

Epson ePOS SDK for Android

User's Manual

Functionality

How to Use

API Reference

Device Specifications

Sample Programs

Application Guide

Appendix

Precautions

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Safety Precautions

Meaning of Symbols

The following symbols are used in this manual. Make sure to understand the meaning of these symbols before using the product.



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Describes additional explanation or other useful information.

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About this Manual

Purpose of this Manual

This manual provides the information necessary to develop applications using Epson ePOS SDK for Android.

Organization of this Manual

This manual is organized into the following chapters.

| | |
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| Chapter 1 | Functionality |
| Chapter 2 | How to Use |
| Chapter 3 | API Reference |
| Chapter 4 | Device Specifications |
| Chapter 5 | Sample Programs |
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Functionality

Epson ePOS SDK for Android is an SDK for developing Android applications. Using Epson ePOS SDK for Android enables the use of simple code to control TM printers. Also, in some TM printers, peripheral devices such as the customer display and barcode scanner that are connected to the printer, and slave printers that are connected over a network can be controlled. In addition, application software using unique functions such as the spooler function and Communication Box, etc. can also be developed.

In this manual, printers are classified as follows.

| Type | Description |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TM Printers | Collective name for the following receipt printer models: <ul style="list-style-type: none">• Single-function models• Mobile models• Hybrid models• TM-i Series• TM-DT Series |
| Slave Printers | A collective name for TM printers connected over a network that are controlled from a smart device via the master TM printer. |

Application Development in Epson ePOS SDK for Android

The following section describes the system configurations of applications developed in Epson ePOS SDK for Android.

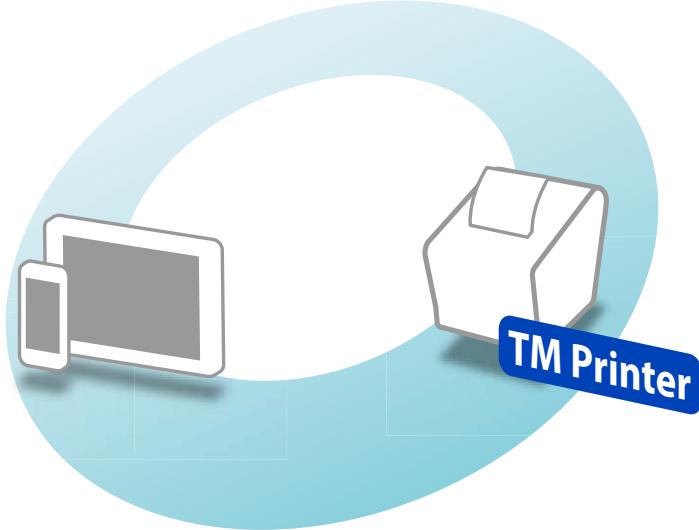
Refer to the Technical Reference Guide of each printer for information on system configuration methods.

TM Printer Models

This is a system in which a smart device and TM printer are connected through communication.

A connection method (*Bluetooth/Wi-Fi/Ethernet/USB*) conforming to the specifications of your smart device and TM printer can be selected.

Multiple TM printers can be controlled via a Wi-Fi/Ethernet connection.

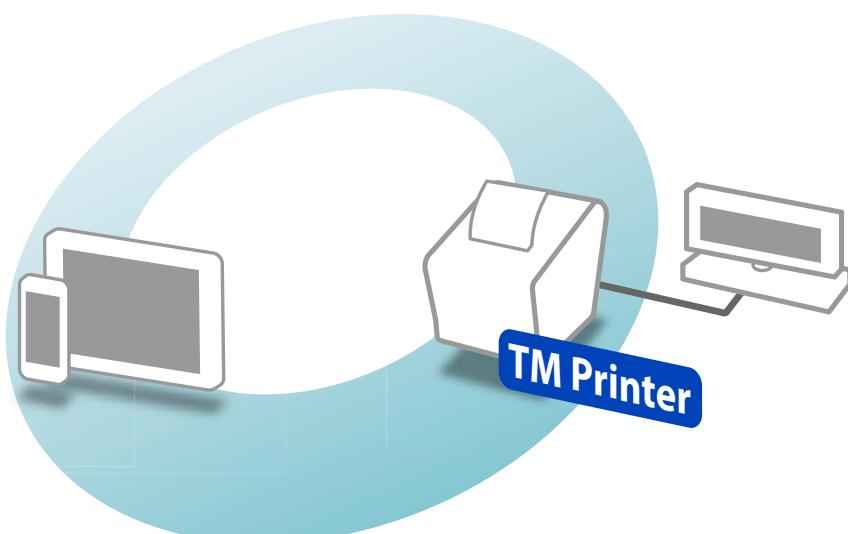


Customer Display Models

This is a system in which the TM printer and customer display are controlled from a smart device.

The customer display is connected to the TM printer, and the smart device and TM printer are connected through communication.

A connection method (*Bluetooth/Wi-Fi/Ethernet/USB*) conforming to the specifications of your smart device and TM printer can be selected.



TM Printer + DM-D30 + barcode scanner model

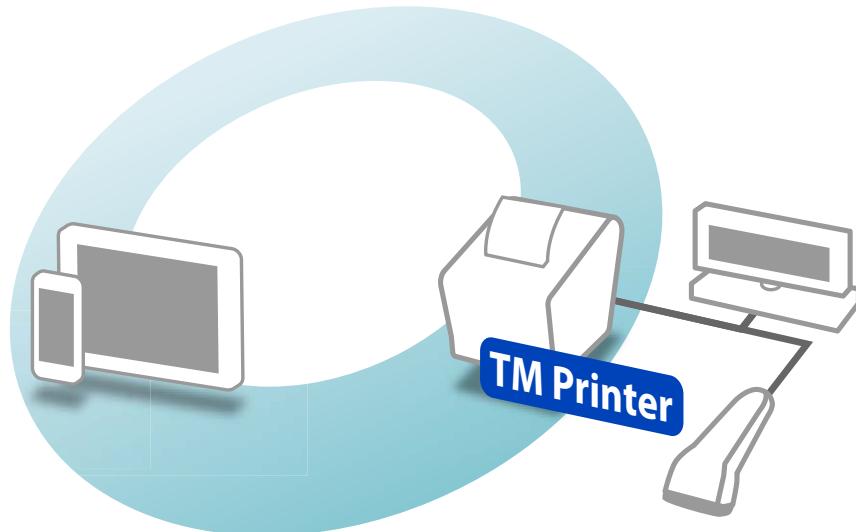
This is a system in which the TM Printer and DM-D30, as well as the barcode scanner are controlled from a smart device.

The DM-D30 and the barcode scanner are connected to the TM Printer, and the smart device and TM Printer are connected through communication.

A connection method (*Bluetooth/Wi-Fi/Ethernet/USB*) conforming to the specifications of your smart device and the TM Printer can be selected.

TM Printer + DM-D30 + barcode scanner model can be configured by the following TM printer.

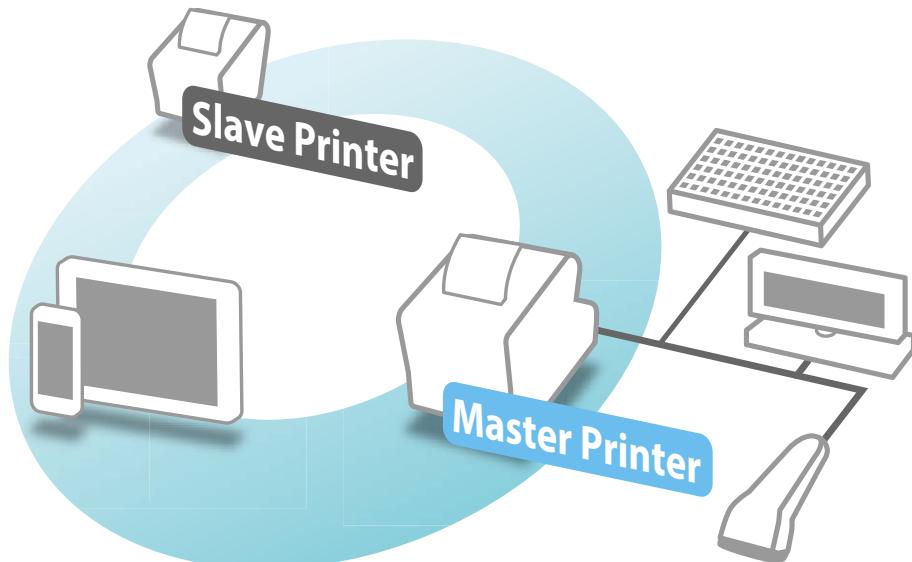
- TM-m30
- TM-m30II
- TM-m30II-H
- TM-T88VI



- The ePOS-Device settings of the TM printer must be set to "Enable."
 - * The ePOS-Device settings are made from EpsonNet Config (Web version) of the TM-m30.
 - * The default settings for the ePOS-Device settings of the TM-m30II/TM-m30II-H vary according to the destination.
Check the settings in EpsonNet Config (Web version) or TM-m30II Utility.
 - * The TM-T88VI ePOS-Device settings are carried out in TM-T88VI Utility.
- A combination of TM Printer + barcode scanner can also be used.

POS Terminal Model

This is a system in which a smart device and the TM printer (master) that acts as the POS terminal are connected through Wi-Fi/Ethernet network communication, and operation is performed by connecting multiple peripheral devices such as slave printers and customer display, etc. to the master printer.



In addition to Epson's peripheral devices, the POS terminal model can control various peripheral devices from the device control program and device control script originally developed by Epson.

Since the software to be loaded and the version of the software differ depending on the TM printer that acts as the POS terminal, the peripheral devices that can be controlled are also different.

For details on controllable peripheral devices, refer to the Technical Reference Guide of the printer.

The device control programs are implemented in TM-DT series (TM-DT software version 4.0 or later).

Refer to TM-DT Series Peripheral Device Control Guide for information on the device control programs and device control scripts.

Epson ePOS SDK for Android Development Environment

The following development environment needs to be prepared to develop applications using the Epson ePOS SDK for Android.

- Android SDK r15 or later
- Java Development Kit 7 or later

Application Operating Environment

This section describes the operating environment for applications developed using the Epson ePOS SDK for Android.

For the most recent information on applicable smart devices, refer to the README.en.txt file contained in the "Epson ePOS SDK for Android" package.

Supported printers

The following list of printers can be controlled from the applications.



Usable interfaces vary depending on the specific TM printer. Refer to the Technical Reference Guide of each printer for more information.

Single-function models

- | | | |
|-------------------------------------|-------------------------------------|------------------------------------|
| <input type="checkbox"/> TM-m10 | <input type="checkbox"/> TM-T60 | <input type="checkbox"/> TM-T82X |
| <input type="checkbox"/> TM-m30 | <input type="checkbox"/> TM-T70 | <input type="checkbox"/> TM-T83II |
| <input type="checkbox"/> TM-m30II | <input type="checkbox"/> TM-T70II | <input type="checkbox"/> TM-T83III |
| <input type="checkbox"/> TM-m30II-H | <input type="checkbox"/> TM-T81II | <input type="checkbox"/> TM-T88V |
| <input type="checkbox"/> TM-T20 | <input type="checkbox"/> TM-T81III | <input type="checkbox"/> TM-T88VI |
| <input type="checkbox"/> TM-T20II | <input type="checkbox"/> TM-T82 | <input type="checkbox"/> TM-T100 |
| <input type="checkbox"/> TM-T20III | <input type="checkbox"/> TM-T82II | <input type="checkbox"/> TM-U220 |
| <input type="checkbox"/> TM-T20IIIL | <input type="checkbox"/> TM-T82III | <input type="checkbox"/> TM-U330 |
| <input type="checkbox"/> TM-T20X | <input type="checkbox"/> TM-T82IIIL | |

Mobile models

- | | |
|---------------------------------|-----------------------------------|
| <input type="checkbox"/> TM-P20 | <input type="checkbox"/> TM-P60II |
| <input type="checkbox"/> TM-P60 | <input type="checkbox"/> TM-P80 |

Hybrid models

- TM-H6000V

TM-i Series

- | | |
|---------------------------------------------------------------------|----------------------------------------------------------------------|
| <input type="checkbox"/> TM-T20II-i | <input type="checkbox"/> TM-T88V-i (TM-i firmware Ver. 4.0 or later) |
| <input type="checkbox"/> TM-T70-i (TM-i firmware Ver. 4.0 or later) | <input type="checkbox"/> TM-T88VI-iHUB |
| <input type="checkbox"/> TM-T82II-i | <input type="checkbox"/> TM-U220-i |
| <input type="checkbox"/> TM-T83II-i | |

TM-DT Series

- | | |
|---------------------------------------|----------------------------------------|
| <input type="checkbox"/> TM-T70II-DT | <input type="checkbox"/> TM-T88VI-DT2 |
| <input type="checkbox"/> TM-T70II-DT2 | <input type="checkbox"/> TM-H6000IV-DT |
| <input type="checkbox"/> TM-T88V-DT | |

Functions provided in each printer

Among the functions provided by Epson ePOS SDK for Android, those that can be used differ according to the printer.

Refer to the list below.

| | SSL/TLS communication ^{*1} | Ringing control of built-in buzzer | Ringing control of optional external buzzer | Printing by multiple interfaces | Control of slave printers | Spooler/Print Forwarding | Communication Box | Control of peripheral devices ^{*2} | Simple selection using NFC tag | Simple selection using QR code |
|------------|-------------------------------------|------------------------------------|---------------------------------------------|---------------------------------|---------------------------|--------------------------|-------------------|---------------------------------------------|--------------------------------|--------------------------------|
| TM-m10 | - | - | ✓ | ✓ | - | - | - | - | ✓ | ✓ |
| TM-m30 | - | - | ✓ | ✓ ^{*5} | - | - | - | ✓ | ✓ | ✓ |
| TM-m30II | - | - | ✓ | ✓ ^{*5} | - | - | - | ✓ | ✓ | ✓ |
| TM-m30II-H | - | - | ✓ | ✓ ^{*5} | - | - | - | ✓ | ✓ | ✓ |
| TM-T20 | - | - | ✓ | - | - | - | - | - | - | ✓ |
| TM-T20II | - | - | ✓ | - | - | - | - | - | - | ✓ |
| TM-T20III | - | - | ✓ | - | - | - | - | - | - | ✓ |
| TM-T20IIIL | - | - | ✓ | - | - | - | - | - | - | ✓ |
| TM-T20X | - | - | ✓ | - | - | - | - | - | - | ✓ |
| TM-T60 | - | - | - | - | - | - | - | - | - | ✓ |
| TM-T70 | - | - | ✓ | - | - | - | - | - | - | ✓ |
| TM-T70II | - | ✓ ^{*4} | ✓ | - | - | - | - | - | - | ✓ |
| TM-T81II | - | - | - | - | - | - | - | - | - | ✓ |
| TM-T81III | - | - | ✓ | - | - | - | - | - | - | ✓ |
| TM-T82 | - | - | ✓ | - | - | - | - | - | - | ✓ |
| TM-T82II | - | ✓ ^{*4} | ✓ | - | - | - | - | - | - | ✓ |
| TM-T82III | - | ✓ ^{*4} | ✓ | - | - | - | - | - | - | ✓ |
| TM-T82IIIL | - | - | ✓ | - | - | - | - | - | - | ✓ |
| TM-T82X | - | - | ✓ | - | - | - | - | - | - | ✓ |
| TM-T83II | - | ✓ ^{*4} | ✓ | - | - | - | - | - | - | ✓ |
| TM-T83III | - | - | ✓ | - | - | - | - | - | - | ✓ |

| | SSL/TLS communication ^{*1} | Ringing control of built-in buzzer | Ringing control of optional external buzzer | Printing by multiple interfaces | Control of slave printers | Spooler/Print Forwarding | Communication Box | Control of peripheral devices ^{*2} | Simple selection using NFC tag | Simple selection using QR code |
|---------------|-------------------------------------|------------------------------------|---------------------------------------------|---------------------------------|---------------------------|--------------------------|-------------------|---------------------------------------------|--------------------------------|--------------------------------|
| TM-T88V | - | ✓ ^{*4} | ✓ | - | - | - | - | - | - | ✓ |
| TM-T88VI | ✓ ^{*3} | ✓ ^{*4} | ✓ | ✓ ^{*5} | - | - | - | ✓ | ✓ | ✓ |
| TM-T100 | - | - | ✓ | - | - | - | - | - | - | - |
| TM-U220 | - | - | - | - | - | - | - | - | - | - |
| TM-U330 | - | - | - | - | - | - | - | - | - | - |
| TM-P20 | - | ✓ | - | - | - | - | - | - | ✓ | ✓ |
| TM-P60 | - | - | - | - | - | - | - | - | - | ✓ |
| TM-P60II | - | ✓ | - | - | - | - | - | - | ✓ | ✓ |
| TM-P80 | - | ✓ | - | - | - | - | - | - | ✓ | ✓ |
| TM-H6000V | ✓ | - | - | ✓ | - | - | - | ✓ | ✓ | ✓ |
| TM-T20II-i | ✓ | - | ✓ | - | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T70-i | ✓ | - | - | - | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T82II-i | ✓ | ✓ ^{*4} | ✓ | - | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T83II-i | ✓ | ✓ ^{*4} | ✓ | - | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T88V-i | ✓ | - | ✓ | - | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T88VI-iHUB | ✓ | ✓ ^{*4} | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | - |
| TM-U220-i | ✓ | - | - | - | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T70II-DT | ✓ | - | ✓ | - | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T70II-DT2 | ✓ | - | ✓ | - | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T88V-DT | ✓ | - | ✓ | - | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T88VI-DT2 | ✓ | - | ✓ | - | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-H6000IV-DT | ✓ | - | - | - | ✓ | ✓ | ✓ | ✓ | - | - |

*1: To communicate with the printer using SSL/TLS, select "TCPS" as the connection type in the connect API.

*2: The peripheral devices that can be used differ according to the printer. Refer to the Technical Reference Guide of each printer.

*3: Cannot be used in the system configuration of the customer display + barcode scanner model.

*4: Supports ringing control by the drawer kick command.

*5: Cannot be used in a system configuration with TM printer + barcode scanner.

Controllable Peripheral Devices

Control of the following peripheral devices is supported in Epson ePOS SDK for Android.



- The peripheral devices that can be used differ according to the printer. Refer to [Functions provided in each printer](#) or the Technical Reference Guide of each printer.
- By developing a device control program, a TM-DT series printer can control peripheral devices other than those introduced here.

Refer to TM-DT Series Peripheral Device Control Guide for information on the development.

Slave printer

Wi-Fi enabled models of the following TM printers

- TM-P20
- TM-P60II (Peeler)
- TM-P80

The following TM printers that are equipped with a Wi-Fi/Ethernet interface

- | | |
|-----------------------------------|-------------------------------------|
| <input type="checkbox"/> TM-T20 | <input type="checkbox"/> TM-T88V |
| <input type="checkbox"/> TM-T20II | <input type="checkbox"/> TM-T88VI |
| <input type="checkbox"/> TM-T70 | <input type="checkbox"/> TM-T90 |
| <input type="checkbox"/> TM-T70II | <input type="checkbox"/> TM-L90 |
| <input type="checkbox"/> TM-T82II | <input type="checkbox"/> TM-U220 |
| <input type="checkbox"/> TM-T83II | <input type="checkbox"/> TM-H6000IV |
| <input type="checkbox"/> TM-T88IV | |

The following TM-i Series/TM-DT Series

- | | |
|------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <input type="checkbox"/> TM-T20II-i | <input type="checkbox"/> TM-T88V-i (TM-i firmware Ver. 4.0 or later) |
| <input type="checkbox"/> TM-T70-i (TM-i firmware Ver. 4.0 or later) | <input type="checkbox"/> TM-T88V-DT (TM-DT software Ver.4.0 or later) |
| <input type="checkbox"/> TM-T70II-DT (TM-DT software Ver.4.0 or later) | <input type="checkbox"/> TM-U220-i |
| <input type="checkbox"/> TM-T82II-i | <input type="checkbox"/> TM-H6000IV-DT (TM-DT software Ver.4.0 or later) |
| <input type="checkbox"/> TM-T83II-i | |

Customer display

- DM-D30
- DM-D110
- DM-D210

Peripheral Devices that can be Controlled by Device Control Programs

Peripheral devices conforming to the OPOS specifications can be controlled using the device control programs that are supported by TM-DT series (TM-DT software version 4.0 or later).

In the categories described below, peripheral devices having a driver that runs in combination with OPOS Common Control Object (OPOS CCO) 1.14.001 can be controlled.

- MSR
 - POS keyboard
 - Barcode scanner
-

Peripheral Devices that can be Controlled by Device Control Scripts

The peripheral devices listed below can be controlled from the device control scripts of the TM-i series/TM-DT series.

- Key input device
 - MSR (Hitachi-Omron Terminal Solutions, Corp.)
 - Keyboard (Standard HID device)
 - Barcode scanner (Standard HID device)
- Serial communication device

Downloadable Content

Epson ePOS SDK for Android packages include the following files.

| Filename/Folder name | Description |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ePOS2.jar | Java archive that contains Java class files compiled to use the APIs in Java program. |
| ePOSEasySelect.jar | Contains Java class files that enable simple printer selection. |
| libepos2.so | Libraries used for execution of functions (Compatible with ARMv5TE). |
| libposeeasyselect.so | Libraries used for functions that enable easy printer selection (Compatible with ARMv5TE). |
| armeabi | <p>This is the folder to store libraries for ARMv5TE. The following files are stored:</p> <ul style="list-style-type: none"> • libepos2.so • libposeeasyselect.so |
| arm64-v8a | <p>This is the folder to store libraries for AArch64. The following files are stored:</p> <ul style="list-style-type: none"> • libepos2.so • libposeeasyselect.so |
| x86_64 | <p>This is the folder to store libraries for x86-64.* The following files are stored:</p> <ul style="list-style-type: none"> • libepos2.so • libposeeasyselect.so |
| OPOS_CCOs_1.14.001.msi | This is the OPOS CCO installer package. |
| ePOS2_Sample_Android.zip | These files are sample programs. |
| DeviceControlProgram_Sample.zip | This file contains sample device control programs. |
| README.jp.txt | This is the Japanese README file. |
| README.en.txt | This is the English README file. |
| EULA.jp.txt | This is the Japanese software license agreement. |
| EULA.en.txt | This is the English software license agreement. |
| ePOS_SDK_Android_um_ja_revx.pdf | This is the Japanese user manual. |
| ePOS_SDK_Android_um_en_revx.pdf | This is the English user manual. |
| TM-DT_Peripherals_ja_revx.pdf | <p>This is the Japanese TM-DT Series Peripheral Device Control Guide. This guide describes how to control peripheral devices with TM-DT series.</p> |
| TM-DT_Peripherals_en_revx.pdf | This is the English TM-DT Series Peripheral Device Control Guide. |
| JSON_Specification.pdf | This is the JSON specifications. This describes the JSON specifications that are used for GermanyFiscalElement class. |
| ePOS_SDK_Android_Migration_Guide_ja_revx.pdf | This is the Japanese migration guide. This guide describes the procedure to migrate from the ePOS-Print SDK or ePOS-Device SDK. |

| Filename/Folder name | Description |
|----------------------------------------------|--------------------------------------|
| ePOS_SDK_Android_Migration_Guide_en_revx.pdf | This is the English migration guide. |

* Operation is confirmed on virtual devices with architecture x86_64 and Android API 28 (Google APIs).

Web Content

Online reference is publicly available from the following website.

<https://reference.epson-biz.com/pos/reference/>

Limitations

- Set the barcode reader suffix (delimiter) to CR (carriage return code). Data cannot be obtained using any other settings.
- When using 2D barcode readers, Japanese and other multi-byte characters cannot be read correctly. However, when combining a TM-m30/TM-m30II/TM-m30II-H/TM-T88VI and 2D barcode reader to read a QR code, multi-byte characters encoded with UTF-8 can be obtained correctly.
- Control codes cannot be read from 2D barcode data if it contains ASCII control codes (0x00 through 0x1F).
- The number of device ports that can be simultaneously opened in the same application is 16 ports.
- Activity may sometimes be destroyed when rotating the screen. When storing print instances as Activity, call closePrinter from the Print class before the Activity is destroyed.
- Communication will be disrupted if a terminal enters sleep mode while communicating with a printer via a *Bluetooth* connection.
- When using a virtual device, a MAC address cannot be used in the target parameter for the connect API.

How to Use

This section describes how to create Epson ePOS SDK for Android projects and some basic programming methods used in the Epson ePOS SDK for Android.

Printer Connections

Connect smart devices and printers using a connection method that matches the system you want to create. Refer to the Technical Reference Guide of each printer for more information.



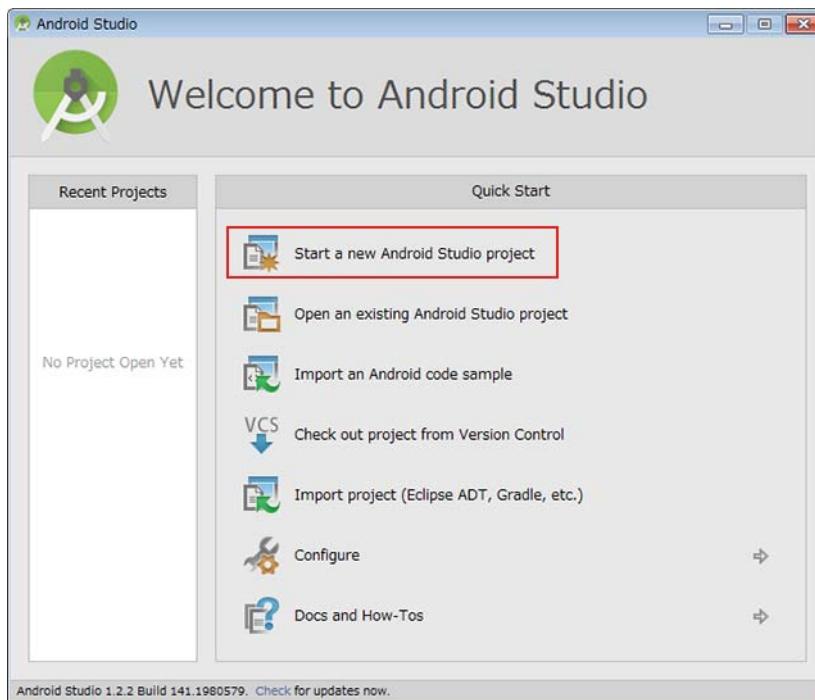
To connect via USB, refer to [To connect via USB](#).

Creating an Epson ePOS SDK for Android Project

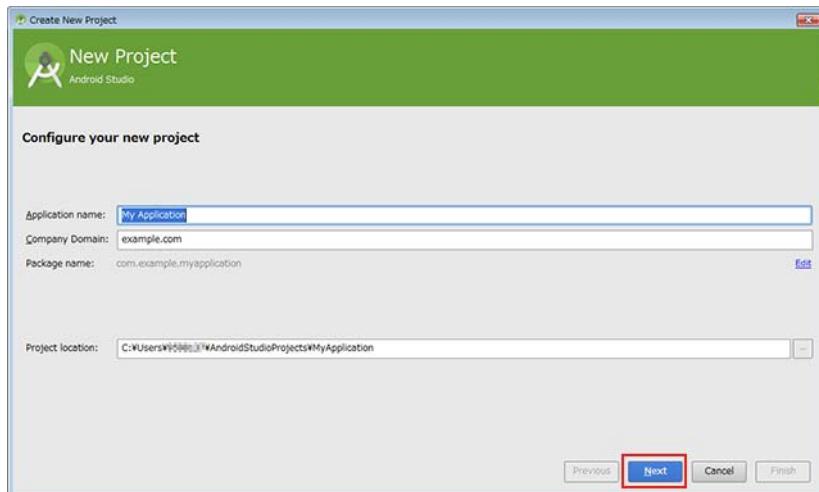


You can get the Android Studio from the following URL.
<http://developer.android.com/sdk/index.html>

- 1 Start Android Studio and click on **Start a new Android Studio project** to create a new project.



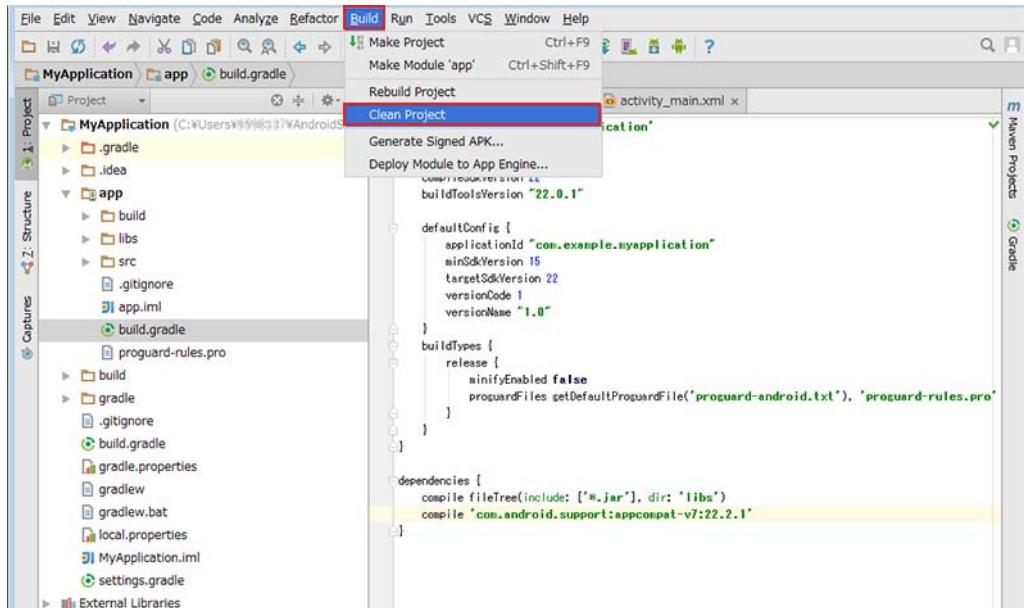
- 2** Configure the project in accordance with the type of application you will create.
Configure the project in accordance with the instructions shown on the screen.



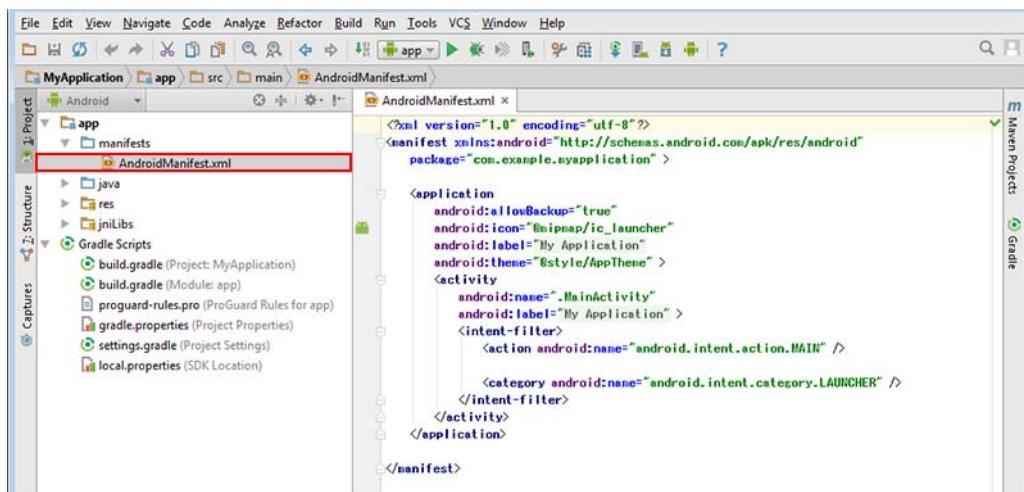
- 3** Store ePOS2.jar and ePOSEasySelect.jar in the following location.
C:\Users\[account name]\AndroidStudioProjects\[project name]\app\libs
- The folder structure after [project name] is automatically created when the project is created.
- 4** Create the following folder structure.
C:\Users\[account name]\AndroidStudioProjects\[project name]\app\src\main\jniLibs
- 5** Depending on your CPU, store the following folders bundled with this package in the jniLibs folder:
- armeabi
 - arm64-v8a
 - x86_64

6 Open the project that was created in Android Studio.

7 Run **Clean Project** from the **Build** menu.



8 Double-click on **AndroidManifest.xml**.



9 Under the <manifest> element, declare the permission that specifies the method for connecting with devices.



It is recommended to declare the permission even when connecting with a device via USB.
Refer to README.en.txt for more information.

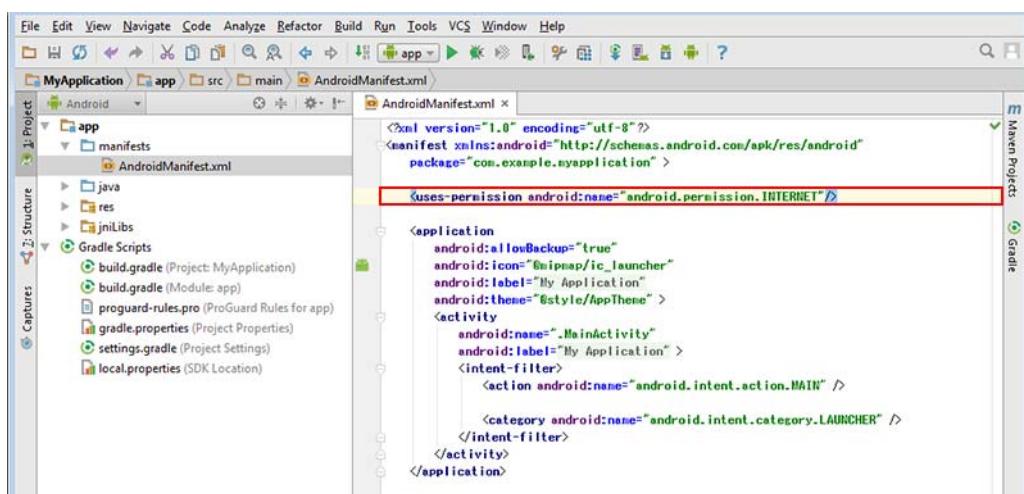
Wi-Fi

```
<uses-permission android:name="android.permission.INTERNET"/>
```

Bluetooth

"ACCESS_COARSE_LOCATION" is required for Android 6.0 or later.

```
<uses-permission android:name="android.permission.BLUETOOTH"/>
<uses-permission android:name="android.permission.BLUETOOTH_ADMIN"/>
<uses-permission
    android:name="android.permission.ACCESS_COARSE_LOCATION"/>
```



Programming Guide

This section describes some of the basic programming methods used in the Epson ePOS SDK for Android.

Programming Flow

This section describes a flow to create a program for controlling printers or peripheral devices respectively.

- ❑ [Controlling Printers](#)
- ❑ [Controlling Customer Displays](#)
- ❑ [Controlling Keyboards and Barcode Scanners](#)



Do not add an API of Epson ePOS SDK in the callback.

Controlling Printers

The method of controlling the TM printer and slave printer, and programming receipt printing is described below.

1. Printer selection (class initialization)



2. Creating print data (data buffering)



3. Sending print data (connection with the devices/communication/printing/disconnection)

Printer selection (class initialization)

Initialize the Printer class and select the printer to control.

```
Printer printer = null;
try {
    printer = new Printer(Printer.TM_T88, Printer.MODEL_ANK, this);
}
catch (Epos2Exception e) {
    //Displays error messages
}
```

Register the print complete event listener.

```
printer.setReceiveEventListerner(this);
```

Creating print data (data buffering)

Use add* API commands in the Printer class to create print data.

In the following example, data is created to print "Hello World" aligned in the center.

```
try {
    printer.addTextAlign(Printer.ALIGN_CENTER);
    printer.addText("Hello World");
}
catch (Epos2Exception e) {
    //Displays error messages
}
```

Sending print data (connection with the devices/communication/printing/disconnection)

Connect to the printer to which the created print data will be sent.

```
try {
    printer.connect("TCP:192.168.192.168", Printer.PARAM_DEFAULT);
}
catch (Epos2Exception e) {
    //Displays error messages
}
```

Run the print process and retrieve the print result in the callback. Do not add an API command in the callback.

```
try {
    printer.sendData(Printer.PARAM_DEFAULT);
}
catch (Epos2Exception e) {
    // Displays error messages
    // Abort process
}

public void onPtrReceive(final Printer printerObj, final int code, final PrinterStatusInfo status,
final String printJobId) {
    runOnUiThread(new Runnable() {
        @Override
        public synchronized void run() {
            if (code == Epos2CallbackCode.CODE_SUCCESS) {
                //Displays successful print messages
            }
            else {
                //Displays error messages
            }
        }
    });
    new Thread(new Runnable() {
        @Override
        public synchronized void run() {
            //Abort process
        }
    }).start();
}
```



When an error occurs, the print data that has been created is not erased until the command buffer is cleared. The print data can be used for re-printing in cases such as when the error processing ends.

Disconnect from the printer.

```
try {
    printer.disconnect();
}
catch (Epos2Exception e) {
    //Displays error messages
}
```

Clear the command buffer and terminate the printer control.

```
printer.clearCommandBuffer();
printer.setReceiveEventListener(null);
```

Controlling Customer Displays

This section describes the programming methods for controlling customer displays and displaying text on displays.

1. Device selection (class initialization)



2. Creating display data (data buffering)



3. Sending display data (connection with the devices/communication/printing/disconnection)

Device selection (class initialization)

Initialize the LineDisplay class and connect to the customer display.

```
LineDisplay linedisplay = null;
try {
    linedisplay = new LineDisplay(LineDisplay.DM_D30, this);
}
catch (Epos2Exception e) {
    //Displays error messages
}
```

Register the view complete event listener.

```
linedisplay.setReceiveEventListener(this);
```

Creating display data (data buffering)

Use add* API commands in the LineDisplay class to create display data.

In the following example, data is created to display "Hello World".

```
try {
    linedisplay.addText("Hello World");
}
catch (Epos2Exception e) {
    //Displays error messages
}
```

Sending display data (connection with the devices/communication/printing/disconnection)

Connect the customer display to which created display data will be sent.

```
try {
    linedisplay.connect("TCP:192.168.192.168", LineDisplay.PARAM_DEFAULT);
}
catch (Epos2Exception e) {
    //Displays error messages
}
```

Run the display process and retrieve the display result.

```
if (status.connection) {
    try {
        linedisplay.sendData();
    }catch (Epos2Exception e) {
        // Displays error messages
        // Abort process
    }
}else {
    // Displays error messages
    // Abort process
}

public void onDispReceive(final LineDisplay displayObj, final int code){
    runOnUiThread(new Runnable() {
        @Override
        public synchronized void run() {
            if (code == Epos2CallbackCode.CODE_SUCCESS) {
                //Displays successful print messages
            }
            else {
                //Displays error messages
            }
        }
    });
    new Thread(new Runnable() {
        @Override
        public synchronized void run() {
            //Abort process
        }
    }).start();
}
```

Disconnect from the customer display.

```
try {
    linedisplay.disconnect();
}
catch (Epos2Exception e) {
    //Displays error messages
}
```

Clear the command buffer and terminate the customer display control.

```
linedisplay.clearCommandBuffer();
linedisplay.setReceiveEventListerner(null);
```

Controlling Keyboards and Barcode Scanners

This section describes how to create a program that enables receiving data input from keyboards and barcode scanners.

The following section describes the programming flow for controlling keyboards.

1. Connecting to the device



2. Receiving data



3. Disconnecting from the device

Connecting to the device

Initialize the Keyboard class, connect the keyboard, and then register the event listener that will receive input data.

```
Keyboard keyboard = null;

try {
    keyboard = new Keyboard(this);

    keyboard.setKeyPressEventListener(mKeyPressEvent);

    keyboard.connect("TCP:192.168.192.168[local_keyboard]", Keyboard.PARAM_DEFAULT);
}
catch (Epos2Exception e) {
    //Displays errors

    keyboard.setKeyPressEventListener(null);
}
```

Receiving data

Create the key press event listener.

```
private KeyPressListener mKeyPressEvent = new KeyPressListener() {
    @Override
    public void onKbdKeyPress(Keyboard keyboardObj, final int keyCode, final String ascii) {
        runOnUiThread(new Runnable() {
            @Override
            public synchronized void run() {
                if (keyCode != 0) {
                    //Displays receive messages.
                }
            }
        });
    }
};
```

Disconnecting from the device

Disrupt communication to terminate the reception of input data from the keyboard.

```
try {
    keyboard.disconnect();
}
catch (Epos2Exception e) {
    //Displays errors
}

keyboard.setKeyPressEventListerner(null);
keyboard = null;
```

Effective range of command buffers for setting

The valid range of add* of the Printer class used for setting depends on the print method.

Receipt

Effective after setting add* until `sendData` is executed.

The configured values are initialized every time `sendData` is executed. See below.

```
printer.addText("Hello World!\n");
printer.addTextFont(Printer.FONT_B);
printer.addText("Hello World!\n");
printer.addText("Hello World!\n");
printer.sendData(Printer.PARAM_DEFAULT);
printer.clearCommandBuffer;
printer.addText("Hello World!\n");
printer.sendData(Printer.PARAM_DEFAULT);
printer.clearCommandBuffer;
```

Red letters: Font A

Green letters: Font B

Slip, Endorsement, Validation

Effective after setting add* until the paper is ejected.

The configured values are initialized each time the following APIs are executed:

- `waitInsertion`
- `readMicrData`
- `sendData` (receipt printing)

See below.

```
HybridPrinter.selectPaperType(HybridPrinter.PAPER_TYPE_SLIP);
HybridPrinter.waitInsertion(HybridPrinter.PARAM_DEFAULT);
HybridPrinter.addText("Hello World!\n");
HybridPrinter.addTextFont(Printer.FONT_B);
HybridPrinter.addText("Hello World!\n");
HybridPrinter.addText("Hello World!\n");
HybridPrinter.sendData(Printer.PARAM_DEFAULT);
HybridPrinter.clearCommandBuffer;
HybridPrinter.addText("Hello World!\n");
HybridPrinter.sendData(Printer.PARAM_DEFAULT);
HybridPrinter.clearCommandBuffer;
HybridPrinter.ejectPaper;
HybridPrinter.selectPaperType(HybridPrinter.PAPER_TYPE_RECEIPT);
HybridPrinter.addText("Hello World!\n");
HybridPrinter.sendData(Printer.PARAM_DEFAULT);
```

Red letters: Font A

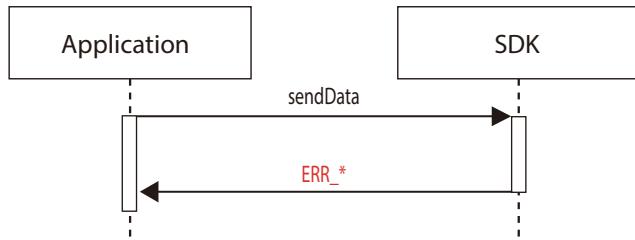
Green letters: Font B

Status

The following statuses are defined in the Epson ePOS SDK for Android.

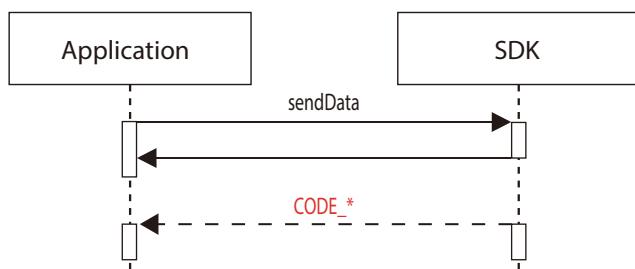
Error status

Indicates a result of sending data to devices in each class. The result is sent immediately as an exception of API. Refer to [Error Status and countermeasures](#) for more information.



Callback code

Indicates a device's processing result for `sendData`. Notified in a print completion event (`onPtrReceive/onDispReceive`). Refer to [Callback Code and countermeasures](#) for more information.



Printer status

Indicates the status of printers when sending print data. The printer status is retrieved when executing `sendData`. Refer to [Printer Status and countermeasures](#) for more information.

Handling Exceptions

When an errors occurs while using the Epson ePOS SDK for Android, a unique exception with a numerical (int) parameter is generated and the call originator is notified of the error. The notified error is retrieved by `getErrorStatus` in the `Epos2Exception` class.

Refer to the following programming code.

```

Printer printer = null;
printer = new Printer(Printer.TM_T88, Printer.MODEL_ANK, this);
try {
    printer.connect("TCP:192.168.192.168", Print.PARAM_DEFAULT);
    printer.disconnect();
}
catch (Epos2Exception e) {
    //Retrieves the error status
    int ErrorStatus = ((Epos2Exception) e).getErrorStatus();
}
  
```

API Reference

This chapter describes the APIs provided by Epson ePOS SDK for Android.

List of ePOS SDK API

Epson ePOS SDK for Android provides the following classes:



- Available APIs and parameters vary by printer model and peripheral device.
Refer to [List of Supported Classes](#).
- For the list of APIs of each class, and the APIs supported by each printer, refer to [List of Supported APIs](#).

- [Printer class](#)
- [HybridPrinter class](#)
- [LineDisplay class](#)
- [Keyboard class](#)
- [POSKeyboard class](#)
- [BarcodeScanner class](#)
- [MSR class](#)
- [SimpleSerial class](#)
- [GermanyFiscalElement class](#)
- [OtherPeripheral class](#)
- [CommBox class](#)
- [Common to all classes](#)
- [Discovery class](#)
- [Epos2Exception class](#)
- [Log class](#)
- [EasySelect class](#)
- [EasySelectInfo class](#)

Printer class

Controls printing by the printer.

| API | | Description |
|--------------------|------------------------------|-------------------------------------|
| Initialization | Printer | Initializes the Printer class. |
| Communication path | connect | Connects to the printer. |
| | disconnect | Disconnects from the printer. |
| Status monitor | startMonitor | Enables status event notification. |
| | stopMonitor | Disables status event notification. |

| API | | Description |
|--------------------|---------------------------------------|--------------------------------------------------------------|
| Status acquisition | getStatus | Acquires status of the connected printer. |
| Transmission | sendData | Sends a command to the printer. |
| Transaction | beginTransaction | Starts a transaction. |
| | endTransaction | Ends a transaction. |
| Print job | requestPrintJobStatus | Acquires the print result. |
| Buffer clear | clearCommandBuffer | Clears the command buffer. |
| Text | addTextAlign | Adds text alignment setting to the command buffer. |
| | addLineSpace | Adds line spacing setting to the command buffer. |
| | addTextRotate | Adds text rotation setting to the command buffer. |
| | addText | Adds text to print to the command buffer. |
| | addTextLang | Adds language setting to the command buffer. |
| | addTextFont | Adds character font setting to the command buffer. |
| | addTextSmooth | Adds character smoothing setting to the command buffer. |
| | addTextSize | Adds character scaling factor setting to the command buffer. |
| | addTextStyle | Adds character style setting to the command buffer. |
| | addHPosition | Adds character print position setting to the command buffer. |
| Paper feed | addFeedUnit | Adds paper-feed setting in dots to the command buffer. |
| | addFeedLine | Adds paper-feed setting in lines to the command buffer. |
| Graphics | addImage | Adds a raster image print command to the command buffer. |
| | addLogo | Adds a NV logo print command to the command buffer. |
| Barcode | addBarcode | Adds a barcode print command to the command buffer. |
| | addSymbol | Adds a 2D symbol print command to the command buffer. |

| API | | Description |
|----------------------------------|-----------------------------------------|-------------------------------------------------------------------|
| Ruled line | addHLine | Adds a horizontal ruled line print command to the command buffer. |
| | addVLineBegin | Adds a vertical ruled line start command to the command buffer. |
| | addVLineEnd | Adds a vertical ruled line end command to the command buffer. |
| Page mode | addPageBegin | Adds a page mode start command to the command buffer. |
| | addPageEnd | Adds a page mode end command to the command buffer. |
| | addPageArea | Adds page mode print area setting to the command buffer. |
| | addPageDirection | Adds page mode print direction setting to the command buffer. |
| | addPagePosition | Adds page mode print position setting to the command buffer. |
| | addPageLine | Adds a page mode line draw command to the command buffer. |
| | addPageRectangle | Adds a page mode rectangle draw command to the command buffer. |
| Batch rotate print | addRotateBegin | Adds the start batch rotate print mode to the command buffer. |
| | addRotateEnd | Adds the end batch rotate print mode to the command buffer. |
| Cut | addCut | Adds a sheet cut command to the command buffer. |
| Drawer | addPulse | Adds a drawer kick command to the command buffer. |
| Buzzer | addSound | Adds a buzzer sound command to the command buffer. |
| Label sheet/ black mark sheet | addFeedPosition | Adds a paper feed command to the command buffer. |
| | addLayout | Adds sheet layout setting to the command buffer. |
| Command | addCommand | Adds a command to the command buffer. |
| Maintenance counter | getMaintenanceCounter | Acquires the counter value. |
| | resetMaintenanceCounter | Resets the counter value. |
| Printer setting | getPrinterSetting | Acquires the set value of the printer setting. |
| | setPrinterSetting | Changes the printer setting. |

| API | | Description |
|---------------------|----------------------------------------------|----------------------------------------------------|
| Firmware update | downloadFirmwareList | Acquires the list of the firmware. |
| | getPrinterFirmwareInfo | Acquires the information of the printer firmware. |
| | verifyUpdate | Acquires the result of the firmware update. |
| | updateFirmware | Instructs the printer to write the firmware image. |
| Forced transmission | forceRecover | Forced transmission function |
| | forcePulse | |
| | forceStopSound | |
| | forceCommand | |
| | forceReset | |
| Reception of result | setStatusChangeEventListener | Registers the event listener registration method. |
| | setReceiveEventListener | |
| Monitor interval | interval | <Obsolete> Status monitor interval |

The print mode includes the standard mode, page mode, and the batch rotate print mode.

- Standard mode

Prints line by line. Line spacing is automatically adjusted according to character size, image size, and barcode height. Suitable for printing receipts whose print length varies by print content.

- Page mode

Prints page by page. Prints characters, images, and/or barcodes on a single page that is defined as a print area.

To print in the page mode, use [addPageBegin](#) and [addPageEnd](#) to start and end the page mode process, respectively.

- Batch rotate print mode

This is a print mode in which the range of the print data (such as characters, images, barcodes, etc.) is set, the print data in the set range is compiled, inverted, and then printed.

When performing the processing in the batch rotate print mode, start the batch rotate print processing with [addRotateBegin](#), and end the batch rotate print processing with [addRotateEnd](#).

The APIs that can be used in each mode are described in the table below.

| API | Standard mode | Page mode | Batch rotate print mode |
|----------------------------------|---------------|-----------|-------------------------|
| Printer | - | - | - |
| connect | - | - | - |
| disconnect | - | - | - |
| startMonitor | ✓ | ✓ | ✓ |
| stopMonitor | ✓ | ✓ | ✓ |
| getStatus | ✓ | ✓ | ✓ |
| sendData | ✓ | ✓ | - |
| beginTransaction | ✓ | ✓ | ✓ |

| API | Standard mode | Page mode | Batch rotate print mode |
|-----------------------|---------------|-----------|-------------------------|
| endTransaction | ✓ | ✓ | - |
| requestPrintJobStatus | ✓ | ✓ | ✓ |
| clearCommandBuffer | ✓ | ✓ | - |
| addTextAlign | ✓ | - | ✓ |
| addLineSpace | ✓ | ✓ | ✓ |
| addTextRotate | ✓ | - | ✓ |
| addText | ✓ | ✓ | ✓ |
| addTextLang | ✓ | ✓ | ✓ |
| addTextFont | ✓ | ✓ | ✓ |
| addTextSmooth | ✓ | ✓ | ✓ |
| addTextSize | ✓ | ✓ | ✓ |
| addTextStyle | ✓ | ✓ | ✓ |
| addHPosition | ✓ | ✓ | ✓ |
| addFeedUnit | ✓ | ✓ | ✓ |
| addFeedLine | ✓ | ✓ | ✓ |
| addImage | ✓ | ✓ | ✓ |
| addLogo | ✓ | ✓ | ✓ |
| addBarcode | ✓ | ✓ | ✓ |
| addSymbol | ✓ | ✓ | ✓ |
| addHLine | ✓ | - | ✓ |
| addVLineBegin | ✓ | - | ✓ |
| addVLineEnd | ✓ | - | ✓ |
| addPageBegin | ✓ | - | - |
| addPageEnd | - | ✓ | - |
| addPageArea | - | ✓ | - |
| addPageDirection | - | ✓ | - |
| addPagePosition | - | ✓ | - |
| addPageLine | - | ✓ | - |
| addPageRectangle | - | ✓ | - |
| addRotateBegin | ✓ | - | - |
| addRotateEnd | - | - | ✓ |
| addCut | ✓ | - | - |
| addPulse | ✓ | - | - |
| addSound | ✓ | - | - |

| API | Standard mode | Page mode | Batch rotate print mode |
|-----------------|---------------|-----------|-------------------------|
| addFeedPosition | ✓ | - | ✓ |
| addLayout | ✓ | - | ✓ |
| addCommand | ✓ | ✓ | ✓ |

HybridPrinter class

Controls the hybrid model printers.

| API | | Description |
|--------------------------|------------------------------|------------------------------------------------------|
| Initialization | HybridPrinter | Initializes the HybridPrinter class. |
| Communication path | connect | Connects to the printer. |
| | disconnect | Disconnects from the printer. |
| Status monitor | startMonitor | Enables status event notification. |
| | stopMonitor | Disables status event notification. |
| Status acquisition | getStatus | Acquires status of the connected printer. |
| Transmission | sendData | Transfers a print command. |
| Transaction | beginTransaction | Starts a transaction. |
| | endTransaction | Ends a transaction. |
| Buffer clear | clearCommandBuffer | Clears the command buffer. |
| Print method | selectPaperType | Specifies a print method. |
| Paper feed | waitInsertion | Waiting for paper insertion. |
| | cancelInsertion | Cancels waiting for paper insertion. |
| Paper eject | ejectPaper | Ejects paper. |
| MICR | readMicrData | MICR reading |
| | cleanMicrReader | Cleans the MICR mechanism. |
| Forced transmission | forceRecover | Forced transmission function |
| | forcePulse | |
| | forceCommand | |
| | forceReset | |
| Print method acquisition | paperType | Acquires the print method setting information. |
| Monitor interval | interval | Printer status update interval |
| On standby | waitTime | Time from insertion of a paper to start of operation |
| 40cpl mode | mode40Cpl | Sets the 40 cpl mode. |
| Reception of result | setStatusChangeEventListener | Registers the event listener registration method. |
| | setReceiveEventListener | |

List of supported control operations for HybridPrinter class

APIs available for the HybridPrinter class depend on the type of control operation.

