

**Brother Print SDK for Android  
Manual Ver.2.3.0**

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— Revision history —			
001	2011/05/30	Ver.1.0	New
002	2011/07/13	Ver.1.0.1	Revise accompany with sample application change Add the definition of message invariable
003	2011/10/14	Ver.2.0.0	Renew Library structure and usage. Added support for PJ-500 series Added support for RJ series
004	2012/02/22	Ver.2.0.1	additional description about “customPaperWidth”
005	2012/10/02	Ver.2.1.1	Bug fix, Manual fix
006	2013/03/29	Ver.2.2.0	Added support for TD-2000 series
007	2013/06/30	Ver.2.3.0	Multiple printing and printing cancel Added support for USB Added support for transferring template file by Wi-Fi

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## **Introduction**

This manual is for SDK (Software Development Kit) and references which is used for printing from Android device to Brother Mobile Printer.

This manual is designed for those people who have developed Android application and familiar with the programming.

## **Inquiry**

This Software Development Kit (hereafter called SDK) provides information on modules and program development that allow use of this machine with various application software.

The contents of SDK are subject to change without prior notice. For the latest information, access our home page at the following:

URL : <http://www.brother.com/product/dev/>

For inquiries regarding solutions, contact our offices in your country.

## 1. At the beginning

### 1.1. Folder Configurations

The SDK contains of the following folders.

Brother (PDF) Print	End-User License agreement, Redistributable file list
SDK for Android folder	
├── .¥Apk	Package files of the printing library and sample application
├── .¥libs	JAR and SO file of the printing library
├── .¥Manual	This document
└── .¥Samples	Sample project

### 1.2. Specification

Development tool	<ul style="list-style-type: none"> <li>• JDK6</li> <li>• eclipse 3.5 or later</li> <li>• Android SDK r07 or later</li> </ul> ※For these installation methods, please check each software website.
Programming Language	Java
Package	com.brother.ptouch.sdk
Supported devices	Android 2.2 or later ※Not all Android 2.2 or later device will be guaranteed. It may not be able to print depending on the implementation of device side. ※USB function only supports the device of which OS is over Android 3.1 and supports USB host.
File printing function	jpeg/jpg, bmp, png, prn, pdf
P-touch Template function	Transferring and printing P-touch Templates

#### 1.2.1. The list of supported model and interface about file printing

File printing			
Model	USB	BLUETOOTH	NET
MW_140BT	yes	yes	no
MW_145BT	yes	yes	no
MW_260	yes	yes	no
PJ_522	yes	no	no
PJ_523	yes	no	no
PJ_520	yes	no	no
PJ_560	yes	yes	no

PJ_562	yes	yes	no
PJ_563	yes	yes	no
PJ_622	yes	no	no
PJ_623	yes	no	no
PJ_662	yes	yes	no
PJ_663	yes	yes	no
RJ_4030	yes	yes	no
RJ_4040	yes	no	yes
TD_2020	yes	no	no
TD_2120N	yes	yes	yes
TD_2130N	yes	yes	yes

**1.2.2. The list of supported model and interface about P-touch Template printing and transferring**

<b>P-touch Template printing and transferring</b>			
<b>Model</b>	<b>USB</b>	<b>BLUETOOTH</b>	<b>NET</b>
MW_140BT	no	no	no
MW_145BT	yes	yes	no
MW_260	yes	yes	no
PJ_522	no	no	no
PJ_523	no	no	no
PJ_520	no	no	no
PJ_560	no	no	no
PJ_562	no	no	no
PJ_563	no	no	no
PJ_622	no	no	no
PJ_623	yes	no	no
PJ_662	no	no	no
PJ_663	yes	yes	no
RJ_4030	yes	yes	no
RJ_4040	yes	no	yes
TD_2020	yes	no	no
TD_2120N	yes	yes	yes
TD_2130N	yes	yes	yes

