

Epson ePOS SDK for Android

User's Manual

Functionality

How to Use

API Reference

Device Specifications

Sample Programs

Application Guide

Appendix

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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.



Describes usage precautions that must be observed. Incorrect handling due to the disregard of this information may result in product failure or incorrect operation.



Describes additional explanation or other useful information.

Usage Limitations

Please use our products in environments and systems designed with consideration to safety and disaster recovery such as fail-safe configurations and redundant designs, for example, if this product is used in applications in which a high level of reliability and safety in functionality and precision is required such as in aircraft, trains, ships, automobiles and other transportation-related applications or in crime prevention equipment and safety equipment.

This product is not intended for use in applications that require extremely high levels of reliability and safety such as in aerospace equipment, trunk-line communications equipment, nuclear power control equipment, and medical equipment. Consider your usage environment and requirements carefully before using this product in such applications.

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.

Chapter 1	Functionality
Chapter 2	How to Use
Chapter 3	API Reference
Chapter 4	Device Specifications
Chapter 5	Sample Programs
Chapter 6	Application Guide
Appendix	Open Source Software Licensing

Contents

■ Safety Precautions	3
Meaning of Symbols.....	3
■ Usage Limitations	3
■ About this Manual.....	3
Purpose of this Manual.....	3
Organization of this Manual	3
■ Contents	4

Functionality 10

■ Application Development in Epson ePOS SDK for Android	10
Bluetooth® model.....	10
Network model.....	11
TM intelligent printer model	11
USB model.....	12
■ Epson ePOS SDK for Android Development Environment	13
■ Application Operating Environment.....	13
Supported printers.....	13
Controllable Peripheral Devices.....	14
■ Downloadable Content	15
■ Web Content.....	15
■ Limitations	15

How to Use 16

■ Printer Connections	16
■ Creating an Epson ePOS SDK for Android Project.....	16
■ Programming Guide.....	19
Programming Flow	19
Effective range of command buffers for setting	25
Status	25

API Reference 27

■ List of ePOS SDK API	27
Printer class.....	27
LineDisplay class	30
Keyboard class	31
BarcodeScanner class.....	31
SimpleSerial class	31
CommBox class	32
Common to all classes	32

Discovery class.....	32
Epos2Exception class	32
Log class.....	33
EasySelect class	33
EasySelectInfo class	33
■ Printer class.....	34
Printer	34
connect	36
disconnect.....	38
startMonitor	39
stopMonitor.....	40
getStatus.....	41
sendData.....	44
beginTransaction	45
endTransaction.....	46
requestPrintJobStatus	47
clearCommandBuffer.....	48
addTextAlign	49
addLineSpace	50
addTextRotate	51
addText.....	52
addTextLang.....	53
addTextFont.....	54
addTextSmooth.....	55
addTextSize.....	56
addTextStyle.....	57
addHPosition.....	59
addFeedUnit.....	60
addFeedLine.....	61
addImage	62
addLogo	66
addBarcode.....	67
addSymbol.....	71
addHLine	77
addVLineBegin	79
addVLineEnd	81
addPageBegin.....	82
addPageEnd	83
addPageArea	84
addPageDirection.....	86
addPagePosition.....	87
addPageLine.....	89
addPageRectangle	91
addCut	93
addPulse	94
addSound	96
addFeedPosition	98
addLayout	99
addCommand	103
forceRecover.....	104
forcePulse	105
forceStopSound	107
forceCommand.....	108
forceReset.....	109
setStatusChangeEventListener	110
setReceiveEventListener	112
interval.....	114

■ LineDisplay class	115
LineDisplay.....	115
connect	116
disconnect.....	119
getStatus.....	120
sendData.....	121
clearCommandBuffer.....	122
addInitialize	123
addCreateWindow	124
addDestroyWindow.....	126
addSetCurrentWindow.....	127
addClearCurrentWindow.....	128
addSetCursorPosition.....	129
addMoveCursorPosition	130
addSetCursorType.....	131
addText.....	132
addReverseText	134
addMarqueeText.....	136
addSetBlink.....	138
addSetBrightness	139
addShowClock.....	140
addCommand.....	141
setReceiveEventListener	142
■ Keyboard class	143
Keyboard	143
connect	144
disconnect.....	146
getStatus.....	147
setPrefix.....	148
getPrefix.....	149
setKeyPressEventListener	150
setReadStringEventListener	151
■ BarcodeScanner class.....	152
BarcodeScanner	152
connect	153
disconnect.....	155
getStatus.....	156
setScanEventListener	157
■ SimpleSerial class	158
SimpleSerial.....	158
connect	159
disconnect.....	161
getStatus.....	162
sendCommand.....	163
setReceiveEventListener	164
■ CommBox class.....	165
CommBox.....	165
connect	166
disconnect.....	168
getStatus.....	169
getCommHistory	170
sendMessage	172
setReceiveEventListener	174
■ Common to all classes	175

getAdmin.....	175
getLocation.....	176
setConnectionEventListener.....	177
■ Discovery class	178
start.....	178
stop.....	182
■ Epos2Exception class	183
getErrorStatus.....	183
■ Log class	184
setLogSettings.....	184
SdkVersion	186
■ EasySelect class.....	187
parseNFC	187
parseQR.....	188
createQR	189
■ EasySelectInfo class	190
deviceType	190
printerName.....	191
macAddress	192
■ Status list	193
Error Status and countermeasures.....	193
Callback Code and countermeasures.....	195
Printer Status and countermeasures	197
■ Key code list	199

Device Specifications.....**201**

■ Supported printers for each class	201
■ List of Supported APIs.....	202
Printer class.....	202
■ Printer-specific Support Information	208
TM-m10.....	208
TM-m30.....	210
TM-P20	212
TM-P60 (Receipt).....	215
TM-P60 (Peeler)	217
TM-P60II (Receipt)	220
TM-P60II (Peeler)	223
TM-P80	226
TM-T20.....	229
TM-T20II.....	231
TM-T60.....	233
TM-T70.....	235
TM-T70II.....	237
TM-T81II.....	239
TM-T82.....	241
TM-T82II.....	243
TM-T83II.....	245
TM-T88V	247

TM-T88VI.....	249
TM-U220	251
TM-U330	252
TM-T20II-i.....	253
TM-T70-i	255
TM-T70II-DT.....	257
TM-T82II-i.....	259
TM-T83II-i.....	261
TM-T88V-i.....	263
TM-T88VI-iHUB.....	265
TM-T88V-DT	267
TM-U220-i.....	269
TM-H6000IV-DT.....	270
TM-T88IV.....	272
TM-T90.....	274
TM-L90.....	276
TM-H6000IV	278
■ Usage restriction by firmware version	280

Sample Programs **281**

■ Functionality.....	281
ePOS2Printer	281
ePOS2Discovery	282
ePOS2LineDisplay	282
ePOS2Keyboard	282
ePOS2BarcodeScanner.....	282
ePOS2SimpleSerial.....	283
ePOS2CommBox.....	283
ePOS2EasySelection.....	283
■ Use Environment.....	284
■ Installation Procedure	284

Application Guide..... **287**

■ To connect via USB	287
■ To search printers.....	288
■ To monitor continuously	289
■ To use the same printer from multiple mobile devices	291
■ To specify a transaction.....	292
■ To reconnect to the network automatically	293
■ To transmit and receive the data between applications	294
■ To perform forward printing	296
■ To select a printer using its NFC tag	298
■ To select a printer using its QR code.....	300

Appendix 302**■ Open Source Software Licensing 302**

Sample Programs.....	302
libraries.....	302

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. With TM intelligent printers, you can control TM printers connected to the network, customer displays and POS peripheral devices such as barcode scanners connected to the TM printer. You can also develop applications that take advantage of unique TM intelligent printer functions such as the spooler function and communication box.

In this manual, printers are classified as follows.

Type	Description
TM Printers	Standard and mobile models of receipt printers
TM Intelligent Printers	TM-DT series and TM-i series printers
Network Printers	TM printers that can be controlled only via TM intelligent printers

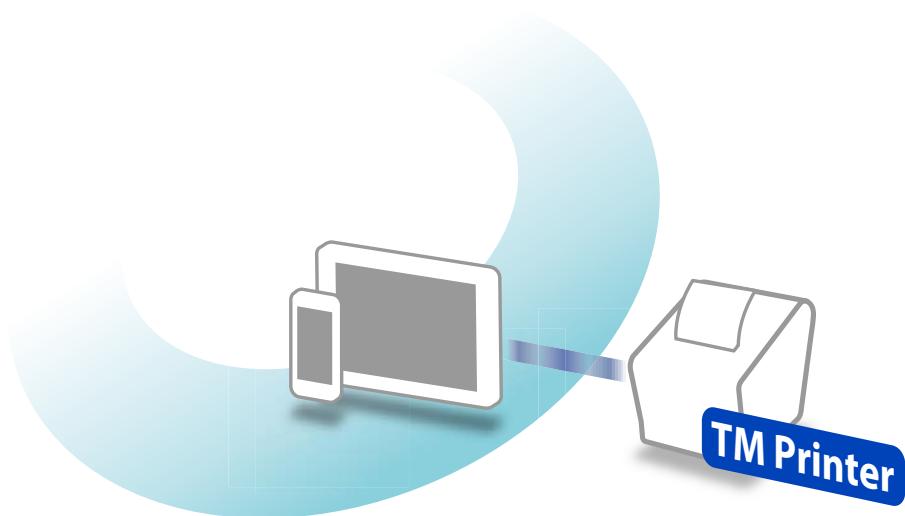
Application Development in Epson ePOS SDK for Android

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.

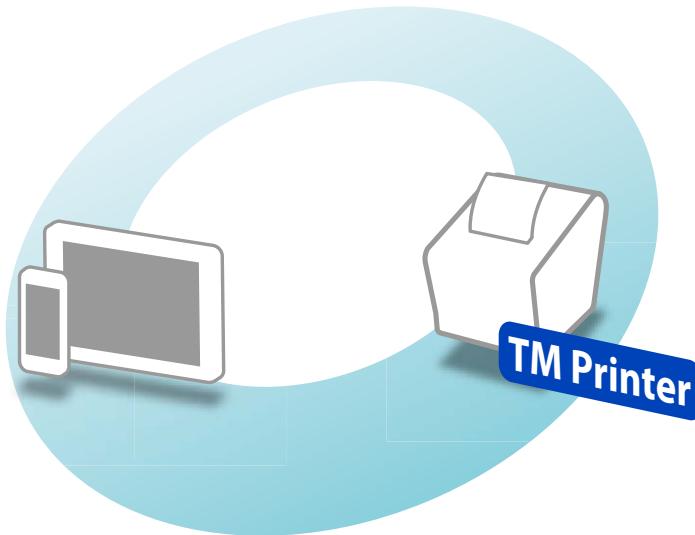
Bluetooth® model

With this system, a smart device and a TM printer are connected via *Bluetooth* communication.



