. 174
timeout property	p. 152	onpaperok event	p. 174
halftone property	p. 153	onpapernearend event	p. 175
brightness property	p. 154	onpaperend event	p. 175
cut property	p. 154	ondrawerclosed event	p. 176
align property	p. 156	ondraweropen event	p. 176

TM-P60II Paper settings

Label paper and black mark paper settings

Before printing on label paper and black mark paper with the TM-P60II, it is necessary to specify the label size and feed the label a little. Control while referring to the following.

Example: ePOS-Print API

```
// Create the print data.
var builder = new Epson.ePOSBuilder();

// Set the paper layout.
// Die-cut label paper, mount width: 58.0 mm, height: automatic
// Top margin: 1.5 mm from label edge, bottom margin: 1.5 mm from label bottom edge
// Cut position: 2.5 mm from label bottom edge
builder.addLayout(builder.LAYOUT_LABEL, 580, 0, 15, -15, 25, 0);

// Feeds to the top of the label.
builder.addFeedPosition(builder.FEED_NEXT_TOF);

// Transmit the print data.
var epos = new Epson.ePOSPrint(url);
epos.send(builder.toString());
```

Example: ePOS-Print Canvas API

```
// Print the Canvas.
var epos = new Epson.CanvasPrint(url);

// Set the paper layout.
// Die-cut label paper, mount width: 58.0 mm, height: automatic
// Top margin: 1.5 mm from label edge, bottom margin: 1.5 mm from label bottom edge
// Cut position: 2.5 mm from label bottom edge
epos.paper = epos.PAPER_LABEL;
epos.layout = { width: 580, height: 0, margin_top: 15, margin_bottom: -15,
                offset_cut: 25 };

// Feeds to the top of the label.
epos.feed = epos.FEED_NEXT_TOF;

// Transmit the print data.
epos.print(canvas);
```

Receipt paper settings

When changing the print paper from label and black mark paper to receipt paper, it is necessary to configure the sheet layout. See the following for details and sample sources.

API		Page
ePOS-Print API	addLayout method	p. 111
	paper property	p. 159
ePOS-Print Canvas API	layout property	p. 160

Rendering in HTML5 Canvas

This section describes how to use Web pages using the ePOS-Print Canvas API in the package. You can try how to render images in HTML5 Canvas and see what images can be rendered. The following Web pages are available:

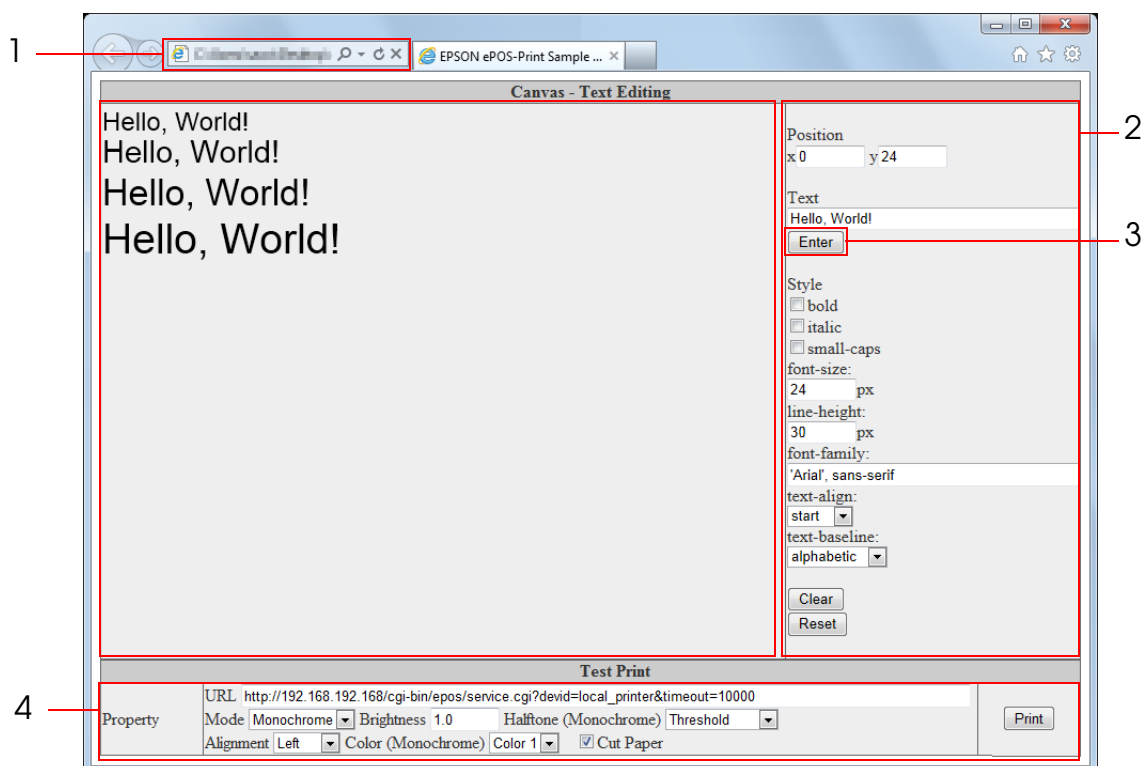
- [Rendering Text \(canvas-print-text.html\)](#) (p.245)
- [Rendering Images \(canvas-print-image.html\)](#) (p.247)
- [Rendering Graphics \(canvas-print-graph.html\)](#) (p.249)
- [Rendering Handwritten Images \(canvas-print-hand.html\)](#) (p.251)
- [Rendering Barcode \(canvas-print-barcode.html\)](#) (p.253)
- [Rendering Barcode \(canvas-print-barcode.html\)](#) (p.253)