### **1.3. Restrictions**

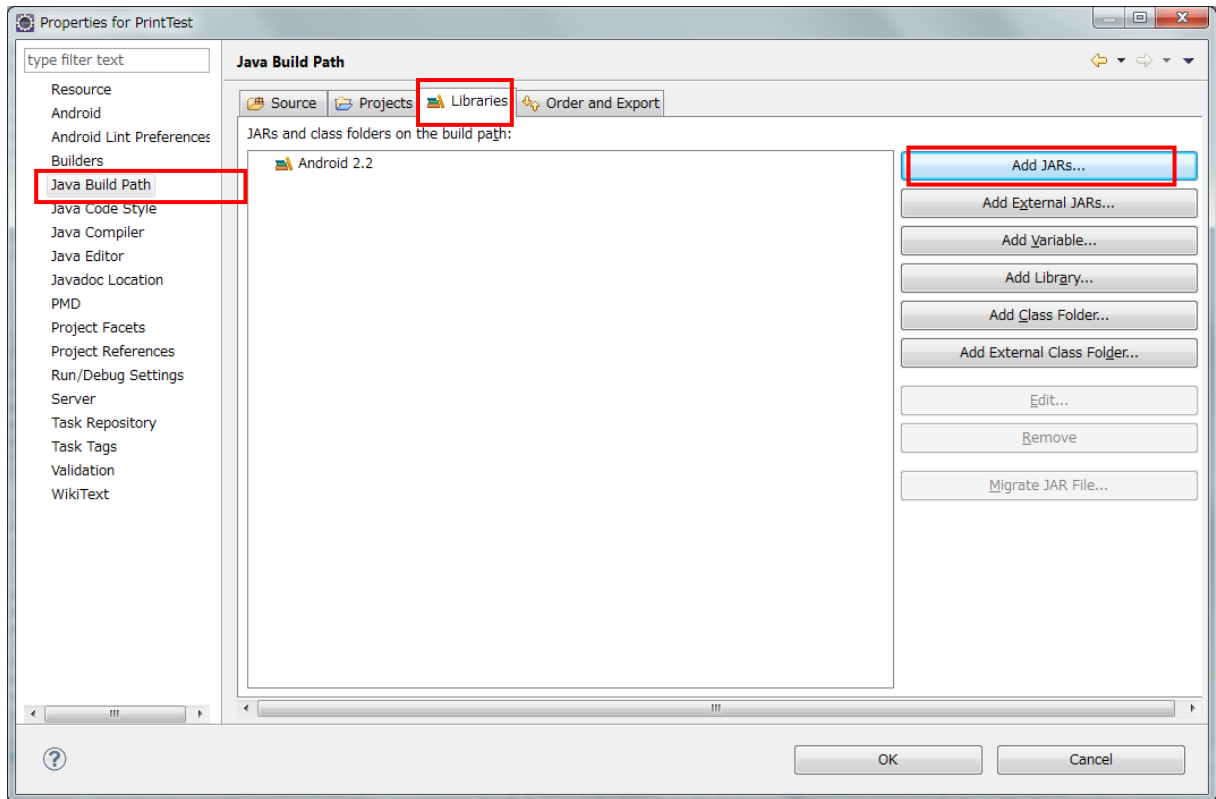
- On Android OS specification, it is not possible to print large pdf file and image file because of insufficient memory error.  
(Info: Over 10MB size pdf file. horizontal and vertical size 2000 - 3000 pixel or over in the case of image. It is depends on Android device. )
- It may not be able to print from some Android device to MW-140BT and MW-260. In that case, it might print when disable Bluetooth PIN code at printer utility.
- Please use a default setting for P-touch Template setting tool when you use P-touch Template printing function.