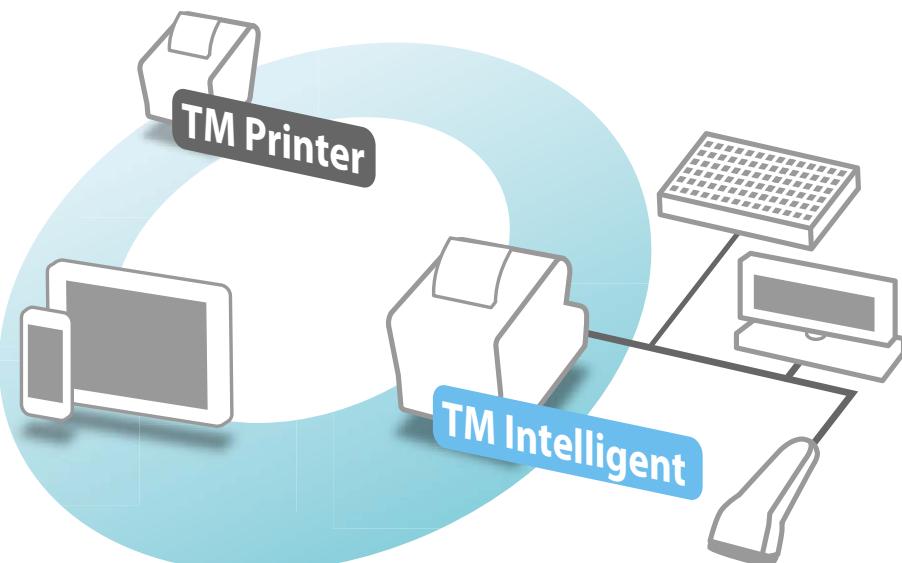
Network model

With this system, smart devices and TM printers connect over the network (wired and wireless LAN). Multiple TM printers can also be controlled.



TM intelligent printer model

With this system, smart devices and TM intelligent printers connect over the network (wired and wireless LAN). POS peripheral devices connected to TM intelligent printers as well as multiple TM printers can also be controlled.

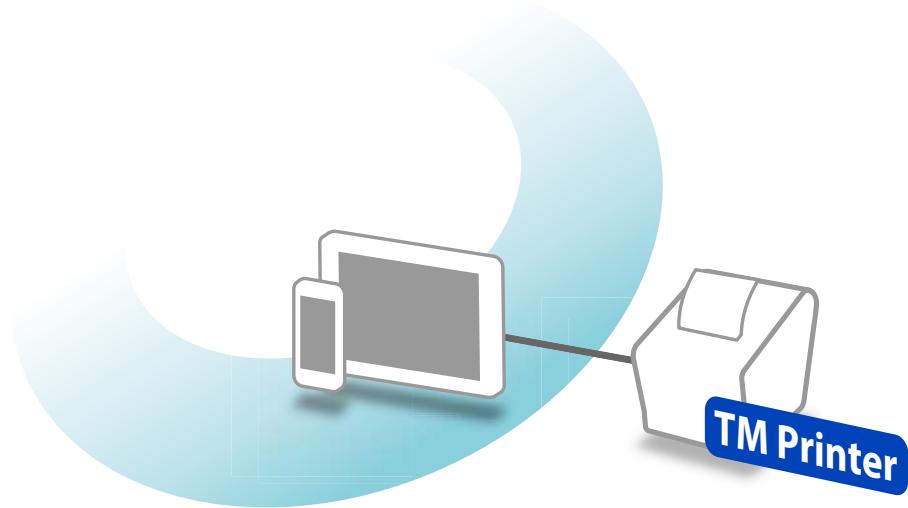


The POS peripheral devices and TM printers that can be controlled by TM intelligent printers varies depending on the TM-DT software and TM-i firmware. The POS peripheral devices and TM printers you want to use must be registered to the TM intelligent printer using the EPSON TMNet WebConfig.

Refer to the Technical Reference Guide of each printer for more information.

USB model

With this system, a smart device and a TM printer are connected by a USB cable.



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 6 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.

TM Printers

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

- | | |
|-----------------------------------|-----------------------------------|
| <input type="checkbox"/> TM-m10 | <input type="checkbox"/> TM-T70II |
| <input type="checkbox"/> TM-m30 | <input type="checkbox"/> TM-T81II |
| <input type="checkbox"/> TM-P20 | <input type="checkbox"/> TM-T82 |
| <input type="checkbox"/> TM-P60 | <input type="checkbox"/> TM-T82II |
| <input type="checkbox"/> TM-P60II | <input type="checkbox"/> TM-T83II |
| <input type="checkbox"/> TM-P80 | <input type="checkbox"/> TM-T88V |
| <input type="checkbox"/> TM-T20 | <input type="checkbox"/> TM-T88VI |
| <input type="checkbox"/> TM-T20II | <input type="checkbox"/> TM-U220 |
| <input type="checkbox"/> TM-T60 | <input type="checkbox"/> TM-U330 |
| <input type="checkbox"/> TM-T70 | |

TM Intelligent Printers

- | | |
|---|--|
| <input type="checkbox"/> TM-T70II-DT | <input type="checkbox"/> TM-T82II-i |
| <input type="checkbox"/> TM-T88V-DT | <input type="checkbox"/> TM-T83II-i |
| <input type="checkbox"/> TM-H6000IV-DT | <input type="checkbox"/> TM-T88V-i (TM-i firmware Ver. 4.0 or later) |
| <input type="checkbox"/> TM-T20II-i | <input type="checkbox"/> TM-T88VI-iHUB |
| <input type="checkbox"/> TM-T70-i (TM-i firmware Ver. 4.0 or later) | <input type="checkbox"/> TM-U220-i |

Controllable Peripheral Devices

The peripheral devices listed below can be controlled through a TM Intelligent printer.



Controllable devices vary by model of TM Intelligent printer.

For more information, refer to the Technical Reference Guide of the printer.

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 any one of UB-E02, UB-E03, UB-E04, UB-R03, and UB-R04



You can check the interfaces equipped with the printer by printing a status sheet. For more information, refer to the Technical Reference Guide of the printer.

- TM-T20
- TM-T20II
- TM-T70
- TM-T70II
- TM-T82II
- TM-T83II
- TM-T88IV
- TM-T88V
- TM-T90
- TM-L90
- TM-U220
- TM-H6000IV

The following TM Intelligent printers

- | | |
|---|---|
| • TM-T20II-i | • TM-T88V-i (TM-i firmware Ver. 4.0 or later) |
| • TM-T70-i (TM-i firmware Ver. 4.0 or later) | • TM-T88V-DT (TM-DT software Ver.4.0 or later) |
| • TM-T70II-DT (TM-DT software Ver.4.0 or later) | • TM-U220-i |
| • TM-T82II-i | • TM-H6000IV-DT (TM-DT software Ver.4.0 or later) |
| • TM-T83II-i | |

Customer display

- DM-D30
- DM-D110

Standard HID device

- Keyboard device
- Barcode scanner

Serial communication device

Downloadable Content

Epson ePOS SDK for Android packages include the following files.

Filename	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).
libeposeeasyselect.so	Libraries used for functions that enable easy printer selection (Compatible with ARMv5TE).
ePOS2_Sample_Android.zip	These files are sample 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.
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.
ePOS_SDK_Android_Migration_Guide_en_revx.pdf	This is the English migration guide.

Web Content

Online reference is publicly available from the following website.

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

Limitations

- When using 2D barcode readers, Japanese and other multi-byte characters cannot be read 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.

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.



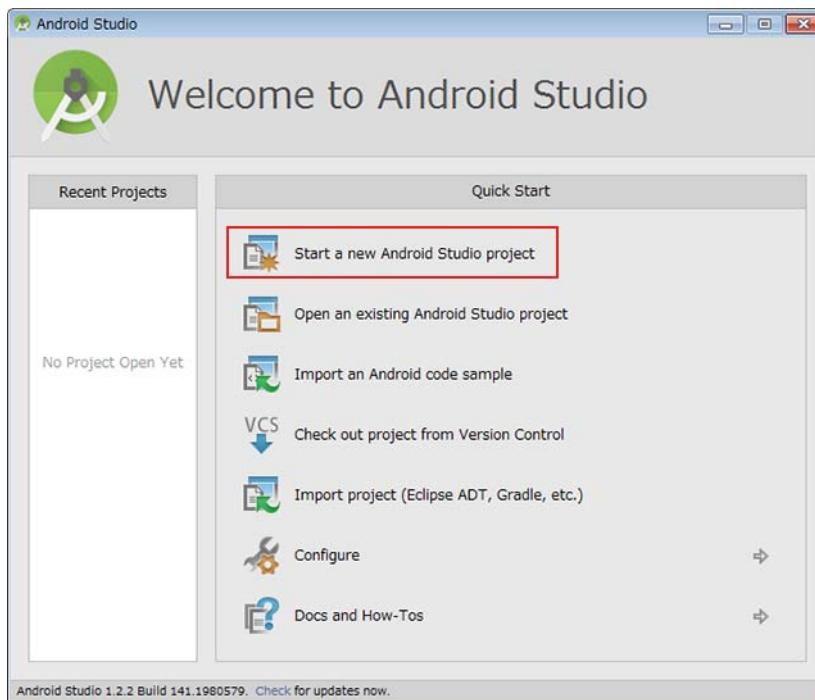
See [To connect via USB](#) for more information on establishing [USB model](#).

Creating an Epson ePOS SDK for Android Project

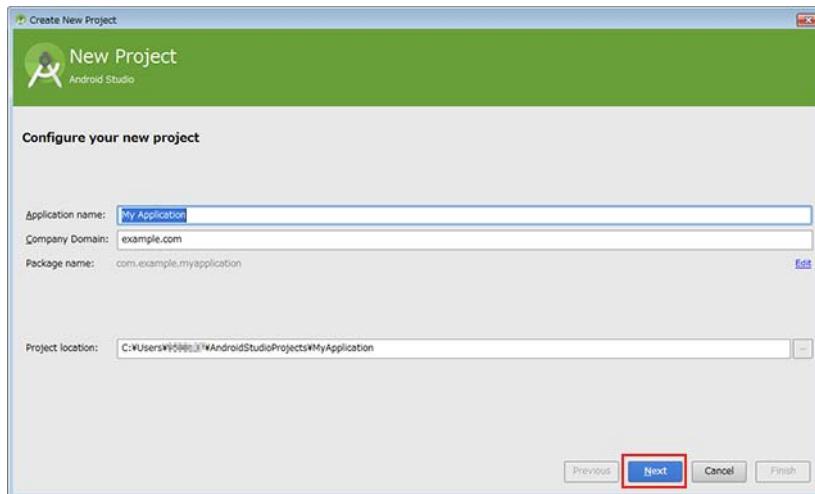


You can get the Android Studio from the following URL.
<http://developer.android.com/sdk/index.html>

- 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\XXX\AndroidStudioProjects\zzz\app\libs
(XXX represents the account and zzz represents the name of the created project.)



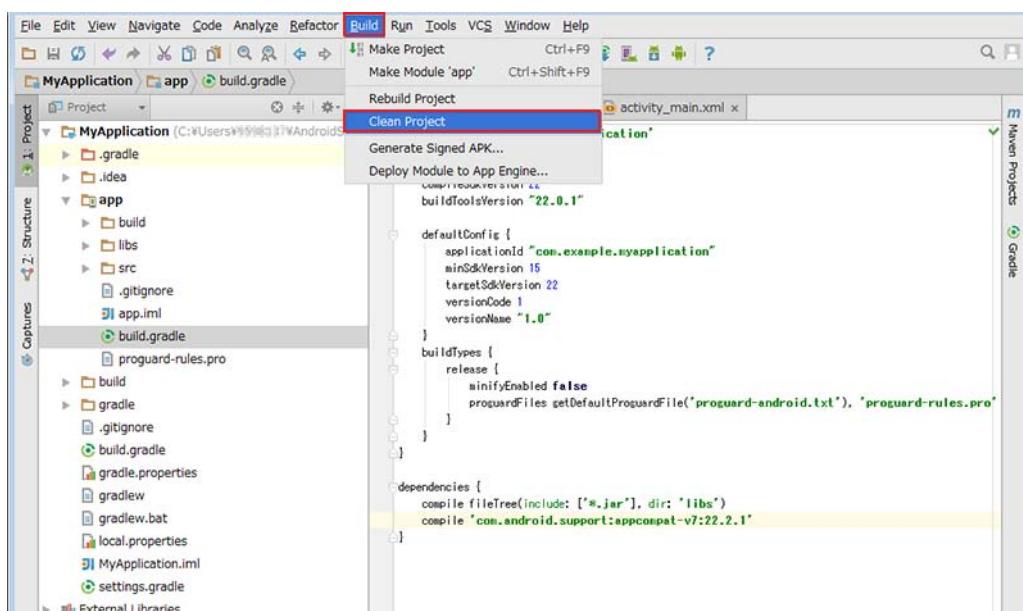
The folder structure after zzz is automatically created when the project is created.