The following lists control operation types and available APIs.

| API | Control operation | | | | |
|------------------------------|-------------------|------------|------------------|-----------------|------|
| | Receipt | Slip sheet | Endorse- ment | Valida- tion | MICR |
| HybridPrinter | ✓ | ✓ | ✓ | ✓ | ✓ |
| connect | ✓ | ✓ | ✓ | ✓ | ✓ |
| disconnect | ✓ | ✓ | ✓ | ✓ | ✓ |
| startMonitor | ✓ | ✓ | ✓ | ✓ | ✓ |
| stopMonitor | ✓ | ✓ | ✓ | ✓ | ✓ |
| getStatus | ✓ | ✓ | ✓ | ✓ | ✓ |
| sendData | ✓ | ✓ | ✓ | ✓ | - |
| beginTransaction | ✓ | ✓ | ✓ | ✓ | ✓ |
| endTransaction | ✓ | ✓ | ✓ | ✓ | ✓ |
| clearCommandBuffer | ✓ | ✓ | ✓ | ✓ | - |
| selectPaperType | ✓ | ✓ | ✓ | ✓ | - |
| waitInsertion | - | ✓ | ✓ | ✓ | - |
| cancelInsertion | - | ✓ | ✓ | ✓ | ✓ |
| ejectPaper | - | ✓ | ✓ | ✓ | ✓ |
| readMicrData | - | - | - | - | ✓ |
| cleanMicrReader | - | - | - | - | ✓ |
| setStatusChangeEventListener | ✓ | ✓ | ✓ | ✓ | ✓ |
| setReceiveEventListener | ✓ | ✓ | ✓ | ✓ | ✓ |

Creating print document by the HybridPrinter class

The HybridPrinter class creates a print document using the same API as the [Printer class](#).

The APIs and corresponding print methods are listed below.

| API | | Print method | | | | |
|------------|----------------------------------|--------------|------------|------------------|-----------------------------|------------|
| | | Receipt | Slip sheet | Endorse- ment | Endorse- ment (40cpl) | Validation |
| Text | addTextAlign | ✓ | ✓ | ✓ | - | ✓ |
| | addLineSpace | ✓ | ✓ | ✓ | - | ✓ |
| | addTextRotate | ✓ | ✓ | ✓ | ✓ | ✓ |
| | addText | ✓ | ✓ | ✓ | ✓ | ✓ |
| | addTextLang | ✓ | ✓ | - | - | ✓ |
| | addTextFont | ✓ | ✓ | ✓ | - | ✓ |
| | addTextSmooth | ✓ | - | - | - | - |
| | addTextSize | ✓ | ✓ | ✓ | - | ✓ |
| | addTextStyle | ✓ | ✓* | ✓* | - | ✓* |
| Paper feed | addFeedUnit | ✓ | ✓ | ✓ | ✓ | ✓ |
| | addFeedLine | ✓ | ✓ | ✓ | ✓ | ✓ |
| Graphics | addImage | ✓ | - | - | - | - |
| | addLogo | ✓ | - | - | - | - |
| Barcode | addBarcode | ✓ | - | - | - | - |
| | addSymbol | ✓ | - | - | - | - |
| Page mode | addPageBegin | ✓ | ✓ | - | - | ✓ |
| | addPageEnd | ✓ | ✓ | - | - | ✓ |
| | addPageArea | ✓ | ✓ | - | - | ✓ |
| | addPageDirection | ✓ | ✓ | - | - | ✓ |
| | addPagePosition | ✓ | ✓ | - | - | ✓ |
| | addPageLine | ✓ | ✓ | - | - | - |
| | addPageRectangle | ✓ | ✓ | - | - | - |
| Cut | addCut | ✓ | - | - | - | - |
| Drawer | addPulse | ✓ | ✓ | ✓ | ✓ | ✓ |
| Command | addCommand | ✓ | ✓ | ✓ | ✓ | ✓ |

* The reverse parameter is not supported.

LineDisplay class

Controls character display on the customer display.

| API | | Description |
|---------------------|-----------------------------------------|---------------------------------------------------|
| Initialization | LineDisplay | Initializes the LineDisplay class. |
| Communication path | connect | Connects to the customer display. |
| | disconnect | Disconnects from the customer display. |
| Status acquisition | getStatus | Acquires status of the connected device. |
| Transmission | sendData | Sends a command to the customer display. |
| Buffer clear | clearCommandBuffer | Clears the command buffer. |
| Reset | addInitialize | Initializes the customer display. |
| Window | addCreateWindow | Adds a process to execute to the command buffer. |
| | addDestroyWindow | |
| | addSetCurrentWindow | |
| | addClearCurrentWindow | |
| Cursor | addSetCursorPosition | |
| | addMoveCursorPosition | |
| | addSetCursorType | |
| Text display | addText | |
| | addReverseText | |
| | addMarqueeText | |
| Display setting | addSetBlink | |
| | addSetBrightness | |
| Clock | addShowClock | |
| Command transfer | addCommand | |
| Reception of result | setReceiveEventListener | Registers the event listener registration method. |

Keyboard class

Controls character entry from the keyboard.

| API | | Description |
|--------------------|----------------------------|------------------------------------------|
| Initialization | Keyboard | Initializes the Keyboard class. |
| Communication path | connect | Connects to the keyboard. |
| | disconnect | Disconnects from the keyboard. |
| Status acquisition | getStatus | Acquires status of the connected device. |

| API | | Description |
|----------------------------|--------------------------------------------|------------------------------------------------------|
| String setting | setPrefix | Sets the condition to handle as a continuous string. |
| String setting acquisition | getPrefix | Acquires the set prefix. |
| Key detection | setKeyPressEventListener | Registers the event listener registration method. |
| String detection | setReadStringEventListener | |

POSKeyboard class

Controls character entry from the POS keyboard.

| API | | Description |
|--------------------|------------------------------------------|---------------------------------------------------|
| Initialization | PosKeyboard | Initializes the POSKeyboard class. |
| Communication path | connect | Connects to the keyboard. |
| | disconnect | Disconnects from the keyboard. |
| Status acquisition | getStatus | Acquires status of the connected device. |
| Key detection | setKeyPressEventListener | Registers the event listener registration method. |

BarcodeScanner class

Controls barcode reading by the barcode scanner.

| API | | Description |
|----------------------|--------------------------------------|---------------------------------------------------|
| Initialization | BarcodeScanner | Initializes the BarcodeScanner class. |
| Communication path | connect | Connects to the barcode scanner. |
| | disconnect | Disconnects from the barcode scanner. |
| Status acquisition | getStatus | Acquires status of the connected device. |
| Input data reception | setScanEventListener | Registers the event listener registration method. |

MSR class

Controls card reading by the MSR.

| API | | Description |
|--------------------|--------------------------------------|---------------------------------------------------|
| Initialization | Msr | Initializes the MSR class. |
| Communication path | connect | Connects to the MSR. |
| | disconnect | Disconnects from the MSR. |
| Status acquisition | getStatus | Acquires status of the connected device. |
| Data detection | setDataEventListener | Registers the event listener registration method. |

SimpleSerial class

Controls serial communication between the printer and device.

| API | | Description |
|----------------------|-----------------------------------------|---------------------------------------------------|
| Initialization | SimpleSerial | Initializes the SimpleSerial class. |
| Communication path | connect | Connects to the serial. |
| | disconnect | Disconnects from the serial. |
| Status acquisition | getStatus | Acquires status of the connected device. |
| Command transfer | sendCommand | Transfers a command. |
| Input data reception | setReceiveEventListener | Registers the event listener registration method. |

GermanyFiscalElement class

Connects to the German fiscal element (TSE), and controls data read/write operations.

| API | | Description |
|---------------------|-----------------------------------------|---------------------------------------------------------|
| Initialization | GermanyFiscalElement | Initializes the GermanyFiscalElement class. |
| Communication path | connect | Connects to the German fiscal element (TSE). |
| | disconnect | Disconnects from the German fiscal element (TSE). |
| Status acquisition | getStatus | Acquires status of the German fiscal element (TSE). |
| Operation | operate | Send the JSONstring to the German fiscal element (TSE). |
| Reception of result | setReceiveEventListener | Registers the callback method for an event. |

OtherPeripheral class

Controls peripheral devices via the developed device control programs.

| API | | Description |
|---------------------|-----------------------------------------|---------------------------------------------------|
| Initialization | OtherPeripheral | Initializes the OtherPeripheral class. |
| Communication path | connect | Connects to the device. |
| | disconnect | Disconnects from the device. |
| Status acquisition | getStatus | Acquires status of the connected device. |
| Transmission | sendData | Sends data to the peripheral device. |
| Reception of result | setReceiveEventListener | Registers the event listener registration method. |

CommBox class

Controls data transmission and reception using the communication box.

| API | | Description |
|----------------------|-----------------------------------------|---------------------------------------------------|
| Initialization | CommBox | Initialize the CommBox class. |
| Communication path | connect | Connects to the communication box. |
| | disconnect | Disconnects from the communication box. |
| Status acquisition | getStatus | Acquires status of the connected device. |
| Transmission history | getCommHistory | Acquires the message transmission history. |
| Transmission | sendMessage | Sends a message to the communication box. |
| Reception | setReceiveEventListener | Registers the event listener registration method. |

Common to all classes

These APIs can be used with all classes.

| API | | Description |
|----------------------------|--------------------------------------------|---------------------------------------------------|
| Administration information | getAdmin | Acquires the administration information. |
| | getLocation | Acquires the installation location information. |
| Reconnection | setConnectionEventListener | Registers the event listener registration method. |

Discovery class

Controls the device discovery function.

| API | | Description |
|-------|-----------------------|-----------------------|
| Start | start | Starts device search. |
| Stop | stop | Stops device search. |

Epos2Exception class

Acquires the error status when an exception occurs.

| API | | Description |
|--------------------------|--------------------------------|--------------------------------------------------------|
| Error status acquisition | getErrorStatus | Acquires the error status when an exception is thrown. |

Log class

Controls the log output function.

| API | | Description |
|---------------------|--------------------------------|--------------------------------------|
| Log | setLogSettings | Sets the log output function. |
| Version acquisition | SdkVersion | Acquires the Epson ePOS SDK version. |

EasySelect class

EasySelect class and EasySelectInfo class offer API commands and member variables for selecting printers by using NFC tags or QR codes.

EasySelect class is for analyzing NFC tags and QR codes.

| API | | Description |
|-----------------------|--------------------------|-------------------------------------------------------|
| Analyzing of NFC tags | parseNFC | Analyzes NFC tags data. |
| Analyzing of QR codes | parseQR | Analyzes QR codes data. |
| Creation of QR codes | createQR | Creates QR code data that can be analyzed by parseQR. |

EasySelectInfo class

This class is for storing data analyzed by [parseNFC](#) or [parseQR](#). Specify the stored information in [connect](#) API to connect with the printer.

| Member variables | | Description |
|------------------------|-----------------------------|---------------------------------------|
| Printer type | deviceType | Stores printer type information. |
| Printer name | printerName | Stores a printer name. |
| MAC address/BD address | macAddress | Stores a MAC address or a BD address. |

Printer class

Printer

Initializes the Printer class.

Syntax

```
public Printer(int printerSeries, int lang, Context context)
throws Epos2Exception
```

Parameter

printerSeries

Specifies the target printer.

| Value | Description |
|-------------------|---------------------------------------------------------------------------------|
| Printer.TM_M10 | TM-m10 |
| Printer.TM_M30 | TM-m30 |
| Printer.TM_M30II | TM-m30II, TM-m30II-H |
| Printer.TM_P20 | TM-P20 |
| Printer.TM_P60 | TM-P60 (Receipt/Peeler) |
| Printer.TM_P60II | TM-P60II (Receipt/Peeler) |
| Printer.TM_P80 | TM-P80 |
| Printer.TM_T20 | TM-T20, TM-T20II, TM-T20II-i, TM-T20III, TM-T20IIIL, TM-T20X |
| Printer.TM_T60 | TM-T60 |
| Printer.TM_T70 | TM-T70, TM-T70-i, TM-T70II, TM-T70II-DT, TM-T70II-DT2 |
| Printer.TM_T81 | TM-T81II, TM-T81III |
| Printer.TM_T82 | TM-T82, TM-T82II, TM-T82II-i, TM-T82III, TM-T82IIIL, TM-T82X |
| Printer.TM_T83 | TM-T83II, TM-T83II-i |
| Printer.TM_T83III | TM-T83III |
| Printer.TM_T88 | TM-T88IV, TM-T88V, TM-T88VI, TM-T88V-i, TM-T88VI-iHUB, TM-T88V-DT, TM-T88VI-DT2 |
| Printer.TM_T90 | TM-T90 |
| Printer.TM_T100 | TM-T100 |
| Printer.TM_U220 | TM-U220, TM-U220-i |

| Value | Description |
|------------------|--------------------------------------|
| Printer.TM_U330 | TM-U330 |
| Printer.TM_L90 | TM-L90 |
| Printer.TM_H6000 | TM-H6000IV, TM-H6000V, TM-H6000IV-DT |

lang

Specifies the language of the printer.

| Value | Description |
|-------------------------|--------------------------|
| Printer.MODEL_ANK | ANK model |
| Printer.MODEL_CHINESE | Simplified Chinese model |
| Printer.MODEL_TAIWAN | Taiwan model |
| Printer.MODEL_KOREAN | Korean model |
| Printer.MODEL_THAI | Thai model |
| Printer.MODEL_SOUTHASIA | South Asian model |

context

Specifies the application context.

Null can be specified when the log output function is not used and the printer is not connected via USB.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|-----------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_UNSUPPORTED | A model name or language not supported was specified. |

Supplementary explanation

When iterating a process, be sure to generate and destroy instances outside the iterated process and not iterate the process at a short interval.

Memory releasing by the OS may affect the process of the Epson ePOS SDK, resulting in an invalid operation.

When using it with multiple printers connected, make sure to generate a dedicated instance for each printer.

connect

Starts communication with the printer.

Syntax

```
Public void connect(String target, int timeout) throws  
Epos2Exception
```

Parameter

target

Specifies the method of connecting to the printer by a character string.

The connection method varies according to the system configuration.

- TM Printer Models

<connection type>:<identifier>

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Wi-Fi/Ethernet | "TCP" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCP:192.168.192.168" |
| Bluetooth | "BT" | BD address | "BT:00:22:15:7D:70:9C" |
| USB | "USB" | <ul style="list-style-type: none"> Device node Serial number Omitted | "USB:/dev/udev/*" "USB:00000000000000000000000000000000" "USB:" |

- Customer Display Models

<connection type>:<identifier>

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Wi-Fi/Ethernet | "TCP" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCP:192.168.192.168" |
| Bluetooth | "BT" | BD address | "BT:00:22:15:7D:70:9C" |
| USB | "USB" | <ul style="list-style-type: none"> Device node Serial number Omitted | "USB:/dev/udev/*" "USB:00000000000000000000000000000000" "USB:" |

To connect to the printer via SSL/TLS communication, specify using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Wi-Fi/Ethernet | "TCPS" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCPS:192.168.192.168[local_printer]" |

- TM Printer + DM-D30 + barcode scanner model/
TM Printer + barcode scanner model

To connect via Wi-Fi/Ethernet network communication, specify using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Wi-Fi/Ethernet | "TCP" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCP:192.168.192.168[local_printer]" |

The device ID is fixed as [local_printer].

To connect via *Bluetooth* or USB, specify using the following syntax.

<connection type>:<identifier>

| I/F | Connec-tion type | Identifier | Example |
|-----------|------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Bluetooth | "BT" | BD address | "BT:00:22:15:7D:70:9C" |
| USB | "USB" | <ul style="list-style-type: none"> Device node Serial number Omitted | "USB:/dev/udev/*" "USB:00000000000000000000" "USB:" |

- POS Terminal Model

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Wi-Fi/Ethernet | <ul style="list-style-type: none"> "TCP" "TCPS" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCP:192.168.192.168[local_printer]" |

To connect to the printer via SSL/TLS communication, specify TCPS in the connection type.

timeout

Specifies the maximum time (in milliseconds) to wait for communication with the printer to be established.

| Value | Description |
|-----------------------------|------------------------------------------------------------------|
| Integer from 1000 to 300000 | Maximum wait time before an error is returned (in milliseconds). |
| Print.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|------------------|----------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Failed to open the device. |
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| ERR_ILLEGAL | Tried to start communication with a printer with which communication had been already established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_NOT_FOUND | The device could not be found. |
| ERR_IN_USE | The device was in use. |
| ERR_TYPE_INVALID | The device type is different. |

Supplementary explanation

- ❑ When communication with the printer is no longer necessary, be sure to call [disconnect](#) to terminate it.
- ❑ When using multi-threading to connect to multiple printers or peripheral devices, this API and [disconnect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.
- ❑ The printer status is returned to the event registered with the Printer class.
For details, refer to Chapter 2 "Programming Flow" and Chapter 6 "To use the same printer from multiple mobile devices."
- ❑ The device ID is an arbitrary character string that is set when the peripheral device is registered to the TM printer (master).
For details, refer to the Technical Reference Guide of each printer.
- ❑ If you are using DHCP to assign the IP address of the printer, specify the MAC address or host name of the printer as the identifier.
- ❑ If you specify the host name of the printer as the identifier, use in the environment where it can be found by the DNS server.

- When connecting through the USB, the identifiers that can be specified differ depending on the shape of the USB connector.

When the identifier is omitted, Android OS connects with the USB device found first.

When the Android terminal is set to the developer mode, you may not be able to connect through USB-A - Device Charging.

| Identifier | Shape of the USB connector | |
|---------------|----------------------------|-------------------------|
| | USB-B | USB-A - Device Charging |
| Device node | ✓ | - |
| Serial number | - | ✓ |
| Omitted | ✓ | ✓ |

- This API will succeed regardless of the connection status of the TM printer (master) and peripheral devices.

- Devices other than printers are exclusively locked.

disconnect

Ends communication with the printer.

Syntax

```
Public void disconnect() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------------|
| ERR_ILLEGAL | Tried to end communication where it had not been established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_DISCONNECT | Failed to disconnect the device. |

Supplementary explanation

When using multi-threading to connect to multiple printers or peripheral devices, this API and [connect](#) cannot be started for other printers or peripheral devices until this API finishes processing.

startMonitor

Enables printer status event notification.

Acquires and updates the printer status at the interval specified with the [interval](#) property and notifies it of the listener registration method registered by [setStatusChangeEventListener](#).

Syntax

```
public void startMonitor() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|--------------------------------------------------------------|
| ERR_ILLEGAL | This API was called while no communication had been started. |

Supplementary explanation

- ❑ Use this API after starting a communication with the printer (after executing the [connect](#) API).
 - ❑ During ESC/POS control, any ASB information items which have been changed during the update [iinterval](#) [val](#) specified by the interval property are reported.
- During ePOS-Device XML control, the ASB information at the time of update is reported.

stopMonitor

Disables status events.

Syntax

```
public void stopMonitor() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|--------------------------------------------------------------|
| ERR_ILLEGAL | This API was called while no communication had been started. |

getStatus

Acquires the current status information.

Syntax

```
public PrinterStatusInfo getStatus ()
```

Return value

The current status is returned in the PrinterStatusInfo type.

The following status information is stored in the object as a property.

Stored status information can be acquired using the getter method of each property.

| Printer status | Status | Description |
|-----------------------------------------------------------------------|------------------------|------------------------|
| connection: Connection status | Printer.TRUE | Connected |
| | Printer.FALSE | Status is unknown. |
| online: Online status | Printer.TRUE | Online |
| | Printer.FALSE | Offline |
| | Printer.UNKNOWN | Status is unknown. |
| coverOpen: Cover status | Printer.TRUE | Cover is open. |
| | Printer.FALSE | Cover is closed. |
| | Printer.UNKNOWN | Status is unknown. |
| paper: Paper status | Printer.PAPER_OK | Paper remains. |
| | Printer.PAPER_NEAR_END | Paper is running out. |
| | Printer.PAPER_EMPTY | Paper has run out. |
| | Printer.UNKNOWN | Status is unknown. |
| paperFeed: Paper feed | Printer.TRUE | Paper feed in progress |
| | Printer.FALSE | Stopped |
| | Printer.UNKNOWN | Status is unknown. |
| panelSwitch: Panel switch (Feed button) status | Printer.SWITCH_ON | Pressed |
| | Printer.SWITCH_OFF | Not pressed |
| | Printer.UNKNOWN | Status is unknown. |
| drawer: Offline status due to the battery level (Mobile models) | Printer.DRAWER_HIGH | High |
| | Printer.DRAWER_LOW | Low |
| | Printer.UNKNOWN | Status is unknown. |

| Printer status | Status | Description |
|---------------------------------------------------------------------------------|--------------------------|--------------------------------------------------|
| drawer: Drawer kick connector pin No.3 status (except for the Mobile models) | Printer.DRAWER_HIGH | High |
| | Printer.DRAWER_LOW | Low |
| | Printer.UNKNOWN | Status is unknown. |
| errorStatus: Error status | Printer.NO_ERR | Normal |
| | Printer.MECHANICAL_ERR | Mechanical error occurred. |
| | Printer.AUTO CUTTER_ERR | Auto cutter error occurred. |
| | Printer.UNRECOVER_ERR | Unrecoverable error occurred. |
| | Printer.AUTO RECOVER_ERR | Automatic recovery error occurred. |
| | Printer.UNKNOWN | Status is unknown. |
| autoRecoverError: Automatic recovery error status | Printer.HEAD OVERHEAT | Head overheat error |
| | Printer.MOTOR OVERHEAT | Motor driver IC overheat error |
| | Printer.BATTERY OVERHEAT | Battery overheat error |
| | Printer.WRONG PAPER | Paper error |
| | Printer.COVER_OPEN | Cover is open. |
| | Printer.UNKNOWN | Unknown status |
| buzzer: Buzzer sound status | Printer.TRUE | Sounding (Applicable printer only) |
| | Printer.FALSE | Stopped (Applicable printer only) |
| | Printer.UNKNOWN | Status is unknown. |
| adapter: AC adapter connection status | Printer.TRUE | Connected |
| | Printer.FALSE | Disconnected |
| | Printer.UNKNOWN | Status is unknown. |
| batteryLevel: Remaining battery capacity | Printer.BATTERY_LEVEL_6 | Remaining battery capacity 6 |
| | Printer.BATTERY_LEVEL_5 | Remaining battery capacity 5 |
| | Printer.BATTERY_LEVEL_4 | Remaining battery capacity 4 |
| | Printer.BATTERY_LEVEL_3 | Remaining battery capacity 3 |
| | Printer.BATTERY_LEVEL_2 | Remaining battery capacity 2 |
| | Printer.BATTERY_LEVEL_1 | Remaining battery capacity 1 (almost run out) |
| | Printer.BATTERY_LEVEL_0 | Remaining battery capacity 0 (run out) |
| | Printer.UNKNOWN | Status is unknown. |

Supplementary explanation

- ❑ If this API is called while communication is not available, printer states other than "connection" will be set to "Printer.UNKNOWN."
- ❑ The status object is set to the status at the timing of execution of this API and will not be updated.

sendData

Sends the print command.

The error status of this API is the result of sending data to the devices.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the Printer class.

Make sure not to use this API repeatedly without getting the result in the callback.

This API sends data buffered by an add-type API (e.g., [addText](#)).

Syntax

```
public void sendData (int timeout) throws Epos2Exception
```

Parameter

timeout

Specifies the timeout period before completion of printing in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| Integer from 5000 to 600000 | Timeout period (in milliseconds) |
| Printer.PARAM_DEFAULT | Specifies the default value (10000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|--------------------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_ILLEGAL | The control commands have not been buffered. This API was called while no communication had been started. |

Supplementary explanation

For Bluetooth connection, the offline status may not be detected and a timeout error may occur.

Refer to Chapter 6 "To use the same printer from multiple mobile devices" for details.

beginTransaction

Starts a transaction.

A transaction represents a single printing task such as printing a single sheet of receipt or coupon.

After this API is called, data until the transaction is terminated by [endTransaction](#) will be regarded as a single printing task.

Syntax

```
public void beginTransaction() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|--------------------------------------------------------------------------------------------------------------------------------|
| ERR_ILLEGAL | This API was called while no communication had been started. Another transaction had been already started by this function. |
| ERR_FAILURE | An unknown error occurred. |

endTransaction

Ends a transaction.

A transaction represents a single printing task such as printing a single sheet of receipt or coupon.

After [beginTransaction](#) is called, data until the transaction is terminated by this API will be regarded as a single printing task.

Syntax

```
public void endTransaction() throws Eswv2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|----------------------------------------------------------------------------------------------------------------------------|
| ERR_ILLEGAL | This API was called while no communication had been started. This API was called while no transaction had been started. |
| ERR_FAILURE | An unknown error occurred. |

requestPrintJobStatus

Acquires the print result for the specified print job ID.

Syntax

```
public void requestPrintJobStatus (String printJobId) throws  
Epos2Exception
```

Parameter

printJobId

Specifies the print job ID.

Alphanumeric characters, underscore, hyphen, and period in 1 to 30 digits can be used.

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|----------------|------------------------------------------|
| ERR_CONNECT | Communication error |
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

Supplementary explanation

- ❑ The result of this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the Printer class.
- ❑ When multiple print processes were performed with the same print job ID, the status of the latest print job is acquired.

clearCommandBuffer

Clears the command buffer.

The contents buffered in the command buffer are retained until this API is called.

Syntax

```
public void clearCommandBuffer()
```

addTextAlign

Adds text alignment setting to the command buffer.

Syntax

```
public void addTextAlign(int align) throws Epos2Exception
```

Parameter

align

Specifies alignment.

| Value | Description |
|------------------------------|-----------------------------------------------|
| Printer.ALIGN_LEFT (default) | Left alignment |
| Printer.ALIGN_CENTER | Center alignment |
| Printer.ALIGN_RIGHT | Right alignment |
| Printer.PARAM_DEFAULT | Specifies the default value (left alignment). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ Use this API at the "beginning of a line." If this API is used elsewhere, it will be ignored.
- ❑ Setting of this API is also applied to the barcode/2D symbol.
- ❑ When specifying alignment in the page mode, use [addPagePosition](#) instead of this API.

addLineSpace

Adds line spacing setting to the command buffer.

Syntax

```
public void addLineSpace(int linespc) throws Epos2Exception
```

Parameter

linespc

Specifies the line spacing (in dots).

| Value | Description |
|-----------------------|------------------------|
| Integer from 0 to 255 | Line spacing (in dots) |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

If the line spacing for a single line is set smaller than the print character size, paper may be fed for a larger quantity than the set amount to ensure proper printing.

addTextRotate

Adds text rotation setting to the command buffer.

Syntax

```
public void addTextRotate(int rotate) throws Epos2Exception
```

Parameter

rotate

Enables or disables text rotation.

| Value | Description |
|-------------------------|-------------------------------------------------------|
| Printer.TRUE | Specifies text rotation. |
| Printer.FALSE (default) | Disables text rotation. |
| Printer.PARAM_DEFAULT | Specifies the default value (text rotation disabled). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ Use this API at the "beginning of a line." If this API is used elsewhere, it will be ignored.
- ❑ Setting of this API is also applied to the barcode/2D symbol.
- ❑ When specifying text rotation in the page mode, use [addPageDirection](#) instead of this API.

addText

Adds a character print command to the command buffer.

Syntax

```
public void addText(String data) throws Epos2Exception
```

Parameter

data

Specifies the string to print.

Use the following escape sequences for a horizontal tab and line feed.

| String | Description |
|--------|---------------------|
| \t | Horizontal tab (HT) |
| \n | Line feed (LF) |
| \\\ | Back slash |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- To print data other than text after printing text, feed a line or page.
A line which does not end with a line feed will be discarded as unfixed data by the next [sendData](#).
- In the page mode, text is printed from the current print position with the base line dot of the characters as the standard.

addTextLang

Adds language setting to the command buffer.

A text string specified by the [addText](#) API is encoded according to the language specified by this API.

Syntax

```
public void addTextLang(int lang) throws Epos2Exception
```

Parameter

lang

Specifies the target language.

| Value | Description |
|---------------------------|----------------------------------------|
| Printer.LANG_EN (default) | English (ANSI specification) |
| Printer.LANG_JA | Japanese |
| Printer.LANG_ZH_CN | Simplified Chinese |
| Printer.LANG_ZH_TW | Traditional Chinese |
| Printer.LANG_KO | Korean |
| Printer.LANG_TH | Thai (South Asian specification) |
| Printer.LANG_VI | Vietnamese (South Asian specification) |
| Printer.LANG_MULTI | Multiple languages (UTF-8) |
| Printer.PARAM_DEFAULT | Specifies the default value (English). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- This API is called before the [addText](#) API.
- Available languages differ depending on character specifications of the printer. For details, see Technical Reference Guide of the printer.

addTextFont

Adds character font setting to the command buffer.

Syntax

```
public void addTextFont(int font) throws Epos2Exception
```

Parameter

font

Specifies the font.

| Value | Description |
|--------------------------|---------------------------------------|
| Printer.FONT_A (default) | Font A |
| Printer.FONT_B | Font B |
| Printer.FONT_C | Font C |
| Printer.FONT_D | Font D |
| Printer.FONT_E | Font E |
| Printer.PARAM_DEFAULT | Specifies the default value (font A). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

addTextSmooth

Adds smoothing setting to the command buffer.

Syntax

```
public void addTextSmooth(int smooth) throws  
Epos2Exception
```

Parameter

smooth

Enables or disables smoothing.

| Value | Description |
|-------------------------|---------------------------------------------------|
| Printer.TRUE | Enables smoothing. |
| Printer.FALSE (default) | Disables smoothing. |
| Printer.PARAM_DEFAULT | Specifies the default value (smoothing disabled). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

addTextSize

Adds character scaling factor setting to the command buffer.

Syntax

```
public void addTextSize(int width, int height) throws  
Epos2Exception
```

Parameter

width

Specifies the horizontal scaling of characters.

| Value | Description |
|---------------------------|------------------------------------------------------------|
| Integer from 1 to 8 | Specifies the horizontal scaling factor rate (default: 1). |
| Printer.PARAM_DEFAULT | Specifies the default value (1). |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |

height

Specifies the vertical scaling of characters.

| Value | Description |
|---------------------------|----------------------------------------------------------|
| Integer from 1 to 8 | Specifies the vertical scaling factor rate (default: 1). |
| Printer.PARAM_DEFAULT | Specifies the default value (1). |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ If all the parameters are set to "Printer.PARAM_UNSPECIFIED," ERR_PARAM will be returned.
- ❑ For slip, endorsement, or validation printing, an integer from 1 to 2 can be set for the width and height.

addTextStyle

Adds character style setting to the command buffer.

Syntax

```
public void addTextStyle(int reverse, int ul, int em, int color)
throws Epos2Exception
```

Parameter

reverse

Enables or disables the reverse style.

| Value | Description |
|---------------------------|-------------------------------------------------------|
| Printer.TRUE | Enables the reverse style. |
| Printer.FALSE (default) | Disables the reverse style. |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |
| Printer.PARAM_DEFAULT | Specifies the default value (reverse style disabled). |

ul

Enables or disables the underscore style.

| Value | Description |
|---------------------------|----------------------------------------------------------|
| Printer.TRUE | Enables the underscore style. |
| Printer.FALSE (default) | Disables the underscore style. |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |
| Printer.PARAM_DEFAULT | Specifies the default value (underscore style disabled). |

em

Enables or disables the bold style..

| Value | Description |
|---------------------------|----------------------------------------------------|
| Printer.TRUE | Enables the bold style. |
| Printer.FALSE (default) | Disables the bold style. |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |
| Printer.PARAM_DEFAULT | Specifies the default value (bold style disabled). |

color

Specifies the color.

| Value | Description |
|--------------------|-------------|
| Printer.COLOR_NONE | No printing |

| Value | Description |
|---------------------------|--------------------------------------------|
| Printer.COLOR_1 (default) | First color |
| Printer.COLOR_2 | Second color |
| Printer.COLOR_3 | Third color |
| Printer.COLOR_4 | Fourth color |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |
| Printer.PARAM_DEFAULT | Specifies the default value (first color). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

If all the parameters are set to "Printer.PARAM_UNSPECIFIED," ERR_PARAM will be returned.

addHPosition

Adds horizontal character print start position to the command buffer.

Syntax

```
public void addHPosition(int x) throws Epos2Exception
```

Parameter

x

Specifies the horizontal print start position in dots.

| Value | Description |
|-------------------------|-------------------------------------------|
| Integer from 0 to 65535 | Horizontal print start position (in dots) |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- Calling this API causes the printer positioned at "other than the beginning of the line." This is also true even if 0 is set to "X."
- After executing this API, [addTextAlign](#) and [addTextRotate](#) cannot be used.

addFeedUnit

Adds a paper-feed-by-dot command to the command buffer.

Syntax

```
public void addFeedUnit(int unit) throws Epos2Exception
```

Parameter

unit

Specifies the paper feed amount (in dots).

| Value | Description |
|-----------------------|-----------------------------|
| Integer from 0 to 255 | Paper feed amount (in dots) |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

Calling this API causes the printer positioned at "the beginning of the line."

addFeedLine

Adds a paper-feed-by-line command to the command buffer.

Syntax

```
public void addFeedLine(int line) throws Epos2Exception
```

Parameter

line

Specifies the paper feed amount (in lines).

| Value | Description |
|-----------------------|------------------------------|
| Integer from 0 to 255 | Paper feed amount (in lines) |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

Calling this API causes the printer positioned at "the beginning of the line."

addImage

Adds a raster image print command to the command buffer.

Prints Android.graphics.Bitmap class graphics.

A specified area of Android.graphics.Bitmap class graphics is binarized according to the mode, halftone, and brightness parameters and converted into a raster image.

The converted image is compressed or not compressed before transmission according to the compress parameter value.

One pixel of an image corresponds to one dot of the printer. When a transparent color is contained in the image, the background of the image is assumed to be white.

Syntax

```
public void addImage(Bitmap data, int x, int y, int width, int height, int color, int mode, int halftone, double brightness, int compress) throws Epos2Exception
```

Parameter

data

Specifies an instance of the android.graphics.Bitmap class.

x

Specifies the horizontal start position of the print area (in pixels).

| Value | Description |
|-------------------------|---------------------------------------------------------|
| Integer from 0 to 65534 | Horizontal start position of the print area (in pixels) |

y

Specifies the vertical start position of the print area (in pixels).

| Value | Description |
|-------------------------|-------------------------------------------------------|
| Integer from 0 to 65534 | Vertical start position of the print area (in pixels) |

width

Specifies the width of the print area (in pixels).

| Value | Description |
|-------------------------|--------------------------------------|
| Integer from 1 to 65535 | Width of the print area (in pixels). |

height

Specifies the height of the print area (in pixels).

| Value | Description |
|-------------------------|---------------------------------------|
| Integer from 1 to 65535 | Height of the print area (in pixels). |

color

Specifies the color.

| Value | Description |
|-----------------------|--------------------------------------------|
| Printer.COLOR_NONE | No printing |
| Printer.COLOR_1 | First color |
| Printer.COLOR_2 | Second color |
| Printer.COLOR_3 | Third color |
| Printer.COLOR_4 | Fourth color |
| Printer.PARAM_DEFAULT | Specifies the default value (first color). |

mode

Specifies the color mode.

| Value | Description |
|--------------------------------|------------------------------------------------|
| Printer.MODE_MONO | Monochrome (2 scales) |
| Printer.MODE_GRAY16 | Multi-gradation (16 scales) |
| Printer.MODE_MONO_HIGH_DENSITY | Monochrome (2 scales), double density |
| Printer.PARAM_DEFAULT | Specifies the default (monochrome (2 scales)). |

halftone

Specifies the halftone processing method.

| Value | Description |
|----------------------------------|--------------------------------------------------------------|
| Printer.HALFTONE_DITHER | Dithering (appropriate for printing graphics only) |
| Printer.HALFTONE_ERROR_DIFFUSION | Error diffusion (appropriate for printing text and graphics) |
| Printer.HALFTONE_THRESHOLD | Threshold (appropriate for printing text only) |
| Printer.PARAM_DEFAULT | Specifies the default (dithering). |

Effective for the monochrome (2 scales) color mode only.

brightness

Specifies the brightness compensation value.

| Value | Description |
|------------------------------|--------------------------------------------------|
| Real number from 0.1 to 10.0 | Brightness compensation (gamma correction) value |
| Printer.PARAM_DEFAULT | Default (1.0) |

When a value other than 1.0 is specified for the brightness compensation value, processing gets slower.

compress

Enables or disables compression.

Compressing print images can prevent white banding or streaks from occurring on printed images.

This works well when connecting with the printer using *Bluetooth*.

| Value | Description |
|--------------------------|-------------------------------------------------------------------------------|
| Printer.COMPRESS_DEFLATE | Compresses the image. |
| Printer.COMPRESS_NONE | Does not compress the image. |
| Printer.COMPRESS_AUTO | Automatically chooses to or not to compress the image internally. |
| Printer.PARAM_DEFAULT | Default (automatically chooses to or not to compress the image internally) |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ If the area specified by x/y and width/height parameters does not fit within the image size specified by data parameter, ERR_PARAM will be returned as an exception.
- ❑ Compress can only be specified with the *Bluetooth* model of the following printers. For other printers, specify Printer.COMPRESS_AUTO.

| Model | Firmware version |
|---------------------|-----------------------|
| TM-m10 | No restriction |
| TM-m30 | No restriction |
| TM-m30II/TM-m30II-H | No restriction |
| TM-P20 | No restriction |
| TM-P60II (Receipt) | 5.14 ESC/POS or later |
| TM-P60II (Peeler) | 6.14 ESC/POS or later |
| TM-P80 | 1.02 ESC/POS or later |
| TM-P80AC | 2.01 ESC/POS or later |
| TM-T20II | No restriction |
| TM-T20III | No restriction |
| TM-T70II | No restriction |
| TM-T82III | No restriction |
| TM-T88V | No restriction |

| Model | Firmware version |
|----------|------------------|
| TM-T88VI | No restriction |

- ❑ Printing may get slower if a transparent image is printed.
- ❑ The multi-gradation and the compression of image data are not supported in the page mode. If you set those in the page mode, nothing will be printed.
- ❑ Set an image size appropriate for the printer. If you set to print a large image, the API commands will be succeeded, but the printer may print nothing.
- ❑ Even if the size of an image is printable, the ERR_MEMORY error may occur depending on the Android device specification. In such case, reduce the image size.

addLogo

Adds a NV logo print command to the command buffer.
Prints the logo registered in the NV memory of the printer.

Syntax

```
public void addLogo(int key1, int key2) throws  
Epos2Exception
```

Parameter

key1

Specifies the key code 1 of the NV logo.

| Value | Description |
|-----------------------|---------------------------|
| Integer from 1 to 255 | Key code 1 of the NV logo |

key2

Specifies the key code 2 of the NV logo.

| Value | Description |
|-----------------------|---------------------------------------------------------------|
| Integer from 1 to 255 | Key code 2 of the NV logo |
| Printer.PARAM_DEFAULT | Specify this for the printers that do not support key code 2. |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ For how to register the NV logo, refer to the Technical Reference Guide of the printer.
- ❑ The page mode does not support multi-gradation printing. Multi-gradation graphics can be printed in the standard mode only.
- ❑ The NV logo specified by this API is printed with the color setting specified by [addTextStyle](#) buffered in advance.
- ❑ TM-U220 and TM-U330 use only the key1 parameter, however, you need to set "Printer.PARAM_DEFAULT" as the key2 parameter for those printers since an empty key2 parameter causes an error.

addBarcode

Adds a barcode print command to the command buffer.

Syntax

```
public void addBarcode(String data, int type, int hri, int font,
int width, int height) throws Epos2Exception
```

Parameter

data

Specifies barcode data as a text string.

Specify a string in accordance with the standard of the barcode specified in type.

| Type | Description |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UPC-A | If an 11-digit figure is specified, the check digit is automatically appended. If a 12-digit figure is specified, the 12th digit is used as the check digit but verification is not performed. |
| UPC-E | Specify 0 in the first digit. Specify the manufacturer code in the 2nd to 6th digits. Specify the item code in right justification in the 7th to 11th digits. The number of digits of the item code depends on the manufacturer code. Specify 0 in each unused data. If an 11-digit figure is specified, the check digit is automatically appended. If a 12-digit figure is specified, the 12th digit is used as the check digit but verification is not performed. |
| EAN13 | If an 12-digit figure is specified, the check digit is automatically appended. |
| JAN13 | If a 13-digit figure is specified, the 13th digit is used as the check digit but verification is not performed. |
| EAN8 | If an 7-digit figure is specified, the check digit is automatically appended. |
| JAN8 | If an 8-digit figure is specified, the 8th digit is used as the check digit but verification is not performed. |
| CODE39 | If the first character is *, this character is processed as the start character. If it is not, the start character is automatically added. |
| ITF | The start and stop codes are automatically added. Addition and verification of the check digit are not performed. |
| CODABAR | Specify the start character ((A to D, a to d). Specify the stop character ((A to D, a to d). Addition and verification of the check digit are not performed. |
| CODE93 | The start and stop characters are automatically added. The check digit is automatically calculated and added. |

| Type | Description |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CODE128 | <p>Specify the start character (CODE A, CODE B, CODE C). The stop character is automatically added. The check digit is automatically calculated and added. To encode the following characters, specify the corresponding 2-digit code starting with { :</p> <ul style="list-style-type: none"> • FNC1: {1 • FNC2: {2 • FNC3: {3 • FNC4: {4 • CODE A: {A • CODE B: {B • CODE C: {C • SHIFT: {S • { : {{ <p>When specifying CODE C, specify the barcode data as the control code of the escape sequence.</p> |
| GS1-128 | <p>The start character, FNC1, check digit, and stop characters are automatically added. However, FNC1 used as a data separator is not added. To automatically calculate and add the application ID (AI) and the following check digit, specify "*" at the check digit position. The application ID (AI) can be put in parentheses. The parentheses are used as print characters for HRI and not encoded as data. A blank space can be inserted between the application ID (AI) and data. The blank space is used as print characters for HRI and not encoded as data. To encode the following characters, specify the corresponding 2-digit code starting with { :</p> <ul style="list-style-type: none"> • FNC1: {1 • FNC3: {3 • { : {{ • } : {}} • FNC1: {1 • { : {{ |
| GS1 DataBar Omnidirectional | Specify a 13-digit product ID (GTIN) excluding the application ID (AI) and check digit. |
| GS1 DataBar Truncated | |
| GS1 DataBar Limited | |
| GS1 DataBar Expanded | <p>The application ID (AI) can be put in parentheses. The parentheses are used as print characters for HRI and not encoded as data. To encode the following characters, specify the corresponding 2-digit code starting with { :</p> <ul style="list-style-type: none"> • FNC1: {1 • { : {{ • } : {}} |

When specifying binary data which cannot be represented as a string, use the following escape sequences.

| String | Description |
|--------|--------------------------------------|
| \xnn | Control code (set nn in hexadecimal) |
| \\" | Back slash |

type

Specifies the barcode type.

| Value | Description |
|---------------------------------------------|-----------------------------|
| Printer.BARCODE_UPC_A | UPC-A |
| Printer.BARCODE_UPC_E | UPC-E |
| Printer.BARCODE_EAN13 | EAN13 |
| Printer.BARCODE_JAN13 | JAN13 |
| Printer.BARCODE_EAN8 | EAN8 |
| Printer.BARCODE_JAN8 | JAN8 |
| Printer.BARCODE_CODE39 | CODE39 |
| Printer.BARCODE_ITF | ITF |
| Printer.BARCODE_CODABAR | CODABAR |
| Printer.BARCODE_CODE93 | CODE93 |
| Printer.BARCODE_CODE128 | CODE128 |
| Printer.BARCODE_GS1_128 | GS1-128 |
| Printer.BARCODE_GS1_DATABAR_OMNIDIRECTIONAL | GS1 DataBar Omnidirectional |
| Printer.BARCODE_GS1_DATABAR_TRUNCATED | GS1 DataBar Truncated |
| Printer.BARCODE_GS1_DATABAR_LIMITED | GS1 DataBar Limited |
| Printer.BARCODE_GS1_DATABAR_EXPANDED | GS1 DataBar Expanded |

hri

Specifies the HRI position.

| Value | Description |
|----------------------------|--------------------------------------------|
| Printer.HRI_NONE (default) | No printing. |
| Printer.HRI ABOVE | Above the barcode |
| Printer.HRI BELOW | Below the barcode |
| Printer.HRI BOTH | Both above and below the barcode |
| Printer.PARAM_DEFAULT | Specifies the default value (no printing). |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |

font

Specifies the HRI font.

| Value | Description |
|---------------------------|---------------------------------------|
| Printer.FONT_A (default) | Font A |
| Printer.FONT_B | Font B |
| Printer.FONT_C | Font C |
| Printer.FONT_D | Font D |
| Printer.FONT_E | Font E |
| Printer.PARAM_DEFAULT | Specifies the default value (font A). |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |

width

Specifies the width of a single module in dots.

| Value | Description |
|---------------------------|------------------------------------|
| Integer from 2 to 6 | Width of a single module (in dots) |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |

height

Specifies the height of the barcode in dots.

| Value | Description |
|---------------------------|---------------------------------|
| Integer from 1 to 255 | Height of the barcode (in dots) |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ Use this API at the "beginning of a line."
- ❑ When the barcode data specified in data does not conform to the barcode type specified in type, an error will not be returned as an exception and the barcode will not be printed.

addSymbol

Adds a 2D symbol print command to the command buffer.

Syntax

```
public void addSymbol(String data, int type, int level, int width, int height, int size) throws Epos2Exception
```

Parameter

data

Specifies 2D symbol data as a text string.

Specify a string in accordance with the standard of the 2D symbol specified in type.

| Type | Description |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard PDF417 | Converts the string into UTF-8, processes the escape sequence(s), and encodes the data. |
| Truncated PDF417 | The maximum number of code words in the data area is 928, the maximum number of code words in a single stage is 30, and the maximum number of stages is 90. |
| QR Code Model 1 | Converts the string into JIS, processes the escape sequence(s), and encodes the data by choosing the data type from the following: |
| QR Code Model 2 | <ul style="list-style-type: none"> • Figure: 0 to 9 |
| QR Code Micro | <ul style="list-style-type: none"> • Alphanumeric: 0 to 9, A to Z, space, \$, %, *, +, -, ., /, : • Kanji: Characters which can be represented with Shift JIS codes • 8-bit byte data: 0x00 to 0xff |
| MaxiCode Mode 2 | Converts the string into UTF-8, processes the escape sequence(s), and encodes the data. |
| MaxiCode Mode 3 | In Mode 2 or 3, if the first data is []>\x1e01\x1ddy ("yy" is a 2-digit figure), this is processed as the message header and the second and succeeding data sequence is processed as the primary message. |
| MaxiCode Mode 4 | Otherwise, the primary message starts with the fist data. |
| MaxiCode Mode 5 | For the mode 2, specify the primary message in the following format: <ul style="list-style-type: none"> • Zip code (1- to 9-digit figure) GS:(\x1d) • ISO country code (1- to 3-digit figure) GS:(\x1d) • Service class code (1- to 3-digit figure) |
| MaxiCode Mode 6 | For the mode 3, specify the primary message in the following format: <ul style="list-style-type: none"> • Zip code (data which can be converted with 1 to 6 code sets A) GS (\x1d) • ISO country code (1- to 3-digit figure) GS (\x1d) • Service class code (1- to 3-digit figure) |
| GS1 DataBar Stacked | Converts the string into UTF-8, processes the escape sequence(s), and encodes the data. |
| GS1 DataBar Stacked Omnidirectional | Specify a 13-digit product ID (GTIN) excluding the application ID (AI) and check digit. |

| Type | Description |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GS1 DataBar Expanded Stacked | <p>Converts the string into UTF-8, processes the escape sequence(s), and encodes the data.</p> <p>The application ID (AI) can be put in parentheses.</p> <p>The parentheses are used as print characters for HRI and not encoded as data.</p> <p>To encode the following characters, specify the corresponding 2-digit code starting with { :</p> <ul style="list-style-type: none"> • FNC1: {1 • (: {{ •): }}{} |
| Aztec Code | Converts the string into UTF-8, processes the escape sequence(s), and encodes the data. |
| DataMatrix | Converts the string into UTF-8, processes the escape sequence(s), and encodes the data. |

When specifying binary data which cannot be represented as a string, use the following escape sequences.

| String | Description |
|--------|--------------------------------------|
| \xnn | Control code (set nn in hexadecimal) |
| \\ | Back slash |

type

Specifies the 2D symbol type.

| Value | Description |
|----------------------------------------------------|-------------------------------------|
| Printer.SYMBOL_PDF417_STANDARD | Standard PDF417 |
| Printer.SYMBOL_PDF417_TRUNCATED | Truncated PDF417 |
| Printer.SYMBOL_QRCODE_MODEL_1 | QR Code Model 1 |
| Printer.SYMBOL_QRCODE_MODEL_2 | QR Code Model 2 |
| Printer.SYMBOL_QRCODE_MICRO | QR Code Micro |
| Printer.SYMBOL_MAXICODE_MODE_2 | MaxiCode Mode 2 |
| Printer.SYMBOL_MAXICODE_MODE_3 | MaxiCode Mode 3 |
| Printer.SYMBOL_MAXICODE_MODE_4 | MaxiCode Mode 4 |
| Printer.SYMBOL_MAXICODE_MODE_5 | MaxiCode Mode 5 |
| Printer.SYMBOL_MAXICODE_MODE_6 | MaxiCode Mode 6 |
| Printer.SYMBOL_GS1_DATABAR_STACKED | GS1 DataBar Stacked |
| Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL | GS1 DataBar Stacked Omnidirectional |
| Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED | GS1 DataBar Expanded Stacked |
| Printer.SYMBOL_AZTECCODE_FULLRANGE | Aztec Code Full-Range mode |

| Value | Description |
|----------------------------------------|--------------------------------|
| Printer.SYMBOL_AZTECCODE_COMPACT | Aztec Code Compact mode |
| Printer.SYMBOL_DATAMATRIX_SQUARE | DataMatrix Square |
| Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 | DataMatrix Rectangle, 8 lines |
| Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 | DataMatrix Rectangle, 12 lines |
| Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 | DataMatrix Rectangle, 16 lines |

level

Specifies the error correction level.

Specify a value in accordance with the 2D symbol type.

Specify "PARAM_DEFAULT" for MaxiCode, 2D GS1 DataBar, and DataMatrix.

PDF417

| Value | Description |
|---------------------------|---------------------------------------------------------|
| Printer.LEVEL_0 | Error correction level 0 |
| Printer.LEVEL_1 | Error correction level 1 |
| Printer.LEVEL_2 | Error correction level 2 |
| Printer.LEVEL_3 | Error correction level 3 |
| Printer.LEVEL_4 | Error correction level 4 |
| Printer.LEVEL_5 | Error correction level 5 |
| Printer.LEVEL_6 | Error correction level 6 |
| Printer.LEVEL_7 | Error correction level 7 |
| Printer.LEVEL_8 | Error correction level 8 |
| Printer.PARAM_DEFAULT | Specifies the default value (error correction level 1). |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |

QR Code

| Value | Description |
|---------------------------|---------------------------------------------------------|
| Printer.LEVEL_L | Error correction level L |
| Printer.LEVEL_M | Error correction level M |
| Printer.LEVEL_Q | Error correction level Q |
| Printer.LEVEL_H | Error correction level H |
| Printer.PARAM_DEFAULT | Specifies the default value (error correction level M). |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |

Aztec Code

| Value | Description |
|---------------------------|----------------------------------------------------------|
| Integer from 5 to 95 | Error correction level (in percents) |
| Printer.PARAM_DEFAULT | Specifies the default value (error correction level 23). |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |

width

Specifies the module width.

An integer from 1 to 255 can be specified.

When "Printer.PARAM_UNSPECIFIED" is specified, the current setting is retained.

The range differs depending on the 2D symbol type.

| 2D symbol type | Valid value | Default value |
|----------------|--------------------|---------------|
| PDF417 | 2 to 8 | 3 |
| QR Code | 3 to 16 | 3 |
| MaxiCode | 1 to 255 (Ignored) | |
| 2D GS1 DataBar | 2 to 8 | 2 |
| Aztec Code | 2 to 16 | 3 |
| DataMatrix | 2 to 16 | 3 |

height

Specifies the module height.

An integer from 1 to 255 can be specified.

When "Printer.PARAM_UNSPECIFIED" is specified, the current setting is retained.

The range differs depending on the 2D symbol type.

| 2D symbol type | Valid value | Default value |
|----------------|--------------------------------------|---------------|
| PDF417 | 2 to 8 (Scaling factor for width) | 3 |
| QR Code | | |
| MaxiCode | | |
| 2D GS1 DataBar | 1 to 255 (Ignored) | |
| Aztec Code | | |
| DataMatrix | | |

size

Specifies the maximum size of the 2D symbol.

An integer from 0 to 65535 can be specified.

When "Printer.PARAM_UNSPECIFIED" is specified, the current setting is retained.

The range differs depending on the 2D symbol type.

| 2D symbol type | | Default value | Description |
|-------------------|------------------|----------------------|-------------------------------------------------------------|
| PDF417 | | 0 (auto) | Specifies the number of code words per stage. |
| QR Code | | 0 to 65535 (Ignored) | |
| MaxiCode | | 0 to 65535 (Ignored) | |
| 2D GS1 DataBar | Expanded Stacked | 0 (auto) | Specifies the maximum width of the 2D symbol (106 or more). |
| | Other | 0 to 65535 (Ignored) | |
| Aztec Code | | 0 to 65535 (Ignored) | |
| DataMatrix | | 0 to 65535 (Ignored) | |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ Use this API at the "beginning of a line."
- ❑ When the 2D symbol data specified in data does not conform to the 2D symbol type specified in type, an error will not be returned as an exception and the 2D symbol will not be printed.
- ❑ During ESC/POS control, specifying values outside the valid ranges for the width and height parameters results in default value printing.
- ❑ During ePOS-Device XML control, specifying values outside the valid ranges for the width and height parameters causes [sendData](#) to generate an exception with ERR_FAILURE.

addHLine

Adds a horizontal ruled line print command to the command buffer.

Draws a horizontal ruled line.

Syntax

```
public void addHLine(int x1, int x2, int lineStyle) throws
Epos2Exception
```

Parameter

x1

Specifies the start position to draw a horizontal ruled line (in dots).

| Value | Description |
|-------------------------|----------------------------------------------------------|
| Integer from 0 to 65535 | Start position to draw a horizontal ruled line (in dots) |

x2

Specifies the end position to draw a horizontal ruled line (in dots).

| Value | Description |
|-------------------------|--------------------------------------------------------|
| Integer from 0 to 65535 | End position to draw a horizontal ruled line (in dots) |

lineStyle

Specifies the ruled line type.

| Value | Description |
|----------------------------|-------------------------------------------|
| Printer.LINE_THIN | Solid line: Fine |
| Printer.LINE_MEDIUM | Solid line: Middle |
| Printer.LINE_THICK | Solid line: Thick |
| Printer.LINE_THIN_DOUBLE | Double line: Fine |
| Printer.LINE_MEDIUM_DOUBLE | Double line: Middle |
| Printer.LINE_THICK_DOUBLE | Double line: Thick |
| Printer.PARAM_DEFAULT | Specifies the default (Solid line: Fine). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API cannot be used in the page mode.
- ❑ Use [addPageLine](#) to draw a horizontal ruled line in the page mode.

addVLineBegin

Adds a command to start drawing a vertical ruled line to the command buffer.

Starts drawing a vertical line.

Syntax

```
public void addVLineBegin(int x, int lineStyle, int[] lineId)
throws Epos2Exception
```

Parameter

x

Specifies the start position to draw a vertical ruled line (in dots).

| Value | Description |
|-------------------------|--------------------------------------------------------|
| Integer from 0 to 65535 | Start position to draw a vertical ruled line (in dots) |

lineStyle

Specifies the ruled line type.

| Value | Description |
|----------------------------|-------------------------------------------|
| Printer.LINE_THIN | Solid line: Fine |
| Printer.LINE_MEDIUM | Solid line: Middle |
| Printer.LINE_THICK | Solid line: Thick |
| Printer.LINE_THIN_DOUBLE | Double line: Fine |
| Printer.LINE_MEDIUM_DOUBLE | Double line: Middle |
| Printer.LINE_THICK_DOUBLE | Double line: Thick |
| Printer.PARAM_DEFAULT | Specifies the default (Solid line: Fine). |

lineId

Returns the ID of the ruled line printed by this API.

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- This API cannot be used in the page mode.

- ❑ Use [addPageLine](#) to draw a vertical ruled line in the page mode.
- ❑ Drawing of the vertical ruled line continues until stopped by the [addVLineEnd](#) API.
- ❑ Use this API with the [addVLineEnd](#) API.

addVLineEnd

Adds a command to stop drawing a vertical ruled line to the command buffer.
Ends drawing a vertical line.

Syntax

```
public void addVLineEnd(int lineId) throws Epos2Exception
```

Parameter

lineId

Specifies the line ID acquired by [addVLineBegin](#).

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API cannot be used in the page mode.
- ❑ Use [addPageLine](#) to draw a vertical ruled line in the page mode.
- ❑ This API draws a vertical ruled line until stopped by [addVLineEnd](#).
- ❑ Use this API with the [addVLineBegin](#) API.

addPageBegin

Adds a page mode start command to the command buffer.

Starts processing in the page mode.

Syntax

```
public void addPageBegin() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ The page mode does not support multi-gradation printing.
- ❑ Use this API with the [addPageEnd](#) API.

addPageEnd

Adds a page mode end command to the command buffer.