## 2. How to implement

### 2.1. Add library.

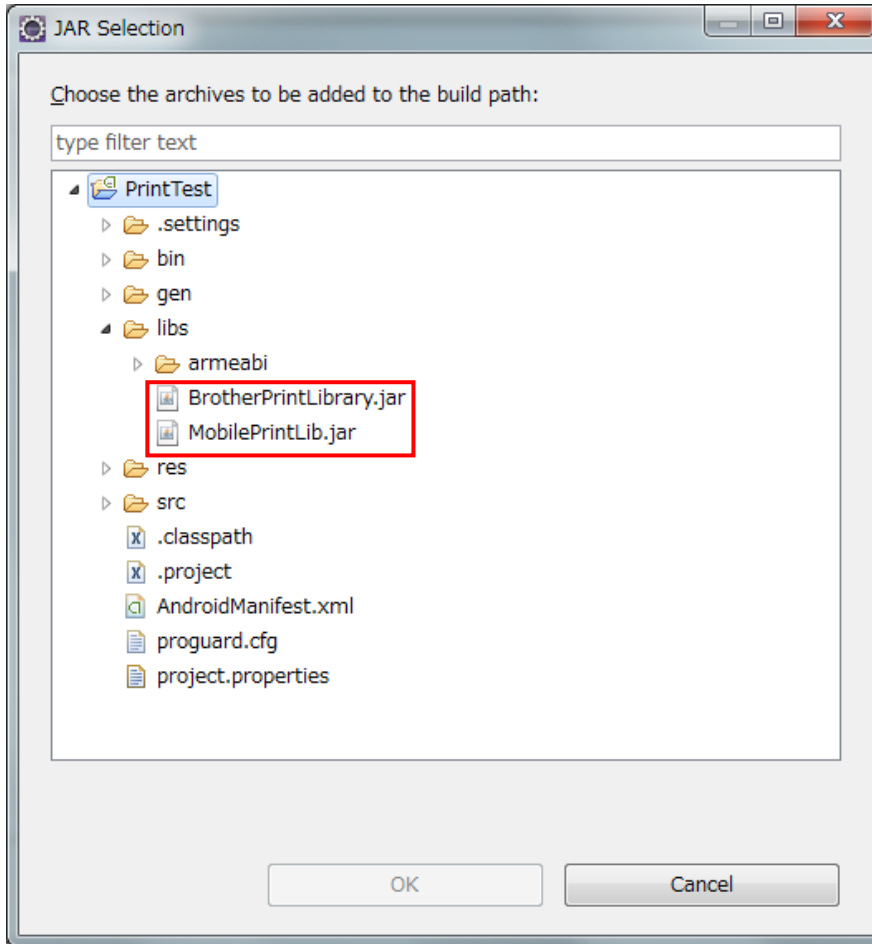
Copy the libs folder of SDK to your application folder,.

Open the Properties of a project. Choose [Java Build Path] from tree control, and click [Add JARs...] at [Libraries] tab.





Select BrotherPrintLibrary.jar which created now and click [OK] button.  
For PDF printing, also select MobilePrintLib.jar as same way.



### 2.1.1. Note

1. If you don't need PDF print function, you should delete MobilePrintLib.jar and libAndrJFPDFEMB.so file in the libs folder.
2. When a PDF file is printed using Brother Print SDK, it is printed with the watermark of the evaluation version. Moreover, it is two months during the period which can be used. function of PDF print becomes invalid when passing two month from first time use (ERROR\_EVALUATION\_TIMEUP will be returned).  
There is no limitation for other function except PDF print.
3. The watermark is not printed if you use Brother PDF Print SDK. Also there is no limitation of two months.

## 2.2. How to use API functions of SDK

Import the library into source code.

```
import com.brother.ptouch.sdk.Printer;  
import com.brother.ptouch.sdk.PrinterInfo;  
import com.brother.ptouch.sdk.PrinterStatus;
```