The Web pages introduced here are embedded into the sample program. For the details about how to place them, refer to [Environment Settings \(p.24\)](#).

Rendering Text (canvas-print-text.html)

Print text in HTML5 Canvas and perform a test print.



- 1 Open the following URL page using the Web browser.
[http://\(Web server IP address\)/canvas/canvas-print-text.html](http://(Web server IP address)/canvas/canvas-print-text.html)

- 2** “EPSON ePOS-Print Sample Program” appears.
Set items on the right of the page. The following items can be set:

Item	Description
Position	Specify the rendering coordinates
Text	Specify the text to be printed
Style	Specify the text style
Clear	Clears the image drawn in the Canvas
Reset	Clears the image drawn in the Canvas. In addition, the settings are reset to their default values.

- 3** Click the (Enter) button.
The text is printed on Canvas on the left of the page according to the settings made on the right of the page.

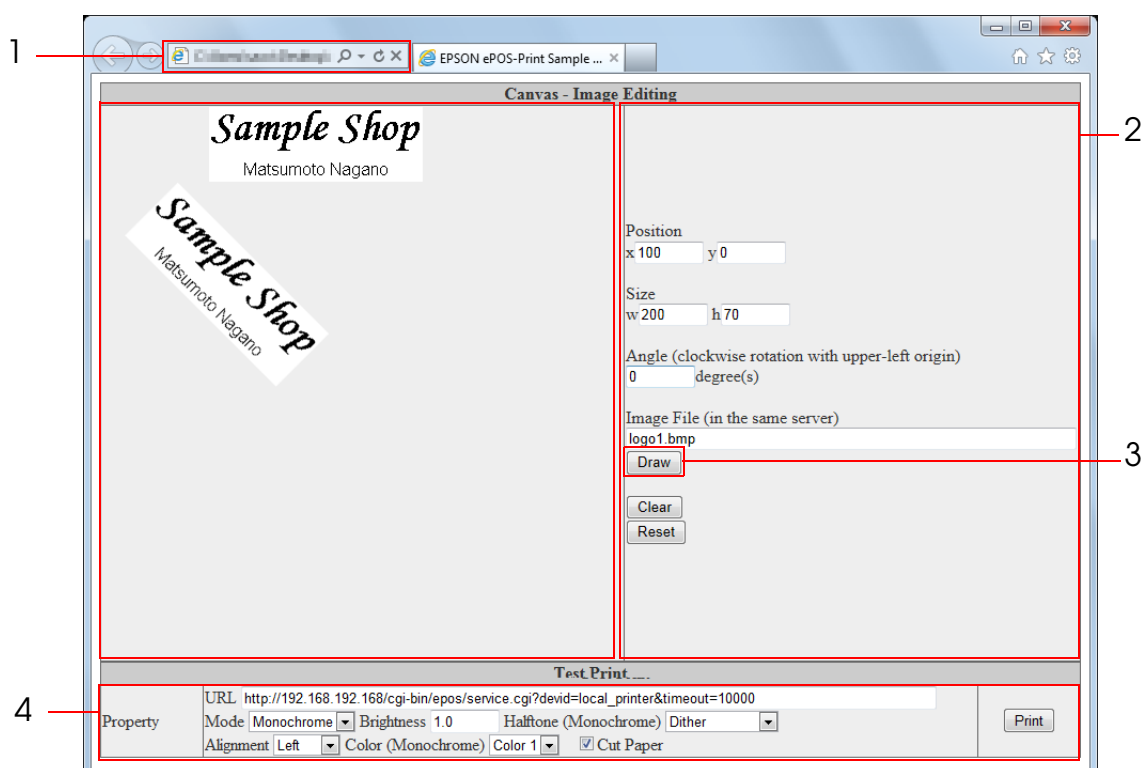
- 4** Set the following and click the (Print) button.