Ends processing in the page mode.

Syntax

```
public void addPageEnd() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ The page mode does not support multi-gradation printing.
- ❑ Use this API with the [addPageBegin](#) API.

addPageArea

Adds page mode print area setting to the command buffer.

Specifies the page mode print area (coordinates). Following this API, call an API to specify print data such as the [addText](#) API.

Syntax

```
public void addPageArea(int x, int y, int width, int height)
throws Epos2Exception
```

Parameter

x

Specifies the horizontal origin (in dots).

| Value | Description |
|-------------------------|-----------------------------|
| Integer from 0 to 65535 | Horizontal origin (in dots) |

"0" specifies the leftmost position of the printable area of the printer.

y

Specifies the vertical origin (in dots).

| Value | Description |
|-------------------------|---------------------------|
| Integer from 0 to 65535 | Vertical origin (in dots) |

"0" specifies the position where paper is not fed.

width

Specifies the width of a print area (in dots).

| Value | Description |
|-------------------------|---------------------------------|
| Integer from 1 to 65535 | Width of a print area (in dots) |

height

Specifies the height of a print area (in dots).

| Value | Description |
|-------------------------|----------------------------------|
| Integer from 1 to 65535 | Height of a print area (in dots) |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |

| Error status | Description |
|--------------|----------------------------|
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- Define the print area in accordance with the contents to print. If the print data does not fit within the print area, the printed contents will be truncated.
- Use this API between the [addPageBegin](#) and [addPageEnd](#) APIs.
- Specify the width and height of the print area in accordance with the print direction setting. Otherwise the print data may be truncated. Set the print direction by [addPageDirection](#).
- This API does not work in the standard mode.

addPageDirection

Adds page mode print direction setting to the command buffer.

Specifies the print direction in the page mode.

Syntax

```
public void addPageDirection(int direction) throws  
Epos2Exception
```

Parameter

direction

Specifies the print direction in the page mode.

| Value | Description |
|-------------------------------------------|----------------------------------------------------------------------------------------------------|
| Printer.DIRECTION_LEFT_TO_RIGHT (default) | Do not rotate data. (Data is printed rightward from the upper-left position.) |
| Printer.DIRECTION_BOTTOM_TO_TOP | Rotate data counterclockwise by 90 degrees. (Data is printed upward from the lower-left position.) |
| Printer.DIRECTION_RIGHT_TO_LEFT | Rotate data by 180 degrees. (Data is printed leftward from the lower-right position.) |
| Printer.DIRECTION_TOP_TO_BOTTOM | Rotate data clockwise by 90 degrees. (Data is printed downward from the upper-right position.) |
| Printer.PARAM_DEFAULT | Specifies the default value (no rotation). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API does not work in the standard mode.
- ❑ Use this API between the [addPageBegin](#) and [addPageEnd](#) APIs.

addPagePosition

Adds print position setting within the print area in the page mode to the command buffer.

Specifies the print start position (coordinates) within the area specified by the [addPageArea](#) API.

Syntax

```
public void addPagePosition(int x, int y) throws
Epos2Exception
```

Parameter

x

Specifies the horizontal print position (in dots).

| Value | Description |
|---------------------------|-------------------------------------|
| Integer from 0 to 65535 | Horizontal print position (in dots) |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |

y

Specifies the vertical print position (in dots).

| Value | Description |
|---------------------------|------------------------------------------------|
| Integer from 0 to 65535 | Specify the horizontal print position in dots. |
| Printer.PARAM_UNSPECIFIED | <Obsolete> Not specify. |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API does not work in the standard mode.
- ❑ Use this API between the [addPageBegin](#) and [addPageEnd](#) APIs.
- ❑ Specify the print start position (coordinates) in accordance with the contents to print. See below.

| Print data | Specification method |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| When printing a text string | <p>Specify the leftmost position of the baseline for the first character.</p> <p>This can be omitted when printing data with the standard size in left justification. When printing a double-height character, set y to 42 or larger.</p> |
| When printing a barcode | <p>Specify the lower-left position of the symbol. Specify the height of the barcode in y.</p> |
| When printing graphics/logo | <p>Specify the lower-left position of the graphic data.</p> <p>Specify the height of the graphic data in y.</p> |
| When printing a 2D symbol | <p>Specify the upper-left position of the symbol. This can be omitted when printing from the upper-left position.</p> |

- If all the parameters are set to "Printer.PARAM_UNSPECIFIED," ERR_PARAM will be returned.

addPageLine

Adds a page mode line draw command to the command buffer.

Draws a line in the page mode.

Syntax

```
public void addPageLine(int x1, int y1, int x2, int y2, int
lineStyle) throws Epos2Exception
```

Parameter

x1

Specifies the horizontal position to start drawing (in dots).

| Value | Description |
|-------------------------|------------------------------------------------|
| Integer from 0 to 65535 | Horizontal position to start drawing (in dots) |

y1

Specifies the vertical position to start drawing (in dots).

| Value | Description |
|-------------------------|----------------------------------------------|
| Integer from 0 to 65535 | Vertical position to start drawing (in dots) |

x2

Specifies the horizontal position to end drawing (in dots).

| Value | Description |
|-------------------------|----------------------------------------------|
| Integer from 0 to 65535 | Horizontal position to end drawing (in dots) |

y2

Specifies the vertical position to end drawing (in dots).

| Value | Description |
|-------------------------|--------------------------------------------|
| Integer from 0 to 65535 | Vertical position to end drawing (in dots) |

lineStyle

Specifies the ruled line type.

| Value | Description |
|----------------------------|---------------------|
| Printer.LINE_THIN | Solid line: Fine |
| Printer.LINE_MEDIUM | Solid line: Middle |
| Printer.LINE_THICK | Solid line: Thick |
| Printer.LINE_THIN_DOUBLE | Double line: Fine |
| Printer.LINE_MEDIUM_DOUBLE | Double line: Middle |

| Value | Description |
|---------------------------|-------------------------------------------|
| Printer.LINE_THICK_DOUBLE | Double line: Thick |
| Printer.PARAM_DEFAULT | Specifies the default (Solid line: Fine). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API does not work in the standard mode.
- ❑ A diagonal line cannot be drawn.
- ❑ Use this API between the [addPageBegin](#) and [addPageEnd](#) APIs.

addPageRectangle

Adds a page mode rectangle draw command to the command buffer.

Draws a rectangle in the page mode.

Syntax

```
public void addPageRectangle(int x1, int y1, int x2, int y2, int
lineStyle) throws Epos2Exception
```

Parameter

x1

Specifies the horizontal position to start drawing (in dots).

| Value | Description |
|-------------------------|------------------------------------------------|
| Integer from 0 to 65535 | Horizontal position to start drawing (in dots) |

y1

Specifies the vertical position to start drawing (in dots).

| Value | Description |
|-------------------------|----------------------------------------------|
| Integer from 0 to 65535 | Vertical position to start drawing (in dots) |

x2

Specifies the horizontal position to end drawing (in dots).

| Value | Description |
|-------------------------|----------------------------------------------|
| Integer from 0 to 65535 | Horizontal position to end drawing (in dots) |

y2

Specifies the vertical position to end drawing (in dots).

| Value | Description |
|-------------------------|--------------------------------------------|
| Integer from 0 to 65535 | Vertical position to end drawing (in dots) |

lineStyle

Specifies the line type.

| Value | Description |
|----------------------------|---------------------|
| Printer.LINE_THIN | Solid line: Fine |
| Printer.LINE_MEDIUM | Solid line: Middle |
| Printer.LINE_THICK | Solid line: Thick |
| Printer.LINE_THIN_DOUBLE | Double line: Fine |
| Printer.LINE_MEDIUM_DOUBLE | Double line: Middle |

| Value | Description |
|---------------------------|-------------------------------------------|
| Printer.LINE_THICK_DOUBLE | Double line: Thick |
| Printer.PARAM_DEFAULT | Specifies the default (Solid line: Fine). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API does not work in the standard mode.
- ❑ Use this API between the [addPageBegin](#) and [addPageEnd](#) APIs.

addRotateBegin

Adds the start batch rotate print mode to the command buffer.

Syntax

```
public void addRotateBegin()throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API does not work in the page mode.
- ❑ Use the add APIs for batch rotate printing (Example: [addText](#)) by enclosing between this API and the [addRotateEnd](#) API.
- ❑ Do not use the following APIs between this API and the [addRotateEnd](#) API.
 - [endTransaction](#)
 - [addPageBegin](#)
 - [addPageEnd](#)
 - [addCut](#)
 - [addPulse](#)
 - [addSound](#)
 - [setPrinterSetting](#)
 - [ejectPaper](#)
- ❑ The data volume that the printer can process in a single batch rotate printing is as described below.
 - Strings: 80 lines
 - Graphics: 2400 dots
- ❑ When you are using the add APIs (Example: [addText](#)) in the batch rotate print mode, you must take care while using certain APIs.

| API | Precautions |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addTextSize | <ul style="list-style-type: none"> • If the longitudinal direction is set to triple angle or higher with addTextSize before this API, then this API and the succeeding APIs will become double-angled. • If the longitudinal direction is set to triple angle or higher with addTextSize after this API, then the specification in the longitudinal direction will be ignored and become single-angled. |
| addFeedUnit | The number of paper feed lines varies depending on the line spacing specified in addLineSpace . If the line spacing is specified as 30 in addLineSpace , paper feeding can be performed for 8 lines with the maximum value of addFeedUnit as 255. |

| API | Precautions |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addImage | <ul style="list-style-type: none">Graphics cannot be split and processed (printed). If 500-dot data B is sent to a location in the printer buffer where 2000-dot data A is accumulated, then data B will be accumulated in the printer buffer after data A has been printed.The multi-gradation (16 scales) maximum size is up to 600 dots vertically. In the case of multi-gradation (16 scales), a data volume that is four times that of monochrome (2 scales) is required.If the vertical size exceeds the data volume that can be processed in one go, printing will not be performed. Monochrome (2 scales) maximum value: 2400 dots Multi-gradation (16 scales) maximum value: 600 dots |

addRotateEnd

Adds the end batch rotate print mode to the command buffer.

Syntax

```
public void addRotateEnd()throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API does not work in the page mode.
- ❑ Use the add APIs for batch rotate printing (Example: [addText](#)) by enclosing between this API and the [addRotateBegin](#) API.

addCut

Adds a sheet cut command to the command buffer.

Sets how to cut paper.

Syntax

```
public void addCut(int type) throws Epos2Exception
```

Parameter

type

Specifies how to cut paper.

| Value | Description |
|-----------------------|----------------------------------------------------------------------------------------|
| Printer.CUT_FEED | Feed cut (cut the sheet after feeding paper). |
| Printer.CUT_NO_FEED | Cut without feed (cut the sheet without feeding paper). |
| Printer.CUT_RESERVE | Cut reservation (print the following texts and cut the sheet at the cutting position). |
| Printer.PARAM_DEFAULT | Specifies the default (feed cut (cut the sheet after feeding paper)). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API cannot be used in the page mode.
- ❑ Use this API at the "beginning of a line." If this API is used elsewhere, it will be ignored.
- ❑ If print data is not specified after the cut reservation (Printer.CUT_RESERVE), the printer will execute the cut after feeding paper up to the position of the reserved cut.
- ❑ Depending on the printer, it may wait approximately 2 seconds for the print data after the cut reservation (Printer.CUT_RESERVE) before starting the paper feed operation.
- ❑ When using the cut reservation (Printer.CUT_RESERVE), set the length of one receipt to at least 20 mm.

addPulse

Adds a drawer kick command to the command buffer.

Sets the drawer kick.

Syntax

```
public void addPulse(int drawer, int time) throws  
Epos2Exception
```

Parameter

drawer

Specifies the drawer kick connector.

| Value | Description |
|-----------------------|---------------------------------------------------------|
| Printer.DRAWER_2PIN | Drawer kick connector pin No.2 |
| Printer.DRAWER_5PIN | Drawer kick connector pin No.5 |
| Printer.PARAM_DEFAULT | Specifies the default (drawer kick connector pin No.2). |

time

Specifies the on time of the drawer kick signal.

| Value | Description |
|-----------------------|------------------------------------------|
| Printer.PULSE_100 | 100-msec signal |
| Printer.PULSE_200 | 200-msec signal |
| Printer.PULSE_300 | 300-msec signal |
| Printer.PULSE_400 | 400-msec signal |
| Printer.PULSE_500 | 500-msec signal |
| Printer.PARAM_DEFAULT | Specifies the default (100-msec signal). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- This API cannot be used in the page mode.

- ❑ The drawer and optional external buzzer cannot be connected simultaneously.
- ❑ Do not open the drawer repeatedly for a short time. The drawer may be damaged due to too much load.
- ❑ For built-in buzzer equipped models of the following printers, sounding the buzzer is possible using the pulse output commands for drawer kick connectors.

For details on controlling the built-in buzzer, refer to the Technical Reference Guide of the printer.

- TM-T70
- TM-T70II
- TM-T82II
- TM-T82III
- TM-T83II
- TM-T88IV
- TM-T88V
- TM-T88VI
- TM-T82II-i
- TM-T83II-i
- TM-T88VI-iHUB
- TM-L90

addSound

Adds buzzer sound setting to the command buffer.

Sets the buzzer.

Syntax

```
public void addSound(int pattern, int repeat, int cycle) throws
Epos2Exception
```

Parameter

pattern

Specifies the buzzer tone.

| Value | Description |
|-----------------------------|--------------------------------------------------------------------------------------|
| Printer.PATTERN_NONE | Stop (Mobile models) |
| Printer.PATTERN_NONE | Stop. However, the buzzer already sounding does not stop. (Except for Mobile models) |
| Printer.PATTERN_A | Pattern A (optional external buzzer) |
| Printer.PATTERN_B | Pattern B (optional external buzzer) |
| Printer.PATTERN_C | Pattern C (optional external buzzer) |
| Printer.PATTERN_D | Pattern D (optional external buzzer) |
| Printer.PATTERN_E | Pattern E (optional external buzzer) |
| Printer.PATTERN_ERROR | Error sound pattern (optional external buzzer) |
| Printer.PATTERN_PAPER_EMPTY | Paper empty sound pattern (optional external buzzer) |
| Printer.PATTERN_1 | Pattern 1 (built-in buzzer) |
| Printer.PATTERN_2 | Pattern 2 (built-in buzzer) |
| Printer.PATTERN_3 | Pattern 3 (built-in buzzer) |
| Printer.PATTERN_4 | Pattern 4 (built-in buzzer) |
| Printer.PATTERN_5 | Pattern 5 (built-in buzzer) |
| Printer.PATTERN_6 | Pattern 6 (built-in buzzer) |
| Printer.PATTERN_7 | Pattern 7 (built-in buzzer) |
| Printer.PATTERN_8 | Pattern 8 (built-in buzzer) |
| Printer.PATTERN_9 | Pattern 9 (built-in buzzer) |
| Printer.PATTERN_10 | Pattern 10 (built-in buzzer) |
| Printer.PARAM_DEFAULT | Specifies the default (Pattern A). |

repeat

Specifies the repeat count.

| Value | Description |
|-----------------------|-------------------------------|
| 0 | Unlimited |
| 1 to 255 | 1 to 255 times |
| Printer.PARAM_DEFAULT | Specifies the default (once). |

cycle

Specifies the buzzer sound interval (in milliseconds).

| Value | Description |
|-----------------------|--------------------------------------------|
| 1000 to 25500 | 1000 to 25500 milliseconds |
| Printer.PARAM_DEFAULT | Specifies the default (1000 milliseconds). |

Effective for Patterns 1 to 10 only.

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API cannot be used in the page mode.
- ❑ The drawer and optional external buzzer cannot be connected simultaneously.
- ❑ This API cannot be used if the printer is not equipped with a buzzer.
- ❑ The timing to receive the callback of sendData API varies by printer.
Mobile models: after the [sendData](#) API is executed.
Other than Mobile models: after the buzzer sounding is finished.
- ❑ For built-in buzzer equipped models of the following printers, sounding the buzzer is possible using [addPulse](#).
 - TM-T70
 - TM-T70II
 - TM-T82II
 - TM-T82III
 - TM-T83II
 - TM-T88IV
 - TM-T88V
 - TM-T88VI
 - TM-T82II-i
 - TM-T83II-i

- TM-T88VI-iHUB
- TM-L90

addFeedPosition

Adds a label sheet/black mark sheet feed command to the command buffer.

Syntax

```
public void addFeedPosition(int position) throws
Epos2Exception
```

Parameter

position

Specifies the paper feed position.

| Value | Description |
|--------------------------|-------------------------------------------------|
| Printer.FEED_PEELING | Feed the sheet to the peeling position. |
| Printer.FEED_CUTTING | Feed the sheet to the cut position. |
| Printer.FEED_CURRENT_TOF | Feed the sheet to the top of the current label. |
| Printer.FEED_NEXT_TOF | Feed the sheet to the top of the next label. |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- The label sheet/black mark sheet can be controlled in the standard mode.
- This API cannot be used in the page mode.

addLayout

Adds layout setting of the label sheet/black mark sheet to the command buffer.

Syntax

```
public void addLayout(int type, int width, int height, int
marginTop, int marginBottom, int offsetCut, int offsetLabel)
throws Epos2Exception
```

Parameter

type

Specifies the paper type.

| Value | Description |
|---------------------------|----------------------------------|
| Printer.LAYOUT_RECEIPT | Receipt (without black mark) |
| Printer.LAYOUT_RECEIPT_BM | Receipt (with black mark) |
| Printer.LAYOUT_LABEL | Label sheet (without black mark) |
| Printer.LAYOUT_LABEL_BM | Label sheet (with black mark) |

width

Specifies the paper width (in 0.1 mm units).

| Value | | Description |
|-------------------------|-------------------------|-------------------------------|
| TM Printer Models | POS Terminal Model | |
| Integer from 1 to 10000 | Integer from 290 to 600 | Paper width (in 0.1 mm units) |

height

Specifies the distance from the print reference mark to the next print reference mark (in 0.1mm units).

| Sheet type | | Description | |
|----------------------------------|-------------------|--------------------|-------------------------------------------------------------------|
| Sheet type | TM Printer Models | POS Terminal Model | |
| Receipt (without black mark) | 0 | 0 | No distance specified (auto) |
| Receipt (with black mark) | | | Distance between the top edges of two consecutive black marks. |
| Label sheet (without black mark) | 0 to 10000 | 0 to 1550 | Distance between the top edges of two consecutive labels |
| Label sheet (with black mark) | | | Distance between the bottom edges of two consecutive black marks. |

marginTop

Specifies the distance from the print reference mark to the top of the sheet (in 0.1mm units).

| Sheet type | Value | | Description |
|----------------------------------|-------------------|--------------------|-------------------------------------------------------------------------|
| | TM Printer Models | POS Terminal Model | |
| Receipt (without black mark) | 0 | 0 | No distance specified (auto) |
| Receipt (with black mark) | -9999 to 10000 | -150 to 1500 | Distance from the top edge of the black mark to the top of the sheet |
| Label sheet (without black mark) | 0 to 10000 | 0 to 1500 | Distance from the top edge of the label to the top of the sheet |
| Label sheet (with black mark) | -9999 to 10000 | -15 to 1500 | Distance from the bottom edge of the black mark to the top of the sheet |

marginBottom

Specifies the distance from the eject reference mark to the bottom edge of the printable area (in 0.1mm units).

| Sheet type | Value | | Description |
|----------------------------------|-------------------|--------------------|----------------------------------------------------------------------------------------------------|
| | TM Printer Models | POS Terminal Model | |
| Receipt (without black mark) | 0 | 0 | No distance specified (auto) |
| Receipt (with black mark) | 0 | 0 | No distance specified (auto) |
| Label sheet (without black mark) | -9999 to 0 | -15 to 0 | Distance from the bottom edge of the label (A positive value represents the paper feed direction.) |
| Label sheet (with black mark) | -9999 to 10000 | -15 to 15 | Distance from the top of the black mark (A positive value represents the paper feed direction.) |

offsetCut

Specifies the distance from the eject reference mark to the cut position (in 0.1mm units).

| Sheet type | Value | | Description |
|----------------------------------|-------------------|--------------------|------------------------------------------------------------------|
| | TM Printer Models | POS Terminal Model | |
| Receipt (without black mark) | 0 | 0 | No distance specified (auto) |
| Receipt (with black mark) | -9999 to 10000 | -290 to 50 | Distance from the top edge of the black mark to the cut position |
| Label sheet (without black mark) | 0 to 10000 | 0 to 50 | Distance from the bottom edge of the label to the cut position |
| Label sheet (with black mark) | 0 to 10000 | 0 to 50 | Distance from the top edge of the black mark to the cut position |

offsetLabel

Specifies the distance from the eject reference mark to the bottom edge of the label (in 0.1mm units).

| Sheet type | Value | | Description |
|----------------------------------|-------------------|--------------------|----------------------------------------------------------------------------|
| | TM Printer Models | POS Terminal Model | |
| Receipt (without black mark) | 0 | 0 | No distance specified (auto) |
| Receipt (with black mark) | 0 | 0 | No distance specified (auto) |
| Label sheet (without black mark) | 0 | 0 | No distance specified (auto) |
| Label sheet (with black mark) | 0 to 10000 | 0 to 15 | Distance from the top edge of the black mark to the bottom edge of a label |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

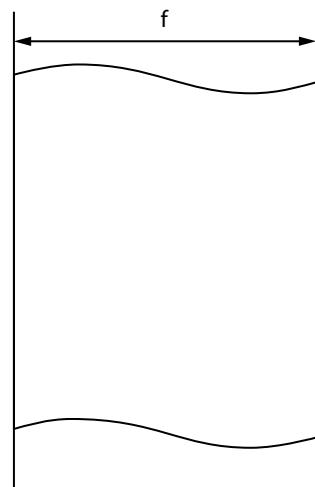
| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

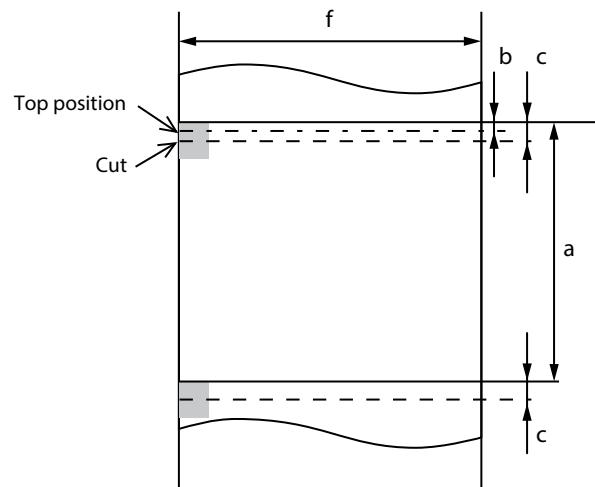
- ❑ This API does not work in the page mode.
- ❑ Available setting values vary by TM printer model. For more details, see the FS (L<Function 33>) command.
<https://reference.epson-biz.com/pos/reference/>
- ❑ The available parameter values for each type of paper are listed below.
The following table shows available values for TM printer models, and shows those for POS terminal models in parentheses.

| Parameter | Receipt (without black mark) | Label sheet (without black mark) | Label sheet (with black mark) | Receipt (with black mark) | Symbol in dia- gram |
|--------------|------------------------------------|----------------------------------------|-------------------------------------|----------------------------------|---------------------------|
| width | 1 to 10000 (290 to 600) | | | | f |
| height | 0 (0) | 0 to 10000 (0 to 1550) | | a | |
| marginTop | 0 (0) | 0 to 10000 (0 to 1500) | -9999 to 10000 (-15 to 1500) | -9999 to 10000 (-150 to 1500) | b |
| marginBottom | 0 (0) | -9999 to 0 (-15 to 0) | -9999 to 10000 (-15 to 15) | 0 (0) | e |
| offsetCut | 0 (0) | 0 to 10000 (0 to 50) | | -9999 to 10000 (-290 to 50) | c |
| offsetLabel | 0 (0) | | 0 to 10000 (0 to 15) | 0 to 10000 (0 to 15) | d |

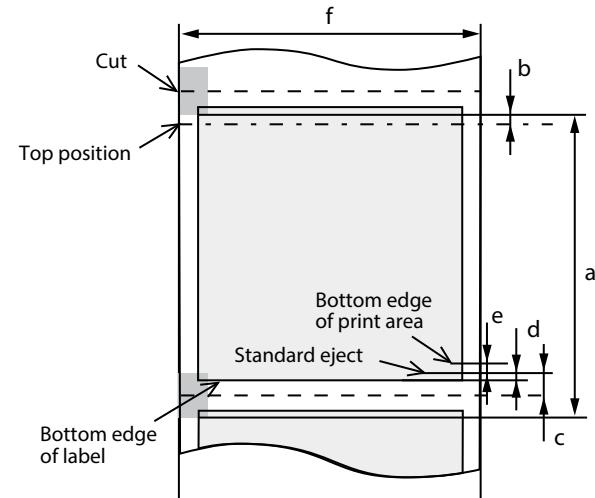
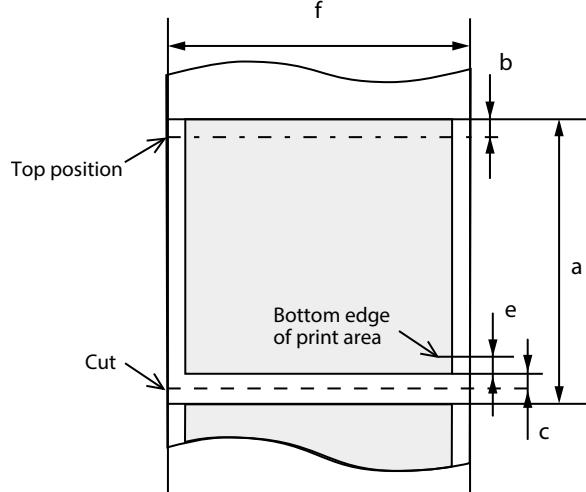
Receipt



<with Black Mark>



Label



addCommand

Adds a command to the command buffer.

Sends the ESC/POS command.

Syntax

```
public void addCommand(byte[] data) throws Epos2Exception
```

Parameter

data

Specifies the ESC/POS command.

Specifies the binary data.

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ Refer to the following URL for details of the ESC/POS command.
https://reference.epson-biz.com/modules/ref_escpos/
- ❑ Epson ePOS SDK does not check the commands sent using this API.
If the commands interfere with Epson ePOS SDK operations, other APIs may work wrongly or status values may become invalid.
This API should be used with a full understanding of ESC/POS commands and the receipt printer specifications.

getMaintenanceCounter

Acquires the value of the printer's maintenance counter.

The value acquired by this API is notified to the listener registration method specified in the `listener` parameter.

Syntax

```
public void getMaintenanceCounter(int timeout, int type,
    MaintenanceCounterListener listener) throws Epos2Exception
```

Parameter

`timeout`

Specifies the timeout period before completion of printing in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| Integer from 5000 to 600000 | Timeout period (in milliseconds) |
| Printer.PARAM_DEFAULT | Specifies the default value (10000). |

`type`

Specifies the type of maintenance counter to be acquired.

| Value | Description |
|---------------------------------------|-----------------------------------------|
| Printer.MaintenanceCounter.PaperFeed | Number of paper feed lines |
| Printer.MaintenanceCounter.AutoCutter | Number of times auto cutter is operated |

`listener`

Registers the listener registration method that returns the processing result of this API.

- `(void) onGetMaintenanceCounter(int code, int type, int value);`

`code`

The processing result is stored.

| Error status | Description |
|----------------------|--------------------------------------------------|
| CODE_SUCCESS | Processed successfully. |
| CODE_ERR_AUTORECOVER | Automatic recovery error occurred. |
| CODE_ERR_COVER_OPEN | Cover open error occurred. |
| CODE_ERR_CUTTER | Auto cutter error occurred. |
| CODE_ERR_MECHANICAL | Mechanical error occurred. |
| CODE_ERR_EMPTY | No paper is left in the roll paper end detector. |
| CODE_ERR_PARAM | An invalid parameter was passed. |

| Error status | Description |
|---------------------|-------------------------------------------------------------------|
| CODE_ERR_MEMORY | Memory necessary for processing could not be allocated. |
| CODE_ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| CODE_ERR_PROCESSING | Could not run the process. |
| CODE_ERR_ILLEGAL | This API was called while no communication had been started. |
| CODE_ERR_FAILURE | An unknown error occurred. |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|----------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- This API cannot be used simultaneously with other APIs.
After executing this API, do not execute any other API until the callback is returned.
- Do not turn off the power supply to the printer while executing this API.
- This API can be used in the system configuration of the TM printer model and customer display model.
With the system configuration of the TM Printer + DM-D30 + barcode scanner model, this API can be used when connecting via *Bluetooth* or USB.
- This API cannot be used with SSL/TLS communication.

resetMaintenanceCounter

Resets the value of the printer's maintenance counter.

The value acquired by this API is notified to the listener registration method specified in the `listener` parameter.

Syntax

```
public void resetMaintenanceCounter(int timeout, int type,
                                     MaintenanceCounterListener listener) throws Epos2Exception
```

Parameter

`timeout`

Specifies the timeout period before completion of printing in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| Integer from 5000 to 600000 | Timeout period (in milliseconds) |
| Printer.PARAM_DEFAULT | Specifies the default value (10000). |

`type`

Specifies the type of maintenance counter to be reset.

| Value | Description |
|---------------------------------------|-----------------------------------------|
| Printer.MaintenanceCounter.PaperFeed | Number of paper feed lines |
| Printer.MaintenanceCounter.AutoCutter | Number of times auto cutter is operated |

`listener`

Registers the listener registration method that returns the processing result of this API.

- `(void) onResetMaintenanceCounter(int code, int type);`

`code`

The processing result is stored.

| Error status | Description |
|----------------------|---------------------------------------------------------|
| CODE_SUCCESS | Processed successfully. |
| CODE_ERR_AUTORECOVER | Automatic recovery error occurred. |
| CODE_ERR_COVER_OPEN | Cover open error occurred. |
| CODE_ERR_CUTTER | Auto cutter error occurred. |
| CODE_ERR_MECHANICAL | Mechanical error occurred. |
| CODE_ERR_EMPTY | No paper is left in the roll paper end detector. |
| CODE_ERR_PARAM | An invalid parameter was passed. |
| CODE_ERR_MEMORY | Memory necessary for processing could not be allocated. |

| Error status | Description |
|---------------------|-------------------------------------------------------------------|
| CODE_ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| CODE_ERR_PROCESSING | Could not run the process. |
| CODE_ERR_ILLEGAL | This API was called while no communication had been started. |
| CODE_ERR_FAILURE | An unknown error occurred. |

type

The type of maintenance counter reset is stored.

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|----------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- This API cannot be used simultaneously with other APIs.
After executing this API, do not execute any other API until the callback is returned.
- Do not turn off the power supply to the printer while executing this API.
- Do not execute this API more than 10 times per day. If executed more than this number of times, the printer may become unable to operate.
- This API can be used in the system configuration of the TM printer model and customer display model.
With the system configuration of the TM Printer + DM-D30 + barcode scanner model, this API can be used when connecting via *Bluetooth* or USB.
- This API cannot be used with SSL/TLS communication.

getPrinterSetting

Acquires the set value of the printer setting.

The value acquired by this API is notified to the listener registration method specified in the listener parameter.

Syntax

```
public void getPrinterSetting(int timeout, int type,
PrinterSettingListener listener) throws Epos2Exception
```

Parameter

timeout

Specifies the timeout period before completion of printing in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| Integer from 5000 to 600000 | Timeout period (in milliseconds) |
| Printer.PARAM_DEFAULT | Specifies the default value (10000). |

type

Specifies the printer setting item to be acquired.

| Value | Description |
|-------------------------------|---------------|
| Printer.Settings.PaperWidth | Paper width |
| Printer.Settings.PrintDensity | Print density |
| Printer.Settings.PrintSpeed | Print speed |

listener

Registers the listener registration method that returns the processing result of this API.

- (void) onGetPrinterSetting(int code, int type, int value);

code

The processing result is stored.

| Error status | Description |
|----------------------|--------------------------------------------------|
| CODE_SUCCESS | Processed successfully. |
| CODE_ERR_AUTORECOVER | Automatic recovery error occurred. |
| CODE_ERR_COVER_OPEN | Cover open error occurred. |
| CODE_ERR_CUTTER | Auto cutter error occurred. |
| CODE_ERR_MECHANICAL | Mechanical error occurred. |
| CODE_ERR_EMPTY | No paper is left in the roll paper end detector. |
| CODE_ERR_PARAM | An invalid parameter was passed. |

| Error status | Description |
|---------------------|-------------------------------------------------------------------|
| CODE_ERR_MEMORY | Memory necessary for processing could not be allocated. |
| CODE_ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| CODE_ERR_PROCESSING | Could not run the process. |
| CODE_ERR_ILLEGAL | This API was called while no communication had been started. |
| CODE_ERR_FAILURE | An unknown error occurred. |

type

The acquired printer setting item is stored.

| Value | Description |
|-------------------------------|---------------|
| Printer.Settings.PaperWidth | Paper width |
| Printer.Settings.PrintDensity | Print density |
| Printer.Settings.PrintSpeed | Print speed |

value

The acquired set value of the printer setting is stored.

| Value | Description |
|----------------------------------|----------------------------------|
| Printer.Settings.PaperWidth58_0 | Paper width 58 mm |
| Printer.Settings.PaperWidth60_0 | Paper width 60 mm |
| Printer.Settings.PaperWidth80_0 | Paper width 80 mm |
| Printer.Settings.PrintDensityDIP | Print density DIP switch setting |
| Printer.Settings.PrintDensity70 | Print density 70% |
| Printer.Settings.PrintDensity75 | Print density 75% |
| Printer.Settings.PrintDensity80 | Print density 80% |
| Printer.Settings.PrintDensity85 | Print density 85% |
| Printer.Settings.PrintDensity90 | Print density 90% |
| Printer.Settings.PrintDensity95 | Print density 95% |
| Printer.Settings.PrintDensity100 | Print density 100% |
| Printer.Settings.PrintDensity105 | Print density 105% |
| Printer.Settings.PrintDensity110 | Print density 110% |
| Printer.Settings.PrintDensity115 | Print density 115% |
| Printer.Settings.PrintDensity120 | Print density 120% |
| Printer.Settings.PrintDensity125 | Print density 125% |

| Value | Description |
|---------------------------------|----------------------|
| Printer.Setting.PrintDensity130 | Print density 130% |
| Printer.Setting.PrintSpeed1 | Print speed level 1 |
| Printer.Setting.PrintSpeed2 | Print speed level 2 |
| Printer.Setting.PrintSpeed3 | Print speed level 3 |
| Printer.Setting.PrintSpeed4 | Print speed level 4 |
| Printer.Setting.PrintSpeed5 | Print speed level 5 |
| Printer.Setting.PrintSpeed6 | Print speed level 6 |
| Printer.Setting.PrintSpeed7 | Print speed level 7 |
| Printer.Setting.PrintSpeed8 | Print speed level 8 |
| Printer.Setting.PrintSpeed9 | Print speed level 9 |
| Printer.Setting.PrintSpeed10 | Print speed level 10 |
| Printer.Setting.PrintSpeed11 | Print speed level 11 |
| Printer.Setting.PrintSpeed12 | Print speed level 12 |
| Printer.Setting.PrintSpeed13 | Print speed level 13 |
| Printer.Setting.PrintSpeed14 | Print speed level 14 |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|----------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API cannot be used simultaneously with other APIs.
After executing this API, do not execute any other API until the callback is returned.
- ❑ Do not turn off the power supply to the printer while executing this API.
- ❑ This API can be used in the system configuration of the TM printer model and customer display model.
With the system configuration of the TM Printer + DM-D30 + barcode scanner model, this API can be used when connecting via *Bluetooth* or USB.
- ❑ This API cannot be used with SSL/TLS communication.

setPrinterSetting

Changes the set value of the printer setting.

The value acquired by this API is notified to the listener registration method specified in the listener parameter.

Syntax

```
public void setPrinterSetting(int timeout,
    java.util.Map<java.lang.Integer,j ava.lang.Integer> list,
    PrinterSettingListener listener) throws Epos2Exception
```

Parameter

timeout

Specifies the timeout period before completion of printing in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| Integer from 5000 to 600000 | Timeout period (in milliseconds) |
| Printer.PARAM_DEFAULT | Specifies the default value (10000). |

list

Specifies the list combining the changed printer setting item (type) and the set value (value).

type

Specifies the printer setting item to be changed.

| Value | Description |
|-------------------------------|---------------|
| Printer.Settings.PaperWidth | Paper width |
| Printer.Settings.PrintDensity | Print density |
| Printer.Settings.PrintSpeed | Print speed |

value

Specifies the set value of the printer setting to be changed.

| Value | Description |
|----------------------------------|----------------------------------|
| Printer.Settings.PaperWidth58_0 | Paper width 58 mm |
| Printer.Settings.PaperWidth60_0 | Paper width 60 mm |
| Printer.Settings.PaperWidth80_0 | Paper width 80 mm |
| Printer.Settings.PrintDensityDIP | Print density DIP switch setting |
| Printer.Settings.PrintDensity70 | Print density 70% |
| Printer.Settings.PrintDensity75 | Print density 75% |
| Printer.Settings.PrintDensity80 | Print density 80% |
| Printer.Settings.PrintDensity85 | Print density 85% |

| Value | Description |
|-----------------------------------|----------------------|
| Printer Setting Print Density 90 | Print density 90% |
| Printer Setting Print Density 95 | Print density 95% |
| Printer Setting Print Density 100 | Print density 100% |
| Printer Setting Print Density 105 | Print density 105% |
| Printer Setting Print Density 110 | Print density 110% |
| Printer Setting Print Density 115 | Print density 115% |
| Printer Setting Print Density 120 | Print density 120% |
| Printer Setting Print Density 125 | Print density 125% |
| Printer Setting Print Density 130 | Print density 130% |
| Printer Setting Print Speed 1 | Print speed level 1 |
| Printer Setting Print Speed 2 | Print speed level 2 |
| Printer Setting Print Speed 3 | Print speed level 3 |
| Printer Setting Print Speed 4 | Print speed level 4 |
| Printer Setting Print Speed 5 | Print speed level 5 |
| Printer Setting Print Speed 6 | Print speed level 6 |
| Printer Setting Print Speed 7 | Print speed level 7 |
| Printer Setting Print Speed 8 | Print speed level 8 |
| Printer Setting Print Speed 9 | Print speed level 9 |
| Printer Setting Print Speed 10 | Print speed level 10 |
| Printer Setting Print Speed 11 | Print speed level 11 |
| Printer Setting Print Speed 12 | Print speed level 12 |
| Printer Setting Print Speed 13 | Print speed level 13 |
| Printer Setting Print Speed 14 | Print speed level 14 |

listener

Registers the listener registration method that returns the processing result of this API.

- **(void) onSetPrinterSetting(int code);**

code

The processing result is stored.

| Error status | Description |
|----------------------|------------------------------------|
| CODE_SUCCESS | Processed successfully. |
| CODE_ERR_AUTORECOVER | Automatic recovery error occurred. |

| Error status | Description |
|---------------------|-------------------------------------------------------------------|
| CODE_ERR_COVER_OPEN | Cover open error occurred. |
| CODE_ERR_CUTTER | Auto cutter error occurred. |
| CODE_ERR_MECHANICAL | Mechanical error occurred. |
| CODE_ERR_EMPTY | No paper is left in the roll paper end detector. |
| CODE_ERR_PARAM | An invalid parameter was passed. |
| CODE_ERR_MEMORY | Memory necessary for processing could not be allocated. |
| CODE_ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| CODE_ERR_PROCESSING | Could not run the process. |
| CODE_ERR_ILLEGAL | This API was called while no communication had been started. |
| CODE_ERR_FAILURE | An unknown error occurred. |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|----------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API cannot be used simultaneously with other APIs.
After executing this API, do not execute any other API until the callback is returned.
- ❑ Do not turn off the power supply to the printer while executing this API.
- ❑ If communication with the printer is disconnected during execution of this API, the printer may become unable to operate. In such a case, turn the power supply to the printer off and then on again.
- ❑ Communication with the printer disconnects as the printer automatically restarts during execution of this API. Reconnect as necessary.
In a network environment that uses DHCP, the IP address may change due to restart of the printer.
In such a case, search for the printer using [Discovery class](#) and reconnect.
When connected via USB, the USB device node may change due to restart of the printer.
In such a case, search for the printer using [Discovery class](#) and reconnect.
- ❑ This API can be used in the system configuration of the TM printer model and customer display model.
With the system configuration of the TM Printer + DM-D30 + barcode scanner model, this API can be used when connecting via *Bluetooth* or USB.
- ❑ This API cannot be used with SSL/TLS communication.

downloadFirmwareList

Acquires a list of firmware from the server.

The firmware list acquired by this API is notified to the listener registration method specified in the listener parameter.

Syntax

- ❑ `public void downloadFirmwareList(java.lang.String printerModel, FirmwareUpdateListener listener) throws Epos2Exception`
- ❑ `public void downloadFirmwareList(java.lang.String printerModel, java.lang.String option FirmwareUpdateListener listener) throws Epos2Exception`

Parameter

printerModel

Specifies the model name of the target printer.

| Value | Description |
|---------------|---------------|
| TM-m10 | TM-m10 |
| TM-m30 | TM-m30 |
| TM-T88VI | TM-T88VI |
| TM-T88VI-iHUB | TM-T88VI-iHUB |

option

Specifies the version of the target firmware.

| Value | Description |
|-------|------------------|
| -A | Ver.*.*A ESC/POS |
| -B | Ver.*.*B ESC/POS |

Ver.*.*A ESC/POS:For OT-WL02/WL06 users

Ver.*.*B ESC/POS:For OT-WL05/WL06 users

Check the firmware release information for the detailed functions of each firmware version.

If you don't use a wireless LAN unit, you can choose either A or B.

listener

Registers the listener registration method that returns the processing result of this API.

```
- (void) onDownloadFirmwareList(int code, FirmwareInfo[] firmwareList);
```

code

The processing result is stored.

| Error status | Description |
|------------------|---------------------------------------|
| CODE_SUCCESS | Processed successfully. |
| CODE_ERR_CONNECT | Communication with the server failed. |

firmwareList

A list of downloadable firmware is stored in Epos2FirmwareInfo in Array format.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Communication with the server failed. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- This API can be used in an environment where it can connect to both the Internet and a printer.
- This API cannot be used simultaneously with other APIs.
After executing this API, do not execute any other API until the callback is returned.
- Do not turn off the power supply to the printer while executing this API.
- This API can be used in the system configuration of the TM printer model and customer display model.
With the system configuration of the TM Printer + DM-D30 + barcode scanner model, this API can be used when connecting via *Bluetooth* or USB.
- This API cannot be used with SSL/TLS communication.
- If no firmware image exists on the server, the firmware list cannot be acquired.

getPrinterFirmwareInfo

Acquires the firmware information for the connected printer.

The firmware information acquired by this API is notified to the listener registration method specified in the `listener` parameter.

Syntax

```
public void getPrinterFirmwareInfo(int timeout,
FirmwareUpdateListener listener) throws Epos2Exception
```

Parameter

`timeout`

Specifies the timeout period before acquisition of firmware information is complete in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| Integer from 15000 to 60000 | Timeout period (in milliseconds) |
| EPOS2_PARAM_DEFAULT | Specifies the default value (30000). |

`listener`

Registers the listener registration method that returns the processing result of this API.