- 4** Create the folder structure and store libepos2.so and ibeposeeasyselect.so in the armeabi folder.

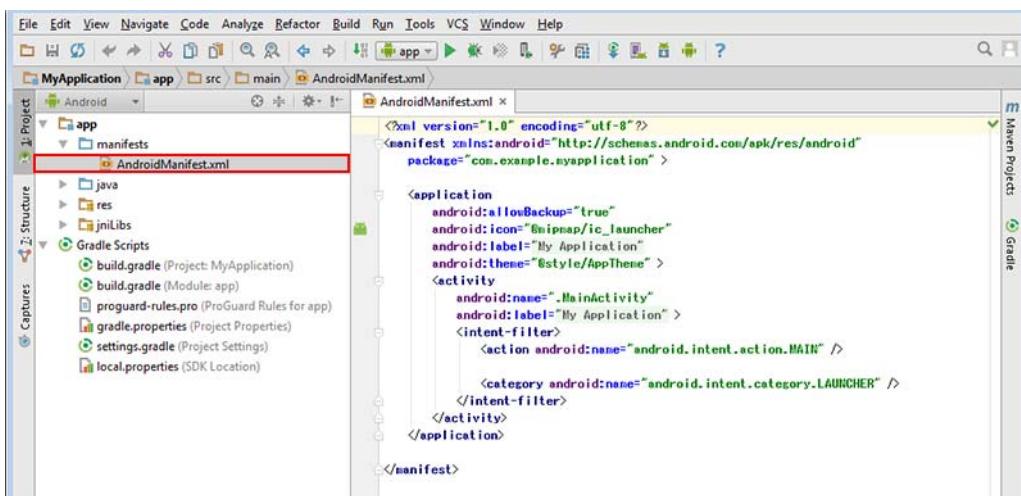
C:\Users\XXX\AndroidStudioProjects\zzz\app\src\main\jniLibs\armeabi

- 5** Open the project that was created in Android Studio.

- 6** Run **Clean Project** from the **Build** menu.



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



8 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.

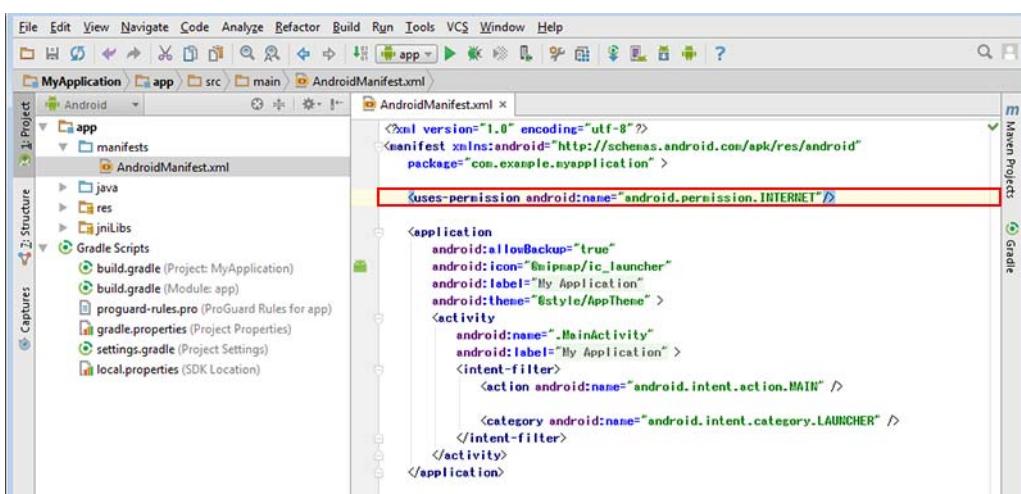
Wi-Fi

```
<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 POS peripheral devices respectively.

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

Controlling Printers

This section describes how to create a program that enables printing receipts from a TM printer, a TM intelligent printer, or a TM printer connected to a TM intelligent printer via a network.

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 addXXX 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);
    printer.beginTransaction();
}
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.

```
PrinterStatusInfo status = printer.getStatus();
if (status.getConnection() && status.getOnline()) {
    try {
        printer sendData(Printer.PARAM_DEFAULT);
    } catch (Epos2Exception e) {
        // Displays error messages
        // Abort process
    }
} else {
    // 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();
}
```

Disconnect from the printer.

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

Clear the command buffer and terminate the printer control.

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

Creating display data (data buffering)

Use addXXX 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 effective range of addXXX in the Printer class instance used for setting is from the time when addXXX is set until sendData is executed. The set value is initialized each time sendData is executed. Refer to the following:

```
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

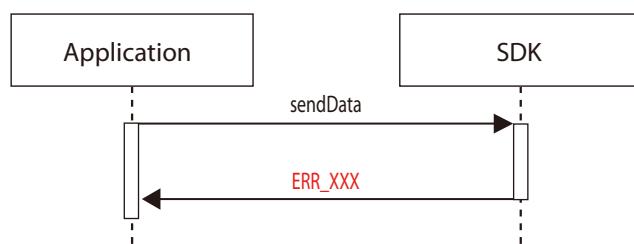
Green letters: Font B

Status

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

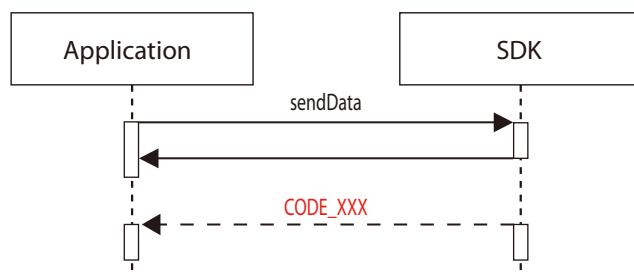
Error status

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 [getErrorHandler](#) 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 [Supported printers for each class](#).
- APIs included in the Printer class and APIs supported by each printer model are listed in [List of Supported APIs](#).

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

Printer class

Controls printing by the printer.

Two print modes are available; standard and page modes.

- 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.

API	Description	Standard mode	Page mode
Initialization	Printer	-	-

API		Description	Standard mode	Page mode
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	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.	✓	✓

API		Description	Standard mode	Page mode
Barcode	addBarcode	Adds a barcode print command to the command buffer.	✓	✓
	addSymbol	Adds a 2D symbol print command to the command buffer.	✓	✓
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.	-	✓
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.	✓	✓

API		Description
Forced transmission	forceRecover	Forced transmission function
	forcePulse	
	forceStopSound	
	forceCommand	
	forceReset	
Reception of result	setStatusChangeEventListener	Registers the event listener registration method.
	setReceiveEventListener	
Monitor interval	interval	Status monitor interval

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.
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	

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.

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.

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_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
Printer.TM_T60	TM-T60
Printer.TM_T70	TM-T70, TM-T70-i, TM-T70II, TM-T70II-DT
Printer.TM_T81	TM-T81II
Printer.TM_T82	TM-T82, TM-T82II, TM-T82II-i
Printer.TM_T83	TM-T83II, TM-T83II-i
Printer.TM_T88	TM-T88IV, TM-T88V, TM-T88VI, TM-T88V-i, TM-T88VI-iHUB, TM-T88V-DT
Printer.TM_T90	TM-T90
Printer.TM_U220	TM-U220, TM-U220-i
Printer.TM_U330	TM-U330
Printer.TM_L90	TM-L90
Printer.TM_H6000	TM-H6000IV, 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.

connect

Starts communication with the printer.

Syntax

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

Parameter

target

Specifies the connection target as a text string.

Use the following syntax:

- When connecting to the TM printer

<connection type>:<identifier>

- When connecting to the TM intelligent printer

When connecting to the network printer via the TM intelligent printer

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

Device	Connection type	Identifier	Example
Wi-Fi/Ethernet device	<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" "TCP:192.168.192.168[local_printer]"
Bluetooth device	"BT"	BD address	"BT:00:22:15:7D:70:9C"
USB device	"USB"	Device node	"USB:/dev/udev/xxxxxxxxxx"

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.

Error status	Description
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_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, this API and [disconnect](#) cannot be started for other printers 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.
Refer to Chapter 2 "Programming Flow" for details.
Refer to Chapter 6 "To use the same printer from multiple mobile devices" for details.
- ❑ The device ID is an arbitrary string that is set when the printer and POS peripheral devices are registered to the TM intelligent printer. For details, refer to the Technical Reference Guide of the 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.
- ❑ For the TM intelligent printer, this API always succeeds without regard to the connection status between the printer and a peripheral device.
- ❑ When the connection target is specified using "TCPS", SSL is used to communicate with the printer. TM-T88VI-iHUB printer supports SSL communication. Refer to the Technical Reference Guide of the printer for more information.

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.

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).

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 (TM-P series)	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 TM-P series)	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
	Printer.FALSE	Stopped
	Printer.UNKNOWN	Status is unknown.
buzzer: Optional external buzzer sound status	Printer.TRUE	Always
adapter: AC adapter connection status	Printer.TRUE	Connected
	Printer.FALSE	Disconnected
	Printer.UNKNOWN	Status is unknown.

Printer status	Status	Description
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.

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.

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 (ANK 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.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	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	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.

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	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	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	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	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-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-T70II	No restriction
TM-T88V	No restriction
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

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.

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. If a 13-digit figure is specified, the 13th digit is used as the check digit but verification is not performed.
JAN13	
EAN8	If an 7-digit figure is specified, the check digit is automatically appended. If an 8-digit figure is specified, the 8th digit is used as the check digit but verification is not performed.
JAN8	
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> <p>FNC1: {1 FNC2: {2 FNC3: {3 FNC4: {4 CODE A: {A CODE B: {B CODE C: {C SHIFT: {S {: {{</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> <p>FNC1: {1 FNC3: {3 (: {{): {} FNC1: {1 {: {{</p>
GS1 DataBar Omnidirectional GS1 DataBar Truncated GS1 DataBar Limited	Specify a 13-digit product ID (GTIN) excluding the application ID (AI) and check digit.
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> <p>FNC1: {1 (: {{): {}</p>

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

String	Description
\xnn	Control code
\\"	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	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	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	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	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	Figure: 0 to 9 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
QR Code Micro	

Type	Description
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 <code>\>\x1e01\x1dyy</code> ("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	
MaxiCode Mode 5	
MaxiCode Mode 6	<p>Otherwise, the primary message starts with the fist data.</p> <p>For the mode 2, specify the primary message in the following format:</p> <p>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)</p> <p>For the mode 3, specify the primary message in the following format:</p> <p>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)</p>
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.
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> <p>FNC1:{1 (:{({):})}</p>
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
<code>\xnn</code>	Control code
<code>\\"</code>	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
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

Value	Description
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	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	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	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

2D symbol type	Valid value	Default value
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.