Item	Description
URL	Enter the following URL: http://(IP address of TM printer)/cgi-bin/epos/ service.cgi?devid=(device ID of printer to be used for printing)&timeout=(timeout time)
Mode	Set the color mode (Monochrome, Grayscale).
Brightness	Adjust the brightness. (Gamma value in the range 0.1-10.0)
Halftone	Set the halftone processing method for monochrome printing (two- tone).
Cut Paper	When this item is selected, feed cut is performed after printing.
Alignment	Specify the printing position alignment.
Color(Monochrome)	Specify the printing color in 2-tone.

- 5** The print result is displayed.

Rendering Images (canvas-print-image.html)

Draw an image in HTML5 Canvas and perform a test print.



- 1 Open the following URL page using the Web browser.
http://(Web server IP address)/canvas/canvas-print-image.html
- 2 “EPSON ePOS-Print Sample Program” appears.
Set items on the right of the page. The following items can be set:

Item	Description
Position	Specify the rendering coordinates
Size	Specify the width and height of the image.
Angle	Specify the rotation angle of the image. The rotation angle is counted clockwise from the top left corner.
Image File (in the same server)	Specify the path to the image file. In this Web page, specify the name of an image file placed under the same directory as this Web page.
Clear	Clears the image drawn in the Canvas.
Reset	Clears the image drawn in the Canvas. In addition, the settings are reset to their default values.

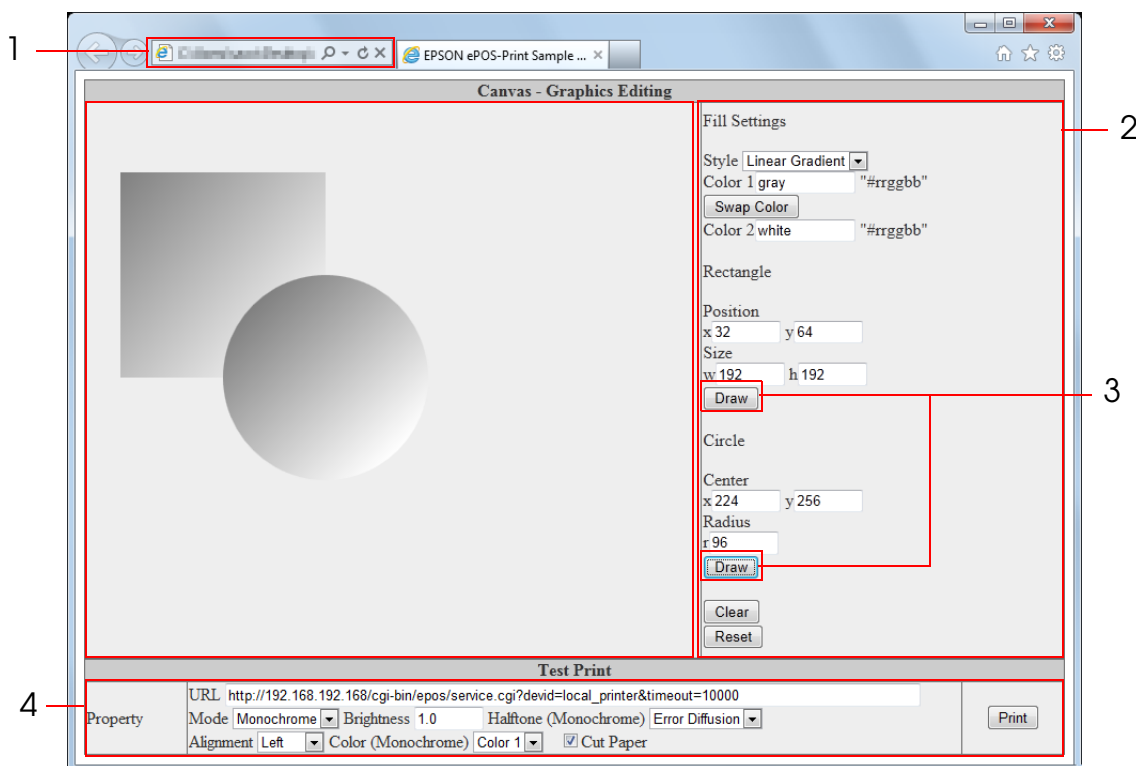
- 3** Click the (Draw) button.
The image is drawn on Canvas on the left of the page according to the settings made on the right of the page.
- 4** Set the following and click the (Print) button.