```
- (void) onReceiveFirmwareInformation(FirmwareInfo
firmwareInfo);
```

`firmwareInfo`

The firmware information for the connected printer is stored.

Exception

When the process fails, `Epos2Exception` with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_TIMEOUT | Processing did not complete within the specified time period. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_ILLEGAL | This API was called while no communication had been started. |

Supplementary explanation

- ❑ This API can be used in an environment where it can connect to both the Internet and a printer.
- ❑ This API cannot be used simultaneously with other APIs.
After executing this API, do not execute any other API until the callback is returned.
- ❑ Do not turn off the power supply to the printer while executing this API.
- ❑ This API can be used in the system configuration of the TM printer model and customer display model.
With the system configuration of the TM Printer + DM-D30 + barcode scanner model, this API can be used when connecting via *Bluetooth* or USB.
- ❑ This API cannot be used with SSL/TLS communication.

verifyUpdate

Compares the firmware of the connected printer with the firmware image specified by [updateFirmware](#).

Execute this API after executing [updateFirmware](#), and confirm that the printer firmware has been overwritten by the firmware image specified in [updateFirmware](#).

The processing result of this API is notified to the listener registration method specified in the listener parameter.

Syntax

```
public void verifyUpdate(FirmwareInfo targetFirmwareInfo,
FirmwareUpdateListener listener) throws Epos2Exception
```

Parameter

targetFirmwareInfo

Specifies the firmware image version that you want to apply to the printer from the list acquired by [downloadFirmwareList](#).

Specifies the same firmware image as the one specified by the targetFirmwareInfo parameter of [updateFirmware](#).

listener

Registers the listener registration method that returns the processing result of this API.

- **(void) onUpdateVerify:(int)code;**

code

The processing result is stored.

| Error status | Description |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| CODE_SUCCESS | Processed successfully. |
| CODE_ERR_DIFFERENT_MODEL | The compatible model of the firmware image specified in targetFirmwareInfo differs from the model name of the connected printer. |
| CODE_ERR_DIFFERENT_VERSION | The version of the firmware image specified in targetFirmwareInfo differs from the firmware version of the connected printer. |
| CODE_ERR_PARAM | An invalid parameter was passed. |
| CODE_ERR_MEMORY | Memory necessary for processing could not be allocated. |
| CODE_ERR_TIMEOUT | Processing did not complete within the specified time period. |
| CODE_ERR_DATA_CORRUPTED | The firmware image is corrupt. |
| CODE_ERR_PROCESSING | Could not run the process. |
| CODE_ERR_ILLEGAL | This API was called while no communication had been started. |

| Error status | Description |
|------------------|----------------------------|
| CODE_ERR_FAILURE | An unknown error occurred. |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|-------------------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. This API was called before updateFirmware was executed. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ This API can be used in an environment where it can connect to both the Internet and a printer.
- ❑ This API cannot be used simultaneously with other APIs.
After executing this API, do not execute any other API until the callback is returned.
- ❑ Do not turn off the power supply to the printer while executing this API.
- ❑ This API can be used in the system configuration of the TM printer model and customer display model.
With the system configuration of the TM Printer + DM-D30 + barcode scanner model, this API can be used when connecting via *Bluetooth* or USB.
- ❑ This API cannot be used with SSL/TLS communication.

updateFirmware

Downloads the firmware image from the server and instructs the printer to overwrite the firmware image.

Execute [verifyUpdate](#) after executing this API, and confirm that the printer firmware has been overwritten by the firmware image.

The return value from this API is the result of instructing writing of the firmware image to the printer. It is not the execution result of the overall firmware update.

The progress and processing result of this API is notified to the listener registration method specified in the `listener` parameter.

Syntax

```
public void updateFirmware(FirmwareInfo
    targetFirmwareInfo, FirmwareUpdateListener listener,
    android.content.Context context) throws Epos2Exception
```

Parameter

`targetFirmwareInfo`

Specifies the firmware image version that you want to apply to the printer from the list acquired by [downloadFirmwareList](#).

`listener`

Registers the listener registration method that returns the progress and execution result of this API.

- Acquires the progress status
 - `(void) onFirmwareUpdateProgress(String task, float progress);`

`task`

The name of the executed process is stored.

| Name | Description |
|------------------------|------------------------------------------------------|
| Prepare | Under preparation |
| Download Firmware | Downloading the firmware image from the server |
| Sending firmware image | Sending the downloaded firmware image to the printer |

`progress`

A value between 0.0 and 1.0 is stored according to the progress status of the executed process.

- Acquires the execution result
 - `(void) onUpdateFirmware(int code, int maxWaitTime);`

`code`

The processing result is stored.

| Error status | Description |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| CODE_SUCCESS | Processed successfully. |
| CODE_ERR_DIFFERENT_MODEL | The compatible model of the firmware image specified in targetFirmwareInfo differs from the model name of the connected printer. |
| CODE_ERR_PARAM | An invalid parameter was passed. |
| CODE_ERR_MEMORY | Necessary memory could not be allocated. |
| CODE_ERR_CONNECT | No communication with the printer or server. |
| CODE_ERR_TIMEOUT | Processing did not complete within the specified time period. |
| CODE_ERR_IO | Could not access the firmware image downloaded from the server. |
| CODE_ERR_DATA_CORRUPTED | The firmware image is corrupt. |
| CODE_ERR_PROCESSING | Could not run the process. |
| CODE_ERR_ILLEGAL | This API was called while no communication had been started. |
| CODE_ERR_FAILURE | An unknown error occurred. |

maxWaitTime

The maximum wait time to complete writing of the firmware image is stored.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|----------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

This API can be used in an environment where it can connect to both the Internet and a printer.

This API cannot be used simultaneously with other APIs.

After executing this API, do not execute any other API until the callback is returned.

Do not turn off the power supply to the printer while executing this API.

Communication with the printer disconnects as the printer automatically restarts during execution of this API. Reconnect as necessary.

In a network environment that uses DHCP, the IP address may change due to restart of the printer.

In such a case, search for the printer using [Discovery class](#) and reconnect.

When connected via USB, the USB device node may change due to restart of the printer.

In such a case, search for the printer using [Discovery class](#) and reconnect.

- ❑ This API can be used in the system configuration of the TM printer model and customer display model.
With the system configuration of the TM Printer + DM-D30 + barcode scanner model, this API can be used when connecting via *Bluetooth* or USB.
- ❑ This API cannot be used with SSL/TLS communication.
- ❑ When updating the firmware by executing this API, note the following points:
 - The time required to update depends on the interface.
 - About 15 minutes for a network connection
 - About 85 minutes for a *Bluetooth* connection
 - You cannot stop the update once it has started.
 - Check that the smart device is charged sufficiently.
 - Check that no errors have occurred in the printer.
 - Check that the printer's communication status is in good condition.
 - Do not operate the smart device while updating the firmware.
 - Do not disconnect the connection cable and power cable while updating the firmware.
 - Do not sleep the smart device while updating the firmware.

forceRecover

Forcibly sends the error recovery command from a recoverable error status (example: auto cutter error).

For details on recoverable errors, refer to the Technical Reference Guide of each printer.

The error status of this API is the result of sending data to the devices.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the Printer class.

Syntax

```
public void forceRecover(int timeout) throws Epos2Exception
```

Parameter

timeout

Specifies the timeout period before completion of command transmission in milliseconds.

| Value | Description |
|-----------------------|--------------------------------------|
| 0 to 600000 | Timeout period (in milliseconds) |
| Printer.PARAM_DEFAULT | Specifies the default value (10000). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|----------------|--------------------------------------------------------------|
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_ILLEGAL | This API was called while no communication had been started. |

Supplementary explanation

- ❑ After recovering from a recoverable error, the buffer of the printer is reset.
- ❑ For TM-H6000V, the “Command execution during offline” setting must be enabled.
Refer to TM-H6000V Utility User’s Manual for more information.
- ❑ Available during ePOS-Device XML control.

forcePulse

Forcibly sends the drawer kick command.

The error status of this API is the result of sending data to the devices.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the Printer class.

Syntax

```
public void forcePulse(int drawer, int pulseTime, int timeout)
throws Epos2Exception
```

Parameter

drawer

Specifies the drawer kick connector.

| Value | Description |
|-----------------------|---------------------------------------------------------|
| Printer.DRAWER_2PIN | Drawer kick connector pin No.2 |
| Printer.DRAWER_5PIN | Drawer kick connector pin No.5 |
| Printer.PARAM_DEFAULT | Specifies the default (drawer kick connector pin No.2). |

time

Specifies the on time of the drawer kick signal.

| Value | Description |
|-----------------------|------------------------------------------|
| Printer.PULSE_100 | 100-msec signal |
| Printer.PULSE_200 | 200-msec signal |
| Printer.PULSE_300 | 300-msec signal |
| Printer.PULSE_400 | 400-msec signal |
| Printer.PULSE_500 | 500-msec signal |
| Printer.PARAM_DEFAULT | Specifies the default (100-msec signal). |

timeout

Specifies the timeout period before completion of command transmission in milliseconds.

| Value | Description |
|-----------------------|--------------------------------------|
| 0 to 600000 | Timeout period (in milliseconds) |
| Printer.PARAM_DEFAULT | Specifies the default value (10000). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|----------------|--------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_ILLEGAL | This API was called while no communication had been started. |

Supplementary explanation

- ❑ The drawer and optional external buzzer cannot be connected simultaneously.
- ❑ For TM-H6000V, the “Command execution during offline” setting must be enabled.
Refer to TM-H6000V Utility User’s Manual for more information.
- ❑ Available during ePOS-Device XML control.

forceStopSound

Forcibly sends the buzzer sound command.

The error status of this API is the result of sending data to the devices.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the Printer class.

Syntax

```
public void forceStopSound(int timeout) throws  
Epos2Exception
```

Parameter

timeout

Specifies the timeout period before completion of command transmission in milliseconds.

| Value | Description |
|-----------------------|--------------------------------------|
| 0 to 600000 | Timeout period (in milliseconds) |
| Printer.PARAM_DEFAULT | Specifies the default value (10000). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|----------------|--------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_ILLEGAL | This API was called while no communication had been started. |

Supplementary explanation

- ❑ The drawer and optional external buzzer cannot be connected simultaneously.
- ❑ This API cannot be used if the printer is not equipped with a buzzer.
- ❑ For TM-H6000V, the “Command execution during offline” setting must be enabled.
Refer to TM-H6000V Utility User’s Manual for more information.
- ❑ Available during ePOS-Device XML control.

forceCommand

Forcibly sends the ESC/POS command.

The error status of this API is the result of sending data to the devices.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the Printer class.

Syntax

```
public void (byte[] data, int timeout) throws Epos2Exception
```

Parameter

data

Forcibly sends the ESC/POS command.

Specifies the binary data.

timeout

Specifies the timeout period before completion of command transmission in milliseconds.

| Value | Description |
|-----------------------|--------------------------------------|
| 0 to 600000 | Timeout period (in milliseconds) |
| Printer.PARAM_DEFAULT | Specifies the default value (10000). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|----------------|--------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_ILLEGAL | This API was called while no communication had been started. |

Supplementary explanation

- ❑ For TM-H6000V, the “Command execution during offline” setting must be enabled.
Refer to TM-H6000V Utility User’s Manual for more information.
- ❑ Available during ePOS-Device XML control.

forceReset

Forcibly sends the printer reset command.

The error status of this API is the result of sending data to the devices.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the Printer class.

Syntax

```
- public void forceReset(int timeout) throws Epos2Exception
```

Parameter

timeout

Specifies the timeout period before completion of command transmission in milliseconds.

| Value | Description |
|-----------------------|--------------------------------------|
| 0 to 600000 | Timeout period (in milliseconds) |
| Printer.PARAM_DEFAULT | Specifies the default value (10000). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|----------------|--------------------------------------------------------------|
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_ILLEGAL | This API was called while no communication had been started. |

Supplementary explanation

- ❑ For TM-H6000V, the “Command execution during offline” setting must be enabled.
Refer to TM-H6000V Utility User’s Manual for more information.
- ❑ Available during ePOS-Device XML control.

setStatusChangeListener

Registers a listener registration method for a status change event.

Syntax

```
public void setStatusChangeListener  
(StatusChangeListener statusChangeListener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface StatusChangeListener extends EventListener
```

Listener registration method

```
void onPtrStatusChange(Printer printerObj, int eventType)
```

Parameter

printerObj

The callback source object is stored.

eventType

The type of the event that occurred is stored.

| Event type | Description |
|------------------------------|---------------------------------------------|
| Printer.EVENT_ONLINE | Online |
| Printer.EVENT_OFFLINE | Offline |
| Printer.EVENT_POWER_OFF | Power off |
| Printer.EVENT_COVER_CLOSE | Cover close |
| Printer.EVENT_COVER_OPEN | Cover open |
| Printer.EVENT_PAPER_OK | Paper remains. |
| Printer.EVENT_PAPER_NEAR_END | Paper has almost run out. |
| Printer.EVENT_PAPER_EMPTY | Paper has run out. |
| Printer.EVENT_DRAWER_HIGH | Drawer kick connector pin No.3 status = "H" |
| Printer.EVENT_DRAWER_LOW | Drawer kick connector pin No.3 status = "L" |
| Printer.EVENT_BATTERY_ENOUGH | Battery is enough. |
| Printer.EVENT_BATTERY_EMPTY | Battery has run out. |

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.

setReceiveEventLister

Registers a listener registration method for a print completion event.

Syntax

```
public void setReceiveEventLister (ReceiveListener  
receiveListener)
```

Parameter

target

Specifies an object which has a notification target method.

Listener interface

```
public interface ReceiveListener extends EventListener
```

Listener registration method

```
void onPtrReceive (Printer printerObj, int code,  
PrinterStatusInfo status, String printJobId)
```

Parameter

printerObj

The callback source object is stored.

code

The processing result is stored.

| Error status | Description |
|------------------------|----------------------------------------------------|
| CODE_SUCCESS | Print succeeded. |
| CODE_PRINTING | Printing |
| CODE_ERR_AUTORECOVER | Automatic recovery error occurred. |
| CODE_ERR_COVER_OPEN | Cover open error occurred. |
| CODE_ERR_CUTTER | Auto cutter error occurred. |
| CODE_ERR_MECHANICAL | Mechanical error occurred. |
| CODE_ERR_EMPTY | No paper is left in the roll paper end detector. |
| CODE_ERR_UNRECOVERABLE | Unrecoverable error occurred. |
| CODE_ERR_FAILURE | Error exists in the requested document syntax. |
| CODE_ERR_NOT_FOUND | Printer specified by the device ID does not exist. |
| CODE_ERR_SYSTEM | Error occurred with the printing system. |
| CODE_ERR_PORT | Error was detected with the communication port. |
| CODE_ERR_TIMEOUT | Print timeout occurred. |

| Error status | Description |
|-----------------------------------|--------------------------------------------------------------------------------|
| CODE_ERR_JOB_NOT_FOUND | Specified print job ID does not exist. |
| CODE_ERR_SPOOLER | Print queue is full. |
| CODE_ERR_BATTERY_LOW | Battery has run out. |
| CODE_ERR_TOO_MANY_REQUESTS | The number of print jobs sent to the printer has exceeded the allowable limit. |
| CODE_ERR_REQUEST_ENTITY_TOO_LARGE | The size of the print job data exceeds the capacity of the printer. |

status

Status at the timing when the process was run is stored as the `PrinterStatusInfo` type.

printJobId

- When the spooler function has been enabled, a print job ID is stored.
- When the spooler function has been disabled, null is stored.

Supplementary explanation

- When this API is run multiple times, the listener registration method specified later takes effect.
- If null is specified in `listener` when calling this API, the registered listener registration method is canceled.
- When a communication error occurs during ePOS-Device XML control, communication disconnection is not notified.
To notify the disconnection event, implement the [setConnectionEventListener](#).
- When controlling multiple printers at a time, identify which printer has finished printing by comparing the `Printer` object in the caller and the `printerObj` parameter.

interval

Updates the printer status (Printer.EVENT_POWER_OFF event) and specifies a notification interval. <obsolete>

Syntax

Setter

```
public void setInterval (int interval) throws Epos2Exception
```

Getter

```
public int getInterval ()
```

Value

Updates the printer status (Printer.EVENT_POWER_OFF event) and specifies a notification interval. The default value is 3,000.

| Value | Description |
|----------------------------|----------------------------------------------------------|
| Integer from 1000 to 60000 | Interval to update the printer status (in milliseconds). |
| Printer.PARAM_DEFAULT | Specifies the default value (3000). |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|----------------------------------|
| ERR_PARAM | An invalid parameter was passed. |

Supplementary explanation

Events other than Printer.EVENT_POWER_OFF are updated and notified at an interval of less than 1 second. The update interval cannot be changed.

HybridPrinter class

HybridPrinter

Initializes the HybridPrinter class.

Syntax

```
public HybridPrinter(int lang, Context context) throws
Epos2Exception
```

Parameter

lang

Specifies the language of the printer.

| Value | Description |
|-------------------------------|-----------------------------|
| HybridPrinter.MODEL_ANK | English (ANK specification) |
| HybridPrinter.MODEL_JAPANESE | Japanese |
| HybridPrinter.MODEL_CHINESE | Simplified Chinese |
| HybridPrinter.MODEL_TAIWAN | Traditional Chinese |
| HybridPrinter.MODEL_KOREAN | Korean |
| HybridPrinter.MODEL_THAI | Thai |
| HybridPrinter.MODEL_SOUTHASIA | South Asian specification |

context

Specifies the application context.

Null can be specified when the log output function is not used.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|-----------------|------------------------------------------|
| ERR_PARAM | An invalid parameter was specified. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_UNSUPPORTED | A language not supported was specified. |

Supplementary explanation

When iterating a process, be sure to generate and destroy instances outside the iterated process and not iterate the process at a short interval.

Memory releasing by the OS may affect the process of the Epson ePOS SDK, resulting in an invalid operation.

connect

Starts communication with the printer.

Syntax

```
Public void connect(String target, int timeout) throws  
Epos2Exception
```

Parameter

target

Specifies the method of connecting to the printer by a character string.

The connection method varies according to the system configuration.

- TM Printer Models

<connection type>:<identifier>

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------|
| Wi-Fi/Ethernet | "TCP" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168" |
| Bluetooth | "BT" | BD address | "BT:00:22:15:7D:70:9C" |
| USB | "USB" | Device node | "USB:/dev/udev/*" |

To connect to the printer via SSL/TLS communication, specify using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Wi-Fi/Ethernet | "TCPS" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCPS:192.168.192.168[local_printer]" |

- Customer Display Models

<connection type>:<identifier>

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------|
| Wi-Fi/Ethernet | "TCP" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168" |
| Bluetooth | "BT" | BD address | "BT:00:22:15:7D:70:9C" |
| USB | "USB" | Device node | "USB:/dev/udev/*" |

To connect to the printer via SSL/TLS communication, specify using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Wi-Fi/Ethernet | "TCPS" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCPS:192.168.192.168[local_printer]" |

timeout

Specifies the maximum time (in milliseconds) to wait for communication with the printer to be established.

| Value | Description |
|-----------------------------|------------------------------------------------------------------|
| Integer from 1000 to 300000 | Maximum wait time before an error is returned (in milliseconds). |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|------------------|----------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was specified. |
| ERR_CONNECT | Failed to open the device. |
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| ERR_ILLEGAL | Tried to start communication with a printer with which communication had been already established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_NOT_FOUND | The device could not be found. |
| ERR_IN_USE | The device was in use. |
| ERR_TYPE_INVALID | The device type is different. |

Supplementary explanation

- ❑ When using multi-threading to connect to multiple printers or peripheral devices, this API and [disconnect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.
 - ❑ The device ID is an arbitrary character string that is set when the peripheral device is registered to the TM printer (master).
- For details, refer to the Technical Reference Guide of each printer.

- ❑ If you specify TCPS in the connection to a printer that does not support SSL/TLS communication, ERR_PARAM is returned.
- ❑ Devices other than printers are exclusively locked.

disconnect

Ends communication with the printer.

Syntax

`Public void disconnect() throws Epos2Exception`

Exception

When the process fails, `Epos2Exception` with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------------|
| ERR_ILLEGAL | Tried to end communication where it had not been established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

Supplementary explanation

- ❑ When connected to the printer with *Bluetooth*, executing this API while a slip sheet is inserted by `readMicrData` causes the slip sheet to be ejected.
- ❑ Executing this API while waiting for paper insertion after executing `waitForInsertion`, `readMicrData`, and `cleanMicrReader` cancels waiting for paper insertion.
At that time, processing result of `waitForInsertion`, `readMicrData`, and `cleanMicrReader` is not notified.
- ❑ When using multi-threading to connect to multiple printers or peripheral devices, this API and `connect` cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.

startMonitor

Enables printer status event notification.

Acquires and updates the printer status at the interval specified by the [interval](#) property and returns it to the listener registration method registered by [setStatusChangeEventListener](#).

Syntax

```
public void startMonitor() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|--------------------------------------------------------------|
| ERR_ILLEGAL | This API was called while no communication had been started. |

Supplementary explanation

During ESC/POS control, any ASB information items which have been changed during the update interval specified by the [interval](#) property are reported.

During ePOS-Device XML control, the ASB information at the time of update is reported.

stopMonitor

Disables status events.

Syntax

```
public void stopMonitor() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|--------------------------------------------------------------|
| ERR_ILLEGAL | This API was called while no communication had been started. |

getStatus

Acquires the current status information.

Syntax

```
public HybridPrinterStatusInfo getStatus ()
```

Return value

The current status is returned in the HybridPrinterStatusInfo type.

The following status information is stored in the object as a property.

Stored status information can be acquired using the getter method of each property.

| Printer status | Status | Description |
|-----------------------------------------------------|------------------------------|------------------------|
| connection: Connection status | HybridPrinter.TRUE | Connected |
| | HybridPrinter.FALSE | Disconnected |
| online: Online status | HybridPrinter.TRUE | Online |
| | HybridPrinter.FALSE | Offline |
| | HybridPrinter.UNKNOWN | Status is unknown. |
| coverOpen: Cover status | HybridPrinter.TRUE | Cover is open. |
| | HybridPrinter.FALSE | Cover is closed. |
| | HybridPrinter.UNKNOWN | Status is unknown. |
| paper: Paper status | HybridPrinter.PAPER_OK | Paper remains. |
| | HybridPrinter.PAPER_NEAR_END | Paper is running out. |
| | HybridPrinter.PAPER_EMPTY | Paper has run out. |
| | HybridPrinter.UNKNOWN | Status is unknown. |
| paperFeed: Paper feed | HybridPrinter.TRUE | Paper feed in progress |
| | HybridPrinter.FALSE | Stopped |
| | HybridPrinter.UNKNOWN | Status is unknown. |
| panelSwitch: Panel switch (Feed button) status | HybridPrinter.SWITCH_ON | Pressed |
| | HybridPrinter.SWITCH_OFF | Not pressed |
| | HybridPrinter.UNKNOWN | Status is unknown. |
| drawer: Drawer kick connector pin No.3 status | HybridPrinter.DRAWER_HIGH | High |
| | HybridPrinter.DRAWER_LOW | Low |
| | HybridPrinter.UNKNOWN | Status is unknown. |

| Printer status | Status | Description |
|-----------------------------------------------------------------------|-----------------------------------------|----------------------------------------|
| errorStatus: Error status | HybridPrinter.NO_ERR | Normal |
| | HybridPrinter.MECHANICAL_ERR | Mechanical error occurred. |
| | HybridPrinter.AUTOCUTTER_ERR | Auto cutter error occurred. |
| | HybridPrinter.UNRECOVER_ERR | Unrecoverable error occurred. |
| | HybridPrinter.AUTORECOVER_ERR | Automatic recovery error occurred. |
| | HybridPrinter.UNKNOWN | Status is unknown. |
| autoRecoverError: Automatic recovery error status | HybridPrinter.HEAD_OVERHEAT | Head overheat error |
| | HybridPrinter.MOTOR_OVERHEAT | Motor driver IC overheat error |
| | HybridPrinter.WRONG_PAPER | Paper error |
| | HybridPrinter.COVER_OPEN | Cover is open. |
| | HybridPrinter.UNKNOWN | Status is unknown. |
| insertionWaiting: Paper insertion wait status | HybridPrinter.INSERTION_WAIT_SLIP | Waiting for slip sheet insertion |
| | HybridPrinter.INSERTION_WAIT_VALIDATION | Waiting for validation sheet insertion |
| | HybridPrinter.INSERTION_WAIT_MICR | Waiting for slip sheet insertion |
| | HybridPrinter.INSERTION_WAIT_NONE | Not waiting for paper insertion |
| | HybridPrinter.UNKNOWN | Status is unknown. |
| removalWaiting: Paper removal wait status | HybridPrinter.REMOVAL_WAIT_PAPER | Waiting for paper removal |
| | HybridPrinter.REMOVAL_WAIT_NONE | Not waiting for paper removal |
| | HybridPrinter.UNKNOWN | Status is unknown. |
| slipPaper: Status of paper conveyance route for the slip mechanism | HybridPrinter.SLIP_PAPER_OK | Paper remains. |
| | HybridPrinter.SLIP_PAPER_EMPTY | Paper has run out. |
| | HybridPrinter.UNKNOWN | Status is unknown. |

Supplementary explanation

- ❑ If this API is called while communication is not available, printer states other than "connection" will be set to "Hybrid-Printer.UNKNOWN".
- ❑ The status object is set to the status at the timing of execution of this API and will not be updated.
- ❑ When a head overheat error occurs, HybridPrinter.UNKNOWN may be returned in autoRecoverError.
- ❑ HybridPrinter.INSERTION_WAIT_SLIP in insertionWaiting does not distinguish between slip sheet insertion for slip printing and endorsement printing.

sendData

Sends the print command and performs printing in the print method specified by [selectPaperType](#).

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the HybridPrinter class.

Syntax

```
public void sendData (int timeout) throws Epos2Exception
```

Parameter

timeout

Specifies the timeout period before completion of printing in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| Integer from 5000 to 600000 | Timeout period (in milliseconds) |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|--------------------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was specified. |
| ERR_ILLEGAL | The control commands have not been buffered. This API was called while no communication had been started. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

beginTransaction

Starts a transaction.

A transaction represents a single printing task such as printing a single sheet of receipt or coupon.

After this API is called, data until the transaction is terminated by [endTransaction](#) will be regarded as a single printing task.

Syntax

```
public void beginTransaction() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|--------------------------------------------------------------------------------------------------------------------------------|
| ERR_ILLEGAL | This API was called while no communication had been started. Another transaction had been already started by this function. |
| ERR_FAILURE | An unknown error occurred. |

endTransaction

Ends a transaction.

A transaction represents a single printing task such as printing a single sheet of receipt or coupon.

After [beginTransaction](#) is called, data until the transaction is terminated by this API will be regarded as a single printing task.

Syntax

```
public void endTransaction() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|----------------------------------------------------------------------------------------------------------------------------|
| ERR_ILLEGAL | This API was called while no communication had been started. This API was called while no transaction had been started. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

Do not execute this API during the period from paper insertion through paper eject during slip, endorsement, validation, and MICR control.

clearCommandBuffer

Clears the command buffer.

The contents buffered in the command buffer are retained until this API is called.

Syntax

```
public void clearCommandBuffer()
```

selectPaperType

Specifies a print method.

Syntax

```
public void selectPaperType(int paperType) throws  
Epos2Exception
```

Parameter

paperType

Specifies a print method.

| Value | Description |
|-------------------------------------|-------------------------------------------|
| HybridPritner.PAPER_TYPE_RECEIPT | Receipt printing |
| HybridPrinter.PAPER_TYPE_SLIP | Slip printing |
| HybridPrinter.PAPER_TYPE_ENDORSE | Endorsement printing |
| HybridPrinter.PAPER_TYPE_VALIDATION | Validation printing |
| HybridPrinter.PARAM_DEFAULT | Specifies the default (receipt printing). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was specified. |
| ERR_ILLEGAL | This API was called while no communication had been started. This API was called while waiting for paper insertion. This API was called while paper has already been inserted. This API was called while transmitting data. This API was called while waiting for paper removal. |
| ERR_CONNECT | Communication failed. |
| EPOS2_ERR_UNSUPPORTED | A print method not supported by the printer was specified. |

Supplementary explanation

The print method specified by this API affects [waitInsertion](#) and [sendData](#) APIs.

waitInsertion

Causes the printer to wait for paper insertion.

After running this API, set the paper appropriate for the print method specified by the [selectPaperType](#).

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the HybridPrinter class.

Syntax

```
public void waitInsertion (int timeout) throws Epos2Exception
```

Parameter

timeout

Specifies the timeout period before completion of paper insertion in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| Integer from 5000 to 600000 | Timeout period (in milliseconds) |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|------------------------------|--------------------------------------------------------------|
| HybridPrinter.ERR_PARAM | An invalid parameter was specified. |
| HybridPrinter.ERR_ILLEGAL | This API was called while no communication had been started. |
| HybridPrinter.ERR_MEMORY | Necessary memory could not be allocated. |
| HybridPrinter.ERR_FAILURE | An unknown error occurred. |
| HybridPrinter.ERR_PROCESSING | Could not run the process. |

cancellInsertion

Cancels the paper insertion wait status.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the HybridPrinter class.

Syntax

```
public void cancelInsertion () throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ERR_ILLEGAL | This API was called while no communication had been started. This API was called while receipt printing was specified as the print method. This API was called while not waiting for paper insertion. This API was called while paper has already been inserted. This API was called while reading MICR. This API was called while waiting for paper removal. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

ejectPaper

Ejects the papers.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the HybridPrinter class when the eject command has been transmitted to the printer.

Syntax

```
public void ejectPaper () throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|--------------------------------------------------------------|
| ERR_ILLEGAL | This API was called while no communication had been started. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

Supplementary explanation

Cannot communicate with the printer until the paper ejected after receiving the callback is removed.

readMicrData

Reads MICR data.

Inserting a slip sheet after executing this API starts reading MICR.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the HybridPrinter class.

Syntax

```
public void readMicrData (int micrFont, int timeout) throws  
Epos2Exception
```

Parameter

micrFont

Specifies the font of characters to read.

| Value | Description |
|------------------------------|------------------------------------------|
| HybridPrinter.MICR_FONT_E13B | Specifies E13B as the read font. |
| HybridPrinter.MICR_FONT_CMC7 | Specifies CMC7 as the read font. |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (font E13B). |

timeout

Specifies the timeout period before completion of MICR reading in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| Integer from 5000 to 600000 | Timeout period (in milliseconds) |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|-----------------|--------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was specified. |
| ERR_UNSUPPORTED | The printer is not equipped with MICR. |
| ERR_ILLEGAL | This API was called while no communication had been started. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

cleanMicrReader

Cleans the MICR mechanism.

Inserting a cleaning sheet after executing this API starts cleaning the MICR mechanism.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the HybridPrinter class.

Syntax

```
public void cleanMicrReader (int timeout) throws
Epos2Exception
```

Parameter

timeout

Specifies the timeout period before completion of MICR mechanism cleaning in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| Integer from 5000 to 600000 | Timeout period (in milliseconds) |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|-----------------|--------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was specified. |
| ERR_UNSUPPORTED | The printer is not equipped with MICR. |
| ERR_ILLEGAL | This API was called while no communication had been started. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

forceRecover

Forcibly sends the error recovery command.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the HybridPritner class.

Syntax

```
public void forceRecover(int timeout) throws Epos2Exception
```

Parameter

timeout

Specifies the timeout period before completion of command transmission in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| 0 to 600000 | Timeout period (in milliseconds) |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (10000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|------------------------------------------|
| ERR_CONNECT | Communication failed. |
| ERR_PARAM | An invalid parameter was specified. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

Supplementary explanation

- ❑ For TM-H6000V, the “Command execution during offline” setting must be enabled.
Refer to TM-H6000V Utility User’s Manual for more information.
- ❑ Available during ePOS-Device XML control.

forcePulse

Forcibly sends the drawer kick command.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the HybridPrinter class.

Syntax

```
public void forcePulse(int drawer, int pulseTime, int timeout)
throws Epos2Exception
```

Parameter

drawer

Specifies the drawer kick connector.

| Value | Description |
|-----------------------------|---------------------------------------------------------|
| HybridPrinter.DRAWER_2PIN | Drawer kick connector pin No.2 |
| HybridPrinter.DRAWER_5PIN | Drawer kick connector pin No.5 |
| HybridPrinter.PARAM_DEFAULT | Specifies the default (drawer kick connector pin No.2). |

pulseTime

Specifies the on time of the drawer kick signal.

| Value | Description |
|-----------------------------|------------------------------------------|
| HybridPrinter.PULSE_100 | 100-msec signal |
| HybridPrinter.PULSE_200 | 200-msec signal |
| HybridPrinter.PULSE_300 | 300-msec signal |
| HybridPrinter.PULSE_400 | 400-msec signal |
| HybridPrinter.PULSE_500 | 500-msec signal |
| HybridPrinter.PARAM_DEFAULT | Specifies the default (100-msec signal). |

timeout

Specifies the timeout period before completion of command transmission in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| 0 to 600000 | Timeout period (in milliseconds) |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (10000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|------------------------------------------|
| ERR_CONNECT | Communication failed. |
| ERR_PARAM | An invalid parameter was specified. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

Supplementary explanation

- ❑ The drawer and optional external buzzer cannot be connected simultaneously.
- ❑ For TM-H6000V, the “Command execution during offline” setting must be enabled.
Refer to TM-H6000V Utility User’s Manual for more information.
- ❑ Available during ePOS-Device XML control.

forceCommand

Forcibly sends the ESC/POS command.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the HybridPrinter class.

Syntax

```
public void forceCommand(byte[] data, int timeout) throws
Epos2Exception
```

Parameter

data

Forcibly sends the ESC/POS command.

Specifies the binary data.

timeout

Specifies the timeout period before completion of command transmission in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| 0 to 600000 | Timeout period (in milliseconds) |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (10000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|------------------------------------------|
| ERR_CONNECT | Communication failed. |
| ERR_PARAM | An invalid parameter was specified. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

Supplementary explanation

- ❑ For TM-H6000V, the “Command execution during offline” setting must be enabled.
Refer to TM-H6000V Utility User’s Manual for more information.
- ❑ Available during ePOS-Device XML control.

forceReset

Forcibly sends the printer reset command.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListener](#) API of the HybridPrinter class.

Syntax

```
public void forceReset(int timeout) throws Epos2Exception
```

Parameter

timeout

Specifies the timeout period before completion of command transmission in milliseconds.

| Value | Description |
|-----------------------------|--------------------------------------|
| 0 to 600000 | Timeout period (in milliseconds) |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (10000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|------------------------------------------|
| ERR_CONNECT | Communication failed. |
| ERR_PARAM | An invalid parameter was specified. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

Supplementary explanation

- ❑ For TM-H6000V, the “Command execution during offline” setting must be enabled.
Refer to TM-H6000V Utility User’s Manual for more information.
- ❑ Available during ePOS-Device XML control.

paperType

Acquires the print method setting information.

Syntax

Getter

```
public int getPaperType()
```

Value

Acquires the set print method information.

| Value | Description |
|-------------------------------------|---------------------------------|
| HybridPritner.PAPER_TYPE_RECEIPT | Specifies receipt printing. |
| HybridPrinter.PAPER_TYPE_SLIP | Specifies slip printing. |
| HybridPrinter.PAPER_TYPE_ENDORSE | Specifies endorsement printing. |
| HybridPrinter.PAPER_TYPE_VALIDATION | Specifies validation printing. |

Supplementary explanation

The [selectPaperType](#) API is used to change the set value.

interval

Specifies the interval to update the printer status.

Syntax

Setter

```
public void setInterval (int interval) throws Epos2Exception
```

Getter

```
public int getInterval ()
```

Value

Specifies the interval to update the printer status (in milliseconds). The default value is 3000.

| Value | Description |
|-----------------------------|----------------------------------------------------------|
| Integer from 1000 to 600000 | Interval to update the printer status (in milliseconds). |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (3000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|-------------------------------------|
| ERR_PARAM | An invalid parameter was specified. |

Supplementary explanation

The new set value takes effect upon the next printer status notification.

waitTime

Specifies the time from insertion of a paper to start of insertion operation.

Syntax

Setter

```
public void setWaitTime (int time) throws Epos2Exception
```

Getter

```
public int getWaitTime ()
```

Value

Default: 500

| Value | Description |
|-----------------------------|--------------------------------------|
| Integer from 0 to 6400 | Specifies the value in milliseconds. |
| HybridPrinter.PARAM_DEFAULT | Specifies the default value (500). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|-------------------------------------|
| ERR_PARAM | An invalid parameter was specified. |

Supplementary explanation

Set values are rounded down to the nearest 100 milliseconds.

Example: 1 -> 0, 101 -> 100, 150 -> 100

mode40Cpl

Enables or disables the 40cpl mode.

Syntax

Setter

```
public void setMode40Cpl (int mode) throws Epos2Exception
```

Getter

```
public int getMode40Cpl ()
```

Value

Default: 40cpl mode enabled

| Value | Description |
|-----------------------------|---------------------------------------------|
| HybridPrinter.TRUE | 40cpl mode enabled |
| HybridPrinter.FALSE | 40cpl mode disabled |
| HybridPrinter.PARAM_DEFAULT | Specifies the default (40cpl mode enabled). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|-------------------------------------|
| ERR_PARAM | An invalid parameter was specified. |

Supplementary explanation

This API does not work in the page mode.

setStatusChangeListener

Registers a listener registration method for a status change event.

Syntax

```
public void setStatusChangeListener  
(StatusChangeListener statusChangeListener)
```

Parameter

statusChangeListener

Specifies an object which has a notification target method.

Listener interface

```
public interface StatusChangeListener extends EventListener
```

Listener registration method

```
void onHybdStatusChange(HybridPrinter hybridPrinterObj,  
int eventType)
```

Parameter

hybridPrinterObj

The callback source object is stored.

eventType

The type of the event that occurred is stored.

| Event type | Description |
|-----------------------------------------------|---------------------------------------------|
| HybridPrinter.EVENT_ONLINE | Online |
| HybridPrinter.EVENT_OFFLINE | Offline |
| HybridPrinter.EVENT_POWER_OFF | Power off |
| HybridPrinter.EVENT_COVER_CLOSE | Cover close |
| HybridPrinter.EVENT_COVER_OPEN | Cover open |
| HybridPrinter.EVENT_PAPER_OK | Paper remains. |
| HybridPrinter.EVENT_PAPER_NEAR_END | Paper has almost run out. |
| HybridPrinter.EVENT_PAPER_EMPTY | Paper has run out. |
| HybridPrinter.EVENT_DRAWER_HIGH | Drawer kick connector pin No.3 status = "H" |
| HybridPrinter.EVENT_DRAWER_LOW | Drawer kick connector pin No.3 status = "L" |
| HybridPrinter.EVENT_INSERTION_WAIT_SLIP | Waiting for slip sheet insertion |
| HybridPrinter.EVENT_INSERTION_WAIT_VALIDATION | Waiting for validation sheet insertion |
| HybridPrinter.EVENT_INSERTION_WAIT_MICR | Waiting for slip sheet insertion |

| Event type | Description |
|-----------------------------------------|--------------------------------------------------------------------|
| HybridPrinter.EVENT_INSERTION_WAIT_NONE | Not waiting for paper insertion |
| HybridPrinter.EVENT_REMOVAL_WAIT_PAPER | Waiting for paper removal |
| HybridPrinter.EVENT_REMOVAL_WAIT_NONE | Not waiting for paper removal |
| HybridPrinter.EVENT_SLIP_PAPER_OK | Paper remains in the paper conveyance route for the slip mechanism |
| HybridPrinter.EVENT_SLIP_PAPER_EMPTY | No paper in the paper conveyance route for the slip mechanism |

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.

setReceiveEventListener

Registers a listener registration method for a print completion event.

Syntax

```
public void setReceiveEventListener (ReceiveListener  
receiveListener)
```

Parameter

target

Specifies an object which has a notification target method.

Listener interface

```
public interface ReceiveListener extends EventListener
```

Listener registration method

```
void onHybdReceive (HybridPrinter hybridPrinterObj, int  
method, int code, String micrData, HybridPrinterStatusInfo  
status)
```

Parameter

hybridPrinterObj

The callback source object is stored.

method

The method information is stored.

| Method type | Description |
|--------------------------------------|-----------------------------------|
| HybridPrinter.METHOD_WAITINSERTION | Result of the waitInsertion API |
| HybridPrinter.METHOD_SENDDATA | Result of the sendDataAPI |
| HybridPrinter.METHOD_CANCELINSERTION | Result of the cancelInsertion API |
| HybridPrinter.METHOD_EJECTPAPER | Result of the ejectPaper API |
| HybridPrinter.METHOD_READMICRDATA | Result of the readMicrData API |
| HybridPrinter.METHOD_CLEANMICRREADER | Result of the cleanMicrReader API |

code

The processing result is stored.

| Code | Description |
|---------------|------------------------------------|
| CODE_SUCCESS | Printing was successful. |
| CODE_CANCELED | Cancels the insertion wait status. |
| CODE_PRINTING | Printing |

| Code | Description |
|-----------------------------------|-------------------------------------------------------------------------|
| CODE_ERR_AUTORECOVER | Automatic recovery error occurred. |
| CODE_ERR_COVER_OPEN | Cover open error occurred. |
| CODE_ERR_CUTTER | Auto cutter error occurred. |
| CODE_ERR_MECHANICAL | Mechanical error occurred. |
| CODE_ERR_EMPTY | No paper is left in the roll paper end detector. |
| CODE_ERR_UNRECOVERABLE | Unrecoverable error occurred. |
| CODE_ERR_FAILURE | Error exists in the requested document syntax. |
| CODE_ERR_NOT_FOUND | Printer specified by the device ID does not exist. |
| CODE_ERR_SYSTEM | Error occurred with the printing system. |
| CODE_ERR_PORT | Error was detected with the communication port. |
| CODE_ERR_TIMEOUT | Print timeout occurred. |
| CODE_ERR_JOB_NOT_FOUND | Specified job ID does not exist. |
| CODE_ERR_SPOOLER | Print queue is full. |
| CODE_ERR_TOO_MANY_REQUESTS | Print data exceeding the printer firmware capacity was transmitted. |
| CODE_ERR_REQUEST_ENTITY_TOO_LARGE | Print data exceeding the maximum capacity per transfer was transmitted. |
| CODE_ERR_NO_MICR_DATA | MICR read result does not exist. |
| CODE_ERR_ILLEGAL_LENGTH | A slip sheet out of the standard was inserted. |
| CODE_ERR_NO_MAGNETIC_DATA | Magnetic waveform cannot be detected. |
| CODE_ERR_RECOGNITION | A character which cannot be analyzed was detected. |
| CODE_ERR_READ | Error occurred during MICR read operation. |
| CODE_ERR_NOISE_DETECTED | Noise error was detected. |
| CODE_ERR_COVER_OPEN | Cover open error occurred during MICR read operation. |
| CODE_ERR_PAPER_JAM | Paper jam error occurred during MICR read operation. |
| CODE_ERR_PAPER_PULLED_OUT | Paper removal was detected. |
| CODE_ERR_CANCEL_FAILED | Failed to cancel waiting for paper insertion. |
| CODE_ERR_PAPER_TYPE | Pinter operation differs from the specified print method. |
| CODE_ERR_WAIT_INSERTION | Could not run the process while waiting for paper insertion. |
| CODE_ERR_ILLEGAL | The function was used in an illegal way. |

| Code | Description |
|-----------------------|------------------------------------------------------------------------|
| CODE_ERR_INSERTED | Could not run the process while paper had already been inserted. |
| CODE_ERR_WAIT_REMOVAL | Could not run the process while waiting for paper removal. |
| CODE_ERR_DEVICE_BUSY | The specified device is in process and the process cannot be executed. |

micrData

MICR read data is stored.

status

Status at the timing when the process was run is stored as the HybridPrinterStatusInfo type.

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.
- ❑ When a communication error occurs during ePOS-Device XML control, communication disconnection is not notified.
To notify the disconnection event, implement the [setConnectionEventListener](#).
- ❑ When controlling multiple printers at a time, identify which printer has finished printing by comparing the HybridPrinter object in the caller and the hybridPrinterObj parameter.

LineDisplay class

LineDisplay

Initializes the LineDisplay class.

Syntax

```
public LineDisplay(int displaySeries, Context context) throws
Epos2Exception
```

Parameter

displaySeries

Specifies the model name of the target customer display.

| Value | Description |
|---------------------|-------------|
| LineDisplay.DM_D110 | DM-D110 |
| LineDisplay.DM_D210 | DM-D210 |
| LineDisplay.DM_D30 | DM-D30 |

context

Specifies the application context.

Null can be specified when the log output function is not used.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_PARAM | An invalid parameter was specified. |
| ERR_MEMORY | Necessary memory could not be allocated. |

Supplementary explanation

When iterating a process, be sure to generate and destroy instances outside the iterated process and not iterate the process at a short interval.

Memory releasing by the OS may affect the process of the Epson ePOS SDK, resulting in an invalid operation.

connect

Starts communication with the customer display.

Syntax

```
Public void connect (String target int timeout) throws  
Epos2Exception
```

Parameter

target

Specifies the method of connecting to the printer by a character string.

The connection method varies according to the system configuration.

- Customer Display Models

<connection type>:<identifier>

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Wi-Fi/Ethernet | "TCP" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCP:192.168.192.168" |
| Bluetooth | "BT" | BD address | "BT:00:22:15:7D:70:9C" |
| USB | "USB" | <ul style="list-style-type: none"> Device node Serial number Omitted | "USB:/dev/udev/*" "USB:00000000000000000000000000000000" "USB:" |

To connect to the printer via SSL/TLS communication, specify using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Wi-Fi/Ethernet | "TCPS" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCPS:192.168.192.168[local_display]" |

- TM Printer + DM-D30 + barcode scanner model

To connect via Wi-Fi/Ethernet network communication, specify using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Wi-Fi/Ethernet | "TCP" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168[local_display]" |

To connect via *Bluetooth* or USB, specify using the following syntax.

| I/F | Connec-tion type | Identifier | Example |
|-----------|------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Bluetooth | "BT" | BD address | "BT:00:22:15:7D:70:9C" |
| USB | "USB" | <ul style="list-style-type: none"> • Device node • Serial number • Omitted | "USB:/dev/udev/*" "USB:00000000000000000000000000000000" "USB:" |

- POS Terminal Model

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Wi-Fi/Ethernet | <ul style="list-style-type: none"> • "TCP" • "TCPS" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168[local_display]" |

To connect to the printer via SSL/TLS communication, specify TCPS in the connection type.

timeout

Specifies the maximum time (in milliseconds) to wait for communication with the printer to be established.

| Value | Description |
|-----------------------------|------------------------------------------------------------------|
| Integer from 1000 to 300000 | Maximum wait time before an error is returned (in milliseconds). |
| LineDisplay.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|----------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Failed to open the device. |

| Error status | Description |
|------------------|----------------------------------------------------------------------------------------------------|
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. The printer is offline. |
| ERR_ILLEGAL | Tried to start communication with a printer with which communication had been already established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_NOT_FOUND | The device could not be found. |
| ERR_IN_USE | The device was in use. |
| ERR_TYPE_INVALID | The device type is different. |

Supplementary explanation

- ❑ Devices other than printers are exclusively locked.
- ❑ When using multi-threading to connect to multiple printers or peripheral devices, this API and [disconnect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.
- ❑ The device ID is an arbitrary character string that is set when the peripheral device is registered to the TM printer (master).
For details, refer to the Technical Reference Guide of each printer.
- ❑ When connecting through the USB, the identifiers that can be specified differ depending on the shape of the USB connector.
When the identifier is omitted, Android OS connects with the USB device found first.
When the Android terminal is set to the developer mode, you may not be able to connect through USB-A - Device Charging.

| Identifier | Shape of the USB connector | |
|---------------|----------------------------|-------------------------|
| | USB-B | USB-A - Device Charging |
| Device node | ✓ | - |
| Serial number | - | ✓ |
| Omitted | ✓ | ✓ |

- ❑ This API will succeed regardless of the connection status of the TM printer (master) and peripheral devices.

disconnect

Ends communication with the customer display.

Syntax

```
Public void disconnect() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------------|
| ERR_ILLEGAL | Tried to end communication where it had not been established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_DISCONNECT | Failed to disconnect the device. |

Supplementary explanation

When using multi-threading to connect to multiple printers or peripheral devices, this API and [connect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.

getStatus

Acquires the current status information.

Syntax

```
public DisplayStatusInfo getStatus()
```

Return value

The current status is returned in the DisplayStatusInfo type.

The following status information is stored in the object as a property.

Stored status information can be acquired using the getter method of each property.

| Printer status | Status | Description |
|-------------------|-------------------|--------------|
| connection: | LineDisplay.TRUE | Connected |
| Connection status | LineDisplay.FALSE | Disconnected |

Supplementary explanation

- The status object is set to the status at the timing of execution of this API and will not be updated.
- If this function is executed within a callback function, null will be returned.
- If "FALSE" is returned when connecting a DM-D30, the TM printer is not connected to the terminal.

sendData

Sends the command buffer.

The error status of this API is the result of sending data to the devices.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListenerAPI](#).

This API sends data buffered by an add-type API (e.g., [addText](#)).

Syntax

```
public void sendData() throw Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|--------------------------------------------------------------------------------------------------------------|
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Processing could not be executed. |
| ERR_ILLEGAL | The control commands have not been buffered. This API was called while no communication had been started. |

clearCommandBuffer

Clears the command buffer.

The contents buffered in the command buffer are retained until this API is called.

Syntax

```
public void clearCommandBuffer()
```

addInitialize

Initializes the customer display. Initialization changes the customer display status as follows.

- ❑ All the displayed characters are erased and all the windows are destroyed.
- ❑ Cursor settings are initialized to the default and the cursor position is returned to the origin of the customer display.
- ❑ The display blinking and brightness settings are initialized to the default.

Syntax

```
public void addInitialize ()
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

addCreateWindow

Adds window configuration to the command buffer.

Up to four windows can be configured.

Syntax

```
public int addCreateWindow(int number, int x, int y, int width, int height, int scrollMode) throw Epos2Exception
```

Parameter

number

Specifies the window number.

| Value | Description |
|---------------------|---------------|
| Integer from 1 to 4 | Window number |

x

Specifies the x coordinate of the window origin on the customer display.

| Value | Description |
|----------------------|--------------------------------------|
| Integer from 1 to 20 | X coordinate on the customer display |

y

Specifies the y coordinate of the window origin on the customer display.

| Value | Description |
|---------------------|--------------------------------------|
| Integer from 1 to 2 | Y coordinate on the customer display |

width

Specifies the window width.

| Value | Description |
|----------------------|--------------|
| Integer from 1 to 20 | Window width |

height

Specifies the window height.

| Value | Description |
|---------------------|---------------|
| Integer from 1 to 2 | Window height |

scrollMode

Specifies the window scroll mode.

| Value | Description |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LineDisplay.SCROLL_OVERWRITE | When the current display position is at the rightmost position of the upper line, displaying a new character moves the display position to the leftmost position of the lower line. When the current display position is at the rightmost position of the lower line, displaying a new character moves the display position to the leftmost position of the upper line. |
| LineDisplay.SCROLL_VERTICAL | When the current display position is at the rightmost position of the upper line, displaying a new character moves the display position to the leftmost position of the lower line. When the current display position is at the rightmost position of the lower line, displaying a new character scrolls up the characters on the lower line and clears the lower line. |
| LineDisplay.SCROLL_HORIZONTAL | When the current display position is at the rightmost position, displaying a new character scrolls all the characters already displayed on the cursor line to the left by one character and the new character is displayed at the rightmost position. |
| LineDisplay.PARAM_DEFAULT | Specifies the default value (Overwrite). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

To add a window, be careful so that the existing window(s) should not be overlapped by the new window on the customer display.

addDestroyWindow

Adds a command to destroy the window defined by [addCreateWindow](#) to the command buffer.

Syntax

```
public void addDestroyWindow(int number) throw
Epos2Exception
```

Parameter

number

Specifies the number of the window to destroy.

| Value | Description |
|---------------------|---------------------------------|
| Integer from 1 to 4 | Number of the window to destroy |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

addSetCurrentWindow

Adds a command to move to another window to the command buffer.

Specify one of the windows defined by [addCreateWindow](#) to set it as the new current window.

The cursor will move to the origin of the new window.

Syntax

```
public void addSetCurrentWindow(int number) throw
Epos2Exception
```

Parameter

number

Specifies a window number of a destination window.

| Value | Description |
|---------------------|---------------------------------------|
| Integer from 1 to 4 | Window number of a destination window |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

addClearCurrentWindow

Adds a window clear command for the current window to the command buffer.

Syntax

```
public void addClearCurrentWindow() throw Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

addSetCursorPosition

Adds cursor position setting to the command buffer.

Syntax

```
public void addSetCursorPosition(int x, int y) throw
Epos2Exception
```

Parameter

x

Specifies the destination x coordinate.

| Value | Description |
|----------------------|--------------------------|
| Integer from 1 to 20 | Destination x coordinate |

y

Specifies the destination y coordinate.

| Value | Description |
|---------------------|--------------------------|
| Integer from 1 to 2 | Destination y coordinate |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

Use [addMoveCursorPosition](#) to move within a window.

addMoveCursorPosition

Adds cursor position setting within the current window to the command buffer.

Syntax

```
public void addMoveCursorPosition(int position) throw
Epos2Exception
```

Parameter

position

Specifies the new cursor position within the current window.

| Value | Description |
|-------------------------------|-------------------------------------------------|
| LineDisplay.MOVE_TOP_LEFT | Sets the new position to the top left edge. |
| LineDisplay.MOVE_TOP_RIGHT | Sets the new position to the top right edge. |
| LineDisplay.MOVE_BOTTOM_LEFT | Sets the new position to the bottom left edge. |
| LineDisplay.MOVE_BOTTOM_RIGHT | Sets the new position to the bottom right edge. |
| LineDisplay.PARAM_DEFAULT | Specifies the default value (top left edge). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

addSetCursorType

Adds cursor display setting to the command buffer.

Syntax

```
public void addSetCursorType(int type) throw Epos2Exception
```

Parameter

type

Specifies the cursor display method.

| Value | Description |
|------------------------------|--------------------------------------------------|
| LineDisplay.CURSOR_NONE | No cursor display |
| LineDisplay.CURSOR_UNDERLINE | Underscore |
| LineDisplay.PARAM_DEFAULT | Specifies the default value (no cursor display). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

addText

Adds string display setting to the command buffer.

Syntax

- ❑ public void addText(String data) throws Epos2Exception
- ❑ public void addText(String data, int lang) throws Epos2Exception
- ❑ public void addText(String data, int x, int y) throws Epos2Exception
- ❑ public void addText(String data, int x, int y, int lang) throws Epos2Exception

Parameter

data

Specifies the string to display.

lang

Specifies the language to display the string.

| Value | Description |
|-------------------------------|----------------------------------------|
| LineDisplay.LANG_EN (default) | English |
| LineDisplay.LANG_JA | Japanese |
| LineDisplay.PARAM_DEFAULT | Specifies the default value (English). |

x

Specifies the x coordinate of the display position.

| Value | Description |
|----------------------|--------------------------------------|
| Integer from 1 to 20 | X coordinate of the display position |

y

Specifies the y coordinate of the display position.

| Value | Description |
|---------------------|--------------------------------------|
| Integer from 1 to 2 | Y coordinate of the display position |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ Parameters x and y specify coordinates with the origin at the top left of the customer display.
- ❑ If the coordinates of the display position are omitted, the coordinates of the cursor position upon execution of [addText](#) are used.

addReverseText

Adds reverse text display setting to the command buffer.

Syntax

- ❑ public void addReverseText(String data) throws Epos2Exception
- ❑ public void addReverseText(String data, int lang) throws Epos2Exception
- ❑ public void addReverseText(String data, int x, int y) throws Epos2Exception
- ❑ public void addReverseText(String data, int x, int y, int lang) throws Epos2Exception

Parameter

data

Specifies the string to display.

lang

Specifies the language to display the string.

| Value | Description |
|-------------------------------|----------------------------------------|
| LineDisplay.LANG_EN (default) | English |
| LineDisplay.LANG_JA | Japanese |
| LineDisplay.PARAM_DEFAULT | Specifies the default value (English). |

x

Specifies the x coordinate of the display position.

| Value | Description |
|----------------------|--------------------------------------|
| Integer from 1 to 20 | X coordinate of the display position |

y

Specifies the y coordinate of the display position.

| Value | Description |
|---------------------|--------------------------------------|
| Integer from 1 to 2 | Y coordinate of the display position |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ Parameters x and y specify coordinates with the origin at the top left of the customer display.
- ❑ If the coordinates of the display position are omitted, the coordinates of the cursor position upon execution of [addText](#) are used.

addMarqueeText

Adds marquee display setting to the command buffer.

The marquee is displayed on a single line in the horizontal scroll mode, without regard to the scroll mode setting of the display window.

Syntax

```
public void addMarqueeText(String data ,int format, int
unitWait, int repeatWait, int repeatCount, int lang) throws
Epos2Exception
```

Parameter

data

Specifies the string to display.

format

Specifies how to display the string.

| Value | Description |
|---------------------------|--------------------------------------------------------------|
| LineDisplay.MARQUEE_WALK | Displays the text from the rightmost position of the window. |
| LineDisplay.MARQUEE_PLACE | Displays the text from the leftmost position of the window. |
| LineDisplay.PARAM_DEFAULT | Specifies the default value (Walk). |

unitWait

Specifies the display interval per character (in milliseconds).

| Value | Description |
|------------------------|---------------------------------------------------|
| Integer from 1 to 2000 | Display interval per character (in milliseconds). |

repeatWait

Specifies the display repeat interval (in milliseconds).

| Value | Description |
|------------------------|-------------------------------------------|
| Integer from 1 to 2000 | Display repeat interval (in milliseconds) |

repeatCount

Specifies the display repeat count.

| Value | Description |
|-----------------------|----------------------|
| Integer from 1 to 127 | Display repeat count |
| 0 | Unlimited |

lang

Specifies the language to display the string.

| Value | Description |
|---------------------------|----------------------------------------|
| LineDisplay.LANG_EN | English |
| LineDisplay.LANG_JA | Japanese |
| LineDisplay.PARAM_DEFAULT | Specifies the default value (English). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ When using DM-D30 and when using a combination of TM-H6000V with DM-D110/DM-D210, "0" is only allowed in repeatCount.
- ❑ When controlling DM-D30, its marquee display may be distorted if the interval for displaying text is too short due to the characteristics of the LCD.
It is recommended to set unitWait and repeatWait so that the interval for displaying text is 600 msec or longer.

addSetBlink

Adds screen blink setting to the command buffer.

Syntax

```
public void addSetBlink(int interval) throws Epos2Exception
```

Parameter

interval

Specifies the blink interval (in milliseconds). The setting value is rounded to the nearest 50 milliseconds.

| Value | Description |
|---------------------------|-------------------------------------------|
| Integer from 1 to 12700 | Blink interval (in milliseconds) |
| 0 | Continuously lit |
| LineDisplay.PARAM_DEFAULT | Specifies the default (continuously lit). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

addSetBrightness

Adds brightness setting of the customer display to the command buffer.

Syntax

```
public void addSetBrightness(int brightness) throws
Epos2Exception
```

Parameter

brightness

Specifies the brightness value of the customer display.

| Value | Description |
|----------------------------|------------------------------------------------|
| LineDisplay.BRIGHTNESS_20 | Sets the customer display brightness to 20%. |
| LineDisplay.BRIGHTNESS_40 | Sets the customer display brightness to 40%. |
| LineDisplay.BRIGHTNESS_60 | Sets the customer display brightness to 60%. |
| LineDisplay.BRIGHTNESS_100 | Sets the customer display brightness to 100%. |
| LineDisplay.PARAM_DEFAULT | Specifies the default value (brightness 100%). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

addShowClock

Adds time display setting to the command buffer.

Displaying the time clears all the displayed text. When another command is sent while the time is displayed, the time disappears.

Syntax

```
public void addShowClock() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

Not available for DM-D30.

addCommand

Adds the ESC/POS command to the command buffer.

Syntax

```
public void addCommand(byte[] data) throws Epos2Exception
```

Parameter

data

Specifies the ESC/POS command.

Specifies the binary data.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ Refer to the following URL for details of the ESC/POS command.
https://reference.epson-biz.com/modules/ref_escpos_dm_d_en/
- ❑ Epson ePOS SDK does not check the commands sent using this API.
If the commands interfere with Epson ePOS SDK operations, other APIs may work wrongly or status values may become invalid.
This API should be used with a full understanding of ESC/POS commands and the customer display specifications.

setReceiveEventListener

Registers a listener registration method for a display completion event.

Syntax

```
public void setReceiveEventListener (ReceiveListener listener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface ReceiveListener extends EventListener
```

Listener registration method

```
void onDispReceive (LineDisplay displayObj, int code)
```

Parameter

displayObj

The callback source object is stored.

code

The processing result is stored.

| Error status | Description |
|----------------------------|----------------------------------------------------------------------------------|
| CODE_SUCCESS | Display completed. |
| CODE_ERR_NOT_FOUND | The device was not found. |
| CODE_ERR_INVALID_WINDOW | An unregistered window was specified. |
| CODE_ERR_PORT | An internal communication error with the device occurred. |
| CODE_ERR_TIMEOUT | A timeout error occurred during communication with the device. |
| CODE_ERR_TOO_MANY_REQUESTS | The number of display data sent to the display has exceeded the allowable limit. |
| CODE_ERR_AUTORECOVER | Automatic recovery error occurred. |
| CODE_ERR_COVER_OPEN | Cover open error occurred. |
| CODE_ERR_CUTTER | Auto cutter error occurred. |
| CODE_ERR_MECHANICAL | Mechanical error occurred. |
| CODE_ERR_EMPTY | No paper is left in the roll paper end detector. |
| CODE_ERR_UNRECOVERABLE | Unrecoverable error occurred. |

| Error status | Description |
|----------------------|----------------------------|
| CODE_ERR_BATTERY_LOW | Battery has run out. |
| CODE_ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.
- ❑ When a communication error occurs during ePOS-Device XML control, communication disconnection is not notified.