Error status	Description
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.

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	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	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.

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.

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.
- ❑ 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-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 (TM-P series)
Printer.PATTERN_NONE	Stop. However, the buzzer already sounding does not stop. (Except for TM-P series)
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.
TM-P series: after the [sendData](#) API is executed.
Other than TM-P series: 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-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
Integer from 290 to 800	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	Value	Description
Receipt (without black mark)	0	No distance specified (auto)
Receipt (with black mark)	0 (auto) 284 to 1550	Distance between the top edges of two consecutive black marks.
Label sheet (without black mark)		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
Receipt (without black mark)	0	No distance specified (auto)

Sheet type	Value	Description
Receipt (with black mark)	-150 to 1500	Distance between the top edges of two consecutive black marks.
Label sheet (without black mark)	0 to 1500	Distance between the top edges of two consecutive labels
Label sheet (with black mark)	-15 to 1500	Distance between the bottom edges of two consecutive black marks.

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
Receipt (without black mark)	0	No distance specified (auto)
Receipt (with black mark)	0	No distance specified (auto)
Label sheet (without black mark)	-15 to 0	Distance from the bottom edge of the label (A positive value represents the paper feed direction.)
Label sheet (with black mark)	-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
Receipt (without black mark)	0	No distance specified (auto)
Receipt (with black mark)	-290 to 50	Distance from the top edge of the black mark to the cut position
Label sheet (without black mark)	0 to 50	Distance from the bottom edge of the label to the cut position
Label sheet (with black mark)	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
Receipt (without black mark)	0	No distance specified (auto)
Receipt (with black mark)	0	No distance specified (auto)
Label sheet (without black mark)	0	No distance specified (auto)
Label sheet (with black mark)	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.

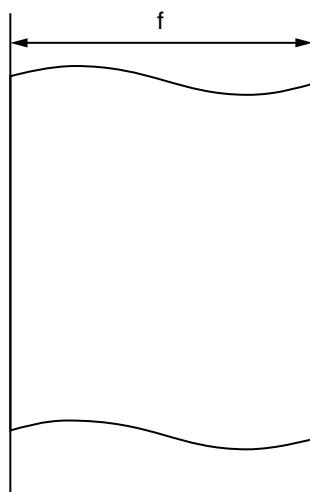
Error status	Description
ERR_PARAM	An invalid parameter was passed.
ERR_MEMORY	Memory necessary for processing could not be allocated.
ERR_FAILURE	An unknown error occurred.

Supplementary explanation

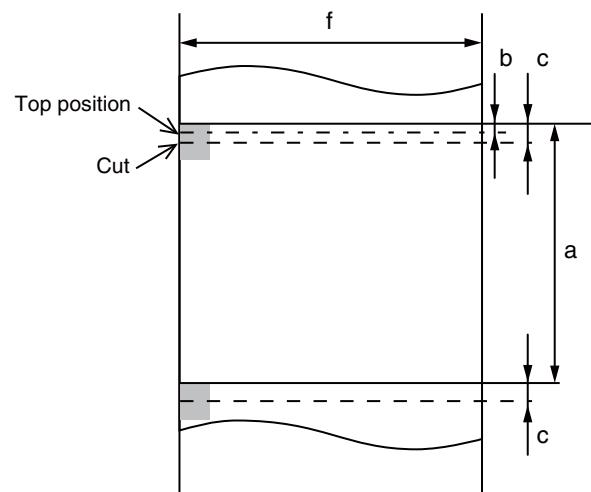
- This API does not work in the page mode.
- The available parameter values for each type of paper are listed below.

Parameter	Receipt (without black mark)	Label sheet (without black mark)	Label sheet (with black mark)	Receipt (with black mark)	Symbol in dia- gram
width	290 to 800				f
height	0	0, 284 to 1550		a	
marginTop	0	-150 to 1500	0 to 1500	-15 to 1500	b
marginBottom	0	0	-15 to 0	-15 to 15	e
offsetCut	0	-290 to 50	0 to 50	0 to 50	c
offsetLabel	0	0	0	0 to 15	d

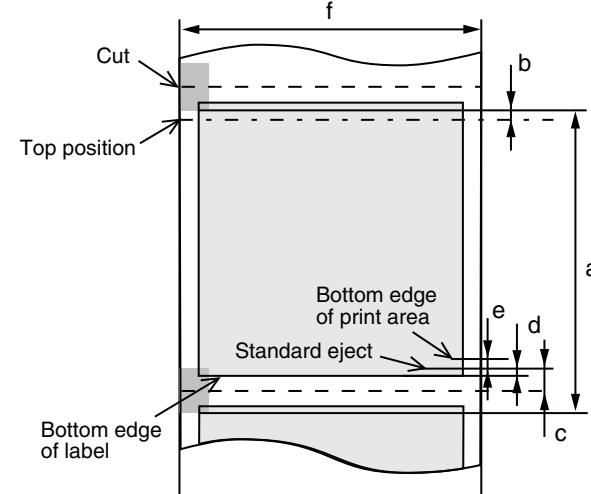
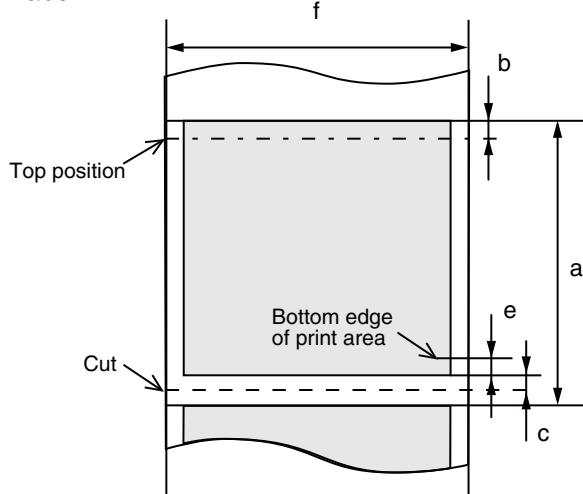
Receipt



<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/index.php?content_id=2
- ❑ 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.

forceRecover

Forcibly sends the error recovery 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 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.

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.

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.

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.

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.

setStatusChangeListener

Registers a listener registration method for a status change event.

Syntax

```
public void setStatusChangeListener  
(StatusChangeListener listener)
```

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.

setReceiveEventListener

Registers a listener registration method for a print completion event.

Syntax

```
public void setReceiveEventListener (ReceiveListener listener)
```

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.
CODE_ERR_JOB_NOT_FOUND	Specified print job ID does not exist.

Error status	Description
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.

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 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.

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_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.

connect

Starts communication with the customer display.

Syntax

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

Parameter

target

Depending on which printer is used with which customer display, the connection method differs.

- TM intelligent printer+DM-D110

Use the following syntax.

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

Device	Connection type	Identifier	Example
Wi-Fi/Ethernet device	"TCP"	<ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name 	"TCP:192.168.192.168[local_display]"

- TM-DT series+DM-D30

Use the following syntax.

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

Device	Connection type	Identifier	Example
Wi-Fi/Ethernet device	"TCP"	<ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name 	"TCP:192.168.192.168[local_display]"

- TM-m30+DM-D30

Use the following syntax.

<connection type>:<identifier>

Device	Connection type	Identifier	Example
Wi-Fi/Ethernet device	"TCP"	<ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name 	"TCP:192.168.192.168"

Device	Connection type	Identifier	Example
Bluetooth device	"BT"	BD address	"BT:00:22:15:7D:70:9C"
USB device	"USB"	Device node	"USB:/dev/udev/xxxxxxxxxx"

- TM-T88VI+DM-D30/DM-D110

Use the following syntax.

<connection type>:<identifier>

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

- TM-T88VI-iHUB+DM-D30/DM-D110

When using only the printer and the customer display, use the following syntax.

<connection type>:<identifier>

Device	Connection type	Identifier	Example
Wi-Fi/Ethernet device	"TCP"	<ul style="list-style-type: none"> IP address in IPv4 format MAC address Host name 	"TCP:192.168.192.168"
USB device	"USB"	Device node	"USB:/dev/udev/xxxxxxxxxx"

When using other devices such as a barcode scanner, or keyboard in addition to the printer and the customer display, use the following syntax.

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

Device	Connection type	Identifier	Example
Wi-Fi/Ethernet device	<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]"
USB device	"USB"	Device node	"USB:/dev/udev/xxxxxxxxxx[local_display]"

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.
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.
- ❑ The device ID is an arbitrary string that is set when the printer and POS peripheral devices are registered to the TM intelligent printer. For details, refer to the Technical Reference Guide of the printer.
- ❑ For the TM intelligent printer, this API always succeeds without regard to the connection status between the printer and a peripheral device.
- ❑ When the connection target is specified using "TCPS", SSL is used to communicate with the printer. TM-T88VI-iHUB printer supports SSL communication. Refer to the Technical Reference Guide of the printer for more information.

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.

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

- ❑ For TM-m30+DM-D30, "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 TM-m30+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

- ❑ For details on ESC/POS, see the specifications for this product. You need a contract separately to acquire the specifications. For details, contact the store of your purchase.
- ❑ 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_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.

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.

connect

Starts communication with the keyboard.

Syntax

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

Parameter

target

Specifies the connection type and connection target.

Use the following syntax:

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

Device	Connec-tion type	Identifier	Example
Wi-Fi/Ethernet device	<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]"

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.
ERR_NOT_FOUND	The device could not be found.

Error status	Description
ERR_IN_USE	The device was in use.
ERR_TYPE_INVALID	The device type is different.

Supplementary explanation

- ❑ The device ID is an arbitrary string that is set when the printer and POS peripheral devices are registered to the TM intelligent printer. For details, refer to the Technical Reference Guide of the printer.
- ❑ For the TM intelligent printer, this API always succeeds without regard to the connection status between the printer and a peripheral device.
- ❑ When the connection target is specified using "TCPS", SSL is used to communicate with the printer.
TM-T88VI-iHUB printer supports SSL communication. Refer to the Technical Reference Guide of the printer for more information.

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.

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.

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.

connect

Starts communication with the barcode scanner.

Syntax

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

Parameter

target

Specifies the connection type and connection target.

Use the following syntax:

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

Device	Connec-tion type	Identifier	Example
Wi-Fi/Ethernet device	<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]"

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.

Error status	Description
ERR_IN_USE	The device was in use.
ERR_TYPE_INVALID	The device type is different.

Supplementary explanation

- ❑ The device ID is an arbitrary string that is set when the printer and POS peripheral devices are registered to the TM intelligent printer. For details, refer to the Technical Reference Guide of the printer.
- ❑ For the TM intelligent printer, this API always succeeds without regard to the connection status between the printer and a peripheral device.
- ❑ When the connection target is specified using "TCPS", SSL is used to communicate with the printer. TM-T88VI-iHUB printer supports SSL communication. Refer to the Technical Reference Guide of the printer for more information.

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.

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.

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.

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.

connect

Starts communication with the serial communication device.

Syntax

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

Parameter

target

Specifies the connection type and connection target.

Use the following syntax:

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

Device	Connec-tion type	Identifier	Example
Wi-Fi/Ethernet device	<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]"

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.
ERR_NOT_FOUND	The device could not be found.

Error status	Description
ERR_IN_USE	The device was in use.
ERR_TYPE_INVALID	The device type is different.