Item	Description
URL	Enter the following URL: http://(IP address of TM printer)/cgi-bin/epos/ service.cgi?devid=(device ID of printer to be used for printing)&timeout=(timeout time)
Mode	Set the color mode (Monochrome, Grayscale).
Brightness	Adjust the brightness. (Gamma value in the range 0.1-10.0)
Halftone	Set the halftone processing method for monochrome printing (two- tone).
Cut Paper	When this item is selected, feed cut is performed after printing.
Alignment	Specify the printing position alignment.
Color(Monochrome)	Specify the printing color in 2-tone.

- 5** The print result is displayed.

Rendering Graphics (canvas-print-graph.html)

Draw an image in HTML5 Canvas and perform a test print.



- 1 Open the following URL page using the Web browser.

http://(Web server IP address)/canvas/canvas-print-graph.html

- 2 "EPSON ePOS-Print Sample Program" appears.
Set items on the right of the page. The following items can be set:

Item	Description
Fill Settings	Specify the fill type and color
Rectangle	Specify the start coordinates, width and height.
Circle	Specify the central coordinates and radius.
Clear	Clears the image drawn in the Canvas
Reset	Clears the image drawn in the Canvas. In addition, the settings are reset to their default values.

- 3 Click the (Draw) button.
The image is drawn on Canvas on the left of the page according to the settings made on the right of the page.

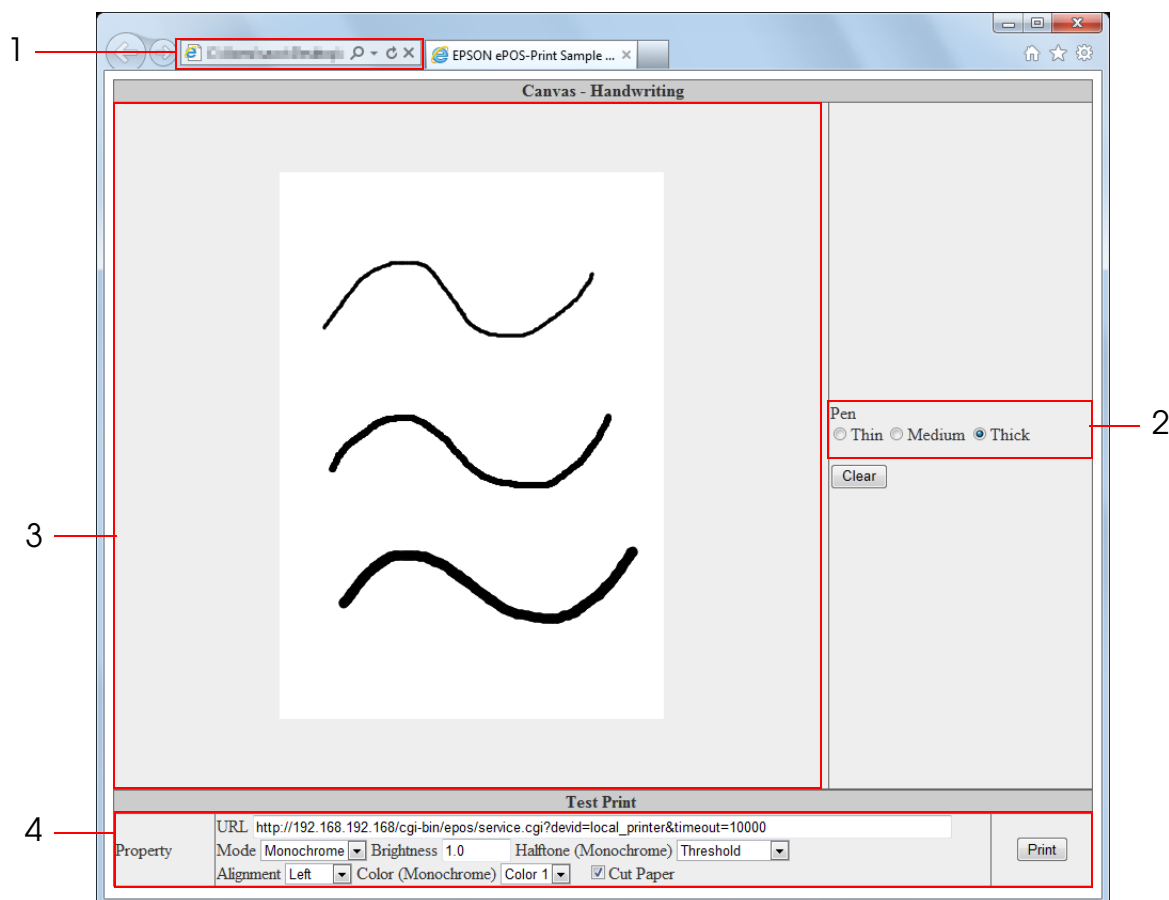
4 Set the following and click the (Print) button.