To notify the disconnection event, implement the [setConnectionEventListener](#).

Keyboard class

Keyboard

Initializes the Keyboard class.

Syntax

```
public Keyboard(Context context) throws Epos2Exception
```

Parameter

context

Specifies the application context.

Null can be specified when the log output function is not used.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_MEMORY | Necessary memory could not be allocated. |

Supplementary explanation

When iterating a process, be sure to generate and destroy instances outside the iterated process and not iterate the process at a short interval.

Memory releasing by the OS may affect the process of the Epson ePOS SDK, resulting in an invalid operation.

connect

Starts communication with the keyboard.

Syntax

```
Public void connect(String target, int timeout) throws  
Epos2Exception
```

Parameter

target

Specifies the method of connecting to the printer by a character string.

The connection method varies according to the system configuration.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Wi-Fi/Ethernet | <ul style="list-style-type: none"> • "TCP" • "TCPS" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168[local_keyboard]" |

To connect to the printer via SSL/TLS communication, specify TCPS in the connection type.

timeout

Specifies the maximum time (in milliseconds) to wait for communication with the printer to be established.

| Value | Description |
|-----------------------------|------------------------------------------------------------------|
| Integer from 1000 to 300000 | Maximum wait time before an error is returned (in milliseconds). |
| Keyboard.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|----------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Failed to open the device. |
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| ERR_ILLEGAL | Tried to start communication with a printer with which communication had been already established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

| Error status | Description |
|------------------|--------------------------------|
| ERR_NOT_FOUND | The device could not be found. |
| ERR_IN_USE | The device was in use. |
| ERR_TYPE_INVALID | The device type is different. |

Supplementary explanation

- ❑ The device ID is an arbitrary character string that is set when the peripheral device is registered to the TM printer (master).
For details, refer to the Technical Reference Guide of each printer.
- ❑ When using multi-threading to connect to multiple printers or peripheral devices, this API and [disconnect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.
- ❑ This API will succeed regardless of the connection status of the TM printer (master) and peripheral devices.
- ❑ Devices other than printers are exclusively locked.

disconnect

Ends communication with the keyboard.

Syntax

```
Public void disconnect() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------------|
| ERR_ILLEGAL | Tried to end communication where it had not been established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_DISCONNECT | Failed to disconnect the device. |

Supplementary explanation

When using multi-threading to connect to multiple printers or peripheral devices, this API and [connect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.

getStatus

Acquires the current status information.

Syntax

```
public KeyboardStatusInfo getStatus ()
```

Return value

The current status is returned in the KeyboardStatusInfo type.

The following status information is stored in the object as a property.

Stored status information can be acquired using the getter method of each property.

| Printer status | Status | Description |
|-------------------|----------------|--------------|
| connection: | Keyboard.TRUE | Connected |
| Connection status | Keyboard.FALSE | Disconnected |

Supplementary explanation

- ❑ The status object is set to the status at the timing of execution of this API and will not be updated.
- ❑ If this function is executed within a callback function, null will be returned.

setPrefix

Sets the list of prefixes for string entry.

Sets a key code which is recognized as the start of a string to accept keyboard input as a sequence of strings.

Syntax

```
public void setPrefix(int[] prefixes) throws Epos2Exception
```

Parameter

prefixes

Specifies the key code arrangement.

Refer to [Key code list](#) for the key codes.

Specifying null disables setPrefix.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Communication failed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

Entering NULL or "" clears the current setting.

getPrefix

Acquires the list of prefixes currently set.

Syntax

```
public int[] getPrefix()
```

Return value

The list of prefixes currently set by setPrefix is returned.

setKeyPressEventListener

Registers a listener registration method for a key press event.

Syntax

```
public void setKeyPressEventListener (KeyPressListener  
listener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface KeyPressListener extends EventListener
```

Listener registration method

```
void onKbdKeyPress (Keyboard keyboardObj, int keyCode,  
String ascii)
```

Parameter

keyboardObj

The callback source object is stored.

keyCode

The code of the pressed key is stored.

ascii

The character corresponding to the code of the pressed key is stored. If no character corresponds to the key code, "" (blank character) is stored.

Depending on the keyboard used, double-byte characters may be entered.

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.

setReadStringEventListener

Registers a listener registration method which receives characters starting with one of the strings specified by [setPrefix](#) and ending with the Enter key as a string.

Syntax

```
public void setReadStringEventListener (ReadStringListener  
listener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface ReadStringListener extends EventListener
```

Listener registration method

```
void onKbdReadString (Keyboard keyboardObj, String  
readString, int prefix)
```

Parameter

keyboardObj

The callback source object is stored.

readString

The detected string is stored.

prefix

Key code recognized as the start of a string is stored.

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.

POSKeyboard class

PosKeyboard

Initializes the PosKeyboard class.

Syntax

```
public PosKeyboard(Context context) throws Epos2Exception
```

Parameter

context

Specifies the application context.

Null can be specified when the log output function is not used.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_MEMORY | Necessary memory could not be allocated. |

Supplementary explanation

When iterating a process, be sure to generate and destroy instances outside the iterated process and not iterate the process at a short interval.

Memory releasing by the OS may affect the process of the Epson ePOS SDK, resulting in an invalid operation.

connect

Starts communication with the POS keyboard.

Syntax

```
public void connect(String target, int timeout) throws
Epos2Exception
```

Parameter

target

Specifies the method of connecting to the printer by a character string.

Specify the connection method using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Description |
|----------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Wi-Fi/Ethernet | <ul style="list-style-type: none"> • "TCP" • "TCPS" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168[local_pos keyboard]" |

To connect to the printer via SSL/TLS communication, specify TCPS in the connection type.

timeout

Specifies the maximum time (in milliseconds) to wait for communication with the printer to be established.

| Value | Description |
|-----------------------------|------------------------------------------------------------------|
| Integer from 1000 to 300000 | Maximum wait time before an error is returned (in milliseconds). |
| Poskeyboard.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|----------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Failed to open the device. |
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| ERR_ILLEGAL | Tried to start communication with a printer with which communication had been already established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

| Error status | Description |
|------------------|---------------------------------|
| ERR_NOT_FOUND | The printer could not be found. |
| ERR_IN_USE | The device was in use. |
| ERR_TYPE_INVALID | The device type is different. |

Supplementary explanation

- ❑ The device ID is a logical device name that is set when the POS keyboard is registered to the TM printer (master). For details, refer to the TM-DT Series Peripheral Device Control Guide.
- ❑ When using multi-threading to connect to multiple printers or peripheral devices, this API and [disconnect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.
- ❑ Devices other than printers are exclusively locked.

disconnect

Ends communication with the POS keyboard.

Syntax

```
public void disconnect() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------------|
| ERR_ILLEGAL | Tried to end communication where it had not been established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_DISCONNECT | Failed to disconnect the device. |

Supplementary explanation

When using multi-threading to connect to multiple printers or peripheral devices, this API and [connect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.

getStatus

Acquires the current status information.

Syntax

```
public PosKeyboardStatusInfo getStaunts()
```

Return value

The current status is returned in the PosKeyboardStatusInfo type.

The following status information is stored in the object as a property.

Stored status information can be acquired using the getter method of each property.

| Keyboard status | Status | Description |
|-------------------|-------------------|--------------|
| connection: | PosKeyboard.TRUE | Connected |
| Connection status | PosKeyboard.FALSE | Disconnected |

Supplementary explanation

- ❑ The status object is set to the status at the timing of execution of this API and will not be updated.
- ❑ If this function is executed within a callback function, null will be returned.

setKeyPressEventListener

Registers a listener registration method for a key press event.

Syntax

```
public void setKeyPressEventListener(KeyPressListener  
listener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface KeyPressListener extends EventListener
```

Listener registration method

```
void onPosKbdKeyPress(PosKeyboard keyboardObj, int  
posKeyCode)
```

Parameter

keyboardObj

The callback source object is stored.

posKeyCode

The code of the pressed key is stored.

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.

BarcodeScanner class

BarcodeScanner

Initializes the BarcodeScanner class.

Syntax

```
public BarcodeScanner(Context context) throws  
Epos2Exception
```

Parameter

context

Specifies the application context.

Null can be specified when the log output function is not used.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_MEMORY | Necessary memory could not be allocated. |

Supplementary explanation

When iterating a process, be sure to generate and destroy instances outside the iterated process and not iterate the process at a short interval.

Memory releasing by the OS may affect the process of the Epson ePOS SDK, resulting in an invalid operation.

connect

Starts communication with the barcode scanner.

Syntax

```
Public void connect (String target, int timeout) throws  
Epos2Exception
```

Parameter

target

Specifies the method of connecting to the printer by a character string.

The connection method varies according to the system configuration.

- TM Printer + DM-D30 + barcode scanner model/

TM Printer + barcode scanner model

To connect via Wi-Fi/Ethernet network communication, specify using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec- tion type | Identifier | Example |
|----------------|----------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Wi-Fi/Ethernet | "TCP" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168[local_scanner]" |

To connect via *Bluetooth* or USB, specify using the following syntax.

<connection type>:<identifier>

| I/F | Connec- tion type | Identifier | Example |
|-----------|----------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Bluetooth | "BT" | BD address | "BT:00:22:15:7D:70:9C" |
| USB | "USB" | <ul style="list-style-type: none"> • Device node • Serial number • Omitted | "USB:/dev/udev/*" "USB:00000000000000000000000000000000" "USB:" |

- POS Terminal Model

<connection type>:<identifier>[<device ID>]

| I/F | Connec- tion type | Identifier | Example |
|----------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Wi-Fi/Ethernet | <ul style="list-style-type: none"> • "TCP" • "TCPS" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168[local_scanner]" |

To connect to the printer via SSL/TLS communication, specify TCPS in the connection type.

timeout

Specifies the maximum time (in milliseconds) to wait for communication with the printer to be established.

| Value | Description |
|------------------------------|------------------------------------------------------------------|
| Integer from 1000 to 300000 | Maximum wait time before an error is returned (in milliseconds). |
| BarcodeScanner.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|------------------|----------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Failed to open the device. |
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| ERR_ILLEGAL | Tried to start communication with a printer with which communication had been already established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_NOT_FOUND | The device could not be found. |
| ERR_IN_USE | The device was in use. |
| ERR_TYPE_INVALID | The device type is different. |

Supplementary explanation

- ❑ The device ID is an arbitrary character string that is set when the peripheral device is registered to the TM printer (master).
For details, refer to the Technical Reference Guide of each printer.
- ❑ When using multi-threading to connect to multiple printers or peripheral devices, this API and [disconnect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.
- ❑ When connecting through the USB, the identifiers that can be specified differ depending on the shape of the USB connector.
When the identifier is omitted, Android OS connects with the USB device found first.
When the Android terminal is set to the developer mode, you may not be able to connect through USB-A - Device Charging.

| Identifier | Shape of the USB connector | |
|---------------|----------------------------|-------------------------|
| | USB-B | USB-A - Device Charging |
| Device node | ✓ | - |
| Serial number | - | ✓ |
| Omitted | ✓ | ✓ |

- ❑ This API will succeed regardless of the connection status of the TM printer (master) and peripheral devices.
- ❑ Set the barcode reader suffix (delimiter) to CR (carriage return code). Data cannot be obtained using any other settings.
- ❑ Devices other than printers are exclusively locked. Do not control the scanner and printer connected to the scanner from multiple applications at the same time.
- ❑ If a combination of TM Printer + barcode scanner is used on a connection established via *Bluetooth* or USB, the barcode data read during printing is notified after the printing is complete.

disconnect

Ends communication with the barcode scanner.

Syntax

```
Public void disconnect () throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------------|
| ERR_ILLEGAL | Tried to end communication where it had not been established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_DISCONNECT | Failed to disconnect the device. |

Supplementary explanation

When using multi-threading to connect to multiple printers or peripheral devices, this API and [connect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.

getStatus

Acquires the current status information.

Syntax

```
public ScannerStatusInfo getStatus ()
```

Return value

The current status is returned in the ScannerStatusInfo type.

The following status information is stored in the object as a property.

Stored status information can be acquired using the getter method of each property.

| Printer status | Status | Description |
|----------------------------------|----------------------|--------------|
| connection: Connection status | BarcodeScanner.TRUE | Connected |
| | BarcodeScanner.FALSE | Disconnected |

Supplementary explanation

- ❑ The status object is set to the status at the timing of execution of this API and will not be updated.
- ❑ If this function is executed within a callback function, null will be returned.
- ❑ If a combination of TM Printer + barcode scanner is used on a connection established via *Bluetooth* or USB, the connection status of TM Printer and the barcode scanner is obtained. If the combination is used by some other connection method, the connection status of the smart device and TM Printer is obtained.

setScanEventListener

Registers a listener registration method for a barcode data entry event.

Syntax

```
public void setScanEventListener (ScanListener listener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface ScanListener extends EventListener
```

Listener registration method

```
void onScanData (BarcodeScanner scannerObj, String  
scanData)
```

Parameter

scannerObj

The callback source object is stored.

scanData

The detected string is stored.

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.
- ❑ The notification timing of the barcode data entry event differs depending on how it is connected. Refer to the description of the target parameter of the [connect](#) API for details.

MSR class

Msr

Initializes the Msr class.

Syntax

```
public Msr(Context context) throws Epos2Exception
```

Parameter

context

Specifies the application context.

Null can be specified when the log output function is not used.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_MEMORY | Necessary memory could not be allocated. |

Supplementary explanation

When iterating a process, be sure to generate and destroy instances outside the iterated process and not iterate the process at a short interval.

Memory releasing by the OS may affect the process of the Epson ePOS SDK, resulting in an invalid operation.

connect

Starts communication with the MSR.

Syntax

```
public void connect(String target, int timeout) throws  
Epos2Exception
```

Parameter

target

Specifies the method of connecting to the printer by a character string.

Specify the connection method using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Description |
|----------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Wi-Fi/Ethernet | <ul style="list-style-type: none"> • "TCP" • "TCPS" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168[local_msr]" |

To connect to the printer via SSL/TLS communication, specify TCPS in the connection type.

timeout

Specifies the maximum time (in milliseconds) to wait for communication with the printer to be established.

| Value | Description |
|-----------------------------|------------------------------------------------------------------|
| Integer from 1000 to 300000 | Maximum wait time before an error is returned (in milliseconds). |
| Msr.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|----------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Failed to open the device. |
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| ERR_ILLEGAL | Tried to start communication with a printer with which communication had been already established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

| Error status | Description |
|------------------|---------------------------------|
| ERR_NOT_FOUND | The printer could not be found. |
| ERR_IN_USE | The device was in use. |
| ERR_TYPE_INVALID | The device type is different. |

Supplementary explanation

- ❑ The device ID is set when the MSR is registered to the TM printer (master).
The value differs depending on the control method.

| Control method | Device ID | Reference |
|------------------------|----------------------------|----------------------------------------------|
| Device control program | Logical device name | TM-DT Series Peripheral Device Control Guide |
| Device control script | Arbitrary character string | Technical Reference Guide of the printer |

- ❑ When using multi-threading to connect to multiple printers or peripheral devices, this API and [disconnect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.
- ❑ Devices other than printers are exclusively locked.

disconnect

Ends communication with the MSR.

Syntax

```
public void disconnect() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------------|
| ERR_ILLEGAL | Tried to end communication where it had not been established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_DISCONNECT | Failed to disconnect the device. |

Supplementary explanation

When using multi-threading to connect to multiple printers or peripheral devices, this API and [connect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.

getStatus

Acquires the current status information.

Syntax

```
public MsrStatusInfo getStatus()
```

Return value

The current status is returned in the MsrStatusInfo type.

The following status information is stored in the object as a property.

Stored status information can be acquired using the getter method of each property.

| Keyboard status | Status | Description |
|-------------------|-----------|--------------|
| connection: | Msr.TRUE | Connected |
| Connection status | Msr.FALSE | Disconnected |

Supplementary explanation

- ❑ The status object is set to the status at the timing of execution of this API and will not be updated.
- ❑ If this function is executed within a callback function, null will be returned.

setDataEventListener

Registers a listener registration method for a card data detection event.

Syntax

```
public void setDataEventListener(DataListener listener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface DataListener extends EventListener
```

Listener registration method

```
void onData(Msr msrObj, Data data)
```

Parameter

msrObj

The callback source object is stored.

data

Acquires the read card data.

The result is stored in the Data structure.

| Property | Description |
|-----------------------|-------------------------------------|
| String track1 | Entire data of track 1 |
| String track2 | Entire data of track 2 |
| String track4 | Entire data of track 4 (JIS2 track) |
| String accountNumber | Account number |
| String expirationData | Expiration date ("YYMM" format) |
| String surname | Surname |
| String firstName | First Name |
| String middleInitial | Middle name/initial |
| String title | Title |
| String serviceCode | Service code |
| String track1_dd | Arbitrary data of track 1 |
| String track2_dd | Arbitrary data of track 2 |

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.

SimpleSerial class

SimpleSerial

Initializes the SimpleSerial class.

Syntax

```
public SimpleSerial(Context context) throws Epos2Exception
```

Parameter

context

Specifies the application context.

Null can be specified when the log output function is not used.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_MEMORY | Necessary memory could not be allocated. |

Supplementary explanation

When iterating a process, be sure to generate and destroy instances outside the iterated process and not iterate the process at a short interval.

Memory releasing by the OS may affect the process of the Epson ePOS SDK, resulting in an invalid operation.

connect

Starts communication with the serial communication device.

Syntax

```
Public void connect(String target, int timeout) throws  
Epos2Exception
```

Parameter

target

Specifies the method of connecting to the printer by a character string.

Specify the connection method using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Wi-Fi/Ethernet | <ul style="list-style-type: none"> • "TCP" • "TCPS" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168[local_serial]" |

To connect to the printer via SSL/TLS communication, specify TCPS in the connection type.

timeout

Specifies the maximum time (in milliseconds) to wait for communication with the printer to be established.

| Value | Description |
|-----------------------------|------------------------------------------------------------------|
| Integer from 1000 to 300000 | Maximum wait time before an error is returned (in milliseconds). |
| SimpleSerial.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|----------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Failed to open the device. |
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| ERR_ILLEGAL | Tried to start communication with a printer with which communication had been already established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

| Error status | Description |
|------------------|--------------------------------|
| ERR_NOT_FOUND | The device could not be found. |
| ERR_IN_USE | The device was in use. |
| ERR_TYPE_INVALID | The device type is different. |

Supplementary explanation

- ❑ The device ID is an arbitrary character string that is set when the peripheral device is registered to the TM printer (master).
For details, refer to the Technical Reference Guide of each printer.
- ❑ When using multi-threading to connect to multiple printers or peripheral devices, this API and [disconnect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.
- ❑ This API will succeed regardless of the connection status of the TM printer (master) and peripheral devices.
- ❑ Devices other than printers are exclusively locked.

disconnect

Ends communication with the serial communication device.

Syntax

```
Public void disconnect () throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------------|
| ERR_ILLEGAL | Tried to end communication where it had not been established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_DISCONNECT | Failed to disconnect the device. |

Supplementary explanation

When using multi-threading to connect to multiple printers or peripheral devices, this API and [connect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.

getStatus

Acquires the current status information.

Syntax

```
public SerialStatusInfo getStatus ()
```

Return value

The current status is returned in the SerialStatusInfo type.

The following status information is stored in the object as a property.

Stored status information can be acquired using the getter method of each property.

| Printer status | Status | Description |
|-------------------|--------------------|--------------|
| connection: | SimpleSerial.TRUE | Connected |
| Connection status | SimpleSerial.FALSE | Disconnected |

Supplementary explanation

- ❑ The status object is set to the status at the timing of execution of this API and will not be updated.
- ❑ If this function is executed within a callback function, null will be returned.

sendCommand

Transfers a command.

The error status of this API is the result of sending data to the devices.

The processing result of the devices using this API is notified to the listener registration method set by the [setReceiveEventListenerAPI](#).

Syntax

```
public void sendCommand(byte[] data) throws
Epos2Exception
```

Parameter

data

Specifies the command.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|--------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_ILLEGAL | This API was called while no communication had been started. |

setReceiveEventListenerr

Registers a listener registration method for a reception event from the device.

Syntax

```
public void setReceiveEventListener(ReceiveListener listener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface ReceiveListener extends EventListener
```

Listener registration method

```
void onSimpleSerialReceive (SimpleSerial serialObj, byte[]  
data)
```

Parameter

serialObj

The callback source object is stored.

data

Receives reception data.

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.
- ❑ When a communication error occurs during ePOS-Device XML control, communication disconnection is not notified.

To notify the disconnection event, implement the [setConnectionEventListener](#).

GermanyFiscalElement Class

GermanyFiscalElement

Initializes the GermanyFiscalElement class.

Syntax

```
public GermanyFiscalElement(android.content.Context  
context) throws Epos2Exception
```

Parameter

context

Specifies the application context.

Null can be specified when the log output function is not used.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|---------------------------------------------------------|
| ERR_MEMORY | Memory necessary for processing could not be allocated. |

Supplementary explanation

When iterating a process, be sure to generate and destroy instances outside the iterated process and not iterate the process at a short interval.

Memory releasing by the OS may affect the process of the Epson ePOS SDK, resulting in an invalid operation.

When using it with multiple printers connected, make sure to generate a dedicated instance for each printer.

connect

Starts communication with German fiscal element (TSE).

Syntax

```
public void connect(java.lang.String target,int timeout) throws  
Epos2Exception
```

Parameter

target

Specifies the method of connecting to the printer by a character string.

The connection method varies according to the system configuration.

- TM Printer Models

<connection type>:<identifier>

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Wi-Fi/Ethernet | "TCP" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCP:192.168.192.168" |
| Bluetooth | "BT" | BD address | "BT:00:22:15:7D:70:9C" |
| USB | "USB" | <ul style="list-style-type: none"> Device node Serial number Omitted | "USB:/dev/udev/*" "USB:00000000000000000000000000000000" "USB:" |

- Customer Display Models

<connection type>:<identifier>

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Wi-Fi/Ethernet | "TCP" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCP:192.168.192.168" |
| Bluetooth | "BT" | BD address | "BT:00:22:15:7D:70:9C" |
| USB | "USB" | <ul style="list-style-type: none"> Device node Serial number Omitted | "USB:/dev/udev/*" "USB:00000000000000000000000000000000" "USB:" |

To connect to the printer via SSL/TLS communication, specify using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| Wi-Fi/Ethernet | "TCPS" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCPS:192.168.192.168[local_TSE]" |

- TM Printer + DM-D30 + barcode scanner model/
TM Printer + barcode scanner model

To connect via Wi-Fi/Ethernet network communication, specify using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Wi-Fi/Ethernet | "TCP" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCP:192.168.192.168[local_TSE]" |

The device ID is fixed as [local_TSE].

To connect via *Bluetooth* or USB, specify using the following syntax.

<connection type>:<identifier>

| I/F | Connec-tion type | Identifier | Example |
|-----------|------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Bluetooth | "BT" | BD address | "BT:00:22:15:7D:70:9C" |
| USB | "USB" | <ul style="list-style-type: none"> Device node Serial number Omitted | "USB:/dev/udev/*" "USB:00000000000000000000" "USB:" |

- POS Terminal Model

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Wi-Fi/Ethernet | <ul style="list-style-type: none"> "TCP" "TCPS" | <ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name | "TCP:192.168.192.168[local_TSE]" |

To connect to the printer via SSL/TLS communication, specify TCPS in the connection type.

timeout

Specifies the maximum time (in milliseconds) to wait for communication with the printer to be established.

| Value | Description |
|-----------------------------|------------------------------------------------------------------|
| Integer from 1000 to 300000 | Maximum wait time before an error is returned (in milliseconds). |
| Print.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|------------------|----------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Failed to open the device. |
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| ERR_ILLEGAL | Tried to start communication with a printer with which communication had been already established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_NOT_FOUND | The device could not be found. |
| ERR_IN_USE | The device was in use. |
| ERR_TYPE_INVALID | The device type is different. |

Supplementary explanation

- ❑ When communication with the printer is no longer necessary, be sure to call [disconnect](#) to terminate it.
- ❑ When using multi-threading to connect to multiple printers or peripheral devices, this API and [disconnect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.
- ❑ The printer status is returned to the event registered with the Printer class.
For details, refer to Chapter 2 "Programming Flow" and Chapter 6 "To use the same printer from multiple mobile devices."
- ❑ The device ID is an arbitrary character string that is set when the peripheral device is registered to the TM printer (master).
For details, refer to the Technical Reference Guide of each printer.
- ❑ If you are using DHCP to assign the IP address of the printer, specify the MAC address or host name of the printer as the identifier.
- ❑ If you specify the host name of the printer as the identifier, use in the environment where it can be found by the DNS server.

- When connecting through the USB, the identifiers that can be specified differ depending on the shape of the USB connector.

When the identifier is omitted, Android OS connects with the USB device found first.

When the Android terminal is set to the developer mode, you may not be able to connect through USB-A - Device Charging.

| Identifier | Shape of the USB connector | |
|---------------|----------------------------|-------------------------|
| | USB-B | USB-A - Device Charging |
| Device node | ✓ | - |
| Serial number | - | ✓ |
| Omitted | ✓ | ✓ |

- This API will succeed regardless of the connection status of the TM printer (master) and peripheral devices.

- Devices other than printers are exclusively locked.

disconnect

Ends communication with the German fiscal element (TSE).

Syntax

```
public void disconnect() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------------|
| ERR_ILLEGAL | Tried to end communication where it had not been established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_DISCONNECT | Failed to disconnect the device. |

Supplementary explanation

When using multi-threading to connect to multiple printers or peripheral devices, this API and [connect](#) cannot be started for other printers or peripheral devices until this API finishes processing.

getStatus

Acquires the connection status with German fiscal element (TSE).

Syntax

```
public GermanyFiscalElementStatusInfo getStatus()
```

Return value

The current status is returned in the GermanyFiscalElementStatusinfo type.

The following status information is stored in the object as a property.

Stored status information can be acquired using the getter method of each property.

| Printer status | Status | Description |
|-------------------|----------------------------|--------------|
| connection: | GermanyFiscalElement.TRUE | Connected |
| Connection status | GermanyFiscalElement.FALSE | Disconnected |

Supplementary explanation

- ❑ The status object is set to the status at the timing of execution of this API and will not be updated.
- ❑ If this function is executed within a callback function, null will be returned.

operate

Sends a JSON string to German fiscal element (TSE).

The processing result of the device using this API is notified to the listener registration method set by [setReceiveEventListener](#) of the GermanyFiscalElement class.

Syntax

```
public void operate(java.lang.String jsonString, int timeout)
throws Epos2Exception
```

Parameter

jsonString

Specifies the JSON string to send to German fiscal element (TSE).

timeout

Specifies the timeout period before completion of command transmission in milliseconds.

| Value | Description |
|-----------------------------|------------------------------------------------------------------|
| Integer from 5000 to 120000 | Maximum wait time before an error is returned (in milliseconds). |
| PARAM_DEFAULT | Specifies the default value (10000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|--------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_ILLEGAL | This API was called while no communication had been started. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

Supplementary explanation

- ❑ ERR_PROCESSING occurs if this API is executed during printer processing.
Therefore, execute this API after receiving the processing complete callback.
- ❑ ERR_PARAM is returned if null is specified as the JSON string, or if the size of jsonString to be sent is 64 KByte or more.

setReceiveEventListener

Registers the listener registration method for response document receive events.

Syntax

```
public void setReceiveEventListener(ReceiveListener listener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface ReceiveListener extends EventListener
```

Listener registration method

```
void onGfeReceive (GermanyFiscalElement germanyFiscalObj,  
int code, String data)
```

Parameter

gfeObj

The callback source object is stored.

code

The processing result is stored.

| Error status | Description |
|------------------------|------------------------------------------------------------------------|
| CODE_SUCCESS | Processed successfully. |
| CODE_ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| CODE_ERR_PORT | An internal communication error with the device occurred. |
| CODE_ERR_GET_JSON_SIZE | Failed to acquire the JSON string. |
| CODE_ERR_AUTORECOVER | Automatic recovery error occurred. |
| CODE_ERR_UNRECOVERABLE | Unrecoverable error occurred. |
| CODE_ERR_CUTTER | Auto cutter error occurred. |
| CODE_ERR_MECHANICAL | Mechanical error occurred. |
| CODE_ERR_NOT_FOUND | The device was not found. |
| CODE_ERR_DEVICE_BUSY | The specified device is in process and the process cannot be executed. |

data

Processing results are stored in the JSON string.

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.
- ❑ When a communication error occurs during ePOS-Device XML control, communication disconnection is not notified.

To notify the disconnection event, implement the setConnectionEventListener.

OtherPeripheral class

OtherPeripheral

Initializes the OtherPeripheral class.

Syntax

```
public OtherPeripheral(Context context) throws  
Epos2Exception
```

Parameter

context

Specifies the application context.

Null can be specified when the log output function is not used.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_MEMORY | Necessary memory could not be allocated. |

connect

Starts communication with the peripheral device.

Syntax

```
public void connect(String target, int timeout) throws  
Epos2Exception
```

Parameter

target

Specifies the method of connecting to the printer by a character string.

Specify the connection method using the following syntax.

<connection type>:<identifier>[<device ID>]

| I/F | Connec-tion type | Identifier | Description |
|----------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Wi-Fi/Ethernet | <ul style="list-style-type: none"> • "TCP" • "TCPS" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168[local_other]" |

To connect to the printer via SSL/TLS communication, specify TCPS in the connection type.

timeout

Specifies the maximum time (in milliseconds) to wait for communication with the printer to be established.

| Value | Description |
|-------------------------------|------------------------------------------------------------------|
| Integer from 1000 to 300000 | Maximum wait time before an error is returned (in milliseconds). |
| OtherPeripheral.PARAM_DEFAULT | Specifies the default value (15000). |

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|----------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Failed to open the device. |
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| ERR_ILLEGAL | Tried to start communication with a printer with which communication had been already established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

| Error status | Description |
|------------------|--------------------------------|
| ERR_NOT_FOUND | The device could not be found. |
| ERR_IN_USE | The device was in use. |
| ERR_TYPE_INVALID | The device type is different. |

Supplementary explanation

- ❑ The device ID is a logical device name that is set when the peripheral device is registered to the TM printer (master).
For details, refer to the TM-DT Series Peripheral Device Control Guide.
- ❑ When using multi-threading to connect to multiple printers or peripheral devices, this API and [disconnect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.
- ❑ Devices other than printers are exclusively locked.

disconnect

Ends communication with the peripheral device.

Syntax

```
public void disconnect() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------------|
| ERR_ILLEGAL | Tried to end communication where it had not been established. |
| ERR_MEMORY | Necessary memory could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_DISCONNECT | Failed to disconnect the device. |

Supplementary explanation

When using multi-threading to connect to multiple printers or peripheral devices, this API and [connect](#) cannot be started for other printers or peripheral devices until this API finishes processing. Start the next process after this API finishes processing.

getStatus

Acquires the current status information.

Syntax

```
public OtherPeripheralStatusInfo getStatus()
```

Return value

The current status is returned in the OtherPeripheralStatusInfo type.

The following status information is stored in the object as a property.

Stored status information can be acquired using the getter method of each property.

| Keyboard status | Status | Description |
|-------------------|-----------------------|--------------|
| connection: | OtherPeripheral.TRUE | Connected |
| Connection status | OtherPeripheral.FALSE | Disconnected |

Supplementary explanation

- ❑ The status object is set to the status at the timing of execution of this API and will not be updated.
- ❑ If this function is executed within a callback function, null will be returned.

sendData

Sends data to the peripheral device.

Specifies the arbitrary function of the device control program side, and passes JSON data made from a set of the property name and value.

For details, refer to the TM-DT Series Peripheral Device Control Guide.

The processing result of this API is notified to the listener registration method set by the [setReceiveEventListener](#) API.

Syntax

```
public void sendData(String methodName, String data) throws
Epos2Exception
```

Parameter

methodName

Specifies the function name to be executed.

data

Specifies the parameter to be passed to the function in JSON string.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|-------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Communication failed. |
| ERR_MEMORY | Sufficient memory required for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_ILLEGAL | This API was called while no communication had been started. |

setReceiveEventLister

Registers a listener registration method for a notification of reception data from the peripheral device event.

Syntax

```
public void setReceiveEventLister(ReceiveListener listener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface ReceiveListener extends EventListener
```

Listener registration method

```
void onOtherReceive(OtherPeripheral otherObj,  
java.lang.String eventName, String data)
```

Parameter

otherObj

The callback source object is stored.

eventName

The event name is stored.

data

Reception data is stored in the JSON string.

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.

CommBox class

CommBox

Initializes the CommBox class.

Syntax

```
public CommBox(Context context) throws Epos2Exception
```

Parameter

context

Specifies the application context.

Null can be specified when the log output function is not used.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|------------------------------------------|
| ERR_MEMORY | Necessary memory could not be allocated. |

Supplementary explanation

When iterating a process, be sure to generate and destroy instances outside the iterated process and not iterate the process at a short interval.

Memory releasing by the OS may affect the process of the Epson ePOS SDK, resulting in an invalid operation.

connect

Starts communication with the communication box.

Syntax

```
public void connect(String target, int timeout, String myId)
throws Epos2Exception
```

Parameter

target

Specifies the method of connecting to the printer by a character string.

Specify the connection method using the following syntax.

<connection type>:<identifier>[<box ID>]

| I/F | Connec-tion type | Identifier | Example |
|----------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Wi-Fi/Ethernet | <ul style="list-style-type: none"> • "TCP" • "TCPS" | <ul style="list-style-type: none"> • IP address in IPv4 format • MAC address • Host name | "TCP:192.168.192.168[Box1]" |

To connect to the printer via SSL/TLS communication, specify TCPS in the connection type.

timeout

Specifies the maximum time (in milliseconds) to wait for communication with the printer to be established.

| Value | Description |
|-----------------------------|------------------------------------------------------------------|
| Integer from 1000 to 300000 | Maximum wait time before an error is returned (in milliseconds). |
| CommBox.PARAM_DEFAULT | Specifies the default value (15000). |

myId

Specifies a member ID to identify the application itself in the communication box.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|--------------|-------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Could not open the device. |
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |

| Error status | Description |
|---------------------|-------------------------------------------------------------------------------------|
| ERR_PROCESSING | Could not run the process. |
| ERR_ALREADY_OPENED | Communication box is already open. |
| ERR_ALREADY_USED | Specified member ID is already in use. |
| ERR_BOX_COUNT_OVER | The number of created communication boxes has exceeded the upper limit. |
| ERR_BOX_CLIENT_OVER | The number of members belong to the communication box has exceeded the upper limit. |

Supplementary explanation

- This API will succeed regardless of the connection status of the TM printer (master) and peripheral devices.
- Devices other than printers are exclusively locked.

disconnect

Ends communication with the communication box.

Syntax

```
public void disconnect() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Communication failed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

getStatus

Acquires the current status information.

Syntax

```
public CommBoxStatusInfo getStatus ()
```

Return value

The current status is returned in the CommBoxStatusInfo type.

The following status information is stored in the object as a property.

Stored status information can be acquired using the getter method of each property.

| Printer status | Status | Description |
|-------------------|---------------|--------------|
| connection: | CommBox.TRUE | Connected |
| Connection status | CommBox.FALSE | Disconnected |

Supplementary explanation

- ❑ The status object is set to the status at the timing of execution of this API and will not be updated.
- ❑ If this function is executed within a callback function, null will be returned.

getCommHistory

Acquires the transmission history of the communication box.

The error status of this API is the result of sending data to the devices.

The processing result of the devices using this API is notified to the set listener registration method.

Syntax

```
public void getCommHistory(GetCommHistoryCallback  
callback) throws Epos2Exception
```

Parameter

callback

Specifies an object which has a notification target method.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|---------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_CONNECT | Communication failed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

Listener interface

```
public interface GetCommHistoryCallback extends  
EventListener
```

Definition of the listener registration method

```
void onGetCommHistory(CommBox commBoxObj, int code,  
ArrayList<HashMap<String, String>> historyList
```

Parameter

commBoxObj

The callback source object is stored.

code

| Error status | Description |
|------------------|----------------------------|
| SUCCESS | Processed successfully. |
| CODE_ERR_FAILURE | An unknown error occurred. |

historyList

The transmission history of the communication box is stored.

| historyList[index] | |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Key | Description |
| String senderId | The member ID of the transmitter is stored. If no member ID was specified when running the connect method, "" (blank character) is set. |
| String receiverId | The member ID of the receiver is stored. If data was sent to all the members of the communication box, "" (blank character) is set. |
| String message | Received data is set. |

sendMessage

Sends a message to the communication box.

The error status of this API is the result of sending data to the devices.

The processing result of the devices using this API is notified to the set listener registration method.

Syntax

```
public void sendMessage (String message, String
targetId,SendMessageCallback callback) throws
Epos2Exception
```

Parameter

message

Specifies data to send to the communication box.

targetId

Specifies the member ID of the receiver.

When null or "" (blank character) is specified, data is sent to all the members other than the transmitter.

callback

Specifies an object which has a notification target method.

Exception

When the process fails, Epos2Exception with one of the following error value occurs.

| Error status | Description |
|----------------|--------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |
| ERR_ILLEGAL | This API was called while no communication had been started. |

Listener interface

```
public interface SendMessageCallback extends EventListener
```

Definition of the listener registration method

```
void onCommBoxSendMessage (CommBox commBoxObj,int
code, int count)
```

Parameter

commBoxObj

The callback source object is stored.

code

| Error status | Description |
|--------------------|--------------------------------------|
| CODE_SUCCESS | Processed successfully. |
| CODE_ERR_NOT_FOUND | Specified member ID cannot be found. |
| CODE_ERR_FAILURE | An unknown error occurred. |

count

Number of clients which tried to send the message is stored.

setReceiveEventLister

Registers a listener registration method for a message reception event of the communication box.

Syntax

```
public void setReceiveEventLister (ReceiveListener listener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface ReceiveListener extends EventListener
```

Listener registration method

```
void onCommBoxReceive(CommBox commBoxObj, String
senderId, String receiverId String message
```

Parameter

commBoxObj

The callback source object is stored.

senderId

The member ID of the transmitter is stored.

If no member ID was specified when a transmitting member run the connect method, "" (blank character) is set.

receiverId

The member ID of the receiver is stored.

If data was sent to all the members of the communication box, "" (blank character) is set.

message

The received message is stored.

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.
- ❑ When a communication error occurs during ePOS-Device XML control, communication disconnection is not notified.
To notify the disconnection event, implement the [setConnectionEventLister](#).

Common to all classes

getAdmin

Acquires the administrator name set with printer.

Syntax

```
public String getAdmin()
```

Return value

A string for the administrator name.

Supplementary explanation

- If not set, "" (blank character) is returned for the TM printer.
- The administrator name is set by EPSON TMNet WebConfig.
- This API cannot be used with *Bluetooth* communication.

getLocation

Acquires the installation location information set with printer.

Syntax

```
public String getLocation()
```

Return value

A string for the installation location.

Supplementary explanation

- If not set, "" (blank character) is returned for the TM printer.
- The installation location information is set by EPSON TMNet WebConfig.
- This API cannot be used with *Bluetooth* communication.

setConnectionEventListener

Registers a listener registration method which receives a notification that a reconnection process has been started.

Be sure to perform a process (e.g., display a message to indicate that reconnection has been started) when setConnectionEventListener is run.

Syntax

```
public void setConnectionEventListener (ConnectionListener  
listener)
```

Parameter

listener

Specifies an object which has a notification target method.

Listener interface

```
public interface ConnectionListener extends EventListener
```

Listener registration method

```
void onConnection(Object deviceObj, int eventType)
```

Parameter

deviceObj

The callback source object is stored.

eventType

The type of the event that occurred is stored.

| Event type | Description |
|----------------------|-------------------------------|
| *.EVENT_RECONNECTING | Reconnection start event |
| *.EVENT_RECONNECT | Reconnection completion event |
| *.EVENT_DISCONNECT | Disconnection event |

Supplementary explanation

- ❑ When this API is run multiple times, the listener registration method specified later takes effect.
- ❑ If null is specified in listener when calling this API, the registered listener registration method is canceled.
- ❑ It takes about 30 seconds for the disconnection event to occur after the disconnection.
- ❑ Do not make any call operation when *.EVENT_RECONNECTING has occurred.
Wait until *.EVENT_RECONNECT or *.EVENT_DISCONNECT occurs.
- ❑ *.EVENT_DISCONNECT occurs in the following cases:
When disconnect is running
When connection fails after occurrence of *.EVENT_RECONNECTING

- ❑ When *.EVENT_DISCONNECT occurs, it is not necessary to call disconnect.
When disconnect is called, an exception with ERR_ILLEGAL stored in Epos2Exception will occur.

Discovery class

start

Starts searching for the specified device type.

An event is generated for each device detected.

Syntax

```
public static synchronized void start(Context context,
    FilterOption filterOption,DiscoveryListener listener) throws
    Epos2Exception
```

Parameter

context

Sets an instance of the Context class for the caller.

Example) Sets Context acquired by getBaseContext() within Activity.

filterOption

In order to filter the search result, set the filter option in the FilterOption type and specify it in the parameter. When null is specified, search is run with the default settings.

The following information is stored in the FilterOption type.

portType

Selects the port to search.

| Value | Description |
|----------------------------------|------------------------------------------------------------------------------|
| Discovery.PORTTYPE_ALL (default) | Search for all devices which can be connected via TCP and <i>Bluetooth</i> . |
| Discovery.PORTTYPE_TCP | Search for devices connected to the network. |
| Discovery.PORTTYPE_BLUETOOTH | Search for devices which can be connected via <i>Bluetooth</i> . |
| Discovery.PORTTYPE_USB | Search for devices which can be connected via USB. |

broadcast

Specify a Broadcast Address for TCP search as a string.

| Value | Description |
|-----------------------------|-------------|
| "255.255.255.255" (default) | - |

deviceModel

Specifies the device model to search for.

| Value | Description |
|---------------------|------------------------|
| Discovery.MODEL_ALL | Search for all models. |

epsonFilter

Filters the search result by the Epson printers.

| Value | Description |
|--------------------------------|--------------------------------------------------|
| Discovery.FILTER_NAME(default) | Filters the search result by the Epson printers. |
| Discovery.FILTER_NONE | Does not filter the search result. |

deviceType

Specifies the device type to search for.

| Value | Description |
|---------------------------------|------------------------------------------|
| Discovery.TYPE_ALL (default) | Search for all devices. |
| Discovery.TYPE_PRINTER | Search for printers. |
| Discovery.TYPE_HYBRID_PRINTER | Searches for hybrid model printers. |
| Discovery.TYPE_DISPLAY | Search for customer displays. |
| Discovery.TYPE_KEYBOARD | Search for keyboards. |
| Discovery.TYPE_SCANNER | Search for barcode scanners. |
| Discovery.TYPE_SERIAL | Search for serial communication devices. |
| Discovery.TYPE_POS_KEYBOARD | Search for the POS keyboard. |
| Discovery.TYPE_MSR | Search for the MSR. |
| Discovery.TYPE_GFE | Search for German fiscal element (TSE). |
| Discovery.TYPE_OTHER_PERIPHERAL | Search for other peripheral devices. |

bondedDevices

Specifies the search target when searching for a device that can be connected via *Bluetooth*.

| Value | Description |
|---------------------------|---------------------------------------------------------------------------------------|
| Discovery.TRUE | Search for devices that can be connected, and devices that were previously connected. |
| Discovery.FALSE (default) | Search for devices that can be connected. |

listener

Specifies an object which has a notification target method.

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|----------------------------------|
| ERR_PARAM | An invalid parameter was passed. |

| Error status | Description |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ERR_ILLEGAL | <ul style="list-style-type: none"> Tried to start search when search had been already done. <i>Bluetooth</i> is OFF. There is no permission for the position information. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. |
| ERR_FAILURE | An unknown error occurred. |
| ERR_PROCESSING | Could not run the process. |

Listener interface

public interface DiscoveryListener extends EventListener

Listener registration method

void onDiscovery(DeviceInfo deviceInfo);

Parameter

deviceInfo

The device information of the detected device is stored in the DeviceInfo type.

The following device information is stored.

deviceType

The device type is stored.

| Device type | Status |
|-----------------------------------|---------------------------------|
| For a printer | Discovery.TYPE_PRINTER |
| For hybrid model printers | Discovery.TYPE_HYBRID_PRINTER |
| For a customer display | Discovery.TYPE_DISPLAY |
| For a keyboard | Discovery.TYPE_KEYBOARD |
| For a barcode scanner | Discovery.TYPE_SCANNER |
| For a serial communication device | Discovery.TYPE_SERIAL |
| For POS keyboard | Discovery.TYPE_POS_KEYBOARD |
| For MSR | Discovery.TYPE_MSR |
| For German fiscal element (TSE) | Discovery.TYPE_GFE |
| For other peripheral devices | Discovery.TYPE_OTHER_PERIPHERAL |

target

The connection target of a device which can be specified by connectAPI is stored as a string.

Example)

"TCP:192.168.192.168"

```
"BT:00:22:15:7D:70:9C"
"USB:/dev/udev/*"
"USB:000000000000000000000000"
"TCP:192.168.192.168[local_printer]"
"TCP:192.168.192.168[local_display]"
"TCP:12:34:56:78:56:78"
```

deviceName

The name set to the device is stored.

If it could not be acquired, "" (blank character) is stored.

Example)

For a printer: "TM-T88V"

ipAddress

The IP address is stored.

If it could not be acquired, "" (blank character) is stored.

Example)

TCP: "192.168.192.168"

BT: ""(blank character)

macAddress

The MAC address is stored.

If it could not be acquired, "" (blank character) is stored.

Example)

TCP: "12:34:56:78:56:78"

BT: ""(blank character)

bdAddress

The BD address is stored.

If it could not be acquired, "" (blank character) is stored.

Example)

TCP: ""(blank character)

BT: "12:34:56:78:56:78"

Supplementary explanation

- The search result of this API is reported to the callback function for each device detected.
An already opened device is also reported. However, a USB device and a *Bluetooth* device are not reported if they have been already opened.
- In search for TCP devices, if multiple devices with the same IP address exist, the device information is treated as a single device. Consistency for such device information is not guaranteed.
- If the printer has its TCP address and TCPS address, and the both are detected, only the TCPS address is reported to the callback function.
- Hybrid model printers can be detected as deviceType of Discovery.TYPE_PRINTER and Discovery.TYPE_HYBRID_PRINTER.
- To search for a hybrid model printer connected via USB, specify Discovery.TYPE_ALL in deviceType.
- After the search begins and the process ends, make sure to end the search.
- This search function is not available in Android Studio simulator.

stop

Stops search.

Syntax

```
public static synchronized void stop() throws Epos2Exception
```

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|-------------------------------------------------------|
| ERR_ILLEGAL | Tried to stop a search while it had not been started. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

After the search begins and the process ends, make sure to end the search.

Epos2Exception class

getErrorHandler

Acquires the error status from the exception.

Syntax

```
public int getErrorHandler()
```

Return value

Error status defined by the API that generated the exception is returned.

Refer to [Error Status and countermeasures](#).

Log class

setLogSettings

Sets the log output function.

Syntax

```
public static void setLogSettings(Context context, int period,
int output, String ipAddress, int port, int logSize, int logLevel)
throws Epos2Exception
```

Parameter

context

Specifies the application context.

period

Specifies whether the log output function setting is temporary or permanent.

The configuration file is not created for temporary setting but is created for permanent setting.

| Value | Description |
|------------------|-----------------------------------|
| PERIOD_TEMPORARY | Temporarily reflects the setting. |
| PERIOD_PERMANENT | Permanently reflects the setting. |

output

Enables or disables the log output function and specifies the log output location.

| Value | Description |
|----------------|----------------------------------------|
| OUTPUT_DISABLE | Disables the log output function. |
| OUTPUT_STORAGE | Output to the storage of the terminal. |
| OUTPUT_TCP | Output via TCP. |

ipAddress

Specifies the IP address for TCP communication.

Specifies the IP address in the IPv4 format.

Null can be specified when the log output function is disabled or the log is output to the storage of the terminal.

port

Specifies the port number for TCP communication.

Also specifies a value within the valid range even when the log output function is disabled or the log is output to the storage of the terminal.

| Value | Description |
|-------------------------|-------------|
| Integer from 0 to 65535 | Port number |

logSize

Specifies the maximum capacity of the log stored in the storage.

Also specifies a value within the valid range even when the log output function is disabled or the log is output to TCP.

| Value | Description |
|----------------------|--------------------------------------------|
| Integer from 1 to 50 | Maximum capacity of the log stored (in MB) |

logLevel

Specifies the log output level.

| Value | Description |
|--------------|-------------|
| LOGLEVEL_LOW | Low level |

Exception

When the process fails, Epos2Exception with one of the following error status occurs.

| Error status | Description |
|--------------|----------------------------------|
| ERR_PARAM | An invalid parameter was passed. |
| ERR_FAILURE | An unknown error occurred. |

Supplementary explanation

- ❑ To specify period for the PERIOD_PERMANENT, set the permissions for the application to access the storage.
- ❑ To specify output for the OUTPUT_STORAGE, set the permissions for the application to access the storage.
- ❑ To specify output for the OUTPUT_TCP, set the permissions for the application to access the network.

SdkVersion

Acquires the Epson ePOS SDK version.

Syntax

Getter

```
public static String getSdkVersion ()
```

Supplementary explanation

The version of SDK used can be acquired as a character string.

Example: "Ver.2.0.0"

EasySelect class

parseNFC

Analyzes NFC tags data.

Syntax

```
public ArrayList<EasySelectInfo>parseNFC(Tag tag, int
timeout)
```

Parameter

tag

Specifies NFC tag data that has been read by using Android API.

timeout

Specifies a time period (in milliseconds) to wait for the NFC tag analysis to complete.

| Value | Description |
|---------------------------|----------------------------------------------------|
| Integer from 0 to 60000 | Timeout for the parsing process (in milliseconds). |
| PARSE_NFC_TIMEOUT_DEFAULT | Specifies the default value (500). |

Return value

The NFC tag analysis result is returned to the member variables of the EasySelectInfo class. When the analysis has failed, null is returned.

Supplementary explanation

- An NFC tag set to each TM printer includes the following information.

| Type | Description |
|----------------------------------|-----------------------------------------------------------------|
| Slave printer (wired / wireless) | Epson's unique data such as a product name and a serial number. |
| Bluetooth compatible printer | NFC standard data for Bluetooth (BTSSP). |

- For a slave printer, the parseNFC API starts broadcast communication and sets a MAC address of the slave printer. If no response is received from the printer until the timeout period has passed, null is returned. Make sure to enable the slave printer to communicate via the network before executing parseNFC.

parseQR

Analyzes QR tags data.

Syntax

```
public EasySelectInfo parseQR(String data)
```

Parameter

data

Specifies QR code data that has been read by using Android API.

Return value

The QR code analysis result is returned to the member variables of the EasySelectInfo class.

When the analysis has failed, null is returned.

Supplementary explanation

Create the QR code using createQR API and print it to be read.

Some printers can print the QR code on a status sheet. For details, refer to the Technical Reference Guide of the printer.

createQR

Creates QR code data that can be analyzed by parseQR.

Syntax

```
public String createQR(String printerName, int deviceType,
String macAddress)
```

Parameter

printerName

Specifies a printer name.

deviceType

Specifies a printer type.

| Value | Description |
|-------------------------|----------------------------------|
| Print.DEVTYPE_TCP | Slave printer (wired / wireless) |
| Print.DEVTYPE_BLUETOOTH | Bluetooth compatible printer |

macAddress

Specifies a MAC address (for a slave printer), or a BD address (for a Bluetooth compatible printer). The following shows the address format.

| Format | Description |
|-------------------|---------------------------------|
| 00:11:22:33:44:55 | Separate the digits by colons. |
| 00-11-22-33-44-55 | Separate the digits by hyphens. |
| 001122334455 | No separation |

Return value

QR code print data is returned. Specify this data by addSymbol to print the QR code.

When creating the print data of QR code has failed, null is returned.

Supplementary explanation

To see the printer name, MAC address, and BD address, print a status sheet from the printer.

For instructions on how to print the status sheet, refer to the Technical Reference Guide of the printer.

EasySelectInfo class

deviceType

Stores printer type information.

| Stored data | Description |
|-------------------------|-------------------------------------|
| Print.DEVTYPE_TCP | Slave printer |
| Print.DEVTYPE_BLUETOOTH | <i>Bluetooth</i> compatible printer |

Syntax

```
int deviceType
```

printerName

Stores printer name information.

Syntax

```
String printerName
```

Supplementary explanation

If the TM printer is equipped with a UB-R04 or UB-E04 interface board, printerName acquired from an NFC tag will be returned as "" (blank).

macAddress

Stores a MAC address or a BD address.