Supplementary explanation

- ❑ The device ID is an arbitrary string that is set when the printer and POS peripheral devices are registered to the TM intelligent printer. For details, refer to the Technical Reference Guide of the printer.
- ❑ For the TM intelligent printer, this API always succeeds without regard to the connection status between the printer and a peripheral device.
- ❑ When the connection target is specified using "TCPS", SSL is used to communicate with the printer. TM-T88VI-iHUB printer supports SSL communication. Refer to the Technical Reference Guide of the printer for more information.

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.

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.

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.

connect

Starts communication with the communication box.

Syntax

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

Parameter

target

Specifies the connection type and connection target.

Use the following syntax:

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

Device	Connection type	Identifier	Example
Wi-Fi/Ethernet device	<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]"

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.
ERR_PROCESSING	Could not run the process.

Error status	Description
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

- ❑ For the TM intelligent printer, this API always succeeds without regard to the connection status between the printer and a peripheral device.
- ❑ When the connection target is specified using “TCPS”, SSL is used to communicate with the printer. TM-T88VI-iHUB printer supports SSL communication. Refer to the Technical Reference Guide of the printer for more information.

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.

setReceiveEventListener

Registers a listener registration method for a message reception event of the communication box.

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 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.

Common to all classes

getAdmin

Acquires the administrator name set with TM-DT Software or TM-i firmware.

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.

getLocation

Acquires the installation location information set with TM-DT Software or TM-i firmware.

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.

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
xxx.EVENT_RECONNECTING	Reconnection start event
xxx. EVENT_RECONNECT	Reconnection completion event
xxx. 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.
- ❑ xxx. EVENT_DISCONNECT occurs in the following cases:
 - When disconnect is running
 - When connection fails after occurrence of xxx.EVENT_RECONNECTING
- ❑ When xxx. 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_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.

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.
ERR_ILLEGAL	Tried to start search when search had been already done.
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 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

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/xxxxxxxxxx"
 "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.

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 starting search, it must be ended.

Epos2Exception class

getErrorStatus

Acquires the error status from the exception.

Syntax

```
public int getErrorStatus()
```

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
Network 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 network printer, the parseNFC API starts broadcast communication and sets a MAC address of the network printer. If no response is received from the printer until the timeout period has passed, null is returned. Make sure to enable the network 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	Network printer (wired / wireless)
Print.DEVTYPE_BLUETOOTH	Bluetooth compatible printer

macAddress

Specifies a MAC address (for a network 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	Network 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	Communication with the printer failed. <Example> Transmission of print data to the printer failed.	Run disconnect for the appropriate class and then connect to restore communication. For the <i>Bluetooth</i> model, Android OS tries reconnection automatically. If this error status persists for 20 seconds or longer, recover communication as explained 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.	Check if the process overlaps with another process in time.
ERR_UNSUPPORTED	A model name or language not supported was specified.	A function cannot be used if it is not supported by the specified model.
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.
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.

Error Status	Cause	Countermeasure
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.
	This TM printer does not support ESC/POS.	Use it as the TM intelligent printer.
ERR_DISCONNECT	Communication with the device has been disconnected.	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	Cover is open.	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.	<p>Power off and then on the printer. Contact the distributor or service center if the problem persists.</p>
CODE_ERR_SYSTEM	An error occurred with the TM-i firmware or TM-DT software.	Power off and then on the TM intelligent printer to restart the OS.
CODE_ERR_PORT	Forced transmission was run in the online state.	Run forced transmission in the offline state.
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.
CODE_ERR_FAILURE	An unknown error occurred.	Check for a problem with the execution environment.

CallbackCode	Cause	Countermeasure
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.

Printer Status and countermeasures

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.errorStatus==Printer.MECHANICAL_ERR	Mechanical error occurred.	Remove the error cause and power off and then on the printer.
status.errorStatus==Printer.AUTOCUTTER_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.
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.

Printer Status	Cause	Countermeasure
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.

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 POS peripheral device, and the parameter setting value.



Refer to the Technical Reference Guide of each printer for more information on each printer.

Supported printers for each class

The following is a list of supported printers for each class.

Class	API	Supported Printers
Printer class		All Printers Availability and restriction on the use of API differs by printers. Refer to List of Supported APIs .
LineDisplay class		Use together with the following printer and customer display. <ul style="list-style-type: none">• TM intelligent printer+DM-D110• TM-DT series+DM-D30• TM-m30+DM-D30• TM-T88VI/TM-T88VI-iHUB+DM-D30/DM-D110
Keyboard class		TM intelligent printer
BarcodeScanner class		TM intelligent printer
SimpleSerial class		TM intelligent printer
CommBox class		TM intelligent printer
Common to all classes		TM intelligent printer
Discovery class		All Printer
Epos2Exception class		All Printers
Log class		All Printers
EasySelect class	parseNFC	Printers with built-in NFC tags
	parseQR	TM Printers Analyzes a QR code that is created using createQR and printed using addSymbol , or QR code that is printed on a status sheets.
	createQR	TM Printers However, whether a QR code can be printed or not depends on usage restrictions of addSymbol .
EasySelectInfo class		TM Printers

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

TM Printers

API	TM-m10	TM-m30	TM-P20	TM-P60 (Receipt)	TM-P60 (Peeler)	TM-P60II (Receipt)	TM-P60II (Peeler)	TM-P80	TM-T20	TM-T20II	TM-T60	TM-T70	TM-T70II	TM-T80II	TM-T82	TM-T82II	TM-T83II	TM-T88V	TM-T88VI	TM-U220	TM-U330
Printer	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*
connect	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
disconnect	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
startMonitor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
stopMonitor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
getStatus	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
sendData	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
beginTransaction	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	
endTransaction	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	
requestPrintJobStatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
clearCommandBuffer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addTextAlign	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addLineSpace	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addTextRotate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addText	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addTextLang	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addTextFont	✓*	✓*	✓	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*
addTextSmooth	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addTextSize	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
addTextStyle	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*

API	TM-m10	TM-m30	TM-P20	TM-P60 (Receipt)	TM-P60 (Peeler)	TM-P60II (Receipt)	TM-P60II (Peeler)	TM-P80	TM-T20	TM-T20II	TM-T60	TM-T70	TM-T70II	TM-T80II	TM-T82II	TM-T83II	TM-T88V	TM-T88VI	TM-U220	TM-U330
addHPosition	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
addFeedUnit	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addFeedLine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addImage	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*
addLogo	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
addBarcode	✓*	✓*	✓	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	-
addSymbol	✓*	✓*	✓*	-	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	-
addHLine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
addVLineBegin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
addVLineEnd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
addPageBegin	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
addPageEnd	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
addPageArea	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
addPageDirection	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
addPagePosition	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-
addPageLine	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	-	-	-	-	-	-	-	-	✓*	-	
addPageRectangle	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	-	-	-	-	-	-	-	-	✓*	-	
addCut	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	
addPulse	✓	✓	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
addSound	✓*	✓*	✓*	-	-	✓*	✓*	✓*	✓*	✓*	-	-	✓*	-	✓*	✓*	✓*	✓*	✓*	
addFeedPosition	-	-	✓*	-	✓	-	✓	✓*	-	-	-	-	-	-	-	-	-	-	✓*	
addLayout	-	-	✓*	-	✓	-	✓	✓*	-	-	-	-	-	-	-	-	-	-	-	
addCommand	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
forceRecover	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
forcePulse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
forceStopSound	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
forceCommand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
forceReset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
setStatusChangeEventList- tener	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
setReceiveEventListener	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
interval	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

TM Intelligent Printers

API	TM-T20II-i	TM-T70-i	TM-T70II-DT	TM-T82II-i	TM-T83II-i	TM-T88V-i	TM-T88VI-IHUB	TM-T88V-DT	TM-U220-i	TM-H6000IV-DT
Printer	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*
connect	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
disconnect	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
startMonitor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
stopMonitor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
getStatus	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
sendData	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
beginTransaction	-	-	-	-	-	-	-	-	-	-
endTransaction	-	-	-	-	-	-	-	-	-	-
requestPrintJobStatus	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
clearCommandBuffer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addTextAlign	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addLineSpace	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addTextRotate	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addText	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addTextLang	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addTextFont	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*
addTextSmooth	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addTextSize	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
addTextStyle	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*
addHPosition	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
addFeedUnit	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addFeedLine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addImage	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*
addLogo	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
addBarcode	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	-	✓*
addSymbol	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	-	✓*
addHLine	-	-	-	-	-	-	-	-	-	-
addVLineBegin	-	-	-	-	-	-	-	-	-	-
addVLineEnd	-	-	-	-	-	-	-	-	-	-
addPageBegin	✓	✓	✓	✓	✓	✓	✓	✓	-	✓

API	TM-T20II-i	TM-T70-i	TM-T70II-DT	TM-T82II-i	TM-T83II-i	TM-T88V-i	TM-T88VI-iHUB	TM-T88V-DT	TM-U220-i	TM-H6000IV-DT
addPageEnd	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
addPageArea	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
addPageDirection	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
addPagePosition	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
addPageLine	-	-	-	-	-	-	✓*	-	-	-
addPageRectangle	-	-	-	-	-	-	✓*	-	-	-
addCut	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*
addPulse	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
addSound	✓*	-	✓*	✓*	✓*	✓*	✓*	✓*	-	-
addFeedPosition	-	-	-	-	-	-	-	-	-	-
addLayout	-	-	-	-	-	-	-	-	-	-
addCommand	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
forceRecover	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
forcePulse	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
forceStopSound	✓	-	✓	✓	✓	✓	✓	✓	-	-
forceCommand	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
forceReset	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
setStatusChangeEventListener	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
setReceiveEventListener	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
interval	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Network Printers

API	TM-T88IV	TM-T90	TM-L90	TM-H6000IV
Printer	✓*	✓*	✓*	✓*
connect	✓	✓	✓	✓
disconnect	✓	✓	✓	✓
startMonitor	✓	✓	✓	✓
stopMonitor	✓	✓	✓	✓
getStatus	✓	✓	✓	✓
sendData	✓	✓	✓	✓

API	TM-T88IV	TM-T90	TM-L90	TM-H6000IV
beginTransaction	-	-	-	-
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	-	-	-	-
addCut	✓*	✓*	✓*	✓*
addPulse	✓	✓	✓	✓
addSound	-	-	-	-

API	TM-T88IV	TM-T90	TM-L90	TM-H600IV
addFeedPosition	-	-	✓	-
addLayout	-	-	-	-
addCommand	✓	✓	✓	✓
forceRecover	-	-	-	-
forcePulse	-	-	-	-
forceStopSound	-	-	-	-
forceCommand	-	-	-	-
forceReset	-	-	-	-
setStatusChangeEventListener	✓	✓	✓	✓
setReceiveEventListener	✓	✓	✓	✓
interval	✓	✓	✓	✓

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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_OMNIDIRECTIO NAL • 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

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
addTextStyle	color	<ul style="list-style-type: none"> • Printer.COLOR_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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)

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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-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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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_OMNIDIRECTIO NAL • 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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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_OMNIDIRECTIO NAL • 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-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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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-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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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_OMNIDIRECTIO NAL • 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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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_OMNIDIRECTIO NAL • 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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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_OMNIDIRECTIO NAL • 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-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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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_OMNIDIRECTIO NAL • 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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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_OMNIDIRECTIO NAL • 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

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
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_NONE • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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

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
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_NONE • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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
addFeedPosition	position	<ul style="list-style-type: none"> • Printer.FEED_CUTTING

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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-DT***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 1662 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 • Printer.MODEL_SOUTHASIA
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
	color	<ul style="list-style-type: none"> • Printer.COLOR_NONE • Printer.COLOR_1 • Printer.PARAM_DEFAULT
addImage	mode	<ul style="list-style-type: none"> • Printer.MODE_MONO • Printer.MODE_MONO_HIGH_DENSITY • Printer.PARAM_DEFAULT
	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

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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_OMNIDIRECTIO NAL • 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

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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

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
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_NONE • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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

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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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

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
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_NONE • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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
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_NONE • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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.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
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_NONE • Printer.COLOR_1 (default) • Printer.COLOR_2 • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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 • 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
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
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_NONE • Printer.COLOR_1 (default) • Printer.PARAM_UNSPECIFIED • Printer.PARAM_DEFAULT
addImage	color	<ul style="list-style-type: none"> • Printer.COLOR_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 API differs by TM-DT software and TM-i firmware version installed on TM intelligent printer.