Item	Description
URL	Enter the following URL: http://(IP address of TM printer)/cgi-bin/epos/ service.cgi?devid=(device ID of printer to be used for printing)&timeout=(timeout time)
Mode	Set the color mode (Monochrome, Grayscale).
Brightness	Adjust the brightness. (Gamma value in the range 0.1-10.0)
Halftone	Set the halftone processing method for monochrome printing (two- tone).
Cut Paper	When this item is selected, feed cut is performed after printing.
Alignment	Specify the printing position alignment.
Color(Monochrome)	Specify the printing color in 2-tone.

5 The print result is displayed.

Rendering Handwritten Images (canvas-print-hand.html)

Draw a handwritten image and perform a test print.



- 1** Open the following URL page using the Web browser.
[http://\(Web server IP address\)/canvas/canvas-print-hand.html](http://(Web server IP address)/canvas/canvas-print-hand.html)
- 2** "EPSON ePOS-Print Sample Program" appears. Set the size of the pen on the right of the page.
- 3** Draw a freehand line on Canvas on the left of the page. For the mouse, drag it to draw a line; for the touch screen monitor, draw a line on the touch screen.



To erase the drawn image, click the [Clear] button.

4 Set the following and click the (Print) button.

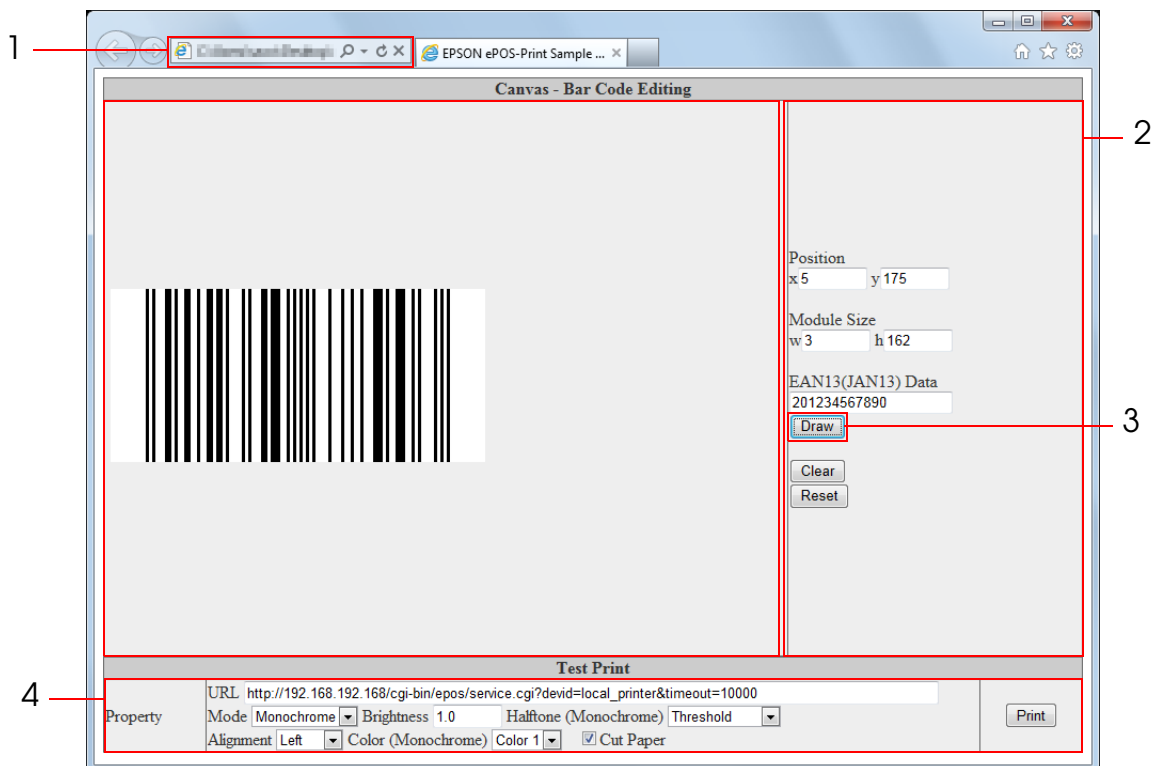
Item	Description
URL	Enter the following URL: http://(IP address of TM printer)/cgi-bin/epos/ service.cgi?devid=(device ID of printer to be used for printing)&timeout=(timeout time)