Syntax

```
String macAddress
```

Status list

Error Status and countermeasures

| Error Status | Cause | Countermeasure |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ERR_PARAM | An invalid parameter was passed. <Example> A value outside the supported range was specified. | Check the value specified in the parameter. |
| ERR_CONNECT | Failed to communicate with the device. <Example> Failed to connect to the printer. | Run disconnect for the appropriate class and then connect to restore communication. When a connection is established via <i>Bluetooth</i> , the Android OS automatically attempts a reconnection. If this error status occurs even after 20 seconds or more have elapsed, recover the communication according to the method described above. |
| ERR_TIMEOUT | Failed to communicate with the devices within the specified time. | Check the timeout period. Set the timeout period to longer than the time required for printing. |
| ERR_MEMORY | Memory necessary for processing could not be allocated. | Close unnecessary applications. |
| ERR_ILLEGAL | The function was used in an illegal way. <Example> Tried to start communication with a printer with which communication had been already established. | Use the API in the correct manner. |
| ERR_PROCESSING | Could not run the process. <Example> The specified process could not be run because a similar process was being run by another thread. | The timing of the processes has overlapped. Re-execute the API in which the error occurred. |
| ERR_UNSUPPORTED | <ul style="list-style-type: none"> • A model name or language not supported was specified. • A print method not supported by the printer was specified. | <ul style="list-style-type: none"> • A function cannot be used if it is not supported by the specified model. • Specify a print method supported by the printer. |
| ERR_NOT_FOUND | The specified target could not be found. <Example> The printer specified as the connection target does not exist. | Check if the connection type and/or IP address are correct. |

| Error Status | Cause | Countermeasure |
|---------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| ERR_IN_USE | The specified device is in use. <Example> The device is being used by another application. | Stop using the device from another application. |
| ERR_TYPE_INVALID | The device class is not correct (Printer, LineDisplay). | Check the class of the connected device and connect to it with the correct device class. |
| | An unsupported connection method is specified. | Check the system configuration, and specify the appropriate connection method. |
| ERR_DISCONNECT | Failed to disconnect from the device. | Check connection with the device. |
| ERR_ALREADY_OPENED | Communication box is already open. | Finish communication with the communication box. |
| ERR_ALREADY_USED | Specified member ID is already in use. | Specify a different member ID. |
| ERR_BOX_COUNT_OVER | The number of created communication boxes has exceeded the upper limit. | Delete an unnecessary communication box. |
| ERR_BOX_CLIENT_OVER | The number of members belong to the communication box has exceeded the upper limit. | Delete a member who is not using the communication box. |
| ERR_FAILURE | An unknown error occurred. | Check for a problem with the execution environment. |

Callback Code and countermeasures

| CallbackCode | Cause | Countermeasure |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| CODE_SUCCESS | Processed successfully. | - |
| CODE_ERR_TIMEOUT | The process exceeded the specified timeout period. | Adjust the timeout period. |
| CODE_ERR_NOT_FOUND | <ul style="list-style-type: none"> The connection type and/or IP address are not correct. The specified device is not connected. | <ul style="list-style-type: none"> Check if the connection type and/or IP address are correct. Check connection with the device. |
| CODE_ERR_AUTORECOVER | <ul style="list-style-type: none"> Head overheat error occurred. Motor driver IC overheat error occurred. Battery overheat error occurred. | Start the process after the device is cooled down. |
| | The print reference mark on the label sheet cannot be found. | Open and close the cover. |
| CODE_ERR_COVER_OPEN | <ul style="list-style-type: none"> Cover is open. Cover was opened during MICR read operation. | Close the printer cover. |
| CODE_ERR_CUTTER | Auto cutter error occurred. | Remove the error cause and power off and then on the printer. |
| CODE_ERR_MECHANICAL | Mechanical error occurred. | Remove the error cause and power off and then on the printer. |
| CODE_ERR_EMPTY | Paper has run out. | Refill the paper. |
| CODE_ERR_UNRECOVERABLE | Unrecoverable error occurred. | Power off and then on the printer. Contact the distributor or service center if the problem persists. |
| CODE_ERR_SYSTEM | An error occurred with the TM-i firmware or TM-DT software. | Turn off and then turn on the power supply to the TM-i series/TM-DT series, and restart the OS. |
| CODE_ERR_PORT | <ul style="list-style-type: none"> Forced transmission was run in the online state. A communication error occurred. | <ul style="list-style-type: none"> Run forced transmission in the offline state. Review the connection environment. |
| CODE_ERR_INVALID_WINDOW | An unregistered window was specified. | Check the specified window. |
| CODE_ERR_JOB_NOT_FOUND | A print job ID which did not exist was specified. | Check the specified job ID. |
| CODE_PRINTING | <code>requestPrintJobStatus</code> was run by specifying a print job ID which was being printed. | Run the process after printing completes. |
| CODE_ERR_SPOOLER | Print data exceeding the spooler capacity was transmitted. | Check if communication with the printer is disconnected. |
| CODE_ERR_BATTERY_LOW | Battery has run out. | Replace the battery or connect the AC adapter. |

| CallbackCode | Cause | Countermeasure |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CODE_ERR_FAILURE | An unknown error occurred. | Check for a problem with the execution environment. |
| CODE_ERR_TOO_MANY_REQUESTS | The number of print jobs or data to be displayed on a display has exceeded the allowable limit of the printer's firmware. | Wait for the printer to process some of the tasks, then send the jobs or data again. |
| CODE_ERR_REQUEST_ENTITY_TOO_LARGE | Print job data with the size exceeding the capacity of the printer firmware was transmitted. | Check the content of the print job, reduce the size of the data, and then resend the print job. |
| CODE_ERR_NO_MICR_DATA | MICR data cannot be detected. | Check the slip sheet and clean the MICR mechanism if necessary. |
| CODE_ERR_ILLEGAL_LENGTH | Paper length is not appropriate. | Check the paper length. |
| CODE_ERR_NO_MAGNETIC_DATA | Magnetic waveform cannot be detected. | <ul style="list-style-type: none"> • Check the font to read. • Clean the MICR mechanism. |
| CODE_ERR_RECOGNITION | Illegible MICR text was detected. | Check the status of the slip sheet. |
| CODE_ERR_READ | Error occurred during MICR read operation. | Remove the error cause and try again. If the error persists, restart the printer. |
| CODE_ERR_NOISE_DETECTED | Noise error was detected. | Remove the error cause and try the noise measurement again. If the error persists, restart the printer. |
| CODE_ERR_PAPER_JAM | Paper jam error occurred during MICR read operation. | Remove the jammed paper. |
| CODE_ERR_PAPER_PULLED_OUT | <ul style="list-style-type: none"> • Paper was removed during insertion. • Paper was removed during MICR read operation. • Paper was removed after it had been inserted. | Reset the paper. |
| CODE_ERR_CANCEL_FAILED | Failed to cancel waiting for paper insertion. | Check the status of the printer and try the process again. |
| CODE_ERR_PAPER_TYPE | Pinter operation differs from the specified print method. | Specify a correct print method again. |
| CODE_ERR_WAIT_INSERTION | Could not run the process while waiting for paper insertion. | <ul style="list-style-type: none"> • Reset the paper and try the process again. • Cancel waiting for paper insertion and try the process again. |
| CODE_ERR_ILLEGAL | <p>The function was used in an illegal way. <Example> Tried to cancel waiting for paper insertion while paper had already been inserted.</p> | Use the API in an appropriate manner. |
| CODE_ERR_INSERTED | Could not run the process while paper had already been inserted. | Eject the paper and try the process again. |
| CODE_ERR_WAIT_REMOVAL | Could not run the process while waiting for paper removal. | Remove the paper and try the process again. |

| CallbackCode | Cause | Countermeasure |
|----------------------|-------------------------------------|--------------------------------------------------|
| CODE_ERR_DEVICE_BUSY | The specified device is in process. | Execute the process after the process completes. |

Printer Status and countermeasures

Printer class

| Printer Status | Cause | Countermeasure |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| status.connection==Printer.FALSE | <ul style="list-style-type: none"> The printer is powered off. No connection is established with the printer. | Check the power and communication status of the printer. |
| status.online==Printer.FALSE | Offline status. | Remove a cause which forces the printer offline (e.g., the cover is open or paper has run out). |
| status.online==Printer.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.coverOpen==Printer.TRUE | Cover is open. | Close the printer cover. |
| status.coverOpen==Printer.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.paper==Printer.PAPER_NEAR_END | Running short of paper. | Replace the paper. |
| status.paper==Printer.PAPER_EMPTY | Paper has run out. | Refill the paper. |
| status.paper==Printer.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.paperFeed==Printer.TRUE | Paper is being fed by pressing the Paper Feed button. | Run the process after paper feed completes. |
| status.paperFeed==Printer.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.panelSwitch==Printer.SWITCH_ON | Panel switch is being operated. | Run the process after the operation completes. |
| status.panelSwitch==Printer.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.drawer==Printer.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.errorStatus== Printer.MECHANICAL_ERR | Mechanical error occurred. | Remove the error cause and power off and then on the printer. |
| status.errorStatus== Printer.AUTO CUTTER_ERR | Auto cutter error occurred. | Remove the error cause and power off and then on the printer. |
| status.errorStatus== Printer.UNRECOVER_ERR | Unrecoverable error occurred. | Power off and then on the printer. Contact the distributor or service center if the problem persists. |

| Printer Status | Cause | Countermeasure |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| status.errorStatus== Printer.AUTORECOVER_ERR | <ul style="list-style-type: none"> • Head overheat error occurred. • Motor driver IC overheat error occurred. • Battery overheat error occurred. | Start the process after the device is cooled down. |
| | The print reference mark on the label sheet cannot be found. | Open and close the cover. |
| status.errorStatus==Printer.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.autoRecoverError== Printer.HEAD_OVERHEAT | Head overheat error occurred. | Run the process after the device gets cooled down. |
| status.autoRecoverError== Printer.MOTOR_OVERHEAT | Motor driver IC overheat error occurred. | Run the process after the device gets cooled down. |
| status.autoRecoverError== Printer.BATTERY_OVERHEAT | Battery overheat error occurred. | Run the process after the device gets cooled down. |
| status.autoRecoverError== Printer.WRONG_PAPER | The print reference mark on the label sheet cannot be found. | Open and close the cover. |
| status.autoRecoverError== Printer.COVER_OPEN | Cover is open. | Close the printer cover. |
| status.autoRecoverError== Printer.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.buzzer==Printer.TRUE | Buzzer is sounding. | Check the buzzer sounding condition of the printer, and run the process after removing the cause for buzzer sounding. |
| status.buzzer==Printer.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.adapter==Printer.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.batteryLevel== Printer.BATTERY_LEVEL_1 | Running short of battery. | Charge the battery or connect the AC adapter. |
| status.batteryLevel== Printer.BATTERY_LEVEL_0 | Battery has run out. | Replace the battery or connect the AC adapter. |
| status.batteryLevel==Printer.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |

HybridPrinter class

| Printer Status | Cause | Countermeasure |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| status.connection==HybridPrinter.FALSE | <ul style="list-style-type: none"> • The printer is powered off. • No connection is established with the printer. | Check the power and communication status of the printer. |

| Printer Status | Cause | Countermeasure |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| status.online==HybridPrinter.FALSE | Offline status. | Remove a cause which forces the printer offline (e.g., the cover is open or paper has run out). |
| status.online==HybridPrinter.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.coverOpen==HybridPrinter.TRUE | Cover is open. | Close the printer cover. |
| status.coverOpen==HybridPrinter.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.paper==HybridPrinter.PAPER_NEAR_END | Running short of paper. | Replace the paper. |
| status.paper==HybridPrinter.PAPER_EMPTY | Paper has run out. | Refill the paper. |
| status.paper==HybridPrinter.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.paperFeed==HybridPrinter.TRUE | Paper is being fed by pressing the Paper Feed button. | Run the process after paper feed completes. |
| status.paperFeed==HybridPrinter.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.panelSwitch==HybridPrinter.SWITCH_ON | Panel switch is being operated. | Run the process after the operation completes. |
| status.panelSwitch==HybridPrinter.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.drawer==HybridPrinter.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.errorStatus==HybridPrinter.MECHANICAL_ERR | Mechanical error occurred. | Remove the error cause and power off and then on the printer. |
| status.errorStatus==HybridPrinter.AUTOCUTTER_ERR | Auto cutter error occurred. | Remove the error cause and power off and then on the printer. |
| status.errorStatus==HybridPrinter.UNRECOVER_ERR | Unrecoverable error occurred. | Power off and then on the printer. Contact the distributor or service center if the problem persists. |
| status.errorStatus==HybridPrinter.AUTORECOVER_ERR | <ul style="list-style-type: none"> • Head overheat error occurred. • Motor driver IC overheat error occurred. | Start the process after the device is cooled down. |
| status.errorStatus==HybridPrinter.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.autoRecoverError==HybridPrinter.HEAD_OVERHEAT | Head overheat error occurred. | Run the process after the device gets cooled down. |
| status.autoRecoverError==HybridPrinter.MOTOR_OVERHEAT | Motor driver IC overheat error occurred | Run the process after the device gets cooled down. |
| status.autoRecoverError==HybridPrinter.WRONG_PAPER | The print reference mark on the label sheet cannot be found. | Open and close the cover. |

| Printer Status | Cause | Countermeasure |
|----------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------|
| status.autoRecoverError== HybridPrinter.COVER_OPEN | Cover is open. | Close the printer cover. |
| status.autoRecoverError== HybridPrinter.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.insertionWaiting== HybridPrinter.INSERTION_WAIT_SLIP | Waiting for slip sheet insertion. | Insert a slip sheet. |
| status.insertionWaiting== HybridPrinter.INSERTION_WAIT_VALIDATION | Waiting for validation sheet insertion. | Insert a validation sheet. |
| status.insertionWaiting== HybridPrinter.INSERTION_WAIT_MICR | Waiting for slip sheet insertion for MICR reading. | Insert a slip sheet. |
| status.insertionWaiting== HybridPrinter.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.removalWaiting== HybridPrinter.REMOVAL_WAIT_PAPER | Waiting for paper removal. | Remove the paper. |
| status.removalWaiting== HybridPrinter.UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |
| status.slipPaper==EPOS2_UNKNOWN | No connection is established with the printer. | Check the communication status of the printer. |

Key code list

| Constant | Code | Constant | Code |
|------------------------|------|------------------------|------|
| Keyboard.VK_BACK | 0x08 | Keyboard.VK_L | 0x4C |
| Keyboard.VK_TAB | 0x09 | Keyboard.VK_M | 0x4D |
| Keyboard.VK_RETURN | 0x0D | Keyboard.VK_N | 0x4E |
| Keyboard.VK_SHIFT | 0x10 | Keyboard.VK_O | 0x4F |
| Keyboard.VK_CONTROL | 0x11 | Keyboard.VK_P | 0x50 |
| Keyboard.VK_MENU | 0x12 | Keyboard.VK_Q | 0x51 |
| Keyboard.VK_CAPITAL | 0x14 | Keyboard.VK_R | 0x52 |
| Keyboard.VK_ESCAPE | 0x1B | Keyboard.VK_S | 0x53 |
| Keyboard.VK_CONVERT | 0x1C | Keyboard.VK_T | 0x54 |
| Keyboard.VK_NONCONVERT | 0x1D | Keyboard.VK_U | 0x55 |
| Keyboard.VK_SPACE | 0x20 | Keyboard.VK_V | 0x56 |
| Keyboard.VK_PRIOR | 0x21 | Keyboard.VK_W | 0x57 |
| Keyboard.VK_NEXT | 0x22 | Keyboard.VK_X | 0x58 |
| Keyboard.VK_END | 0x23 | Keyboard.VK_Y | 0x59 |
| Keyboard.VK_HOME | 0x24 | Keyboard.VK_Z | 0x5A |
| Keyboard.VK_LEFT | 0x25 | Keyboard.VK_MULTIPLY | 0x6A |
| Keyboard.VK_UP | 0x26 | Keyboard.VK_ADD | 0x6B |
| Keyboard.VK_RIGHT | 0x27 | Keyboard.VK_SUBTRACT | 0x6D |
| Keyboard.VK_DOWN | 0x28 | Keyboard.VK_F1 | 0x70 |
| Keyboard.VK_INSERT | 0x2D | Keyboard.VK_F2 | 0x71 |
| Keyboard.VK_DELETE | 0x2E | Keyboard.VK_F3 | 0x72 |
| Keyboard.VK_0 | 0x30 | Keyboard.VK_F4 | 0x73 |
| Keyboard.VK_1 | 0x31 | Keyboard.VK_F5 | 0x74 |
| Keyboard.VK_2 | 0x32 | Keyboard.VK_F6 | 0x75 |
| Keyboard.VK_3 | 0x33 | Keyboard.VK_F7 | 0x76 |
| Keyboard.VK_4 | 0x34 | Keyboard.VK_F8 | 0x77 |
| Keyboard.VK_5 | 0x35 | Keyboard.VK_F9 | 0x78 |
| Keyboard.VK_6 | 0x36 | Keyboard.VK_F10 | 0x79 |
| Keyboard.VK_7 | 0x37 | Keyboard.VK_F11 | 0x7A |
| Keyboard.VK_8 | 0x38 | Keyboard.VK_F12 | 0x7B |
| Keyboard.VK_9 | 0x39 | Keyboard.VK_OEM_1 | 0xBA |
| Keyboard.VK_A | 0x41 | Keyboard.VK_OEM_PLUS | 0xBB |
| Keyboard.VK_B | 0x42 | Keyboard.VK_OEM_COMMAS | 0xBC |

| Constant | Code | Constant | Code |
|---------------|------|------------------------|------|
| Keyboard.VK_C | 0x43 | Keyboard.VK_OEM_MINUS | 0xBD |
| Keyboard.VK_D | 0x44 | Keyboard.VK_OEM_PERIOD | 0xBE |
| Keyboard.VK_E | 0x45 | Keyboard.VK_OEM_2 | 0xBF |
| Keyboard.VK_F | 0x46 | Keyboard.VK_OEM_3 | 0xC0 |
| Keyboard.VK_G | 0x47 | Keyboard.VK_OEM_4 | 0xDB |
| Keyboard.VK_H | 0x48 | Keyboard.VK_OEM_5 | 0xDC |
| Keyboard.VK_I | 0x49 | Keyboard.VK_OEM_6 | 0xDD |
| Keyboard.VK_J | 0x4A | Keyboard.VK_OEM_7 | 0xDE |
| Keyboard.VK_K | 0x4B | Keyboard.VK_OEM_ATTN | 0xF0 |

Device Specifications

Provides information about restriction on the use of APIs depend on devices such as printer and peripheral device, and the parameter setting value.



Refer to the Technical Reference Guide of each printer for more information on each printer.

List of Supported Classes

The following lists the classes supported by each printer.

| | Printer class ^{*1} | HybridPrinter class ^{*1} | LineDisplay class ^{*1} | Keyboard class | POSKeyboard class | BarcodeScanner class | MSR class | SimpleSerial class | GermanyFiscalElement class | OtherPeripheral class | CommBox class | Common to all classes | Discovery class | Epos2Exception class | Log class | EasySelect class ^{*1} | EasySelectInfo class |
|------------|-----------------------------|-----------------------------------|---------------------------------|----------------|-------------------|----------------------|-----------|--------------------|----------------------------|-----------------------|---------------|-----------------------|-----------------|----------------------|-----------|--------------------------------|----------------------|
| TM-m10 | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-m30 | ✓ | - | ✓ | - | - | ✓ ^{*3} | - | - | ✓ ^{*7} | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-m30II | ✓ | - | ✓ | - | - | ✓ | - | - | ✓ | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-m30II-H | ✓ | - | ✓ | - | - | ✓ | - | - | ✓ | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T20 | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T20II | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T20III | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T20IIIL | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T20X | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T60 | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T70 | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T70II | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T81II | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T81III | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T82 | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T82II | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T82III | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T82IIIL | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T82X | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T83II | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| | Printer class ^{*1} | HybridPrinter class ^{*1} | LineDisplay class ^{*1} | Keyboard class | POSKeyboard class | BarcodeScanner class | MSR class | SimpleSerial class | GermanyFiscalElement class | OtherPeripheral class | CommBox class | Common to all classes | Discovery class | Epos2Exception class | Log class | EasySelect class ^{*1} | EasySelectInfo class |
|--------------------------|-----------------------------|-----------------------------------|---------------------------------|----------------|-------------------|----------------------|-----------------|--------------------|----------------------------|-----------------------|---------------|-----------------------|-----------------|----------------------|-----------|--------------------------------|----------------------|
| TM-T83III | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T88V | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T88VI | ✓ | - | ✓ | - | - | ✓ ^{*4} | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T100 | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-U220 | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-U330 | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-P20 | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-P60 (Receipt) | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-P60 (Peeler) | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-P60II (Receipt) | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-P60II (Peeler) | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-P80 | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-H6000V | ✓ | ✓ ^{*5} | ✓ | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TM-T20II-i | ✓ | - | ✓ | ✓ | - | ✓ ^{*6} | ✓ ^{*6} | ✓ | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T70-i | ✓ | - | ✓ | ✓ | - | ✓ ^{*6} | ✓ ^{*6} | ✓ | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T82II-i | ✓ | - | ✓ | ✓ | - | ✓ ^{*6} | ✓ ^{*6} | ✓ | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T83II-i | ✓ | - | ✓ | ✓ | - | ✓ ^{*6} | ✓ ^{*6} | ✓ | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T88V-i | ✓ | - | ✓ | ✓ | - | ✓ ^{*6} | ✓ ^{*6} | ✓ | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T88VI-iHUB | ✓ | - | ✓ | ✓ | - | ✓ ^{*6} | ✓ ^{*6} | ✓ | ✓ ^{*7} | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-U220-i | ✓ | - | ✓ | ✓ | - | ✓ ^{*6} | ✓ ^{*6} | ✓ | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T70II-DT | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T70II-DT2 | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T88V-DT | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T88VI-DT2 | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-H6000IV-DT | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| TM-T88IV ^{*2} | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TM-T90 ^{*2} | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TM-L90 ^{*2} | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TM-H6000IV ^{*2} | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

*1: The availability and restriction on the use of APIs varies for each printer. Refer to [List of Supported APIs](#).

*2: Supports control as a slave printer only.

*3: Supported by TM-m30 firmware Ver. 1.40 ESC/POS or later.

*4: Supported by TM-T88VI firmware Ver. 40.50 ESC/POS or later.

*5: The availability and restriction on the use of APIs varies for each model. Refer to [HybridPrinter class](#).

*6: Does not support control by the device control program.

*7: Supported with the following versions of firmware.

- TM-m30 firmware Ver. 1.46A ESC/POS or later
- TM-m30 firmware Ver. 1.46B ESC/POS or later
- TM-T88VI-iHUB firmware Ver. 50.52A ESC/POS or later
- TM-T88VI-iHUB firmware Ver. 50.52B ESC/POS or later

List of Supported APIs

Provides list of supported APIs for each printer.

The following is an explanation of the symbol indicated in table:

- ✓: Supported.
- ✓*: Supported but has a restriction on specifying the parameter setting value.
- -: Not supported.

For information on the "✓*" restrictions, refer to Printer-specific Support Information.

Printer class

Single-function models (1)

| API | TM-m10 | TM-m30 | TM-m30II | TM-m30II-H | TM-T20 | TM-T20II | TM-T20III | TM-T20IIIL | TM-T20X | TM-T60 | TM-T70 | TM-T70II | TM-T81II | TM-T81III | TM-T82 |
|-----------------------|--------|--------|----------|------------|--------|----------|-----------|------------|---------|--------|--------|----------|----------|-----------|--------|
| Printer | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| connect | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| disconnect | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| startMonitor | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| stopMonitor | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getStatus | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| sendData | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| beginTransaction | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - | - |
| endTransaction | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - | - |
| requestPrintJobStatus | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| clearCommandBuffer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextAlign | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addLineSpace | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextRotate | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addText | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextLang | ✓* | ✓* | ✓* | ✓ | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addTextFont | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addTextSmooth | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextSize | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextStyle | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addHPosition | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addFeedUnit | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| API | TM-m10 | TM-m30 | TM-m30II | TM-m30II-H | TM-T20 | TM-T20II | TM-T20III | TM-T20IIIL | TM-T20X | TM-T60 | TM-T70 | TM-T70II | TM-T81II | TM-T81III | TM-T82 |
|-------------------------|--------|--------|----------|------------|--------|----------|-----------|------------|---------|--------|--------|----------|----------|-----------|--------|
| addFeedLine | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addImage | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addLogo | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addBarcode | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addSymbol | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addHLine | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| addVLineBegin | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| addVLineEnd | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| addPageBegin | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageEnd | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageArea | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageDirection | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPagePosition | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageLine | ✓* | ✓* | ✓* | ✓* | - | - | - | - | - | - | - | - | - | - | - |
| addPageRectangle | ✓* | ✓* | ✓* | ✓* | - | - | - | - | - | - | - | - | - | - | - |
| addRotateBegin | - | - | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - | - |
| addRotateEnd | - | - | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - | - |
| addCut | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addPulse | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addSound | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | - | - | ✓* | - | ✓* |
| addFeedPosition | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| addLayout | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| addCommand | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getMaintenanceCounter | - | ✓ | ✓ | ✓ | - | ✓ | - | - | - | - | - | - | - | - | - |
| resetMaintenanceCounter | - | ✓ | ✓ | ✓ | - | ✓ | - | - | - | - | - | - | - | - | - |
| getPrinterSetting | - | ✓* | ✓* | ✓* | - | ✓* | - | - | - | - | - | - | - | - | - |
| setPrinterSetting | - | ✓* | ✓* | ✓* | - | ✓* | - | - | - | - | - | - | - | - | - |
| downloadFirmwareList | ✓* | ✓* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| getPrinterFirmwareInfo | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - |
| verifyUpdate | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - |
| updateFirmware | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - |
| forceRecover | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| forcePulse | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

| API | TM-m10 | TM-m30 | TM-m30II | TM-m30II-H | TM-T20 | TM-T20II | TM-T20III | TM-T20IIIL | TM-T20X | TM-T60 | TM-T70 | TM-T70II | TM-T81II | TM-T81III | TM-T82 |
|-------------------------------|--------|--------|----------|------------|--------|----------|-----------|------------|---------|--------|--------|----------|----------|-----------|--------|
| forceStopSound | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| forceCommand | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| forceReset | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| setStatusChangeEventListerner | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| setReceiveEventListener | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| interval | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Single-function models (2)

| API | TM-T82II | TM-T82III | TM-T82IIIL | TM-T82X | TM-T83II | TM-T83III | TM-T88V | TM-T88VI | TM-T100 | TM-U220 | TM-U330 | | | | |
|-----------------------|----------|-----------|------------|---------|----------|-----------|---------|----------|---------|---------|---------|----|----|----|----|
| Printer | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| connect | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| disconnect | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| startMonitor | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| stopMonitor | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getStatus | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| sendData | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| beginTransaction | - | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - |
| endTransaction | - | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - |
| requestPrintJobStatus | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| clearCommandBuffer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextAlign | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addLineSpace | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextRotate | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addText | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextLang | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addTextFont | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addTextSmooth | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextSize | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextStyle | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addHPosition | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | - | ✓ |
| addFeedUnit | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| API | TM-T82II | TM-T82III | TM-T82IIIIL | TM-T82X | TM-T83II | TM-T83III | TM-T88V | TM-T88VI | TM-T100 | TM-U220 | TM-U330 |
|-------------------------|----------|-----------|-------------|---------|----------|-----------|---------|----------|---------|---------|---------|
| addFeedLine | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addImage | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addLogo | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓* | ✓* |
| addBarcode | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | - | ✓* |
| addSymbol | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | - | ✓* |
| addHLine | - | - | - | - | - | - | - | - | - | - | - |
| addVLineBegin | - | - | - | - | - | - | - | - | - | - | - |
| addVLineEnd | - | - | - | - | - | - | - | - | - | - | - |
| addPageBegin | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| addPageEnd | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| addPageArea | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| addPageDirection | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| addPagePosition | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - |
| addPageLine | - | - | - | - | - | - | - | ✓* | - | - | - |
| addPageRectangle | - | - | - | - | - | - | - | ✓* | - | - | - |
| addRotateBegin | - | - | - | - | - | - | - | - | - | - | - |
| addRotateEnd | - | - | - | - | - | - | - | - | - | - | - |
| addCut | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addPulse | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addSound | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | - | - |
| addFeedPosition | - | - | - | - | - | - | - | - | - | - | ✓* |
| addLayout | - | - | - | - | - | - | - | - | - | - | - |
| addCommand | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getMaintenanceCounter | - | - | - | - | - | - | - | ✓ | - | - | - |
| resetMaintenanceCounter | - | - | - | - | - | - | - | ✓ | - | - | - |
| getPrinterSetting | - | - | - | - | - | - | - | ✓* | - | - | - |
| setPrinterSetting | - | - | - | - | - | - | - | ✓* | - | - | - |
| downloadFirmwareList | - | - | - | - | - | - | - | ✓* | - | - | - |
| getPrinterFirmwareInfo | - | - | - | - | - | - | - | ✓ | - | - | - |
| verifyUpdate | - | - | - | - | - | - | - | ✓ | - | - | - |
| updateFirmware | - | - | - | - | - | - | - | ✓ | - | - | - |
| forceRecover | - | - | - | - | - | - | - | - | - | - | - |
| forcePulse | - | - | - | - | - | - | - | - | - | - | - |

| API | TM-T82II | TM-T82III | TM-T82IIIL | TM-T82X | TM-T83II | TM-T83III | TM-T88V | TM-T88VI | TM-T100 | TM-U220 | TM-U330 |
|------------------------------|----------|-----------|------------|---------|----------|-----------|---------|----------|---------|---------|---------|
| forceStopSound | - | - | - | - | - | - | - | - | - | - | - |
| forceCommand | - | - | - | - | - | - | - | - | - | - | - |
| forceReset | - | - | - | - | - | - | - | - | - | - | - |
| setStatusChangeEventListener | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| setReceiveEventListener | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| interval | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Mobile models/Hybrid models

| API | TM-P20 | TM-P60 (Receipt) | TM-P60 (Peeler) | TM-P60II (Receipt) | TM-P60II (Peeler) | TM-P80 | TM-H6000V |
|-----------------------|--------|------------------|-----------------|--------------------|-------------------|--------|-----------|
| Printer | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| connect | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| disconnect | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| startMonitor | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| stopMonitor | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getStatus | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| sendData | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| beginTransaction | - | - | - | - | - | - | ✓ |
| endTransaction | - | - | - | - | - | - | ✓ |
| requestPrintJobStatus | - | - | - | - | - | - | - |
| clearCommandBuffer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextAlign | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addLineSpace | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextRotate | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addText | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextLang | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addTextFont | ✓ | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addTextSmooth | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextSize | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextStyle | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addHPosition | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| API | TM-P20 | TM-P60 (Receipt) | TM-P60 (Peeler) | TM-P60II (Receipt) | TM-P60II (Peeler) | TM-P80 | TM-H6000V |
|-------------------------|--------|------------------|-----------------|--------------------|-------------------|--------|-----------|
| addFeedUnit | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addFeedLine | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addImage | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addLogo | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addBarcode | ✓ | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addSymbol | ✓* | - | ✓* | ✓* | ✓* | ✓* | ✓* |
| addHLine | - | - | - | - | - | - | - |
| addVLineBegin | - | - | - | - | - | - | - |
| addVLineEnd | - | - | - | - | - | - | - |
| addPageBegin | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageEnd | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageArea | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageDirection | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPagePosition | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageLine | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addPageRectangle | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addRotateBegin | - | - | - | - | - | - | - |
| addRotateEnd | - | - | - | - | - | - | - |
| addCut | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addPulse | - | - | - | - | - | - | ✓ |
| addSound | ✓* | - | - | ✓* | ✓* | ✓* | - |
| addFeedPosition | ✓* | - | ✓ | - | ✓ | ✓* | - |
| addLayout | ✓* | - | ✓ | - | ✓ | ✓* | - |
| addCommand | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getMaintenanceCounter | ✓* | - | - | - | - | - | - |
| resetMaintenanceCounter | ✓* | - | - | - | - | - | - |
| getPrinterSetting | ✓* | - | - | - | - | - | - |
| setPrinterSetting | ✓* | - | - | - | - | - | - |
| downloadFirmwareList | - | - | - | - | - | - | - |
| getPrinterFirmwareInfo | - | - | - | - | - | - | - |
| verifyUpdate | - | - | - | - | - | - | - |

| API | TM-P20 | TM-P60 (Receipt) | TM-P60 (Peeler) | TM-P60II (Receipt) | TM-P60II (Peeler) | TM-P80 | TM-H6000V |
|------------------------------|--------|------------------|-----------------|--------------------|-------------------|--------|-----------|
| updateFirmware | - | - | - | - | - | - | - |
| forceRecover | - | - | - | - | - | - | ✓ |
| forcePulse | - | - | - | - | - | - | ✓ |
| forceStopSound | - | - | - | - | - | - | - |
| forceCommand | - | - | - | - | - | - | ✓ |
| forceReset | - | - | - | - | - | - | ✓ |
| setStatusChangeEventListener | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| setReceiveEventListener | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| interval | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

TM-i Series/TM-DT Series

| API | TM-T20II-i | TM-T70-i | TM-T82II-i | TM-T83II-i | TM-T88V-i | TM-T88VI-iHUB | TM-U220-i | TM-T70II-DT | TM-T70II-DT2 | TM-T88V-DT | TM-T88VI-DT2 | TM-H6000IV-DT |
|-----------------------|------------|----------|------------|------------|-----------|---------------|-----------|-------------|--------------|------------|--------------|---------------|
| Printer | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| connect | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| disconnect | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| startMonitor | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| stopMonitor | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getStatus | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| sendData | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| beginTransaction | - | - | - | - | - | - | - | - | - | - | - | - |
| endTransaction | - | - | - | - | - | - | - | - | - | - | - | - |
| requestPrintJobStatus | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| clearCommandBuffer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextAlign | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addLineSpace | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextRotate | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addText | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextLang | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |

| API | TM-T20II-i | TM-T70-i | TM-T82II-i | TM-T83II-i | TM-T88V-i | TM-T88VI-iHUB | TM-U220-i | TM-T70II-DT | TM-T70II-DT2 | TM-T88V-DT | TM-T88VI-DT2 | TM-H6000IV-DT |
|-------------------------|------------|----------|------------|------------|-----------|---------------|-----------|-------------|--------------|------------|--------------|---------------|
| addTextFont | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addTextSmooth | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextSize | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| addTextStyle | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addHPosition | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| addFeedUnit | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addFeedLine | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addImage | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addLogo | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| addBarcode | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | - | ✓* | ✓* | ✓* | ✓* | ✓* |
| addSymbol | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | - | ✓* | ✓* | ✓* | ✓* | ✓* |
| addHLine | - | - | - | - | - | - | - | - | - | - | - | - |
| addVLineBegin | - | - | - | - | - | - | - | - | - | - | - | - |
| addVLineEnd | - | - | - | - | - | - | - | - | - | - | - | - |
| addPageBegin | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageEnd | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageArea | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageDirection | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPagePosition | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| addPageLine | - | - | - | - | - | ✓* | - | - | - | - | - | - |
| addPageRectangle | - | - | - | - | - | ✓* | - | - | - | - | - | - |
| addRotateBegin | - | - | - | - | - | - | - | - | - | - | - | - |
| addRotateEnd | - | - | - | - | - | - | - | - | - | - | - | - |
| addCut | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| addPulse | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addSound | ✓* | - | ✓* | ✓* | ✓* | ✓* | - | ✓* | ✓* | ✓* | ✓* | - |
| addFeedPosition | - | - | - | - | - | - | - | - | - | - | - | - |
| addLayout | - | - | - | - | - | - | - | - | - | - | - | - |
| addCommand | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getMaintenanceCounter | - | - | - | - | - | ✓ | - | - | - | - | - | - |
| resetMaintenanceCounter | - | - | - | - | - | ✓ | - | - | - | - | - | - |
| getPrinterSetting | - | - | - | - | - | ✓* | - | - | - | - | - | - |

| API | TM-T20II-i | TM-T70-i | TM-T82II-i | TM-T83II-i | TM-T88V-i | TM-T88VI-iHUB | TM-U220-i | TM-T70II-DT | TM-T70II-DT2 | TM-T88V-DT | TM-T88VI-DT2 | TM-H6000IV-DT |
|------------------------------|------------|----------|------------|------------|-----------|---------------|-----------|-------------|--------------|------------|--------------|---------------|
| setPrinterSetting | - | - | - | - | - | ✓* | - | - | - | - | - | - |
| downloadFirmwareList | - | - | - | - | - | ✓* | - | - | - | - | - | - |
| getPrinterFirmwareInfo | - | - | - | - | - | ✓ | - | - | - | - | - | - |
| verifyUpdate | - | - | - | - | - | ✓ | - | - | - | - | - | - |
| updateFirmware | - | - | - | - | - | ✓ | - | - | - | - | - | - |
| forceRecover | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ |
| forcePulse | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| forceStopSound | ✓ | - | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | - |
| forceCommand | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| forceReset | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| setStatusChangeEventListener | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| setReceiveEventListener | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| interval | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Slave Printers

| API | TM-T88IV | TM-T90 | TM-L90 | TM-H6000IV |
|-----------------------|----------|--------|--------|------------|
| Printer | ✓* | ✓* | ✓* | ✓* |
| connect | ✓ | ✓ | ✓ | ✓ |
| disconnect | ✓ | ✓ | ✓ | ✓ |
| startMonitor | ✓ | ✓ | ✓ | ✓ |
| stopMonitor | ✓ | ✓ | ✓ | ✓ |
| getStatus | ✓ | ✓ | ✓ | ✓ |
| sendData | ✓ | ✓ | ✓ | ✓ |
| beginTransaction | - | - | - | - |
| endTransaction | - | - | - | - |
| requestPrintJobStatus | - | - | - | - |
| clearCommandBuffer | ✓ | ✓ | ✓ | ✓ |
| addTextAlign | ✓ | ✓ | ✓ | ✓ |
| addLineSpace | ✓ | ✓ | ✓ | ✓ |
| addTextRotate | ✓ | ✓ | ✓ | ✓ |

| API | TM-T88IV | TM-T90 | TM-L90 | TM-H600IV |
|-------------------------|----------|--------|--------|-----------|
| addText | ✓ | ✓ | ✓ | ✓ |
| addTextLang | ✓* | ✓* | ✓* | ✓* |
| addTextFont | ✓* | ✓* | ✓* | ✓* |
| addTextSmooth | ✓ | ✓ | ✓ | ✓ |
| addTextSize | ✓ | ✓ | ✓ | ✓ |
| addTextStyle | ✓* | ✓* | ✓* | ✓* |
| addHPosition | ✓ | ✓ | ✓ | ✓ |
| addFeedUnit | ✓ | ✓ | ✓ | ✓ |
| addFeedLine | ✓ | ✓ | ✓ | ✓ |
| addImage | ✓* | ✓* | ✓* | ✓* |
| addLogo | ✓ | ✓ | ✓ | ✓ |
| addBarcode | ✓* | ✓* | ✓* | ✓* |
| addSymbol | ✓* | ✓* | ✓* | ✓* |
| addHLine | - | - | - | - |
| addVLineBegin | - | - | - | - |
| addVLineEnd | - | - | - | - |
| addPageBegin | ✓ | ✓ | ✓ | ✓ |
| addPageEnd | ✓ | ✓ | ✓ | ✓ |
| addPageArea | ✓ | ✓ | ✓ | ✓ |
| addPageDirection | ✓ | ✓ | ✓ | ✓ |
| addPagePosition | ✓ | ✓ | ✓ | ✓ |
| addPageLine | - | - | - | - |
| addPageRectangle | - | - | - | - |
| addRotateBegin | - | - | - | - |
| addRotateEnd | - | - | - | - |
| addCut | ✓* | ✓* | ✓* | ✓* |
| addPulse | ✓ | ✓ | ✓ | ✓ |
| addSound | - | - | - | - |
| addFeedPosition | - | - | ✓ | - |
| addLayout | - | - | - | - |
| addCommand | ✓ | ✓ | ✓ | ✓ |
| getMaintenanceCounter | - | - | - | - |
| resetMaintenanceCounter | - | - | - | - |

| API | TM-T88IV | TM-T90 | TM-L90 | TM-H600IV |
|------------------------------|----------|--------|--------|-----------|
| getPrinterSetting | - | - | - | - |
| setPrinterSetting | - | - | - | - |
| downloadFirmwareList | - | - | - | - |
| getPrinterFirmwareInfo | - | - | - | - |
| verifyUpdate | - | - | - | - |
| updateFirmware | - | - | - | - |
| forceRecover | - | - | - | - |
| forcePulse | - | - | - | - |
| forceStopSound | - | - | - | - |
| forceCommand | - | - | - | - |
| forceReset | - | - | - | - |
| setStatusChangeEventListener | ✓ | ✓ | ✓ | ✓ |
| setReceiveEventListener | ✓ | ✓ | ✓ | ✓ |
| interval | ✓ | ✓ | ✓ | ✓ |

LineDisplay class

Single-function models (1)

| API | TM-m10 | TM-m30 | TM-m30II | TM-m30II-H | TM-T20 | TM-T20II | TM-T20III | TM-T20X | TM-T60 | TM-T70 | TM-T70II | TM-T81II | TM-T81III | TM-T82 |
|-------------------------|--------|--------|----------|------------|--------|----------|-----------|---------|--------|--------|----------|----------|-----------|--------|
| LineDisplay | - | ✓* | ✓* | ✓* | - | - | - | - | - | - | - | - | - | - |
| connect | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| disconnect | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| getStatus | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| sendData | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| clearCommandBuffer | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addInitialize | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addCreateWindow | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addDestroyWindow | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addSetCurrentWindow | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addClearCurrentWindow | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addSetCursorPosition | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addMoveCursorPosition | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addSetCursorType | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addText | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addReverseText | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addMarqueeText | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addSetBlink | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addSetBrightness | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| addShowClock | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| addCommand | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |
| setReceiveEventListener | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - | - |

Single-function models (2)

| API | TM-T82II | TM-T82III | TM-T82IIIIL | TM-T82X | TM-T83II | TM-T83III | TM-T88V | TM-T88VI | TM-T100 | TM-U220 | TM-U330 | | | |
|-------------|----------|-----------|-------------|---------|----------|-----------|---------|----------|---------|---------|---------|---|---|---|
| LineDisplay | - | - | - | - | - | - | - | ✓* | - | - | - | - | - | - |
| connect | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - |
| disconnect | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - |

| API | TM-T82II | TM-T82III | TM-T82IIIL | TM-T82X | TM-T83II | TM-T83III | TM-T88V | TM-T88VI | TM-T100 | TM-U220 | TM-U330 |
|-------------------------|----------|-----------|------------|---------|----------|-----------|---------|----------|---------|---------|---------|
| getStatus | - | - | - | - | - | - | - | ✓ | - | - | - |
| sendData | - | - | - | - | - | - | - | ✓ | - | - | - |
| clearCommandBuffer | - | - | - | - | - | - | - | ✓ | - | - | - |
| addInitialize | - | - | - | - | - | - | - | ✓ | - | - | - |
| addCreateWindow | - | - | - | - | - | - | - | ✓ | - | - | - |
| addDestroyWindow | - | - | - | - | - | - | - | ✓ | - | - | - |
| addSetCurrentWindow | - | - | - | - | - | - | - | ✓ | - | - | - |
| addClearCurrentWindow | - | - | - | - | - | - | - | ✓ | - | - | - |
| addSetCursorPosition | - | - | - | - | - | - | - | ✓ | - | - | - |
| addMoveCursorPosition | - | - | - | - | - | - | - | ✓ | - | - | - |
| addSetCursorType | - | - | - | - | - | - | - | ✓ | - | - | - |
| addText | - | - | - | - | - | - | - | ✓ | - | - | - |
| addReverseText | - | - | - | - | - | - | - | ✓ | - | - | - |
| addMarqueeText | - | - | - | - | - | - | - | ✓ | - | - | - |
| addSetBlink | - | - | - | - | - | - | - | ✓ | - | - | - |
| addSetBrightness | - | - | - | - | - | - | - | ✓ | - | - | - |
| addShowClock | - | - | - | - | - | - | - | ✓ | - | - | - |
| addCommand | - | - | - | - | - | - | - | ✓ | - | - | - |
| setReceiveEventListener | - | - | - | - | - | - | - | ✓ | - | - | - |

Mobile models/Hybrid models

| API | TM-P20 | TM-P60 (Receipt) | TM-P60 (Peeler) | TM-P60II (Receipt) | TM-P60II (Peeler) | TM-P80 | TM-H6000V |
|--------------------|--------|------------------|-----------------|--------------------|-------------------|--------|-----------|
| LineDisplay | - | - | - | - | - | - | ✓* |
| connect | - | - | - | - | - | - | ✓ |
| disconnect | - | - | - | - | - | - | ✓ |
| getStatus | - | - | - | - | - | - | ✓ |
| sendData | - | - | - | - | - | - | ✓ |
| clearCommandBuffer | - | - | - | - | - | - | ✓ |
| addInitialize | - | - | - | - | - | - | ✓ |
| addCreateWindow | - | - | - | - | - | - | ✓ |

| API | TM-P20 | TM-P60 (Receipt) | TM-P60 (Peeler) | TM-P60II (Receipt) | TM-P60II (Peeler) | TM-P80 | TM-H6000V |
|-------------------------|--------|------------------|-----------------|--------------------|-------------------|--------|-----------|
| addDestroyWindow | - | - | - | - | - | - | ✓ |
| addSetCurrentWindow | - | - | - | - | - | - | ✓ |
| addClearCurrentWindow | - | - | - | - | - | - | ✓ |
| addSetCursorPosition | - | - | - | - | - | - | ✓ |
| addMoveCursorPosition | - | - | - | - | - | - | ✓ |
| addSetCursorType | - | - | - | - | - | - | ✓ |
| addText | - | - | - | - | - | - | ✓ |
| addReverseText | - | - | - | - | - | - | ✓ |
| addMarqueeText | - | - | - | - | - | - | ✓ |
| addSetBlink | - | - | - | - | - | - | ✓ |
| addSetBrightness | - | - | - | - | - | - | ✓ |
| addShowClock | - | - | - | - | - | - | ✓ |
| addCommand | - | - | - | - | - | - | ✓ |
| setReceiveEventListener | - | - | - | - | - | - | ✓ |

TM-i Series/TM-DT Series

| API | TM-T20II-i | TM-T70-i | TM-T82II-i | TM-T83II-i | TM-T88V-i | TM-T88VI-iHUB | TM-U220-i | TM-T70II-DT | TM-T70II-DT2 | TM-T88V-DT | TM-T88VI-DT2 | TM-H6000V-DT |
|-----------------------|------------|----------|------------|------------|-----------|---------------|-----------|-------------|--------------|------------|--------------|--------------|
| LineDisplay | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* | ✓* |
| connect | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| disconnect | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getStatus | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| sendData | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| clearCommandBuffer | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addInitialize | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addCreateWindow | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addDestroyWindow | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addSetCurrentWindow | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addClearCurrentWindow | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addSetCursorPosition | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| API | TM-T20II-i | TM-T70-i | TM-T82II-i | TM-T83II-i | TM-T88V-i | TM-T88VI-iHUB | TM-U220-i | TM-T70II-DT | TM-T70II-DT2 | TM-T88V-DT | TM-T88VI-DT2 | TM-H6000IV-DT |
|-------------------------|------------|----------|------------|------------|-----------|---------------|-----------|-------------|--------------|------------|--------------|---------------|
| addMoveCursorPosition | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addSetCursorType | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addText | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addReverseText | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addMarqueeText | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addSetBlink | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addSetBrightness | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addShowClock | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| addCommand | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| setReceiveEventListener | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Slave Printers

| API | TM-T88IV | TM-T90 | TM-L90 | TM-H6000IV |
|-----------------------|----------|--------|--------|------------|
| LineDisplay | - | - | - | - |
| connect | - | - | - | - |
| disconnect | - | - | - | - |
| getStatus | - | - | - | - |
| sendData | - | - | - | - |
| clearCommandBuffer | - | - | - | - |
| addInitialize | - | - | - | - |
| addCreateWindow | - | - | - | - |
| addDestroyWindow | - | - | - | - |
| addsetCurrentWindow | - | - | - | - |
| addClearCurrentWindow | - | - | - | - |
| addSetCursorPosition | - | - | - | - |
| addMoveCursorPosition | - | - | - | - |
| addSetCursorType | - | - | - | - |
| addText | - | - | - | - |
| addReverseText | - | - | - | - |
| addMarqueeText | - | - | - | - |

| API | TM-T88IV | TM-T90 | TM-L90 | TM-H600IV |
|-------------------------|----------|--------|--------|-----------|
| addSetBlink | - | - | - | - |
| addSetBrightness | - | - | - | - |
| addShowClock | - | - | - | - |
| addCommand | - | - | - | - |
| setReceiveEventListener | - | - | - | - |

Common to all classes

Single-function models (1)

| API | TM-m10 | TM-m30 | TM-m30II | TM-m30II-H | TM-T20 | TM-T20II | TM-T20III | TM-T20X | TM-T60 | TM-T70 | TM-T70II | TM-T81II | TM-T82 |
|----------------------------|--------|--------|----------|------------|--------|----------|-----------|---------|--------|--------|----------|----------|--------|
| getAdmin | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getLocation | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| setConnectionEventListener | - | - | - | - | - | - | - | - | - | - | - | - | - |

Single-function models (2)

| API | TM-T82II | TM-T82III | TM-T82III | TM-T82X | TM-T83II | TM-T83III | TM-T88V | TM-T88VI | TM-T100 | TM-U220 | TM-U330 | TM-T20X | TM-T60 |
|----------------------------|----------|-----------|-----------|---------|----------|-----------|---------|----------|---------|---------|---------|---------|--------|
| getAdmin | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getLocation | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| setConnectionEventListener | - | - | - | - | - | - | - | - | - | - | - | - | - |

Mobile models/Hybrid models

| API | TM-P20 | TM-P60 (Receipt) | TM-P60 (Peeler) | TM-P60II (Receipt) | TM-P60II (Peeler) | TM-P80 | TM-H6000V |
|----------------------------|--------|------------------|-----------------|--------------------|-------------------|--------|-----------|
| getAdmin | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getLocation | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| setConnectionEventListener | - | - | - | - | - | - | ✓ |

TM-i Series/TM-DT Series

| API | TM-T20II-i | TM-T70-i | TM-T82II-i | TM-T83II-i | TM-T88V-i | TM-T88Vi-iHUB | TM-T88Vi-i | TM-U220-i | TM-T70II-DT | TM-T70II-DT2 | TM-T88V-DT | TM-T88Vi-DT2 | TM-H6000V-DT |
|-------------|------------|----------|------------|------------|-----------|---------------|------------|-----------|-------------|--------------|------------|--------------|--------------|
| getAdmin | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| getLocation | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

| API | TM-T20II-i | TM-T70-i | TM-T82II-i | TM-T83II-i | TM-T88V-i | TM-T88VI-iHUB | TM-U220-i | TM-T70II-DT | TM-T88V-DT | TM-T88VI-DT2 | TM-H6000IV-DT |
|----------------------------|------------|----------|------------|------------|-----------|---------------|-----------|-------------|------------|--------------|---------------|
| setConnectionEventListener | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Slave Printers

| API | TM-T88V | TM-T90 | TM-L90 | TM-H6000IV |
|----------------------------|---------|--------|--------|------------|
| getAdmin | - | - | - | - |
| getLocation | - | - | - | - |
| setConnectionEventListener | - | - | - | - |

EasySelect class

Single-function models (1)

| API | TM-m10 | TM-m30 | TM-m30II | TM-m30II-H | TM-T20 | TM-T20II | TM-T20III | TM-T20III-L | TM-T60 | TM-T70 | TM-T70II | TM-T81II | TM-T82 |
|----------|--------|--------|----------|------------|--------|----------|-----------|-------------|--------|--------|----------|----------|--------|
| parseNFC | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | - | - |
| parseQR | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| createQR | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Single-function models (2)

| API | TM-T82II | TM-T82III | TM-T82III-L | TM-T82X | TM-T83II | TM-T83III | TM-T88V | TM-T88VI | TM-T100 | TM-U220 | TM-U330 | TM-T20X | TM-T70 |
|----------|----------|-----------|-------------|---------|----------|-----------|---------|----------|---------|---------|---------|---------|--------|
| parseNFC | - | - | - | - | - | - | - | ✓ | - | - | - | - | - |
| parseQR | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| createQR | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Mobile models/Hybrid models

| API | TM-P20 | TM-P60 (Receipt) | TM-P60 (Peeler) | TM-P60II (Receipt) | TM-P60II (Peeler) | TM-P80 | TM-H6000V |
|----------|--------|------------------|-----------------|--------------------|-------------------|--------|-----------|
| parseNFC | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| parseQR | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| createQR | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

TM-i Series/TM-DT Series

| API | TM-T20II-i | TM-T70-i | TM-T82II-i | TM-T83II-i | TM-T88V-i | TM-T88VI-iHUB | TM-U220-i | TM-T70II-DT | TM-T70II-DT2 | TM-T88V-DT | TM-T88VI-DT2 | TM-H6000IV-DT |
|----------|------------|----------|------------|------------|-----------|---------------|-----------|-------------|--------------|------------|--------------|---------------|
| parseNFC | - | - | - | - | - | ✓ | - | - | - | - | - | - |
| parseQR | - | - | - | - | - | - | - | - | - | - | - | - |
| createQR | - | - | - | - | - | - | - | - | - | - | - | - |

Slave Printers

| API | TM-T80IV | TM-T90 | TM-L90 | TM-H6000IV |
|----------|----------|--------|--------|------------|
| parseNFC | - | - | - | - |
| parseQR | - | - | - | - |
| createQR | - | - | - | - |

Printer-specific Support Information

TM-m10

Printer Specifications

| Item | Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 420 x 2400 dots |
| Maximum page mode area | 420 x 2400 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 21 dots from the top of the character |
| Baseline of Font C | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_M10 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|----------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSound | pattern | <ul style="list-style-type: none">• Printer.PATTERN_NONE• Printer.PATTERN_A• Printer.PATTERN_B• Printer.PATTERN_C• Printer.PATTERN_D• Printer.PATTERN_E• Printer.PATTERN_ERROR• Printer.PATTERN_PAPER_EMPTY• Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none">• 1 to 255• Printer.PARAM_DEFAULT |
| downloadFirmwareList | printerModel | <ul style="list-style-type: none">• TM-m10 |

TM-m30***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|---------------------------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 420 x 2400 dots | 576 x 2400 dots |
| Maximum page mode area | 420 x 2400 dots | 576 x 2400 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | ANK | 21 dots from the top of the character |
| | Chinese characters | 21 dots from the top of the character |
| | Hangul character | 15 dots from the top of the character |
| Baseline of Font C | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_M30 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_KOREAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|----------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |
| setPrinterSetting | value | <ul style="list-style-type: none"> • Printer.Setting.PaperWidth58_0 • Printer.Setting.PaperWidth80_0 • Printer.Setting.PrintDensity70 • Printer.Setting.PrintDensity75 • Printer.Setting.PrintDensity80 • Printer.Setting.PrintDensity85 • Printer.Setting.PrintDensity90 • Printer.Setting.PrintDensity95 • Printer.Setting.PrintDensity100 • Printer.Setting.PrintDensity105 • Printer.Setting.PrintDensity110 • Printer.Setting.PrintDensity115 • Printer.Setting.PrintDensity120 • Printer.Setting.PrintDensity125 • Printer.Setting.PrintDensity130 • Printer.Setting.PrintSpeed1 • Printer.Setting.PrintSpeed2 • Printer.Setting.PrintSpeed3 • Printer.Setting.PrintSpeed4 • Printer.Setting.PrintSpeed5 • Printer.Setting.PrintSpeed6 • Printer.Setting.PrintSpeed7 • Printer.Setting.PrintSpeed8 • Printer.Setting.PrintSpeed9 • Printer.Setting.PrintSpeed10 |
| downloadFirmwareList | printerModel | <ul style="list-style-type: none"> • TM-m30 |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D30 |