For how to check or update the version of TM-DT software and TM-i firmware, refer to the Technical Reference Guide of the printer.

- 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	-	-	-

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.
 - 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.

ePOS2Discovery

- Filter Option settings
- Search of printers and POS 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
- 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

- Notification of result of establishing connection with TM intelligent printers
 - Connects to a keyboard specified in the source file when starting the application.
 - 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.

ePOS2BarcodeScanner

- Notification of result of establishing connection with TM intelligent printers
 - Connects to a barcode scanner specified in the source file when starting the application.
 - 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.

ePOS2SimpleSerial

- ❑ Notification of result of establishing connection with TM intelligent printers
 - Connects to a serial communication device specified in the source file when starting the application.
 - 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.

ePOS2CommBox

- ❑ Notification of result of establishing connection with TM intelligent printers
 - Connects to a communication box specified in the source file when starting the application.
 - 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

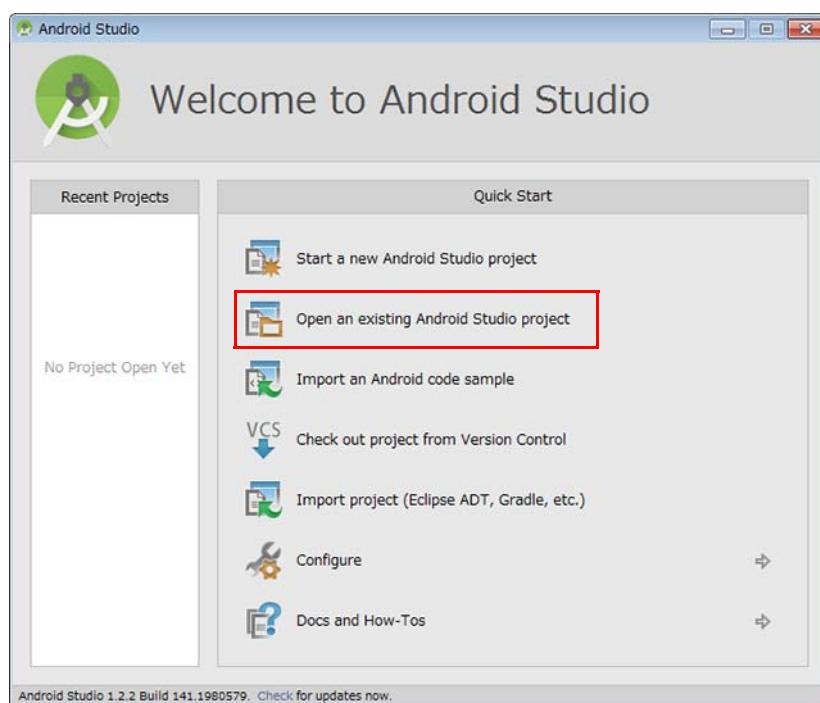
- ❑ Easy connection with a printer by using its NFC tag or QR code.
 - Acquires printer information from the NFC tag.
 - Acquires printer information from the QR code.
 - Opens the port by using the acquired printer information.
- ❑ Printing of a QR code that enables easy printer selection.
 - Creates a QR code that contains the printer information from the printer search result.

Use Environment

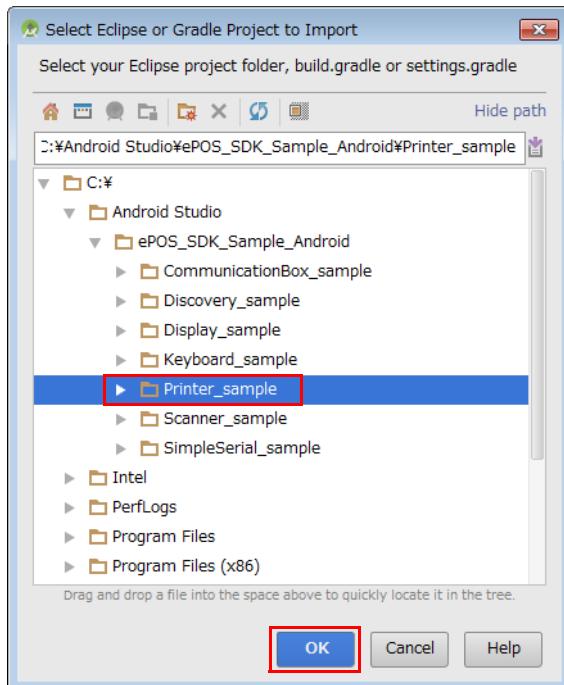
Refer to [Epson ePOS SDK for Android Development Environment](#) and [Application Operating Environment](#).

Installation Procedure

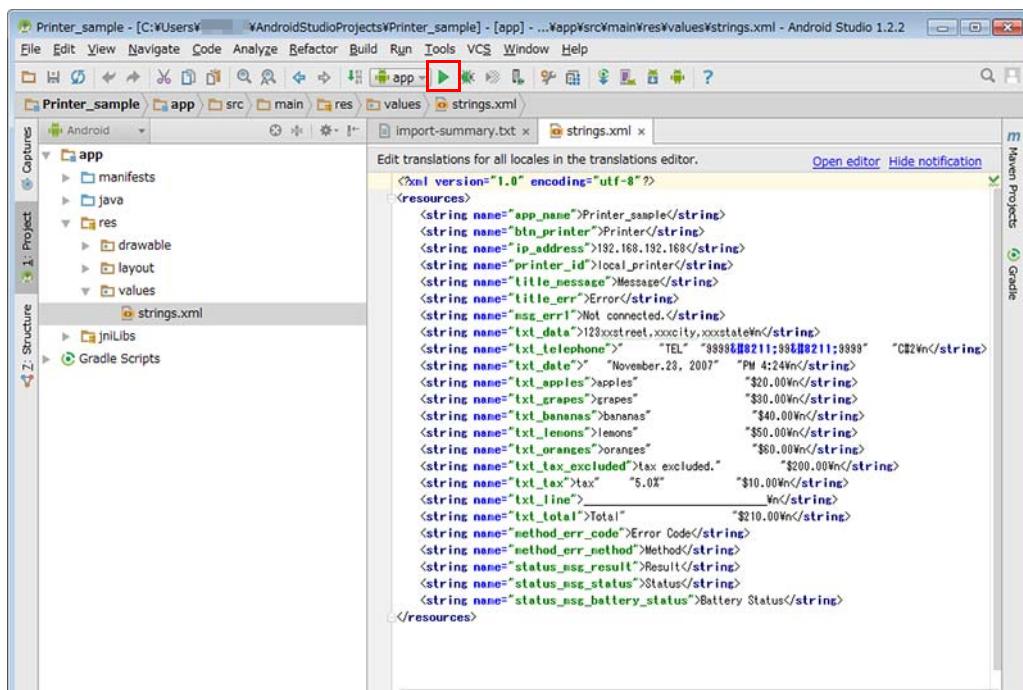
- 1** Extract the sample programs from the zip file and store the extracted files at any desired location.
- 2** Start Android Studio and click **Open an existing Android Studio Project**.



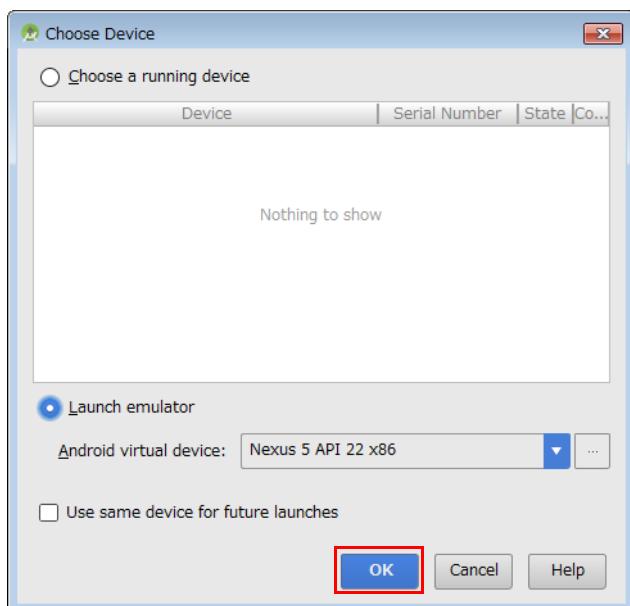
- 3** Select a sample program you want to install from the sample programs you stored at step 1, and then click **OK**.



- 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
}

```

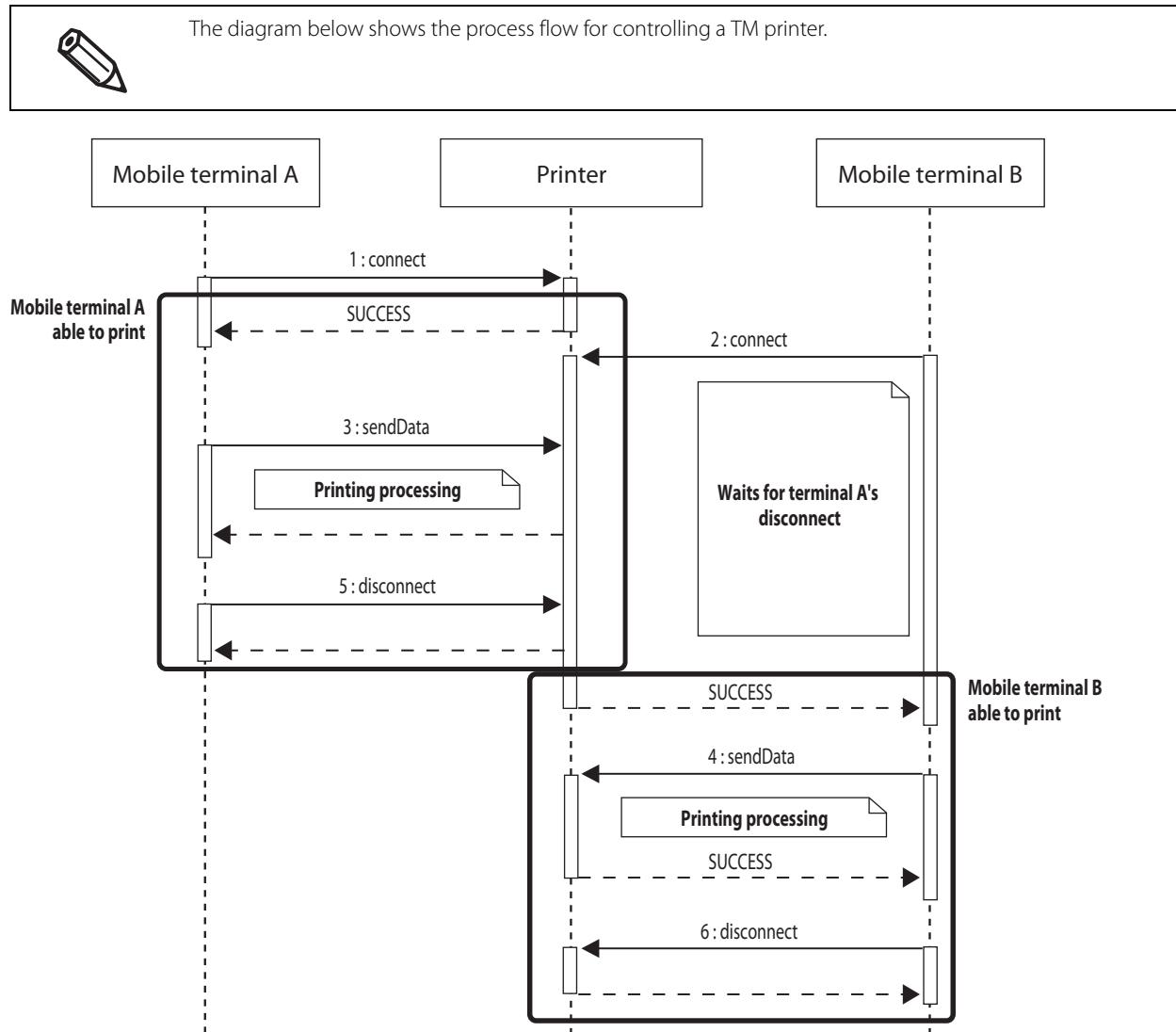
```
public void onPtrStatusChange(Printer printerObj, final int eventType) {  
    runOnUiThread(new Runnable() {  
        @Override  
        public synchronized void run() {  
            switch (eventType) {  
                case Printer.EVENT_ONLINE:  
                    break;  
                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".