Mode	Set the color mode (Monochrome, Grayscale).
Brightness	Adjust the brightness. (Gamma value in the range 0.1-10.0)
Halftone	Set the halftone processing method for monochrome printing (two- tone).
Cut Paper	When this item is selected, feed cut is performed after printing.
Alignment	Specify the printing position alignment.
Color(Monochrome)	Specify the printing color in 2-tone.

5 The print result is displayed.

Rendering Barcode (canvas-print-barcode.html)

Draw a barcode in HTML5 Canvas and perform a test print.

In the following example, an EAN13, JAN13 or UPC-A is drawn.



- 1** Open the following URL page using the Web browser.
[http://\(Web server IP address\)/canvas/canvas-print-barcode.html](http://(Web server IP address)/canvas/canvas-print-barcode.html)
- 2** "EPSON ePOS-Print Sample Program" appears.
Set items on the right of the page. The following items can be set:

Item	Description
Position	Specify the rendering coordinates.
Module Size	Specify the width and height of the bars.
Data	Specify EAN13 (JAN13) data. For 12-digit numerical data, calculate and add the check digit. For 13-digit numerical data, verify the check digit. For UPC-A data, add 0 at the start of the string to make it 12-or 13-digit data.
Clear	Clears the image drawn in the Canvas.
Reset	Clears the image drawn in the Canvas. In addition, the settings are reset to their default values.