TM-m30II***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 420 x 4800 dots | 576 x 4800 dots |
| Maximum page mode area | 420 x 4800 dots | 576 x 4800 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 21 dots from the top of the character | |
| Baseline of Font C | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_M30II |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|-------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| setPrinterSetting | value | <ul style="list-style-type: none"> • Printer.Setting.PaperWidth58_0 • Printer.Setting.PaperWidth80_0 • Printer.Setting.PrintDensity70 • Printer.Setting.PrintDensity75 • Printer.Setting.PrintDensity80 • Printer.Setting.PrintDensity85 • Printer.Setting.PrintDensity90 • Printer.Setting.PrintDensity95 • Printer.Setting.PrintDensity100 • Printer.Setting.PrintDensity105 • Printer.Setting.PrintDensity110 • Printer.Setting.PrintDensity115 • Printer.Setting.PrintDensity120 • Printer.Setting.PrintDensity125 • Printer.Setting.PrintDensity130 • Printer.Setting.PrintSpeed1 • Printer.Setting.PrintSpeed2 • Printer.Setting.PrintSpeed3 • Printer.Setting.PrintSpeed4 • Printer.Setting.PrintSpeed5 • Printer.Setting.PrintSpeed6 • Printer.Setting.PrintSpeed7 • Printer.Setting.PrintSpeed8 • Printer.Setting.PrintSpeed9 • Printer.Setting.PrintSpeed10 • Printer.Setting.PrintSpeed11 • Printer.Setting.PrintSpeed12 • Printer.Setting.PrintSpeed13 |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D30 |

TM-m30II-H***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 420 x 4800 dots | 576 x 4800 dots |
| Maximum page mode area | 420 x 4800 dots | 576 x 4800 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 21 dots from the top of the character | |
| Baseline of Font C | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_M30II |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|-------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| setPrinterSetting | value | <ul style="list-style-type: none"> • Printer.Setting.PaperWidth58_0 • Printer.Setting.PaperWidth80_0 • Printer.Setting.PrintDensity70 • Printer.Setting.PrintDensity75 • Printer.Setting.PrintDensity80 • Printer.Setting.PrintDensity85 • Printer.Setting.PrintDensity90 • Printer.Setting.PrintDensity95 • Printer.Setting.PrintDensity100 • Printer.Setting.PrintDensity105 • Printer.Setting.PrintDensity110 • Printer.Setting.PrintDensity115 • Printer.Setting.PrintDensity120 • Printer.Setting.PrintSpeed1 • Printer.Setting.PrintSpeed2 • Printer.Setting.PrintSpeed3 • Printer.Setting.PrintSpeed4 • Printer.Setting.PrintSpeed5 • Printer.Setting.PrintSpeed6 • Printer.Setting.PrintSpeed7 • Printer.Setting.PrintSpeed8 • Printer.Setting.PrintSpeed9 • Printer.Setting.PrintSpeed10 • Printer.Setting.PrintSpeed11 • Printer.Setting.PrintSpeed12 • Printer.Setting.PrintSpeed13 |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D30 |

TM-T20***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 420 x 831 dots | 576 x 831 dots |
| Maximum page mode area | 420 x 1662 dots | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T20 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T20II***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 420 x 831 dots | 576 x 831 dots |
| Maximum page mode area | 420 x 1662 dots | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T20 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|-------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| getPrinterSetting | type | <ul style="list-style-type: none"> • Printer.Setting.PrintDensity • Printer.Setting.PrintSpeed |
| | type | <ul style="list-style-type: none"> • Printer.Setting.PrintDensity • Printer.Setting.PrintSpeed |
| setPrinterSetting | value | <ul style="list-style-type: none"> • Printer.Setting.PrintDensity85 • Printer.Setting.PrintDensity90 • Printer.Setting.PrintDensity95 • Printer.Setting.PrintDensity100 • Printer.Setting.PrintDensity105 • Printer.Setting.PrintDensity110 • Printer.Setting.PrintDensity115 • Printer.Setting.PrintSpeed1 • Printer.Setting.PrintSpeed2 • Printer.Setting.PrintSpeed3 • Printer.Setting.PrintSpeed4 • Printer.Setting.PrintSpeed5 • Printer.Setting.PrintSpeed6 • Printer.Setting.PrintSpeed7 • Printer.Setting.PrintSpeed8 • Printer.Setting.PrintSpeed9 • Printer.Setting.PrintSpeed10 • Printer.Setting.PrintSpeed11 • Printer.Setting.PrintSpeed12 • Printer.Setting.PrintSpeed13 |

TM-T20III***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | Standard mode | 420 x 1662 dots |
| | 42 column mode | 378 x 1662 dots |
| Maximum page mode area | Standard mode | 464 x 3324 dots |
| | 42 column mode | 639 x 3324 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T20 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T20IIIL***Printer Specifications***

| Item | 80mm Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 576 x 831 dots |
| Maximum page mode area | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T20 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T20X***Printer Specifications***

| Item | 80mm Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 576 x 831 dots |
| Maximum page mode area | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T20 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T60***Printer Specifications***

| Item | 58mm Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 576 x 831 dots |
| Maximum page mode area | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T60 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_CHINESE |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | type | <ul style="list-style-type: none"> • Printer.BARCODE_UPC_A • Printer.BARCODE_UPC_E • Printer.BARCODE_EAN13 • Printer.BARCODE_JAN13 • Printer.BARCODE_EAN8 • Printer.BARCODE_JAN8 • Printer.BARCODE_CODE39 • Printer.BARCODE_ITF • Printer.BARCODE_CODABAR • Printer.BARCODE_CODE93 • Printer.BARCODE_CODE128 |
| | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

TM-T70***Printer Specifications***

| Item | | 58mm Specification | 80mm Specification |
|------------------------|--------------------------|---------------------------------------|--------------------|
| Amount of initial feed | | 30 dots | |
| Initial page mode area | ANK model | 416 x 1662 dots | 512 x 831 dots |
| | Multiple languages model | 416 x 1662 dots | 576 x 1662 dots |
| Maximum page mode area | ANK model | 416 x 1662 dots | 512 x 1662 dots |
| | Multiple languages model | 576 x 1662 dots | |
| Baseline of Font A | | 21 dots from the top of the character | |
| Baseline of Font B | | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T70 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | type | <ul style="list-style-type: none"> • Printer.BARCODE_UPC_A • Printer.BARCODE_UPC_E • Printer.BARCODE_EAN13 • Printer.BARCODE_JAN13 • Printer.BARCODE_EAN8 • Printer.BARCODE_JAN8 • Printer.BARCODE_CODE39 • Printer.BARCODE_ITF • Printer.BARCODE_CODABAR • Printer.BARCODE_CODE93 • Printer.BARCODE_CODE128 |
| | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

TM-T70II***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | ANK model | 416 x 1662 dots |
| | Multiple languages model | 416 x 1662 dots |
| Maximum page mode area | ANK model | 416 x 1662 dots |
| | Multiple languages model | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T70 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| addSymbol | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSound | pattern | <ul style="list-style-type: none">• Printer.PATTERN_NONE• Printer.PATTERN_A• Printer.PATTERN_B• Printer.PATTERN_C• Printer.PATTERN_D• Printer.PATTERN_E• Printer.PATTERN_ERROR• Printer.PATTERN_PAPER_EMPTY• Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none">• 1 to 255• Printer.PARAM_DEFAULT |

TM-T81II***Printer Specifications***

| Item | 58mm Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 576 x 831 dots |
| Maximum page mode area | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T81 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_CHINESE • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | type | <ul style="list-style-type: none"> • Printer.BARCODE_UPC_A • Printer.BARCODE_UPC_E • Printer.BARCODE_EAN13 • Printer.BARCODE_JAN13 • Printer.BARCODE_EAN8 • Printer.BARCODE_JAN8 • Printer.BARCODE_CODE39 • Printer.BARCODE_ITF • Printer.BARCODE_CODABAR • Printer.BARCODE_CODE93 • Printer.BARCODE_CODE128 |
| | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

TM-T81III***Printer Specifications***

| Item | 80mm Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 576 x 831 dots |
| Maximum page mode area | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T81 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T82***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 420 x 831 dots | 576 x 831 dots |
| Maximum page mode area | 420 x 1662 dots | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T82 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_CHINESE • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T82II***Printer Specifications***

| Item | Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 576 x 831 dots |
| Maximum page mode area | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T82 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T82III***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | Standard mode | 420 x 1662 dots |
| | 42 column mode | 378 x 1662 dots |
| Maximum page mode area | Standard mode | 464 x 3324 dots |
| | 42 column mode | 639 x 3324 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T82 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T82IIIL***Printer Specifications***

| Item | 80mm Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 576 x 831 dots |
| Maximum page mode area | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T82 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T82X***Printer Specifications***

| Item | 80mm Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 576 x 831 dots |
| Maximum page mode area | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T82 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T83II***Printer Specifications***

| Item | Specification | |
|------------------------|--------------------|---------------------------------------|
| Amount of initial feed | | 30 dots |
| Initial page mode area | | 512 x 1662 dots |
| Maximum page mode area | | 512 x 1662 dots |
| Baseline of Font A | | 21 dots from the top of the character |
| Baseline of Font B | ANK | 16 dots from the top of the character |
| | Chinese characters | 15 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T83 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_KOREAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T83III***Printer Specifications***

| Item | | 80mm Specification |
|------------------------|-----------|---------------------------------------|
| Amount of initial feed | | 30 dots |
| Initial page mode area | for Korea | 546 x 831 dots |
| | Other | 576 x 831 dots |
| Maximum page mode area | for Korea | 546 x 1662 dots |
| | Other | 576 x 1662 dots |
| Baseline of Font A | | 21 dots from the top of the character |
| Baseline of Font B | | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T83III |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_KOREAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| addSymbol | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSound | pattern | <ul style="list-style-type: none">• Printer.PATTERN_NONE• Printer.PATTERN_A• Printer.PATTERN_B• Printer.PATTERN_C• Printer.PATTERN_D• Printer.PATTERN_E• Printer.PATTERN_ERROR• Printer.PATTERN_PAPER_EMPTY• Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none">• 1 to 255• Printer.PARAM_DEFAULT |

TM-T88V***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|---------------------------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 360 x 831 dots | 512 x 831 dots |
| Maximum page mode area | 360 x 1662 dots | 512 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | ANK | 16 dots from the top of the character |
| | Chinese characters | 15 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T88 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_KOREAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-T88VI***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|---------------------------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 360 x 831 dots | 512 x 831 dots |
| Maximum page mode area | 360 x 1662 dots | 512 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | ANK | 16 dots from the top of the character |
| | Chinese characters | 15 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T88 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_KOREAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|----------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| setPrinterSetting | value | <ul style="list-style-type: none"> • Printer.Setting.PaperWidth58_0 • Printer.Setting.PaperWidth80_0 • Printer.Setting.PrintDensityDIP • Printer.Setting.PrintDensity70 • Printer.Setting.PrintDensity75 • Printer.Setting.PrintDensity80 • Printer.Setting.PrintDensity85 • Printer.Setting.PrintDensity90 • Printer.Setting.PrintDensity95 • Printer.Setting.PrintDensity100 • Printer.Setting.PrintDensity105 • Printer.Setting.PrintDensity110 • Printer.Setting.PrintDensity115 • Printer.Setting.PrintDensity120 • Printer.Setting.PrintDensity125 • Printer.Setting.PrintDensity130 • Printer.Setting.PrintSpeed1 • Printer.Setting.PrintSpeed2 • Printer.Setting.PrintSpeed3 • Printer.Setting.PrintSpeed4 • Printer.Setting.PrintSpeed5 • Printer.Setting.PrintSpeed6 • Printer.Setting.PrintSpeed7 • Printer.Setting.PrintSpeed8 • Printer.Setting.PrintSpeed9 • Printer.Setting.PrintSpeed10 • Printer.Setting.PrintSpeed11 • Printer.Setting.PrintSpeed12 • Printer.Setting.PrintSpeed13 • Printer.Setting.PrintSpeed14 |
| downloadFirmwareList | printerModel | <ul style="list-style-type: none"> • TM-T88VI |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D110 • LineDisplay.DM_D30 |

TM-T100***Printer Specifications***

| Item | 80mm Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 576 x 831 dots |
| Maximum page mode area | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T100 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

TM-U220***Printer Specifications***

| Item | 76mm Specification | 69.5mm Specification | 57.5mm Specification |
|------------------------|--------------------|----------------------|----------------------|
| Amount of initial feed | 12 dots | | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_U220 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_KOREAN • Printer.MODEL_THAI |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.COLOR_2 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addLogo | key2 | <ul style="list-style-type: none"> • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

TM-U330***Printer Specifications***

| Item | 76mm Specification | 69.5mm Specification | 57.5mm Specification |
|------------------------|--------------------|----------------------|----------------------|
| Amount of initial feed | 12 dots | | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_U330 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_CHINESE |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.COLOR_2 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addLogo | key2 | <ul style="list-style-type: none"> • Printer.PARAM_DEFAULT |
| addBarcode | type | <ul style="list-style-type: none"> • Printer.BARCODE_CODE39 • Printer.BARCODE_CODE128 |
| | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none">• Printer.SYMBOL_QRCODE_MODEL_1• Printer.SYMBOL_QRCODE_MODEL_2 |
| | level | <ul style="list-style-type: none">• Printer.LEVEL_L• Printer.LEVEL_M• Printer.LEVEL_Q• Printer.LEVEL_H• Printer.PARAM_DEFAULT• Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none">• Printer.CUT_FEED• Printer.CUT_NO_FEED• Printer.PARAM_DEFAULT |
| addFeedPosition | position | <ul style="list-style-type: none">• Printer.FEED_CUTTING |

TM-P20***Printer Specifications***

| Item | Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 384 x 2400 dots |
| Maximum page mode area | 384 x 2400 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 21 dots from the top of the character |
| Baseline of Font C | 16 dots from the top of the character |
| Baseline of Font D | 21 dots from the top of the character |
| Baseline of Font E | 15 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_P20 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|-------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_1 • Printer.PATTERN_2 • Printer.PATTERN_3 • Printer.PATTERN_4 • Printer.PATTERN_5 • Printer.PATTERN_6 • Printer.PATTERN_7 • Printer.PATTERN_8 • Printer.PATTERN_9 • Printer.PATTERN_10 • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |
| addFeedPosition | position | <ul style="list-style-type: none"> • Printer.FEED_CUTTING • Printer.FEED_CURRENT_TOF • Printer.FEED_NEXT_TOF |
| addLayout | type | <ul style="list-style-type: none"> • Printer.LAYOUT_RECEIPT • Printer.LAYOUT_RECEIPT_BM |
| | height | <ul style="list-style-type: none"> • Receipt (without black mark) • Receipt (with black mark) |
| | marginTop | <ul style="list-style-type: none"> • Receipt (without black mark) • Receipt (with black mark) |
| | marginBottom | <ul style="list-style-type: none"> • Receipt (without black mark) • Receipt (with black mark) |
| | offsetCut | <ul style="list-style-type: none"> • Receipt (without black mark) • Receipt (with black mark) |
| | offsetLabel | <ul style="list-style-type: none"> • Receipt (without black mark) • Receipt (with black mark) |
| getMaintenanceCounter | type | <ul style="list-style-type: none"> • Printer.MaintenanceCounter.PaperFeed |
| resetMaintenanceCounter | type | <ul style="list-style-type: none"> • Printer.MaintenanceCounter.PaperFeed |
| getPrinterSetting | type | <ul style="list-style-type: none"> • Printer.Setting.PrintDensity • Printer.Setting.PrintSpeed |

| API | Parameter | Specifiable Setting Value |
|-------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| setPrinterSetting | type | <ul style="list-style-type: none"> • Printer.Setting.PrintDensity • Printer.Setting.PrintSpeed |
| | value | <ul style="list-style-type: none"> • Printer.Setting.PrintDensity70 • Printer.Setting.PrintDensity75 • Printer.Setting.PrintDensity80 • Printer.Setting.PrintDensity85 • Printer.Setting.PrintDensity90 • Printer.Setting.PrintDensity95 • Printer.Setting.PrintDensity100 • Printer.Setting.PrintDensity105 • Printer.Setting.PrintDensity110 • Printer.Setting.PrintDensity115 • Printer.Setting.PrintDensity120 • Printer.Setting.PrintDensity125 • Printer.Setting.PrintDensity130 • Printer.Setting.PrintSpeed1 • Printer.Setting.PrintSpeed2 • Printer.Setting.PrintSpeed3 • Printer.Setting.PrintSpeed4 • Printer.Setting.PrintSpeed5 • Printer.Setting.PrintSpeed6 • Printer.Setting.PrintSpeed7 • Printer.Setting.PrintSpeed8 • Printer.Setting.PrintSpeed9 • Printer.Setting.PrintSpeed10 |

TM-P60 (Receipt)

Printer Specifications

| Item | 58mm Specification | 60mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 420 x 1200 dots | 432 x 1200 dots |
| Maximum page mode area | 420 x 1200 dots | 432 x 1200 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 21 dots from the top of the character | |
| Baseline of Font C | 15 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_P60 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | type | <ul style="list-style-type: none"> • Printer.BARCODE_UPC_A • Printer.BARCODE_UPC_E • Printer.BARCODE_EAN13 • Printer.BARCODE_JAN13 • Printer.BARCODE_EAN8 • Printer.BARCODE_JAN8 • Printer.BARCODE_CODE39 • Printer.BARCODE_ITF • Printer.BARCODE_CODABAR • Printer.BARCODE_CODE93 • Printer.BARCODE_CODE128 |
| | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

TM-P60 (Peeler)***Printer Specifications***

| Item | 58mm Specification | 60mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 420 x 1200 dots | 432 x 1200 dots |
| Maximum page mode area | 420 x 1200 dots | 432 x 1200 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 21 dots from the top of the character | |
| Baseline of Font C | 15 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_P60 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | type | <ul style="list-style-type: none"> • Printer.BARCODE_UPC_A • Printer.BARCODE_UPC_E • Printer.BARCODE_EAN13 • Printer.BARCODE_JAN13 • Printer.BARCODE_EAN8 • Printer.BARCODE_JAN8 • Printer.BARCODE_CODE39 • Printer.BARCODE_ITF • Printer.BARCODE_CODABAR • Printer.BARCODE_CODE93 • Printer.BARCODE_CODE128 |
| | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|--------|-----------|----------------------------------------------------------------------------------------------------------------------------------|
| addCut | type | <ul style="list-style-type: none">• Printer.CUT_FEED• Printer.CUT_NO_FEED• Printer.PARAM_DEFAULT |

TM-P60II (Receipt)

Printer Specifications

| Item | Receipt Specification | Die-cut Label Specification |
|------------------------|---------------------------------------|-----------------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 432 x 1624 dots | 400 x 1624 dots |
| Maximum page mode area | 432 x 1624 dots | 400 x 1624 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |
| Baseline of Font C | 15 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_P60II |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSound | pattern | <ul style="list-style-type: none">• Printer.PATTERN_NONE• Printer.PATTERN_1• Printer.PATTERN_2• Printer.PATTERN_3• Printer.PATTERN_4• Printer.PATTERN_5• Printer.PATTERN_6• Printer.PATTERN_7• Printer.PATTERN_8• Printer.PATTERN_9• Printer.PATTERN_10• Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none">• 1 to 255• Printer.PARAM_DEFAULT |

TM-P60II (Peeler)

Printer Specifications

| Item | Receipt Specification | Die-cut Label Specification |
|------------------------|---------------------------------------|-----------------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 432 x 1624 dots | 400 x 1624 dots |
| Maximum page mode area | 432 x 1624 dots | 400 x 1624 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |
| Baseline of Font C | 15 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_P60II |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSound | pattern | <ul style="list-style-type: none">• Printer.PATTERN_NONE• Printer.PATTERN_1• Printer.PATTERN_2• Printer.PATTERN_3• Printer.PATTERN_4• Printer.PATTERN_5• Printer.PATTERN_6• Printer.PATTERN_7• Printer.PATTERN_8• Printer.PATTERN_9• Printer.PATTERN_10• Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none">• 1 to 255• Printer.PARAM_DEFAULT |

TM-P80***Printer Specifications***

| Item | Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 576 x 1662 dots |
| Maximum page mode area | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 21 dots from the top of the character |
| Baseline of Font C | 15 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_P80 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|-----------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_1 • Printer.PATTERN_2 • Printer.PATTERN_3 • Printer.PATTERN_4 • Printer.PATTERN_5 • Printer.PATTERN_6 • Printer.PATTERN_7 • Printer.PATTERN_8 • Printer.PATTERN_9 • Printer.PATTERN_10 • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |
| addFeedPosition | position | <ul style="list-style-type: none"> • Printer.FEED_CUTTING • Printer.FEED_CURRENT_TOF • Printer.FEED_NEXT_TOF |
| addLayout | type | <ul style="list-style-type: none"> • Printer.LAYOUT_RECEIPT • Printer.LAYOUT_RECEIPT_BM |
| | height | <ul style="list-style-type: none"> • Receipt (without black mark) • Receipt (with black mark) |
| | marginTop | <ul style="list-style-type: none"> • Receipt (without black mark) • Receipt (with black mark) |
| | marginBottom | <ul style="list-style-type: none"> • Receipt (without black mark) • Receipt (with black mark) |
| | offsetCut | <ul style="list-style-type: none"> • Receipt (without black mark) • Receipt (with black mark) |
| | offsetLabel | <ul style="list-style-type: none"> • Receipt (without black mark) • Receipt (with black mark) |

TM-H6000V***Printer Specifications***

| Item | Receipt | Slip | Validation | Endorsement | Endorsement (40cpl) |
|------------------------|---------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---------------------|
| Amount of initial feed | 30 dots | 24 dots | | | 18 dots |
| Initial page mode area | 512 x 1662 dots | 540 x 1408 dots | - | | |
| Maximum page mode area | 512 x 2400 dots | 540 x 1408 dots | - | | |
| Baseline of Font A | 21 dots from the top of the character | 9 dots from the top of the character | 9 dots from the top of the character | 7 dots from the top of the character | |
| Baseline of Font B | 21 dots from the top of the character | 9 dots from the top of the character | 9 dots from the top of the character | - | |
| Baseline of Font C | 18 dots from the top of the character | - | | | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|-------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_H6000 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addTextStyle | color | <ul style="list-style-type: none"> Printer.COLOR_1 (default) Printer.PARAM_UNSPECIFIED Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> Printer.COLOR_1 Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> Printer.FONT_A (default) Printer.FONT_B Printer.FONT_C Printer.PARAM_DEFAULT Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> Printer.SYMBOL_PDF417_STANDARD Printer.SYMBOL_PDF417_TRUNCATED Printer.SYMBOL_QRCODE_MODEL_1 Printer.SYMBOL_QRCODE_MODEL_2 Printer.SYMBOL_MAXICODE_MODE_2 Printer.SYMBOL_MAXICODE_MODE_3 Printer.SYMBOL_MAXICODE_MODE_4 Printer.SYMBOL_MAXICODE_MODE_5 Printer.SYMBOL_MAXICODE_MODE_6 Printer.SYMBOL_GS1_DATABAR_STACKED Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED Printer.SYMBOL_AZTECCODE_FULLRANGE Printer.SYMBOL_AZTECCODE_COMPACT Printer.SYMBOL_DATAMATRIX_SQUARE Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> Printer.LINE_THIN Printer.LINE_MEDIUM Printer.LINE_THICK |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> Printer.LINE_THIN Printer.LINE_MEDIUM Printer.LINE_THICK Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> Printer.CUT_FEED Printer.CUT_NO_FEED Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> LineDisplay.DM_D110 LineDisplay.DM_D210 |

TM-T20II-i***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 420 x 831 dots | 576 x 831 dots |
| Maximum page mode area | 420 x 1662 dots | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T20 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D110 |

TM-T70-i***Printer Specifications***

| Item | | 58mm Specification | 80mm Specification |
|------------------------|--------------------------|---------------------------------------|--------------------|
| Amount of initial feed | | 30 dots | |
| Initial page mode area | ANK model | 416 x 1662 dots | 512 x 831 dots |
| | Multiple languages model | 416 x 1662 dots | 576 x 1662 dots |
| Maximum page mode area | ANK model | 416 x 1662 dots | 512 x 1662 dots |
| | Multiple languages model | 416 x 1662 dots | 576 x 1662 dots |
| Baseline of Font A | | 21 dots from the top of the character | |
| Baseline of Font B | | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T70 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|-------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | type | <ul style="list-style-type: none"> • Printer.BARCODE_UPC_A • Printer.BARCODE_UPC_E • Printer.BARCODE_EAN13 • Printer.BARCODE_JAN13 • Printer.BARCODE_EAN8 • Printer.BARCODE_JAN8 • Printer.BARCODE_CODE39 • Printer.BARCODE_ITF • Printer.BARCODE_CODABAR • Printer.BARCODE_CODE93 • Printer.BARCODE_CODE128 |
| | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D110 |

TM-T82II-i***Printer Specifications***

| Item | Specification |
|------------------------|---------------------------------------|
| Amount of initial feed | 30 dots |
| Initial page mode area | 576 x 831 dots |
| Maximum page mode area | 576 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character |
| Baseline of Font B | 16 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T82 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D110 |

TM-T83II-i***Printer Specifications***

| Item | Specification | |
|------------------------|--------------------|---------------------------------------|
| Amount of initial feed | | 30 dots |
| Initial page mode area | | 512 x 1662 dots |
| Maximum page mode area | | 512 x 1662 dots |
| Baseline of Font A | | 21 dots from the top of the character |
| Baseline of Font B | ANK | 16 dots from the top of the character |
| | Chinese characters | 15 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T83 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_KOREAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D110 |

TM-T88V-i***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|---------------------------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 360 x 831 dots | 512 x 831 dots |
| Maximum page mode area | 360 x 1662 dots | 512 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | ANK | 16 dots from the top of the character |
| | Chinese characters | 15 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T88 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_KOREAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D110 |

TM-T88VI-iHUB***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|---------------------------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 360 x 831 dots | 512 x 831 dots |
| Maximum page mode area | 360 x 1662 dots | 512 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | ANK | 16 dots from the top of the character |
| | Chinese characters | 15 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T88 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_KOREAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addPageLine | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addPageRectangle | lineStyle | <ul style="list-style-type: none"> • Printer.LINE_THIN • Printer.LINE_MEDIUM • Printer.LINE_THICK • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| | repeat | <ul style="list-style-type: none"> • 1 to 255 • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|----------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| setPrinterSetting | value | <ul style="list-style-type: none"> • Printer.Setting.PaperWidth58_0 • Printer.Setting.PaperWidth80_0 • Printer.Setting.PrintDensityDIP • Printer.Setting.PrintDensity70 • Printer.Setting.PrintDensity75 • Printer.Setting.PrintDensity80 • Printer.Setting.PrintDensity85 • Printer.Setting.PrintDensity90 • Printer.Setting.PrintDensity95 • Printer.Setting.PrintDensity100 • Printer.Setting.PrintDensity105 • Printer.Setting.PrintDensity110 • Printer.Setting.PrintDensity115 • Printer.Setting.PrintDensity120 • Printer.Setting.PrintDensity125 • Printer.Setting.PrintDensity130 • Printer.Setting.PrintSpeed1 • Printer.Setting.PrintSpeed2 • Printer.Setting.PrintSpeed3 • Printer.Setting.PrintSpeed4 • Printer.Setting.PrintSpeed5 • Printer.Setting.PrintSpeed6 • Printer.Setting.PrintSpeed7 • Printer.Setting.PrintSpeed8 • Printer.Setting.PrintSpeed9 • Printer.Setting.PrintSpeed10 • Printer.Setting.PrintSpeed11 • Printer.Setting.PrintSpeed12 • Printer.Setting.PrintSpeed13 • Printer.Setting.PrintSpeed14 |
| downloadFirmwareList | printerModel | <ul style="list-style-type: none"> • TM-T88VI-iHUB |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D110 • LineDisplay.DM_D30 |

TM-U220-i***Printer Specifications***

| Item | 76mm Specification | 69.5mm Specification | 57.5mm Specification |
|------------------------|--------------------|----------------------|----------------------|
| Amount of initial feed | 12 dots | | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_U220 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_KOREAN • Printer.MODEL_THAI |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.COLOR_2 • Printer.PARAM_DEFAULT |
| | mode | <ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D110 |

TM-T70II-DT***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | ANK model | 416 x 1662 dots |
| | Multiple languages model | 416 x 1662 dots |
| Maximum page mode area | ANK model | 416 x 1662 dots |
| | Multiple languages model | 416 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T70 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| addSymbol | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|-------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSound | pattern | <ul style="list-style-type: none">• Printer.PATTERN_NONE• Printer.PATTERN_A• Printer.PATTERN_B• Printer.PATTERN_C• Printer.PATTERN_D• Printer.PATTERN_E• Printer.PATTERN_ERROR• Printer.PATTERN_PAPER_EMPTY• Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none">• LineDisplay.DM_D110• LineDisplay.DM_D30 |

TM-T70II-DT2***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | ANK model | 416 x 1662 dots |
| | Multiple languages model | 416 x 1662 dots |
| Maximum page mode area | ANK model | 416 x 1662 dots |
| | Multiple languages model | 416 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T70 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| addSymbol | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|-------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSound | pattern | <ul style="list-style-type: none">• Printer.PATTERN_NONE• Printer.PATTERN_A• Printer.PATTERN_B• Printer.PATTERN_C• Printer.PATTERN_D• Printer.PATTERN_E• Printer.PATTERN_ERROR• Printer.PATTERN_PAPER_EMPTY• Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none">• LineDisplay.DM_D110• LineDisplay.DM_D30 |

TM-T88V-DT***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|---------------------------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 360 x 831 dots | 512 x 831 dots |
| Maximum page mode area | 360 x 1662 dots | 512 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | ANK | 16 dots from the top of the character |
| | Chinese characters | 15 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T88 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_KOREAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D110 • LineDisplay.DM_D30 |

TM-T88VI-DT2***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|---------------------------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 360 x 831 dots | 512 x 831 dots |
| Maximum page mode area | 360 x 1662 dots | 512 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | ANK | 16 dots from the top of the character |
| | Chinese characters | 15 dots from the top of the character |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T88 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_KOREAN • Printer.MODEL_SOUTHASIA |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED • Printer.SYMBOL_AZTECCODE_FULLRANGE • Printer.SYMBOL_AZTECCODE_COMPACT • Printer.SYMBOL_DATAMATRIX_SQUARE • Printer.SYMBOL_DATAMATRIX_RECTANGLE_8 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_12 • Printer.SYMBOL_DATAMATRIX_RECTANGLE_16 |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| addSound | pattern | <ul style="list-style-type: none"> • Printer.PATTERN_NONE • Printer.PATTERN_A • Printer.PATTERN_B • Printer.PATTERN_C • Printer.PATTERN_D • Printer.PATTERN_E • Printer.PATTERN_ERROR • Printer.PATTERN_PAPER_EMPTY • Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D110 • LineDisplay.DM_D30 |

TM-H6000IV-DT***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 360 x 831 dots | 512 x 831 dots |
| Maximum page mode area | 360 x 1662 dots | 512 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_H6000 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |
| LineDisplay | displaySeries | <ul style="list-style-type: none"> • LineDisplay.DM_D110 • LineDisplay.DM_D30 |

TM-T88IV***Printer Specifications***

| Item | | 58mm Specification | 80mm Specification |
|------------------------|---------------------|---------------------------------------|--------------------|
| Amount of initial feed | | 30 dots | |
| Initial page mode area | Monochrome printing | 360 x 831 dots | 512 x 831 dots |
| | Two-color printing | 360 x 415 dots | 512 x 415 dots |
| Maximum page mode area | Monochrome printing | 360 x 1662 dots | 512 x 1662 dots |
| | Two-color printing | 360 x 831 dots | 512 x 831 dots |
| Baseline of Font A | | 21 dots from the top of the character | |
| Baseline of Font B | | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T88 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.COLOR_2 • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addBarcode | type | <ul style="list-style-type: none"> • Printer.BARCODE_UPC_A • Printer.BARCODE_UPC_E • Printer.BARCODE_EAN13 • Printer.BARCODE_JAN13 • Printer.BARCODE_EAN8 • Printer.BARCODE_JAN8 • Printer.BARCODE_CODE39 • Printer.BARCODE_ITF • Printer.BARCODE_CODABAR • Printer.BARCODE_CODE93 • Printer.BARCODE_CODE128 |
| | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

TM-T90***Printer Specifications***

| Item | 58mm Specification | 60mm Specification | 80mm Specification | |
|------------------------|---------------------------------------|--------------------|--------------------|-----------------|
| Amount of initial feed | 30 dots | | | |
| Initial page mode area | Monochrome printing | 420 x 738 dots | 384 x 831 dots | 576 x 738 dots |
| | Two-color printing | 420 x 369 dots | 384 x 415 dots | 576 x 369 dots |
| Maximum page mode area | Monochrome printing | 420 x 1476 dots | 384 x 1662 dots | 576 x 1476 dots |
| | Two-color printing | 420 x 738 dots | 384 x 831 dots | 576 x 738 dots |
| Baseline of Font A | 21 dots from the top of the character | | | |
| Baseline of Font B | 16 dots from the top of the character | | | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_T90 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_KOREAN • Printer.MODEL_THAI |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.COLOR_2 • Printer.PARAM_DEFAULT |
| addBarcode | type | <ul style="list-style-type: none"> • Printer.BARCODE_UPC_A • Printer.BARCODE_UPC_E • Printer.BARCODE_EAN13 • Printer.BARCODE_JAN13 • Printer.BARCODE_EAN8 • Printer.BARCODE_JAN8 • Printer.BARCODE_CODE39 • Printer.BARCODE_ITF • Printer.BARCODE_CODABAR • Printer.BARCODE_CODE93 • Printer.BARCODE_CODE128 |
| | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.FONT_C • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

TM-L90***Printer Specifications***

| Item | Receipt Specification | Die-cut Label Specification |
|------------------------|----------------------------------------------------------------------|------------------------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | Monochrome printing | 576 x 738 dots 560 x 738 dots |
| | Two-color printing | 576 x 369 dots 560 x 369 dots |
| Maximum page mode area | Monochrome printing | 576 x 1476 dots 560 x 1476 dots |
| | Two-color printing | 576x 738 dots 560 x 738 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | ANK: 16 Chinese characters: 15 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_L90 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_ANK • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN • Printer.MODEL_KOREAN • Printer.MODEL_THAI |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |

| API | Parameter | Specifiable Setting Value |
|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.COLOR_2 • Printer.PARAM_DEFAULT |
| addBarcode | type | <ul style="list-style-type: none"> • Printer.BARCODE_UPC_A • Printer.BARCODE_UPC_E • Printer.BARCODE_EAN13 • Printer.BARCODE_JAN13 • Printer.BARCODE_EAN8 • Printer.BARCODE_JAN8 • Printer.BARCODE_CODE39 • Printer.BARCODE_ITF • Printer.BARCODE_CODABAR • Printer.BARCODE_CODE93 • Printer.BARCODE_CODE128 |
| | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|--------|-----------|----------------------------------------------------------------------------------------------------------------------------------|
| addCut | type | <ul style="list-style-type: none">• Printer.CUT_FEED• Printer.CUT_NO_FEED• Printer.PARAM_DEFAULT |

TM-H6000IV***Printer Specifications***

| Item | 58mm Specification | 80mm Specification |
|------------------------|---------------------------------------|--------------------|
| Amount of initial feed | 30 dots | |
| Initial page mode area | 360 x 831 dots | 512 x 831 dots |
| Maximum page mode area | 360 x 1662 dots | 512 x 1662 dots |
| Baseline of Font A | 21 dots from the top of the character | |
| Baseline of Font B | 16 dots from the top of the character | |

Parameter Restrictions

| API | Parameter | Specifiable Setting Value |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Printer | printerSeries | <ul style="list-style-type: none"> • Printer.TM_H6000 |
| | lang | <ul style="list-style-type: none"> • Printer.MODEL_CHINESE • Printer.MODEL_TAIWAN |
| addTextLang | lang | <ul style="list-style-type: none"> • Printer.LANG_EN (default) • Printer.LANG_JA • Printer.LANG_ZH_CN • Printer.LANG_ZH_TW • Printer.LANG_KO • Printer.LANG_TH • Printer.LANG_VI • Printer.PARAM_DEFAULT |
| addTextFont | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT |
| addTextStyle | color | <ul style="list-style-type: none"> • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT |
| addImage | color | <ul style="list-style-type: none"> • Printer.COLOR_1 • Printer.PARAM_DEFAULT |
| addBarcode | font | <ul style="list-style-type: none"> • Printer.FONT_A (default) • Printer.FONT_B • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |

| API | Parameter | Specifiable Setting Value |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| addSymbol | type | <ul style="list-style-type: none"> • Printer.SYMBOL_PDF417_STANDARD • Printer.SYMBOL_PDF417_TRUNCATED • Printer.SYMBOL_QRCODE_MODEL_1 • Printer.SYMBOL_QRCODE_MODEL_2 • Printer.SYMBOL_MAXICODE_MODE_2 • Printer.SYMBOL_MAXICODE_MODE_3 • Printer.SYMBOL_MAXICODE_MODE_4 • Printer.SYMBOL_MAXICODE_MODE_5 • Printer.SYMBOL_MAXICODE_MODE_6 • Printer.SYMBOL_GS1_DATABAR_STACKED • Printer.SYMBOL_GS1_DATABAR_STACKED_OMNIDIRECTIONAL • Printer.SYMBOL_GS1_DATABAR_EXPANDED_STACKED |
| | level | <ul style="list-style-type: none"> • Printer.LEVEL_0 • Printer.LEVEL_1 • Printer.LEVEL_2 • Printer.LEVEL_3 • Printer.LEVEL_4 • Printer.LEVEL_5 • Printer.LEVEL_6 • Printer.LEVEL_7 • Printer.LEVEL_8 • Printer.LEVEL_L • Printer.LEVEL_M • Printer.LEVEL_Q • Printer.LEVEL_H • Printer.PARAM_DEFAULT • Printer.PARAM_UNSPECIFIED |
| addCut | type | <ul style="list-style-type: none"> • Printer.CUT_FEED • Printer.CUT_NO_FEED • Printer.PARAM_DEFAULT |

Usage restriction by firmware version

Availability and restriction on the use of APIs and parameters depends on the versions of the firmware and software installed on the printer. For how to check the versions and/or update the firmware and software, refer to the Technical Reference Guide of the printer.

TM-i Series/TM-DT Series

- Supported by TM-DT software Ver. 2.5 and TM-i firmware 4.0 or later.

| Class | API | Parameter | Value |
|---------------|-----|-----------|-------|
| CommBox class | - | - | - |

- Supported by TM-DT software Ver. 2.5 and TM-i firmware 4.1 or later.

| Class | API | Parameter | Value |
|---------------|-------------------------|-----------|--------------------------------|
| Printer class | requestPrintJobStatus | - | - |
| | addSymbol | data | QR Code Micro |
| | addSymbol | type | Printer.SymbolType.QRCodeMicro |
| | setReceiveEventListener | args | PrintJobId |

- Supported by TM-DT software Ver. 3.02 and TM-i firmware 4.4 or later.

| Class | API | Parameter | Value |
|-----------------|-----|-----------|-------|
| Discovery class | - | - | - |

- Supported by TM-DT software Ver. 4.0 or later.

| Class | API | Parameter | Value |
|-----------------------|-------|------------|---------------------------------|
| POSKeyboard class | - | - | - |
| MSR class | - | - | - |
| OtherPeripheral class | - | - | - |
| Discovery class | start | deviceType | Discovery.TYPE_POS_KEYBOARD |
| | | | Discovery.TYPE_MSR |
| | | | Discovery.TYPE_OTHER_PERIPHERAL |

TM-m30

- Supported by TM-m30 firmware Ver. 1.40 ESC/POS or later.

| Class | API | Parameter | Value |
|----------------------|-----|-----------|-------|
| BarcodeScanner class | - | - | - |

- Supported with the following versions of firmware.

- TM-m30 firmware Ver. 1.46A ESC/POS or later
- TM-m30 firmware Ver. 1.46B ESC/POS or later

| Class | API | Parameter | Value |
|----------------------------|-----|-----------|-------|
| GermanyFiscalElement class | - | - | - |

TM-T88VI

- Supported by TM-T88VI firmware Ver. 40.50 ESC/POS or later.

| Class | API | Parameter | Value |
|----------------------|-----|-----------|-------|
| BarcodeScanner class | - | - | - |

TM-T88VI-iHUB

- Supported with the following versions of firmware.

- TM-T88VI-iHUB firmware Ver. 50.52A ESC/POS or later
- TM-T88VI-iHUB firmware Ver. 50.52B ESC/POS or later

| Class | API | Parameter | Value |
|----------------------------|-----|-----------|-------|
| GermanyFiscalElement class | - | - | - |

Sample Programs

The sample programs provided with Epson ePOS SDK for Android are implementation samples of Android applications.

Android Studio Android application projects that include the Java source files are provided.



The provided sample programs were created with sample API Level 14.

Functionality

The sample programs provide the following functionality.

ePOS2Printer

- Printer search and specification**
 - Specifies the connection type.
 - Displays a list of search results.
 - Retrieves target information required for the connection selected from the search results.
- Sample receipt printing**
- Sample coupon printing**
- Printer status confirmation**
 - Confirms the status of printers before printing.
 - When the printer is not capable of printing, the program generates a notification message of the possible causes and corresponding action of the error.
- Display of print results and printer status**
 - Sends notification of the print result after printing.
 - The program generates a message corresponding to the printer status at the time that the printer result notification was made.
 - Notifies the users of an API error that occurred while searching for printers, or during printing sample receipts or coupons.
- Log Output Settings**
 - Enables log output to terminal storage when displaying the main screen.

ePOS2 Hybrid Printer

- Printer search and specification
 - Displays a list of search results.
 - Retrieves target information required for the connection selected from the search results.
- Controls operations continuously from endorsement printing after MICR reading to slip and receipt printings.
- Validation printing
- Printer status confirmation
 - Confirms the status of printers before printing.
 - When the printer is not capable of printing, the program generates a notification message of the possible causes and corresponding action of the error.
- Display of print results and printer status
 - Sends notification of the print result after printing.
 - The program generates a message corresponding to the printer status at the time that the printer result notification was made.
 - Notifies the users of an API error that occurred while searching for printers or printing samples.
- Sets the log output function.
 - Enables log output to terminal storage when displaying the main screen.

ePOS2Discovery

- Filter Option settings
- Search of printers and peripheral devices
- Search initiation
- Display of search results
- Search completion
- Error notification
 - Notifies the users of an API error that occurred when starting a search, during searching, or in the process of completing a search.

ePOS2LineDisplay

- Display of the specified text on the customer display
- Turns on or off the blinking display
- Error notification
 - When failed to connect to the customer display, notifies the user of the connection error.
 - Notifies the users of an API error that occurred while sending display data to the customer display.

ePOS2Keyboard

- Starts and ends connection with the printer
 - Connects to the specified keyboard.
 - When failed to connect to the keyboard, notifies the user of the connection error.
- Display of text input with the keyboard in text boxes in the application
- Error notification
 - Notifies the users of an API error that occurred while entering text with the keyboard.

ePOS2POSKeyboard

- Starts and ends connection with TM-DT
 - Connects to the specified keyboard.
 - When failed to connect to the keyboard, notifies the user of the connection error.
- Display of keycode input with the keyboard in text boxes in the application
- Error notification
 - Notifies the users of an API error that occurred while entering keycode with the keyboard.

ePOS2BarcodeScanner

- Starts and ends connection with the printer
 - Connects to a barcode scanner specified.
 - When failed to connect to the barcode scanner, notifies the user of the connection error.
- Display of data read by the barcode scanner in text boxes in the application
- Error notification
 - Notifies the users of an API error that occurred while reading data with the barcode scanner.

ePOS2MSR

- Starts and ends connection with TM-DT
 - Starts connection with the MSR specified in the Target text boxes.
 - Ends connection with the connected MSR.
- Display of data read by the MSR in text boxes in the application
- Error notification
 - Notifies the users of an API error that occurred while reading data with the MSR.

ePOS2SimpleSerial

- ❑ Starts and ends connection with the printer
 - Connects to the specified serial communication device.
 - When failed to connect to the serial communication device, notifies the user of the connection error.
- ❑ Transmission of data specified by the application to the serial communication device.
- ❑ Display of response commands from the serial communication device in the application
- ❑ Error notification
 - Notifies the users of an API error that occurred while sending data to the serial communication device.

ePOS2GermanyFiscalElement

- ❑ Peripheral device settings
 - Searches for the printer, and displays the search results in a list.
 - Specifies the printer to be used.
 - Specifies the German fiscal element (TSE) to be used.
 - Specifies the customer display to be used.
 - Sets up German fiscal element (TSE) to be used.
- ❑ Purchase of a product
 - A product is selected by pushing a button.
 - The barcode is read by the barcode scanner, and the product is selected.
 - Displays the price of the selected product on the customer display.
 - Writes the information of the selected product to German fiscal element (TSE).
- ❑ Payment for a product
 - Displays the total price of the products on the customer display.
 - Prints the receipt.
 - Writes the information of the product for which payment is finished to German fiscal element (TSE).
- ❑ Export from German fiscal element (TSE)
 - Exports the information written to German fiscal element (TSE).
- ❑ Information acquisition from German fiscal element (TSE)
 - Acquires the information of German fiscal element (TSE).
- ❑ Printer firmware update
 - Acquires the firmware version of the connected printer.
 - Acquires the released version of printer firmware.
 - Updates the printer firmware.

ePOS2OtherPeripheral

- Starts and ends connection with TM-DT
 - Starts connection with the device specified in the Target text boxes.
 - Ends connection with connected device.
- Transmission of JSON data specified by the application to the device
- Display of response commands from the device in the text boxes
- Error notification
 - Notifies the users of an API error that occurred at the timing when the process was run by the device.

ePOS2CommBox

- Starts and ends connection with the printer
 - Connects to the communication box specified.
 - When failed to connect to the communication box, notifies the user of the connection error.
- Transmission of messages to the member ID specified by the application
- Error notification
 - Notifies the users of an API error that occurred when sending a message.

ePOS2EasySelection

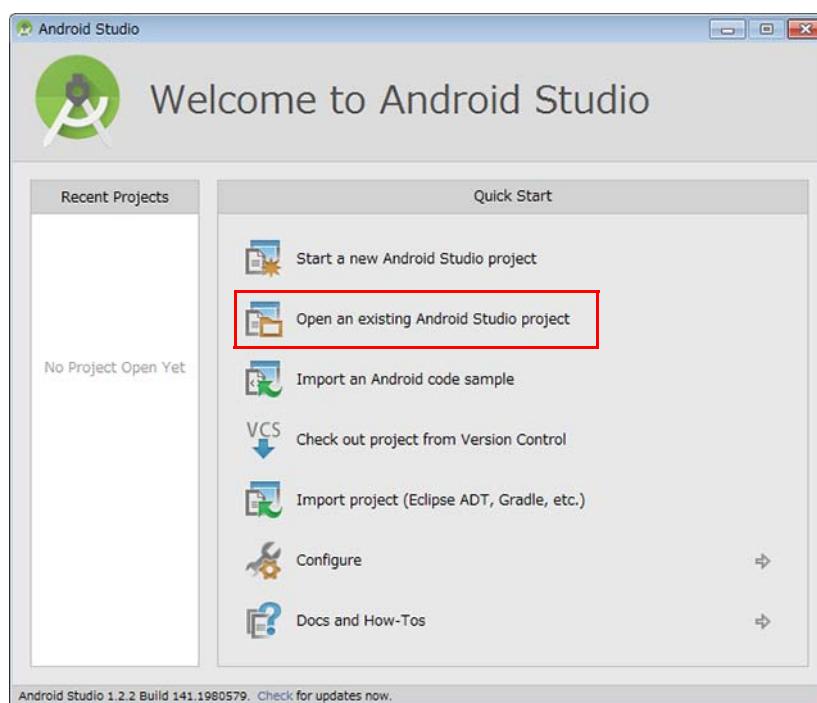
- Easy connection with a printer by using its NFC tag or QR code.
 - Acquires printer information from the NFC tag.
 - Acquires printer information from the QR code.
 - Opens the port by using the acquired printer information.
- Printing of a QR code that enables easy printer selection.
 - Creates a QR code that contains the printer information from the printer search result.

Use Environment

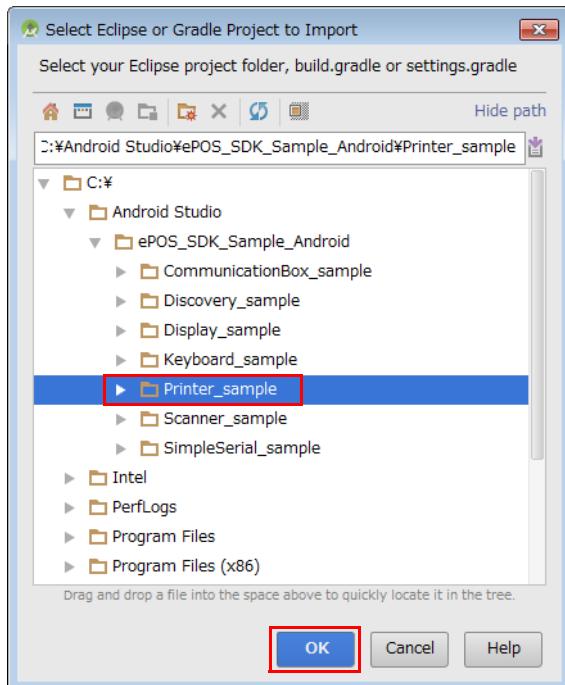
Refer to [Epson ePOS SDK for Android Development Environment](#) and [Application Operating Environment](#).

Installation Procedure

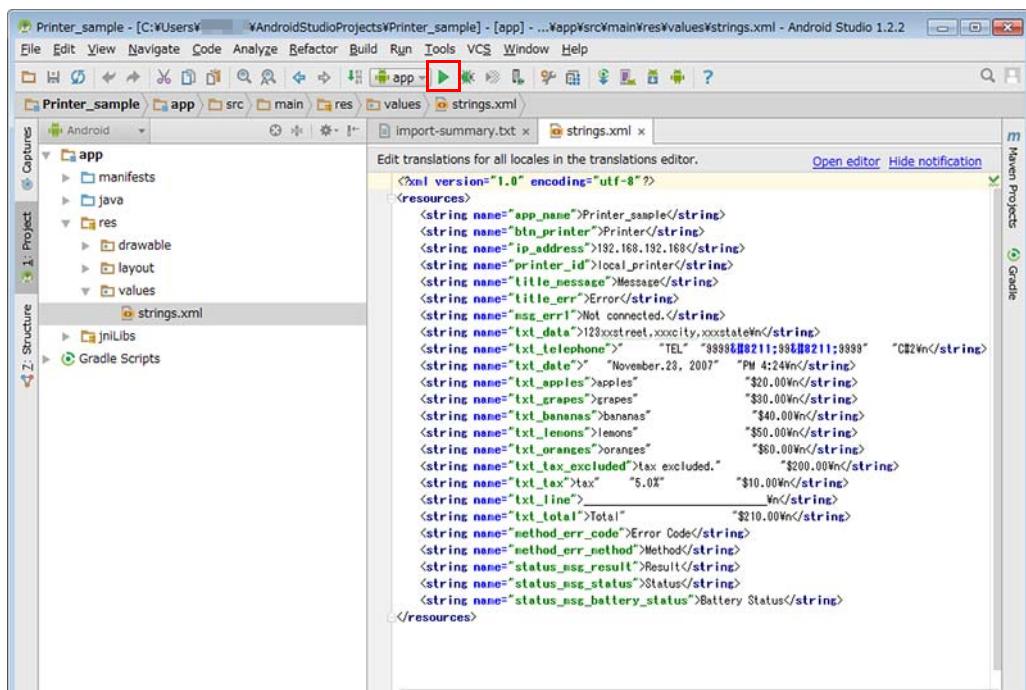
- 1** Extract the sample programs from the zip file and store the extracted files at any desired location.
- 2** Start Android Studio and click **Open an existing Android Studio Project**.



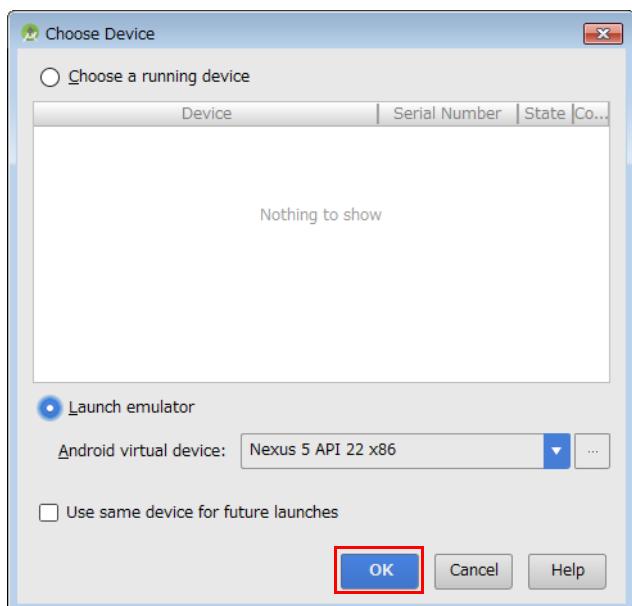
- 3** Select a sample program you want to install from the sample programs you stored at step 1, and then click **OK**.



- 4** Click the **Run app** button.



5 Select the device and then click **OK**.



Application Guide

To connect via USB

For a USB interface, we recommend obtaining access permission to USB devices in the application software.



To open a port using the connect without obtaining access permission to USB devices in advance, note the following:

- When [OK] is pressed in the dialog box for access permission acquisition, it takes about 10 seconds to open a port.
- When [Cancel] is pressed in the dialog box for access permission acquisition, the state of waiting for the timeout lasts for 30 seconds.