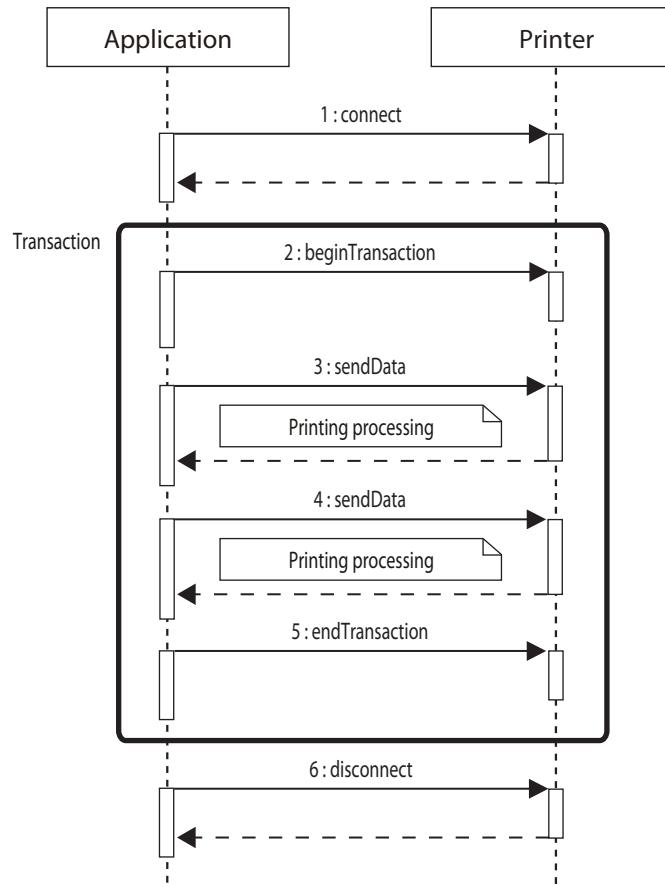
To use the same printer from multiple mobile devices

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`.

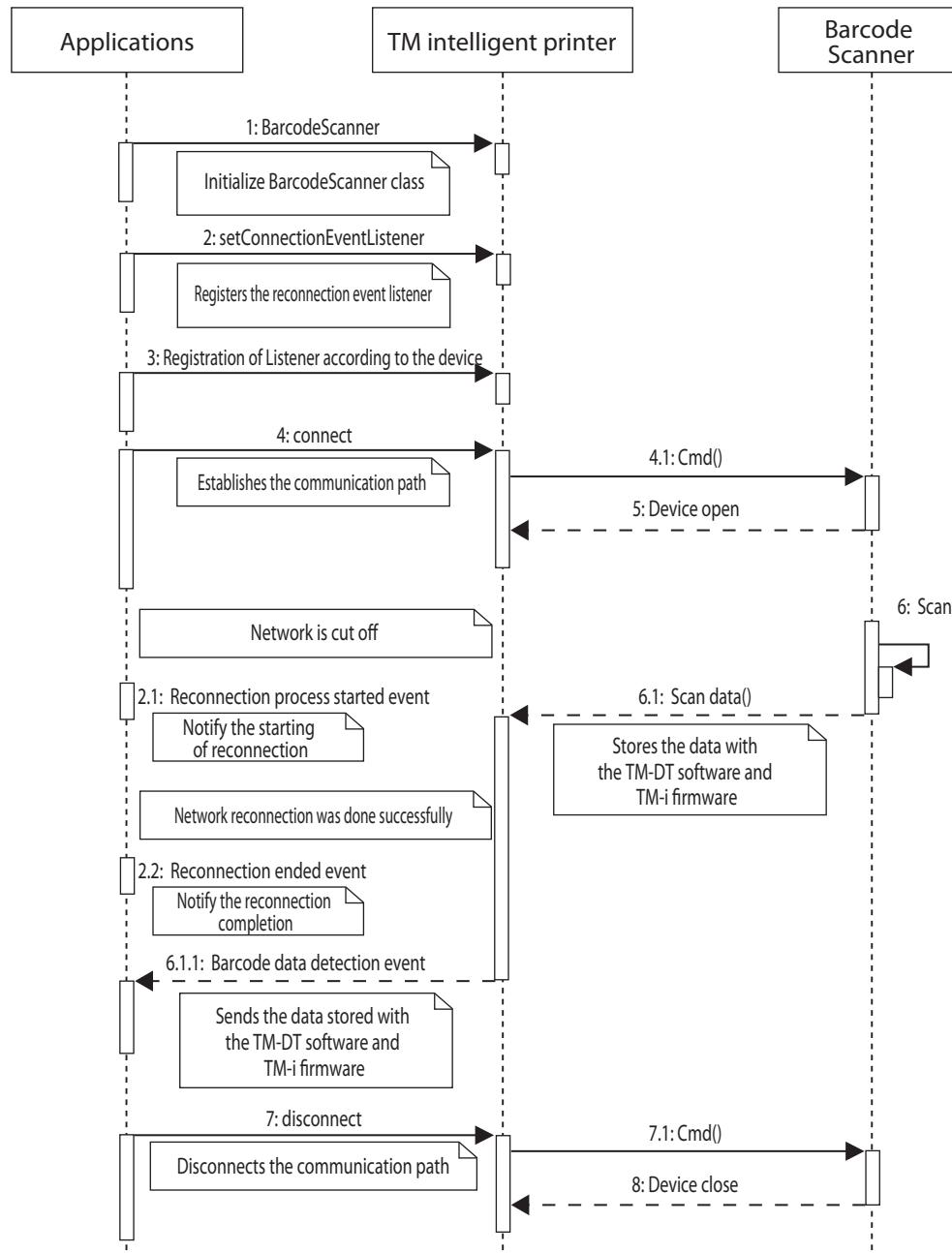


To reconnect to the network automatically

The following is a sequence for automatically reconnecting if network communication is cut off with the TM intelligent printer.



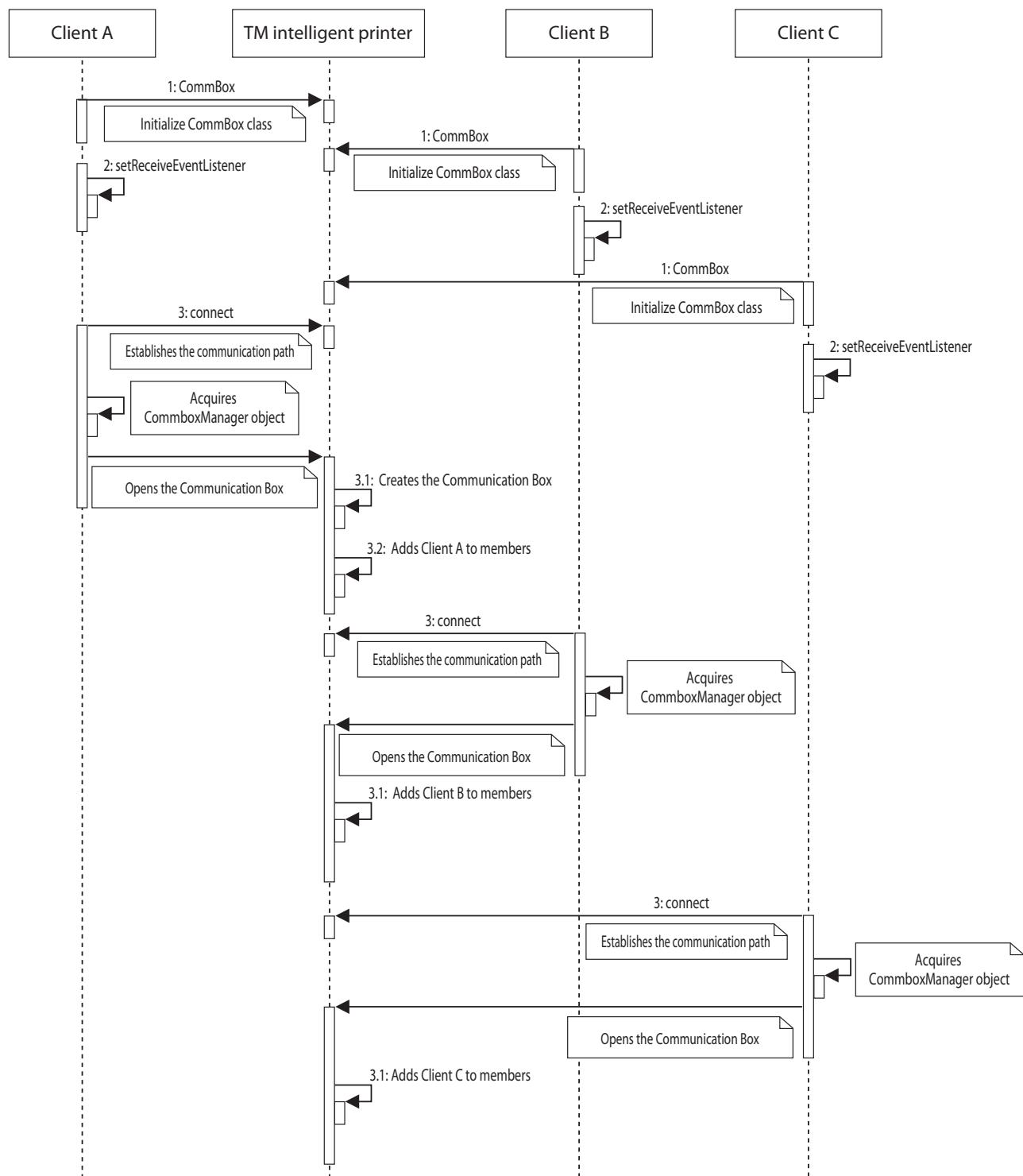
The following uses a case where the barcode scanner is used as an example.