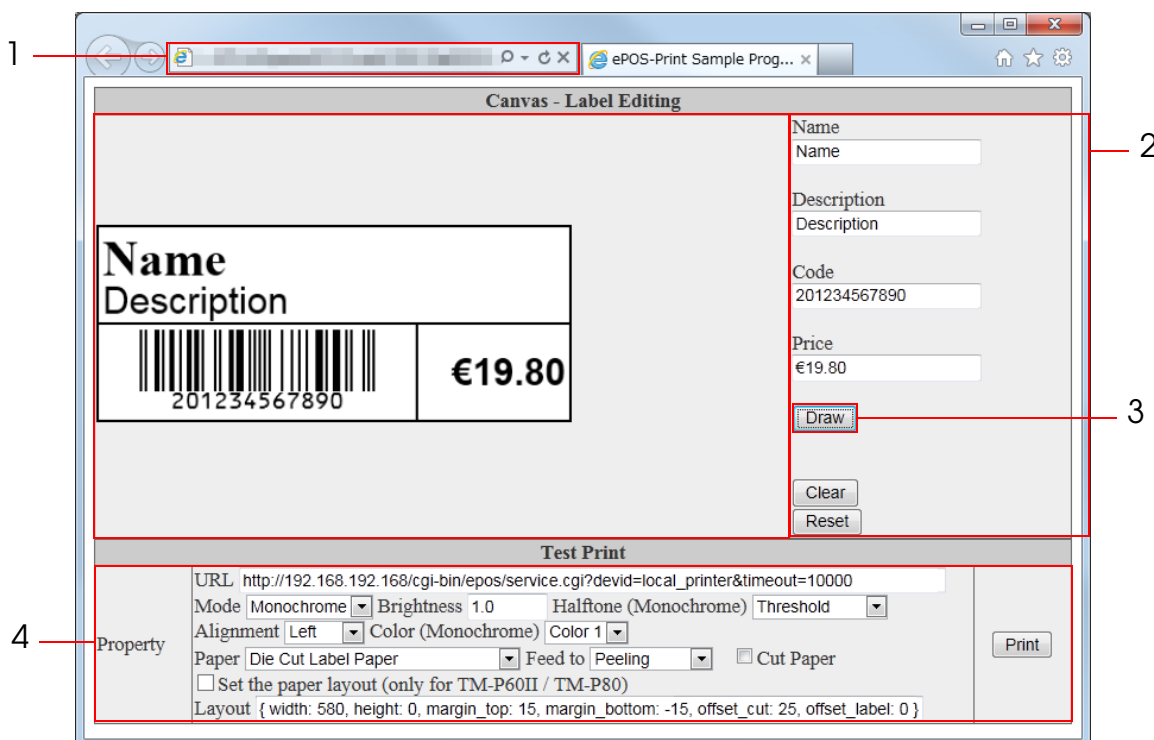
- 3** Click the (Draw) button.
The image is drawn on Canvas on the left of the page according to the settings made on the right of the page.
- 4** Set the following and click the (Print) button.

Item	Description
URL	Enter the following URL: http://(IP address of TM printer)/cgi-bin/epos/ service.cgi?devid=(device ID of printer to be used for printing)&timeout=(timeout time)
Mode	Set the color mode (Monochrome, Grayscale).
Brightness	Adjust the brightness. (Gamma value in the range 0.1-10.0)
Halftone	Set the halftone processing method for monochrome printing (two- tone).
Cut Paper	When this item is selected, feed cut is performed after printing.
Alignment	Specify the printing position alignment.
Color(Monochrome)	Specify the printing color in 2-tone.

- 5** The print result is displayed.

Rendering Label (canvas-print-label.html)

Draw a label in HTML5 Canvas and perform a test print.



- 1 Open the following URL page using the Web browser.
[http://\(Web server IP address\)/canvas/canvas-print-label.html](http://(Web server IP address)/canvas/canvas-print-label.html)
- 2 "EPSON ePOS-Print Sample Program" appears.
Set items on the right of the page. The following items can be set:

Item	Description
Name	Specifies print data in the name field of label.
Description	Specifies print data in the description field of label.
Code	Prints barcode corresponding to the value. <ul style="list-style-type: none"> • EAN13(JAN13) In case of 12 digits, check digit is added. In case of 13 digits, check digit is added. • UPC-A Add 0 at the beginning and adjust to 12 to 13 digits.
Price	Specifies print data in the price field of label.
Clear	Clears the image drawn in the Canvas.
Reset	Clears the image drawn in the Canvas. In addition, the settings are reset to their default values.

- 3** Click the (Draw) button.
The image is drawn on Canvas on the left of the page according to the settings made on the right of the page.
- 4** Set the following and click the (Print) button.

Item	Description
URL	Enter the following URL: http://(IP address of TM printer)/cgi-bin/epos/ service.cgi?devid=(device ID of printer to be used for printing)&timeout=(timeout time)
Mode	Set the color mode (Monochrome, Grayscale).
Brightness	Adjust the brightness. (Gamma value in the range 0.1-10.0)
Halftone(Monochrome)	Set the halftone processing method for monochrome printing (two- tone).
Alignment	Specify the printing position alignment.
Color(Monochrome)	Specify the printing color in 2-tone.
Paper	Specify the paper type.
Feed to	Specify the paper feeding position.
Cut Paper	When this item is selected, feed cut is performed after printing.
Set the paper layout (only for TM-P60II/TM-P80)	Check when printing labels with paper layout specified.
Layout	Specify the label paper layout. Setting become effective when (Set the paper layout) is checked.

- 5** The print result is displayed.