How to obtain access permission in the application software is as follows:

1 Add the following code to AndroidManifest.xml.

```
<manifest ...>
  <application>
    <activity ...>
      <intent-filter>
        <action android:name="android.hardware.usb.action.USB_DEVICE_ATTACHED" />
      </intent-filter>
      <meta-data android:name="android.hardware.usb.action.USB_DEVICE_ATTACHED"
        android:resource="@xml/device_filter" />
    </activity>
  </application>
</manifest>
```

2 Add res/xml/device_filter.xml to the source file.

3 Write the following code in the device_filter.xml file.

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
  <usb-device vendor-id="1208" />
</resources>
```

4 A dialog box appears when obtaining access permission. Press [OK].

To search printers

```

Starts searching
FilterOption filterOption = null;
filterOption = new FilterOption();

//Specifies the port to search
filterOption.PortType = Discovery.SOCKET_ALL;

//Specifies the Broadcast address.
filterOption.broadcast = "255.255.255.255";

//Specifies the device model to search.
filterOption.deviceModel = Discovery.MODEL_ALL;

//Specifies the device type to search.
filterOption.deviceType = Discovery.TYPE_ALL;

Starts searching
try {
    Discovery.start(mContext, filterOption, mDiscoveryListener);
}
catch (Exception e) {
    //Displays error messages
}

Notifies the detected devices
private DiscoveryListener mDiscoveryListener = new DiscoveryListener() {
    @Override
    public void onDiscovery(final DeviceInfo deviceInfo) {
        runOnUiThread(new Runnable() {
            @Override
            public synchronized void run() {
                //Display the detected device in the application software
            }
        });
    }
};

Stops searching
private void stopDiscovery() {
    try {
        Discovery.stop();
    }
    catch (Epos2Exception e) {
        //Displays error messages
    }
}

```

To monitor continuously

When application starts

```
Printer printer = null;

try {
    printer = new Printer(printer.TM_T88, printer.MODEL_ANK, this);
}
catch (Exception e) {
    //Displays error messages
}

printer.setStatusChangeListener(this);

try {
    printer.connect("TCP:192.168.192.168", printer.PARAM_DEFAULT);
}
catch (Exception e) {
    //Displays error messages
}

try {
    printer.setInterval(3000);
    printer.startMonitor();
}
catch (Exception e) {
    //Displays error messages
}
```

Repeats

```
//Buffers the print data(addText..)
//Sends the print data (sendData)
```

When application closes

```
try {
    printer.stopMonitor();
}
catch (Exception e) {
    //Displays error messages
}

try {
    printer.disconnect();
}
catch (Exception e) {
    //Displays error messages
}
```

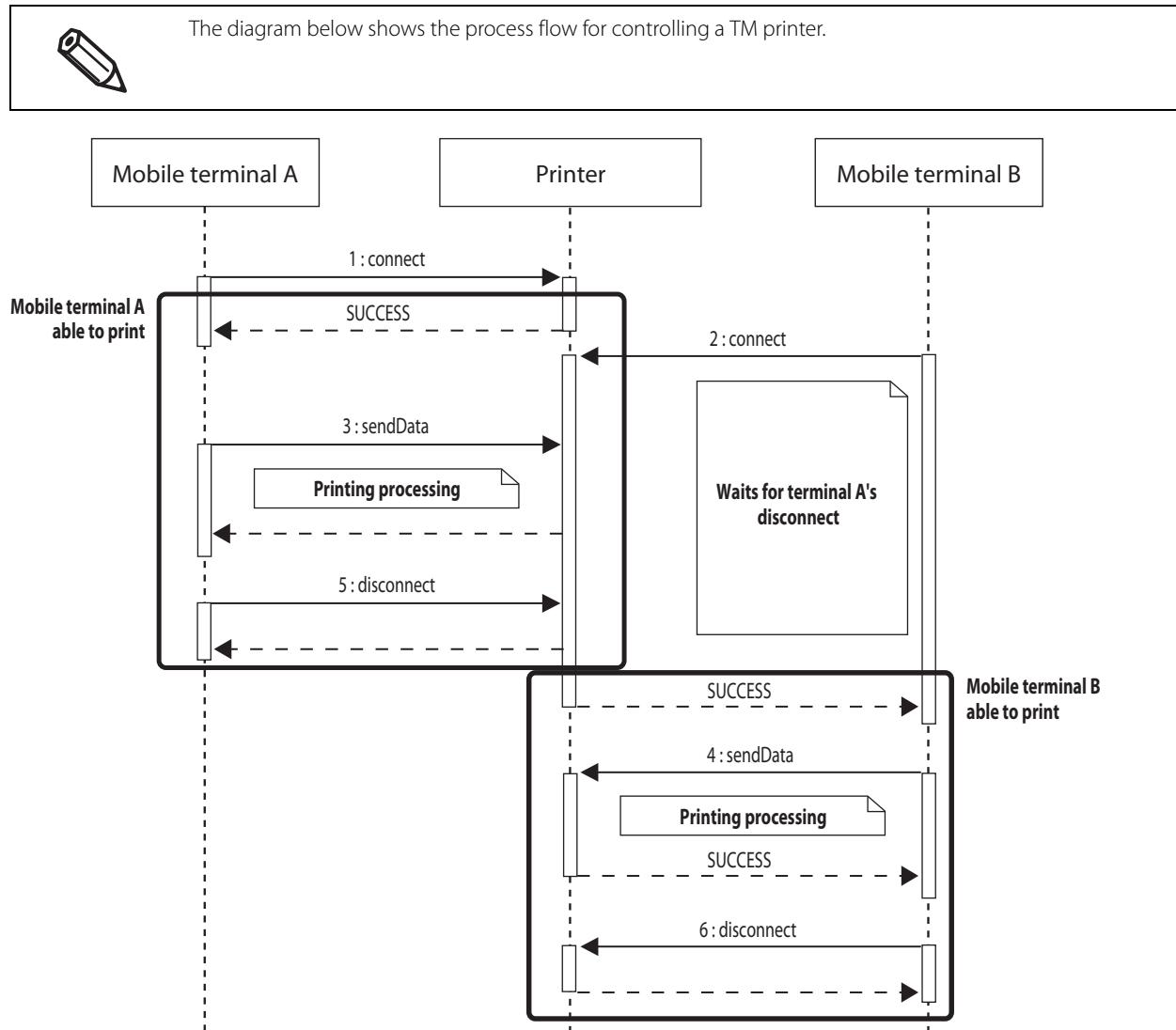
```
public void onPtrStatusChange(Printer printerObj, final int eventType) {  
    runOnUiThread(new Runnable() {  
        @Override  
        public synchronized void run() {  
            switch (eventType) {  
                case Printer.EVENT_ONLINE:  
                    break;  
                case Printer.EVENT_OFFLINE:  
//Displays notification messages  
                    break;  
                case Printer.EVENT_POWER_OFF:  
//Displays notification messages  
                    break;  
                case Printer.EVENT_COVER_CLOSE:  
//Displays notification messages  
                    break;  
                case Printer.EVENT_COVER_OPEN:  
//Displays notification messages  
                    break;  
                case Printer.EVENT_PAPER_OK:  
//Displays notification messages  
                    break;  
                case Printer.EVENT_PAPER_NEAR_END:  
//Displays notification messages  
                    break;  
                case Printer.EVENT_PAPER_EMPTY:  
//Displays notification messages  
                    break;  
                case Printer.EVENT_DRAWER_HIGH:  
//Displays notification messages  
                    break;  
                case Printer.EVENT_DRAWER_LOW:  
//Displays notification messages  
                    break;  
                case Printer.EVENT_BATTERY_ENOUGH:  
//Displays notification messages  
                    break;  
                case Printer.EVENT_BATTERY_EMPTY:  
//Displays notification messages  
                    break;  
                default:  
                    break;  
            }  
        }  
    });  
}
```



Refer to [Error Status and countermeasures](#) for the messages displayed on "Displays notification messages".

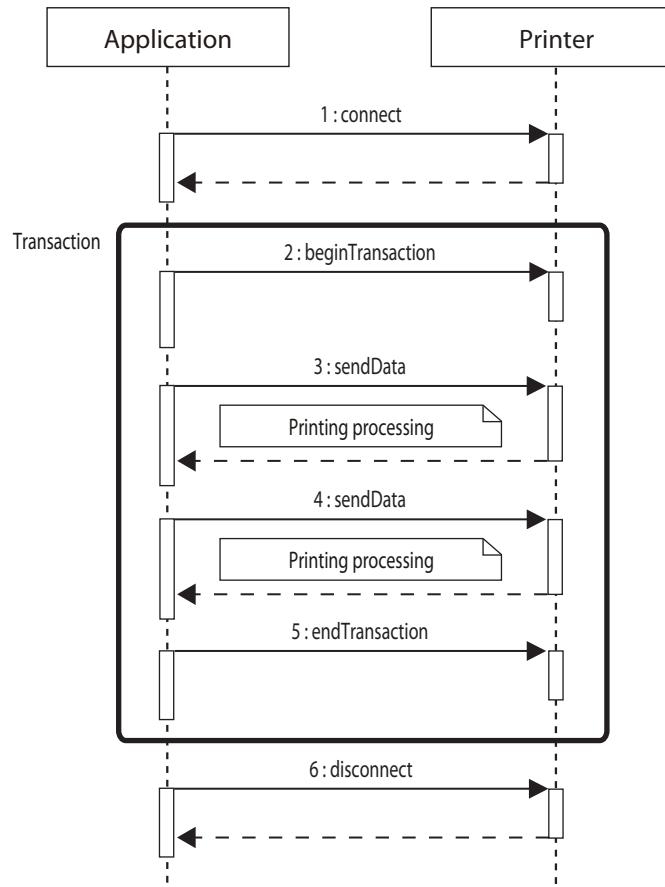
To use the same printer from multiple mobile devices

The following shows a processing flow when using a single printer from the mobile terminal A and B.



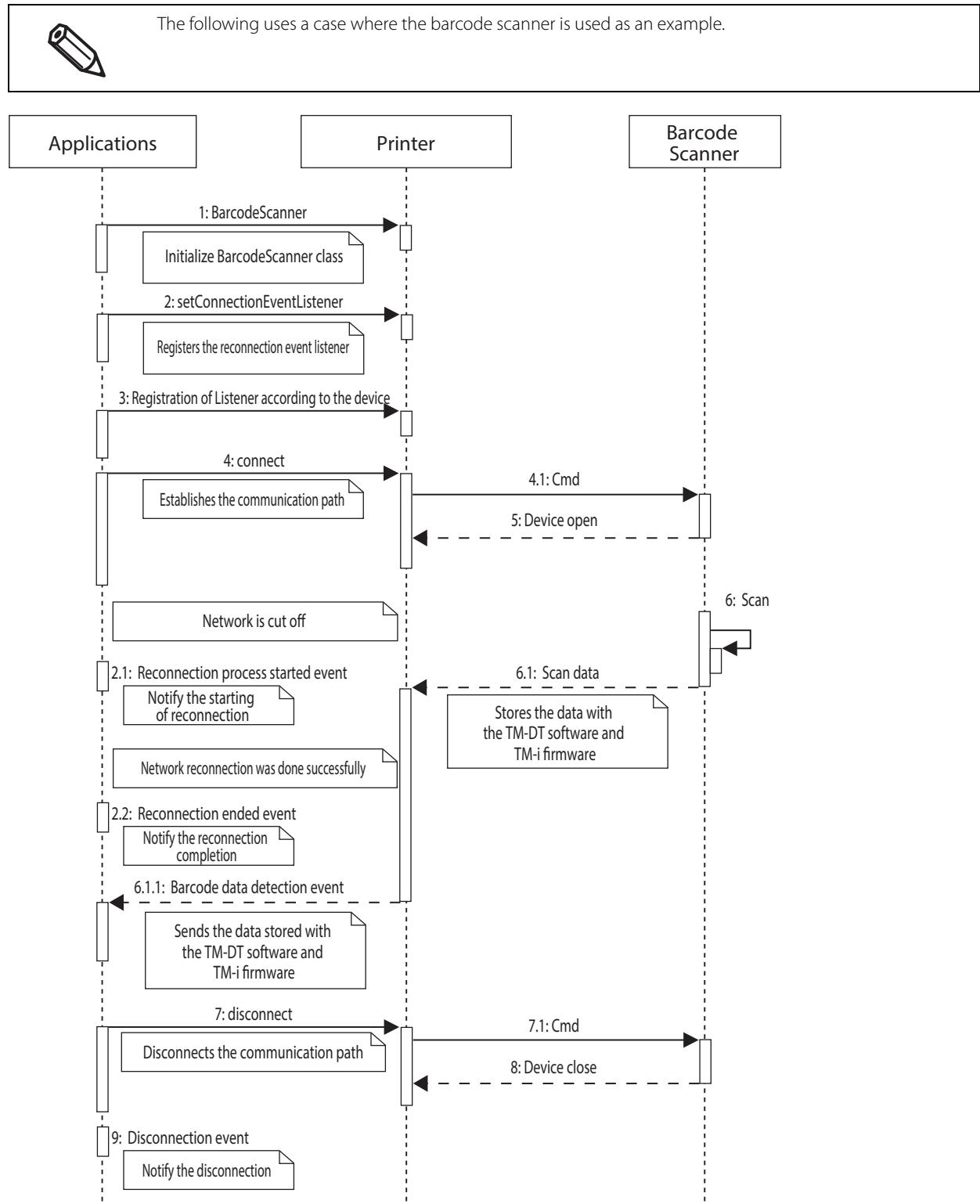
To specify a transaction

Put the set of print processing to be carried out consecutively (such as a single receipt or a single coupon) between `beginTransaction` and `endTransaction`.



To reconnect to the network automatically

The following is a sequence for automatically reconnecting if network communication is cut off with the printer.

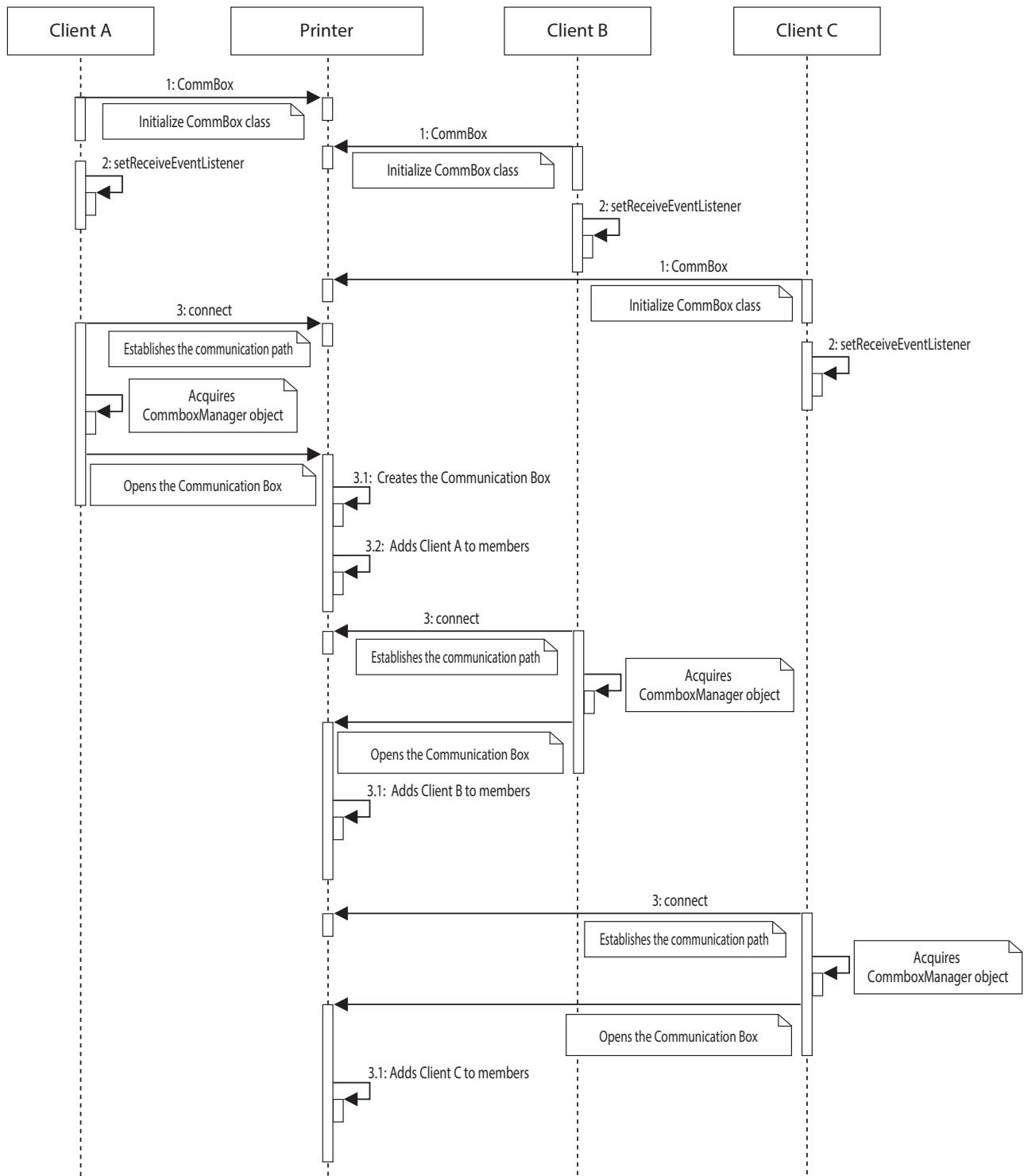


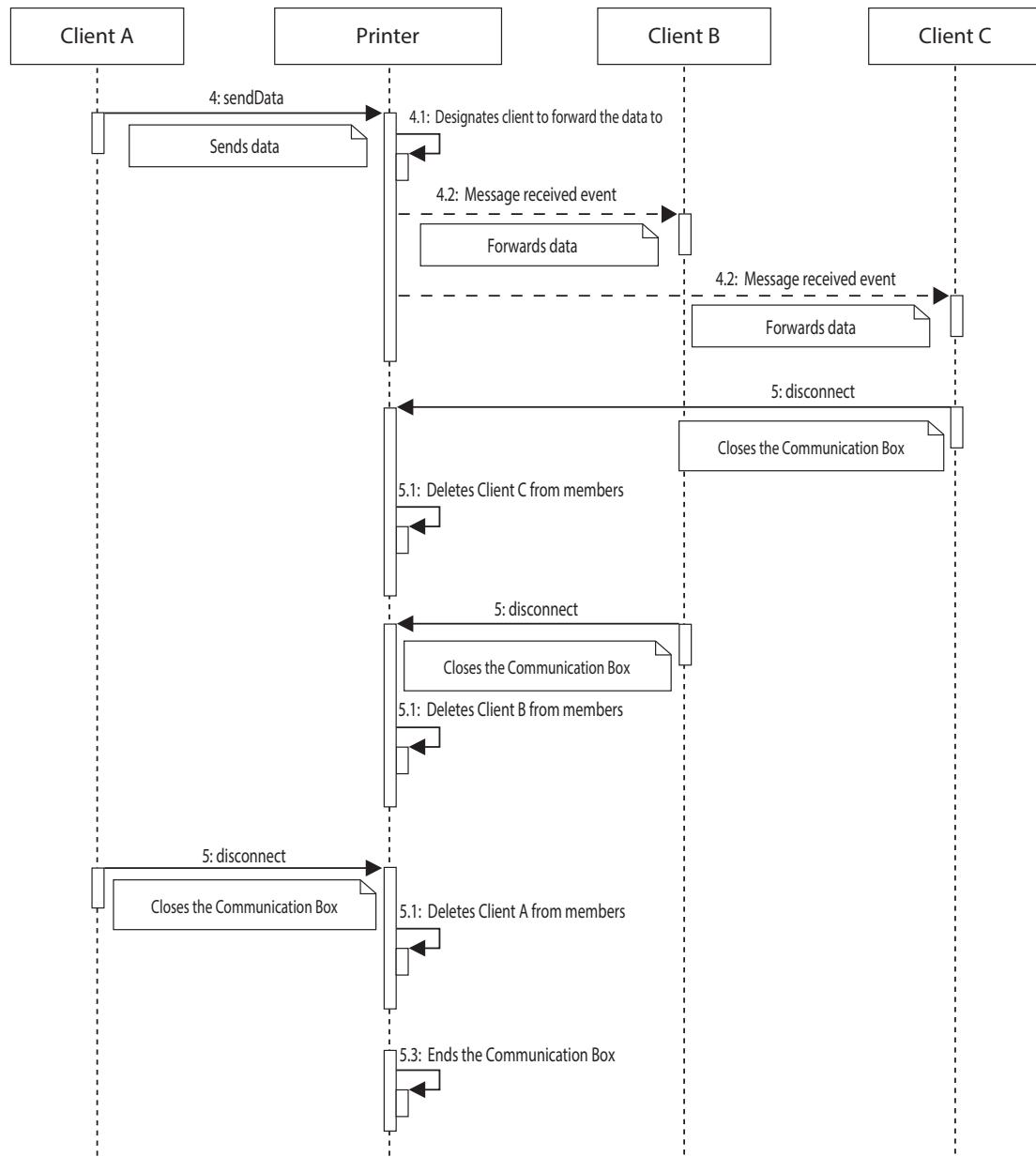
To transmit and receive the data between applications

Use the Communication Box function of the printer.

For details on a printer equipped with the Communication Box function, refer to [Functions provided in each printer](#).

The following indicates the basic programming sequence using the Communication Box. A "Client" in the sequence figure refers to an application.



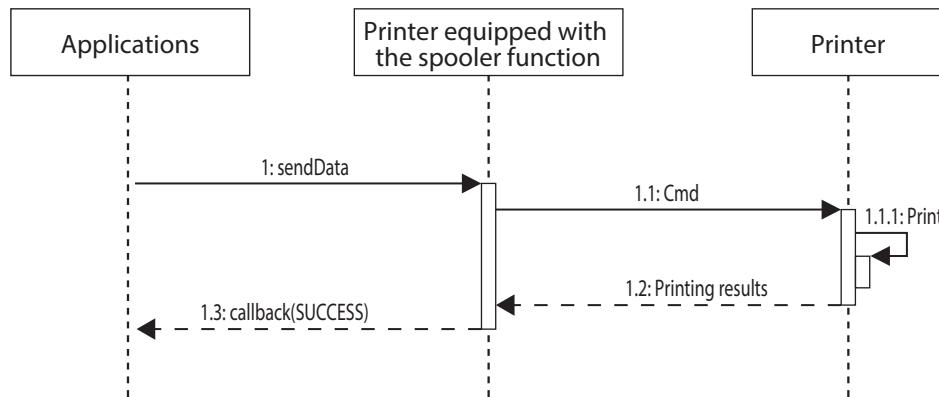


To perform forward printing

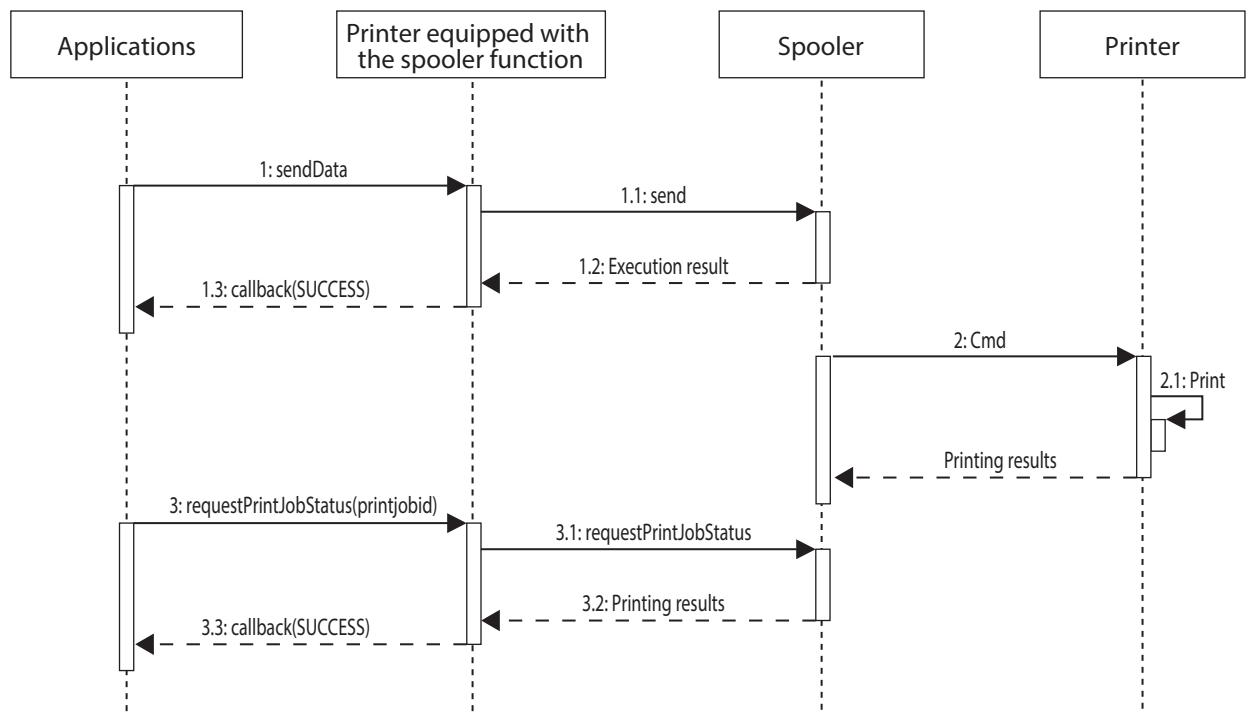
Use the spooler function of printers.

For details on a printer equipped with the spooler function, refer to [Functions provided in each printer](#).

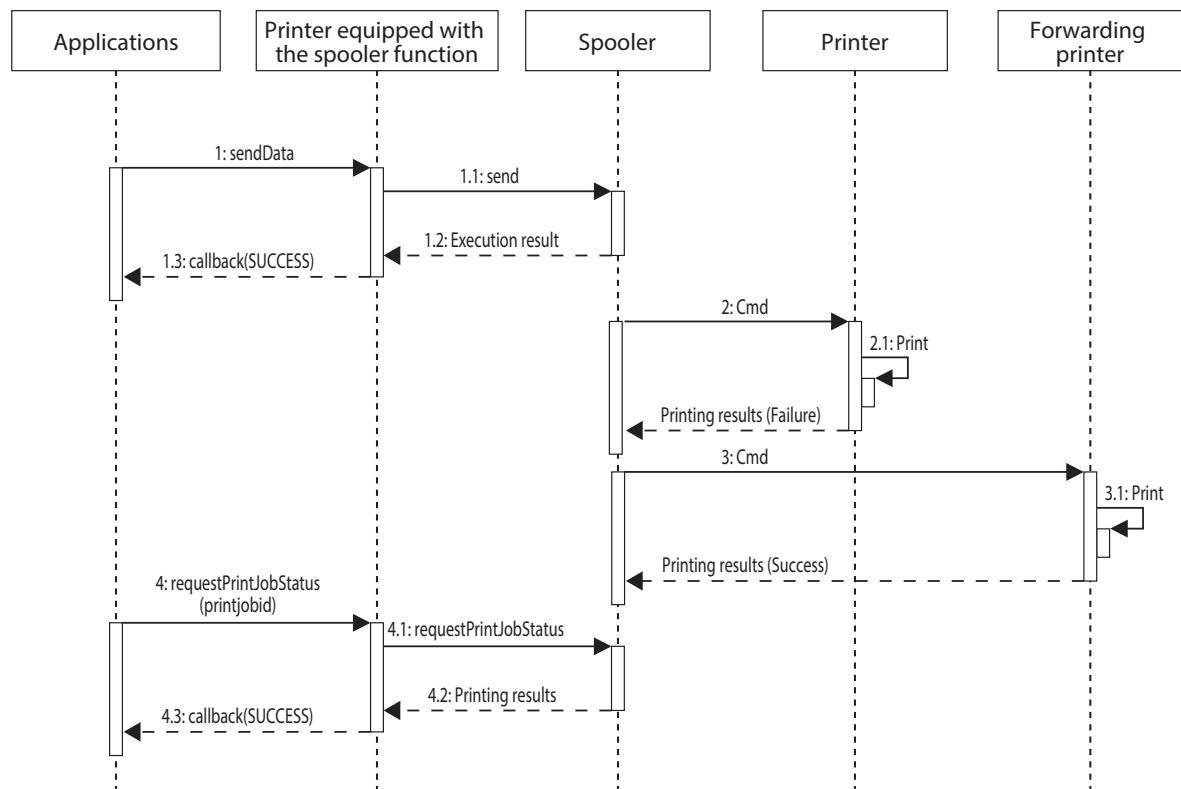
If a request is sent to the printer equipped with the spooler function from the application when the spooler function is disabled, printing is immediately executed and a response is returned to the application after printing completes.



If a request is sent to the printer equipped with the spooler function from the application when the spooler function is enabled, the print job is stored in the print queue and a response is returned to the application before printing completes.



If the destination printer cannot print, the printer equipped with the spooler function does not return the error to the application. Enabling forward printing will allow for the printing task to be completed on a substitute printer, with the application acquiring the printing results afterward. Refer to the sequence diagram below.



To select a printer using its NFC tag

Analyze the NFC tag by using parseNFC in the EasySelect class. Then, specify the analyzed information in the connect API to connect to the printer.

```

Printer printer;

@Override
protected void onNewIntent(Intent intent) {

    //Receives NFC tag by onNewIntent

    EasySelect easySelect = new EasySelect();

    Tag tag = (Tag)intent.getParcelableExtra( NfcAdapter.EXTRA_TAG );

    //Analyses the NFC tag
    ArrayList<EasySelectInfo> easySelectInfoArray = null;
    easySelectInfoArray = easySelect.parseNFC( tag, PARSE_NFC_TIMEOUT_DEFAULT );
    if ((null == easySelectInfoArray) || (easySelectInfoArray.size() == 0)){
        //If the NFC tag is not the one for easy printer selection
        return ;
    }

    //Acquires the first data of the NFC
    EasySelectInfo easySelectInfo = easySelectInfoArray.get(0);

    String printerName = easySelectInfo.printerName;
    if(printerName == null || printerName.equals("")){
        printerName = "TM-T88V"; //Name of the target printer
    }

    // Converts the printer name into PrinterSeries
    int printerSeries = convertPrinterNameToPrinterSeries(printerName);

    String macAddress = easySelectInfo.macAddress;
    if(macAddress == null || macAddress.equals("")){
        //When failed to acquire macAddress
    }

    try {
        //Initializes the Printer
        printer = new Printer(printerSeries, Printer.MODEL_ANK, getApplicationContext());

        //Generates connect parameters
        String targetText = convertEasySelectInfoToTargetString(easySelectInfo);

        //Connects to the printer
        printer.connect(targetText, Printer.PARAM_DEFAULT);

        //Exception processing
    } catch (Epos2Exception e) {
        //Write exception processing
    }
}

```

```
private int convertPrinterNameToPrinterSeries(String printerName) {  
    int printerSeries = Printer.TM_T88;  
  
    if(printerName.equals("TM-T88V")){  
        printerSeries = Printer.TM_T88;  
    }else if(printerName.equals("TM-m10")){  
        printerSeries = Printer.TM_M10;  
    }else if(printerName.equals("TM-m30")){  
        printerSeries = Printer.TM_M30;  
    }else if(printerName.equals("TM-P20")){  
        printerSeries = Printer.TM_P20;  
    }else if(printerName.equals("TM-P60II")){  
        printerSeries = Printer.TM_P60II;  
    }else if(printerName.equals("TM-P80")){  
        printerSeries = Printer.TM_P80;  
    }else{  
        // Depending on the printer, add conversion processes  
    }  
  
    return printerSeries;  
}  
  
private String convertEasySelectInfoToString(EasySelectInfo easySelectInfo) {  
  
    StringBuffer sb = new StringBuffer();  
  
    switch(easySelectInfo.deviceType){  
        case EasySelectDeviceType.TCP:  
            sb.append("TCP:");  
            break;  
        case EasySelectDeviceType.BLUETOOTH:  
            sb.append("BT:");  
            break;  
    }  
    sb.append(easySelectInfo.macAddress);  
    return sb.toString();  
}
```



This function is available only with NFC-compatible printers.

To select a printer using its QR code

Analyze the QR code by using parseQR in the EasySelect class. Then, specify the analyzed information in the connect API to connect to the printer.

```

EasySelect easySelect = new EasySelect();
String data;
Printer printer;

public void ConnectPrinterByQRCode() {

    // Stores QR code data acquired from the scanned image

    //Analyzes the QR code
    EasySelectInfo easySelectInfo = easySelect.parseQR(data);
    if (null == easySelectInfo) {
        // If the QR code is not the one for easy printer selection
        return ;
    }

    // Converts the printer name into PrinterSeries
    int printerSeries = convertPrinterNameToPrinterSeries(easySelectInfo.printerName);

    try {
        //Initializes the Printer
        printer = new Printer(printerSeries, Printer.MODEL_ANK, getApplicationContext());

        // Generates connect parameters
        String targetText = convertEasySelectInfoToTargetString(easySelectInfo);

        //Connects to the printer
        printer.connect(targetText, Printer.PARAM_DEFAULT);

        //Exception processing
    } catch (Epos2Exception e) {
        //Write exception processing
    }
}

private int convertPrinterNameToPrinterSeries(String printerName) {

    int printerSeries = Printer.TM_T88;

    if(printerName.equals("TM-T88V")){
        printerSeries = Printer.TM_T88;
    }else if(printerName.equals("TM-m10")){
        printerSeries = Printer.TM_M10;
    }else if(printerName.equals("TM-m30")){
        printerSeries = Printer.TM_M30;
    }else if(printerName.equals("TM-P20")){
        printerSeries = Printer.TM_P20;
    }else if(printerName.equals("TM-P60II")){
        printerSeries = Printer.TM_P60II;
    }else if(printerName.equals("TM-P80")){
        printerSeries = Printer.TM_P80;
    }else{
        // Depending on the printer, add conversion processes
    }

    return printerSeries;
}

```

```
private String convertEasySelectInfoToTargetString(EasySelectInfo easySelectInfo) {  
    StringBuffer sb = new StringBuffer();  
  
    switch(easySelectInfo.deviceType){  
        case EasySelectDeviceType.TCP:  
            sb.append("TCP:");  
            break;  
        case EasySelectDeviceType.BLUETOOTH:  
            sb.append("BT:");  
            break;  
    }  
    sb.append(easySelectInfo.macAddress);  
    return sb.toString();  
}
```

How to print a QR code to be used for printer selection

For the printers that can print the QR code on a status sheet

Some printers can print the QR code on a status sheet. For more details, refer to the Technical Reference Guide of the printer.

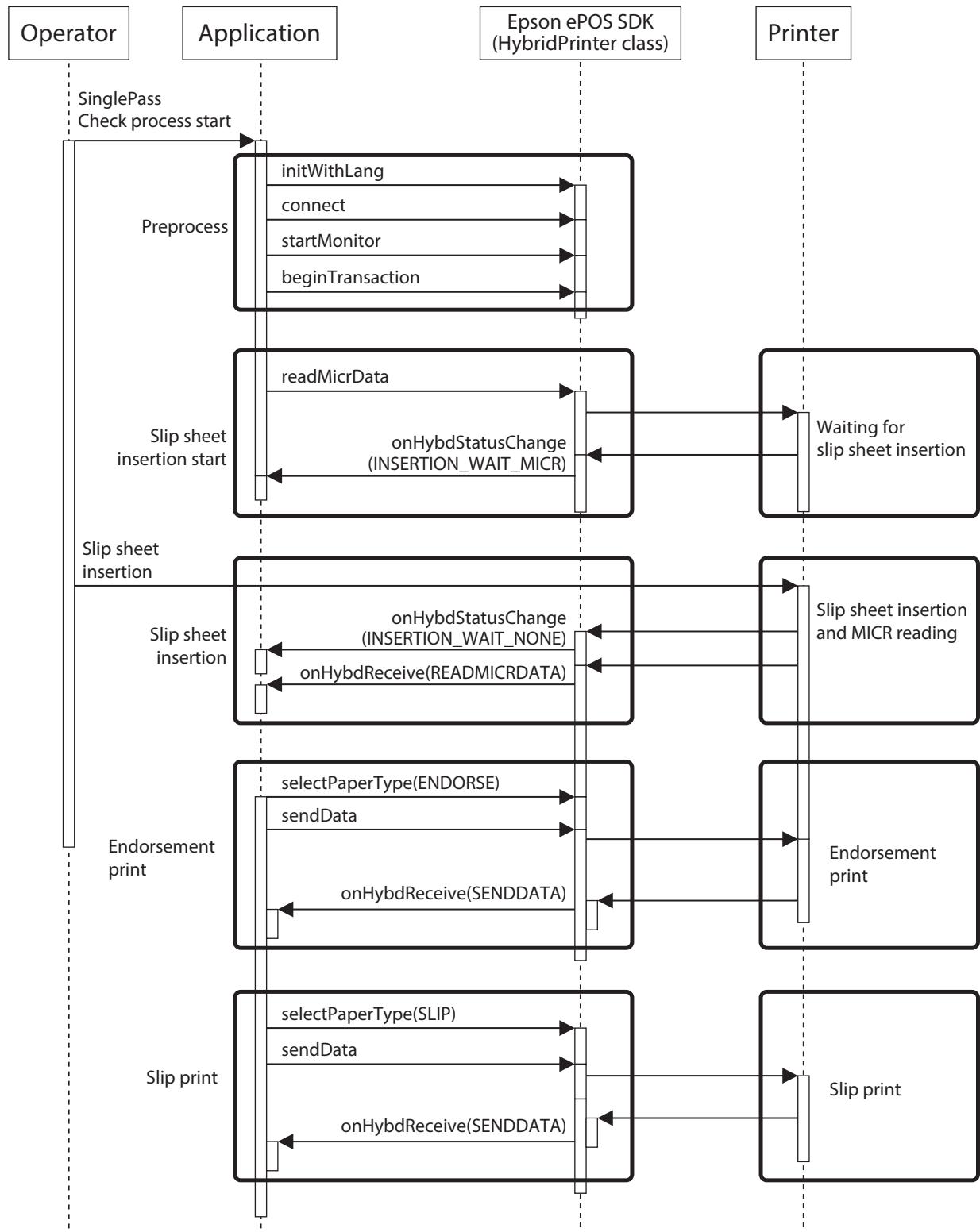
For the printers that cannot print the QR code on a status sheet

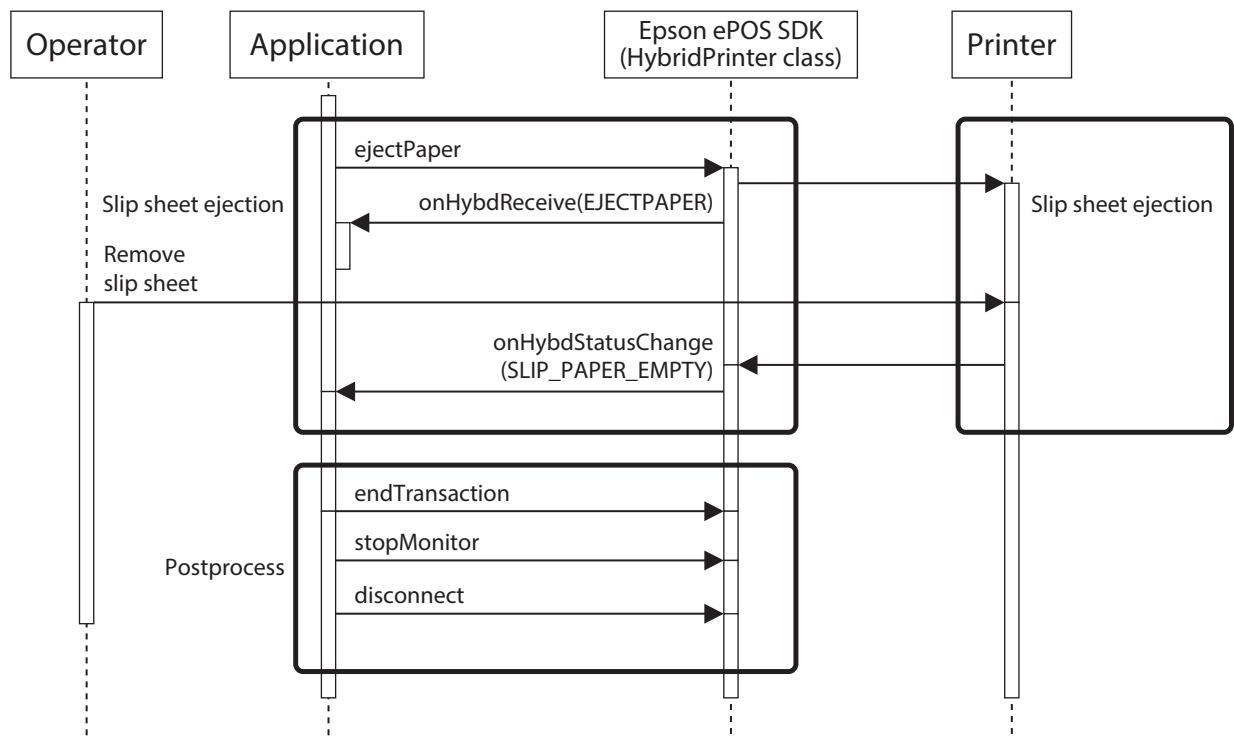
Create the QR code by using createQR. Specify the created data by addSymbol to print the QR code.
Refer to "Creating QR code" in the Sample Programs.

To perform check process

HybridPrinter class is used to control the hybrid model printers.

The following sequence diagram shows the flow from endorsement printing after MICR reading to slip printing.



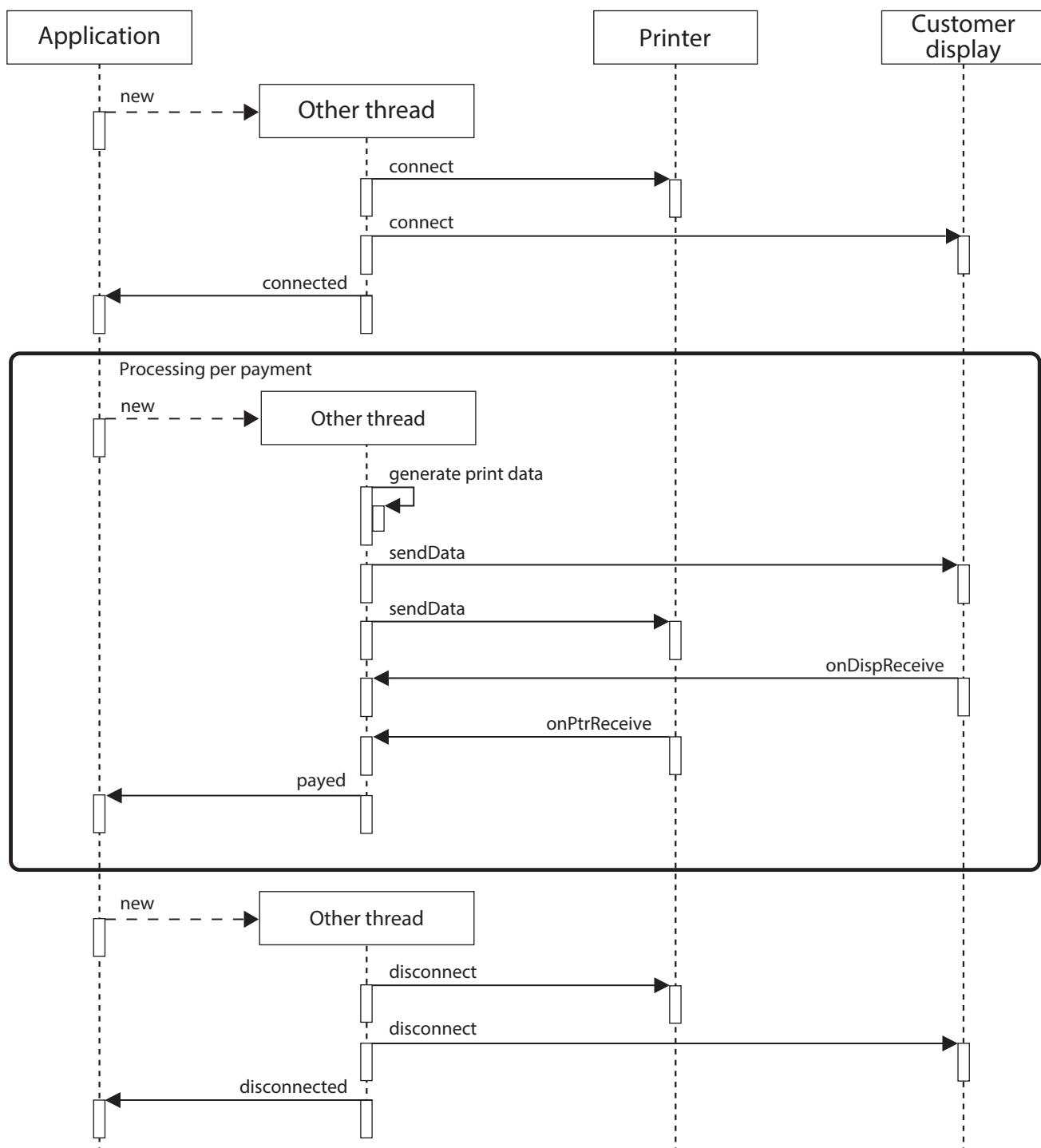


To control multiple peripheral devices

The sequence diagram that controls the printer and customer display is indicated below.



- To connect/disconnect communication with the printer or peripheral devices, call connect API/ disconnect API from one thread to each peripheral device in order.
- The following process can be processed concurrently in one thread.
 - * Displaying data on the customer display
 - * Receipt printing

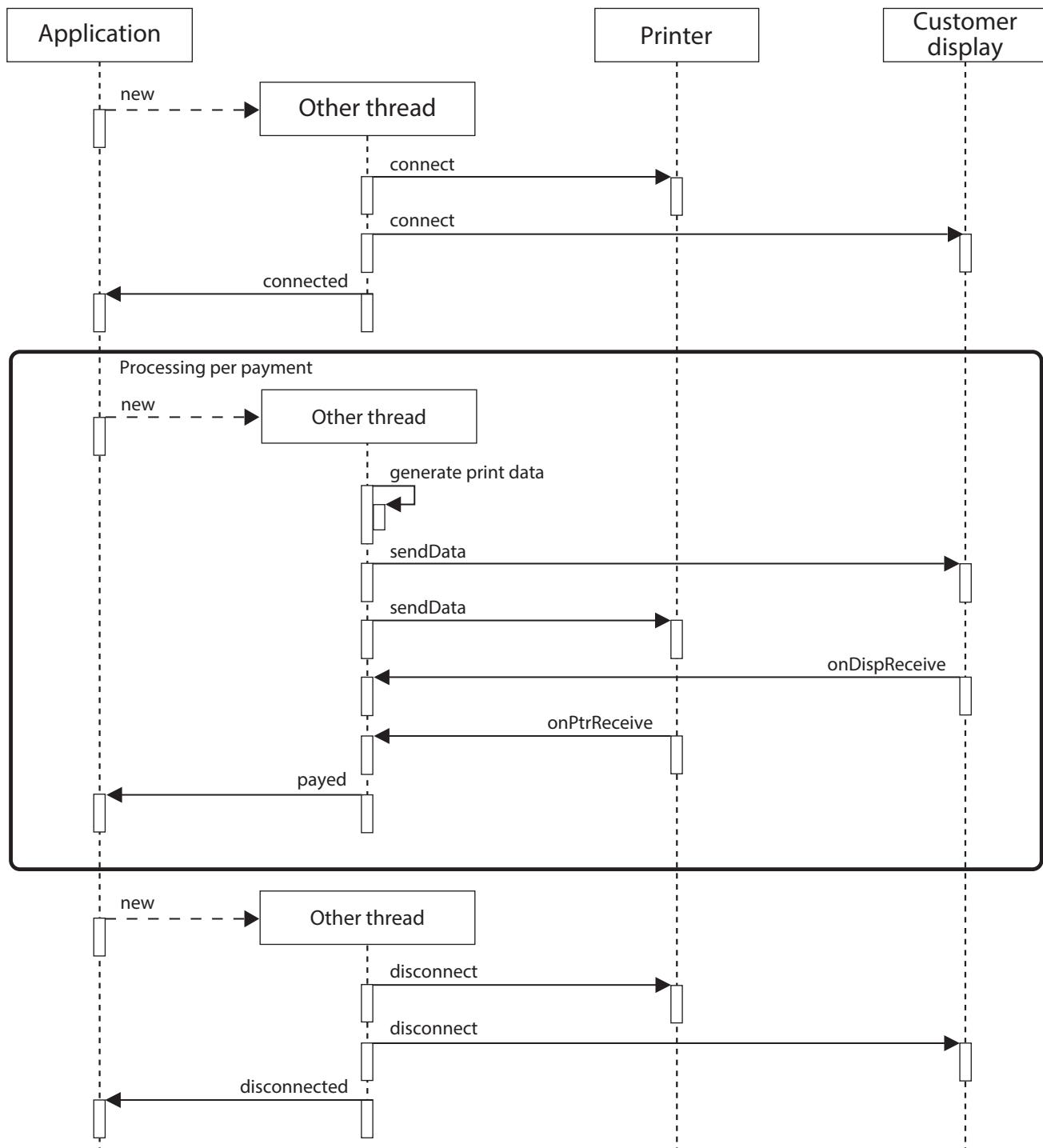


To control multiple peripheral devices

The sequence diagram that controls the printer and customer display is indicated below.



- To connect/disconnect communication with the printer or peripheral devices, call connect API/ disconnect API from one thread to each peripheral device in order.
- The following process can be processed concurrently in one thread.
 - * Displaying data on the customer display
 - * Receipt printing

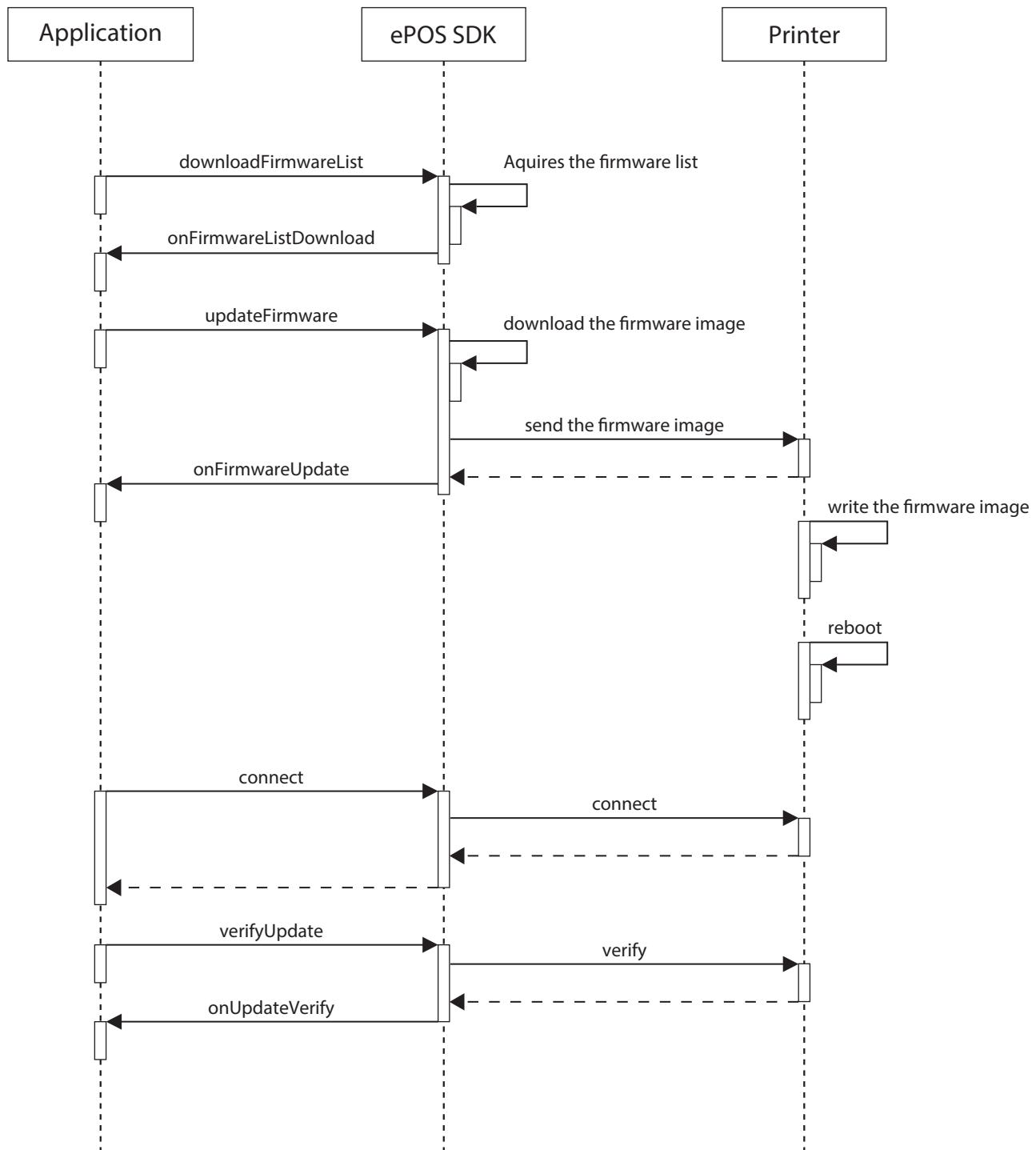


To update the printer firmware version

Use the following APIs in the Printer class:

- [downloadFirmwareList](#)
- [updateFirmware](#)
- [verifyUpdate](#)

The sequence diagram of firmware version update is shown below.



Appendix

Open Source Software Licensing

The following open-source software is used in the sample programs and libraries provided by the Epson ePOS SDK for Android.

Sample Programs

ZXing(<https://github.com/zxing/zxing>)

ZXing is licensed based on Apache 2.0 license (<http://www.apache.org/licenses/LICENSE-2.0.html>).

libraries

libxml2

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zlib

zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.8, April 28th, 2013

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| | |
|----------------------------------------------------|--------------------------------------------------------------------------|
| Jean-loup Gailly | Mark Adler |
| jloup@gzip.org | madler@alumni.caltech.edu |

The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://tools.ietf.org/html/rfc1950> (zlib format), rfc1951 (deflate format) and rfc1952 (gzip format).

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