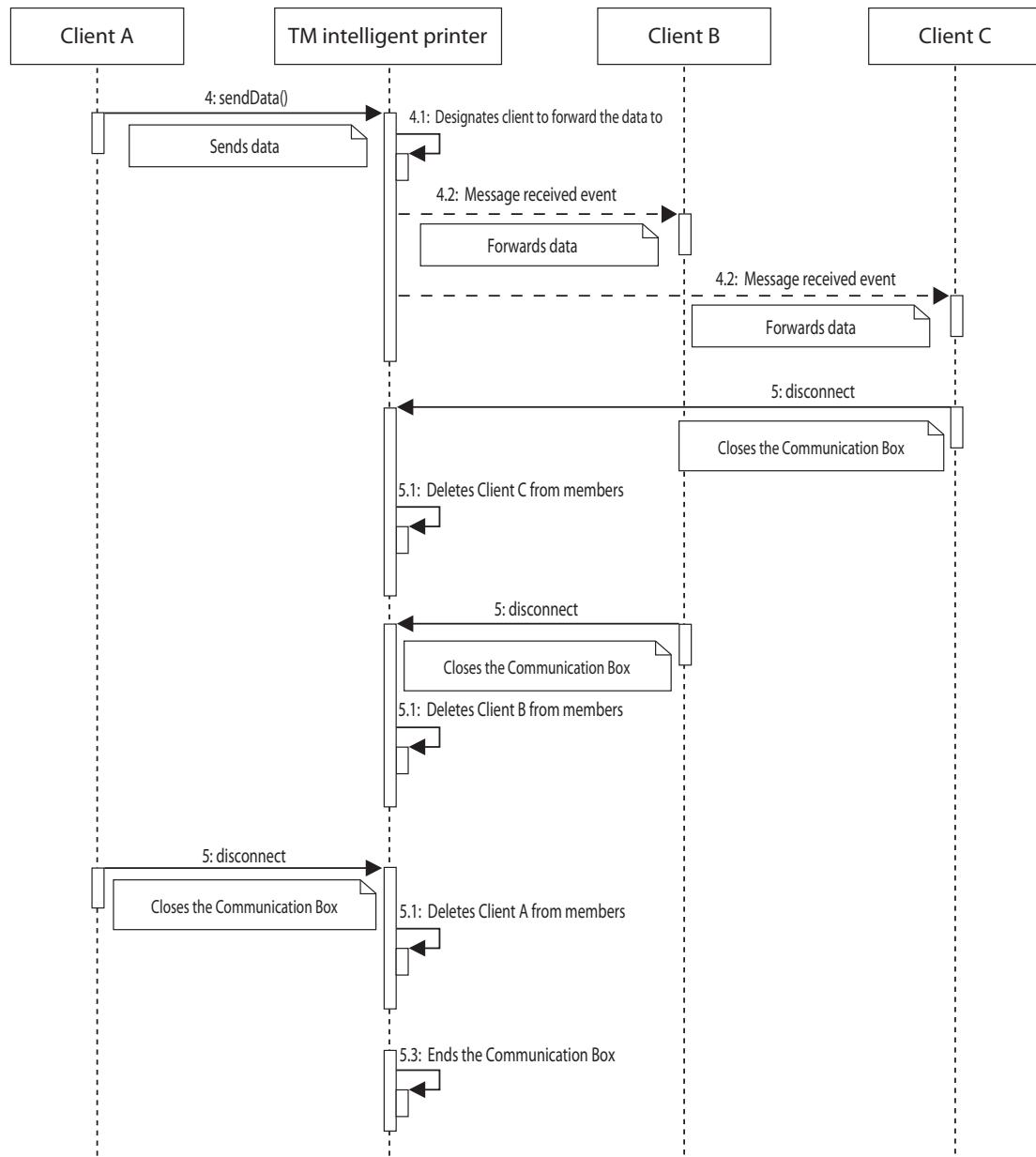


To transmit and receive the data between applications

Use the Communication Box function of the TM intelligent 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

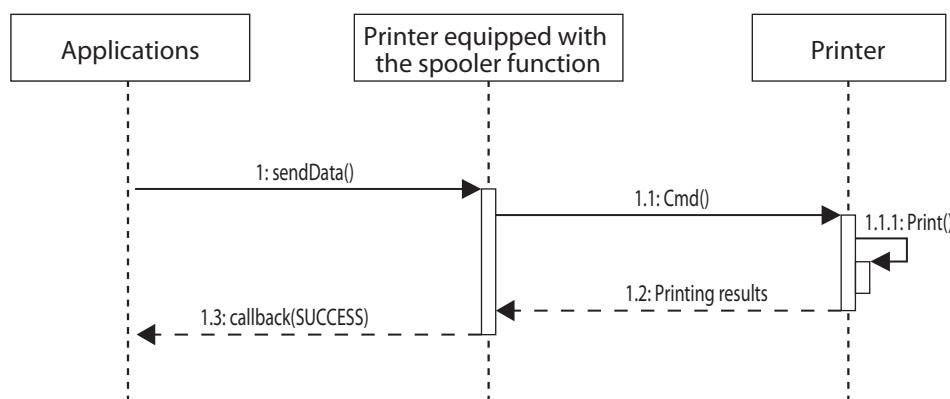
Use the spooler function of printers.



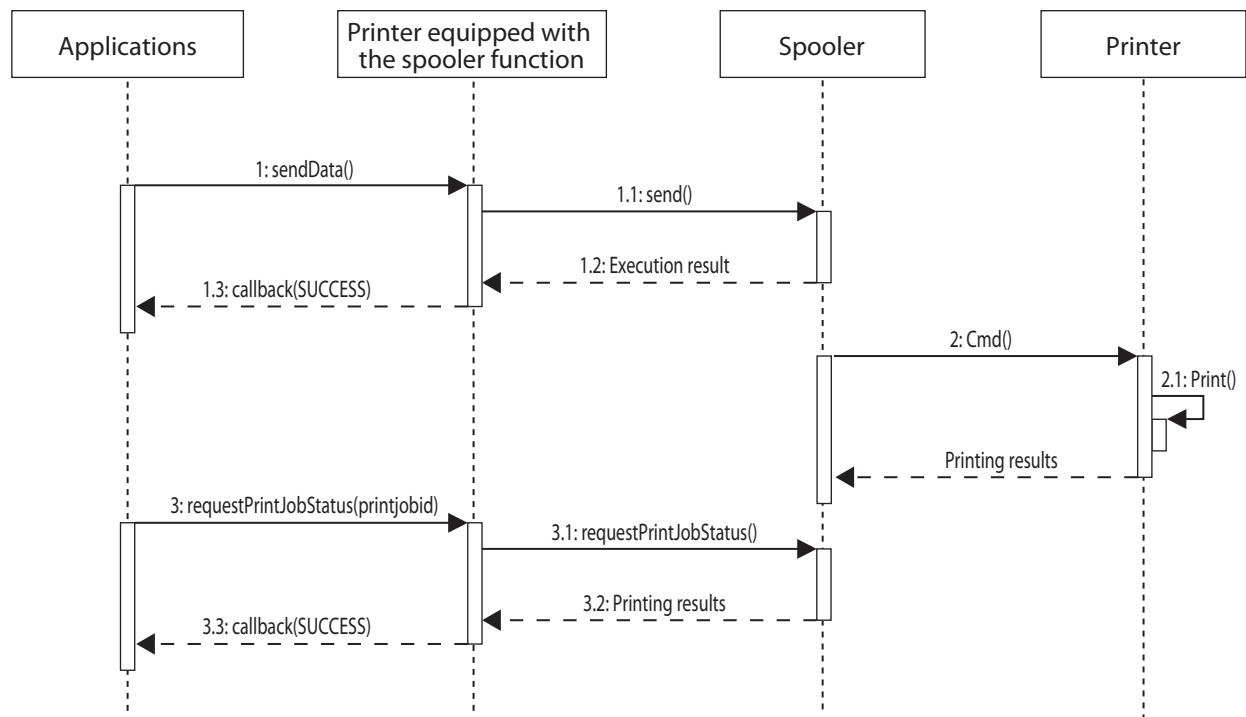
Printers equipped with the spooler function

- 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-H6000IV-DT

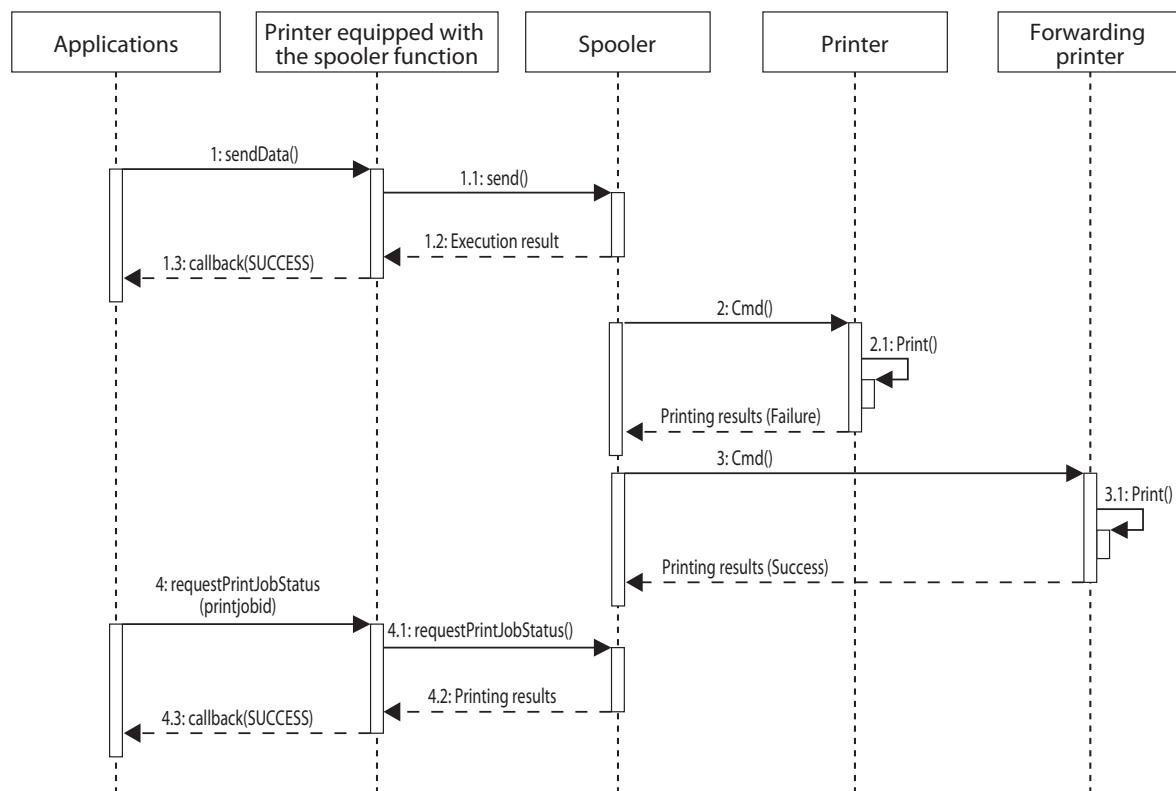
If a request is sent to the printer equipped with the spooler function from the application when the spooler function is disabled, printing is immediately executed and a response is returned to the application after printing completes.



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.

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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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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```
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```

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