The sample of print function

```
public void print(){  
    // define printer and printer setting information  
    Printer myPrinter = new Printer();  
    PrinterInfo myPrinterInfo = new PrinterInfo();  
    // Pass Bluetooth adapter to the library (Bluetooth only)  
    BluetoothAdapter bluetoothAdapter = BluetoothAdapter.getDefaultAdapter();  
    myPrinter.setBluetooth(bluetoothAdapter);  
  
    // set printer informations  
    myPrinterInfo = myPrinter.getPrinterInfo();  
    myPrinterInfo.printerModel = PrinterInfo.Model.PJ_663;  
    myPrinterInfo.paperSize = PrinterInfo.PaperSize.A4;  
    myPrinterInfo.orientation = PrinterInfo.Orientation.PORTRAIT;  
    myPrinterInfo.numberOfCopies = 1;  
    ...  
    myPrinter.setPrinterInfo(myPrinterInfo);  
    //print  
    PrinterStatus printResult = new PrinterStatus();  
    String filePath = "/mnt/sdcard/ABC.jpeg";  
    printResult = myPrinter.printFile(filePath);  
}
```

For more details, please check the source code of sample application and Android Developers site.

## 2.3. How to revise from Brother Print SDK 1.0

About including library, please check [Add library](#).

If you have created project by Brother Print SDK 1.0, please revise your code referring to the

following example. You can check more details from source code of sample application.

### 2.3.1. Add

```
import com.brother.ptouch.sdk.Printer;
```

```
Printer myPrinter = new Printer();
```

### 2.3.2. Delete

```
import com.brother.ptouch.sdk.IPrinter;  
import com.brother.ptouch.sdk.IPrinterCallback;
```

```
public IPrinter servicelf = null;
```

```
private ServiceConnection serviceConn = new ServiceConnection(){  
    ...  
};
```

```
private IPrinterCallback callback = new IPrinterCallback.Stub(){  
    ...  
};
```

In onCreate():

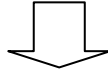
```
//bind service  
Intent intent = new Intent(IPrinter.class.getName());  
bindService(intent, serviceConn, BIND_AUTO_CREATE);
```

In onDestroy():

```
try{  
    servicelf.unregisterCallback(callback);  
}catch(RemoteException re){  
}  
unbindService(serviceConn);
```

### 2.3.3. Change

```
myPrinterInfo = servicelf.getPrinterInfo();  
servicelf.setPrinterInfo(myPrinterInfo);  
printResult = servicelf.printFile(filePath);  
...
```



```
myPrinterInfo = myPrinter.getPrinterInfo();  
myPrinter.setPrinterInfo(myPrinterInfo);  
printResult = myPrinter.printFile(filePath);  
...
```

Please change “**servicelf**” to “**myPrinter**” as same as the upper sample.

Error code of “ERROR\_ISPRINTING” is abolished.

Please delete the code about ERROR\_ISPRINTING. And please pay attention to the warning [about using multithread](#).

### 2.3.4. About using multi-thread

If you called API function (which is followed by \* in the API list) in a thread, please do not call it again in other threads before it end. Because the printer cannot accept two connect requests at the same time.

Please check more details about using multithread in StartMenu.java of sample application.

## 2.4. The sample code for supporting USB

```
import com.brother.ptouch.sdk.Printer;

public void print{
    Printer myPrinter = new Printer();

    //prepare usb connection
    UsbManager usbManager = (UsbManager) getSystemService(Context.USB_SERVICE);
    UsbDevice usbDevice = myPrinter.getUsbDevice(usbManager);
    PendingIntent permissionIntent = PendingIntent.getBroadcast(this,0, new
        Intent(ACTION_USB_PERMISSION), 0);
    usbManager.requestPermission(usbDevice, permissionIntent);

    //print setting
    printerInfo = myPrinter.getPrinterInfo();
    printerInfo.printerModel = PrinterInfo.Model.PJ_663;
    printerInfo.port = PrinterInfo.Port.USB;
    printerInfo.paperSize = PrinterInfo.PaperSize.A4;
    printerInfo.orientation = PrinterInfo.Orientation.PORTRAIT;
    printerInfo.printMode = PrinterInfo.PrintMode.FIT_TO_PAGE;
    printerInfo.numberOfCopies = 1;
    printerInfo.halftone = PrinterInfo.Halftone.PATTERNDITHER;
    myPrinter.setPrinterInfo(printerInfo);

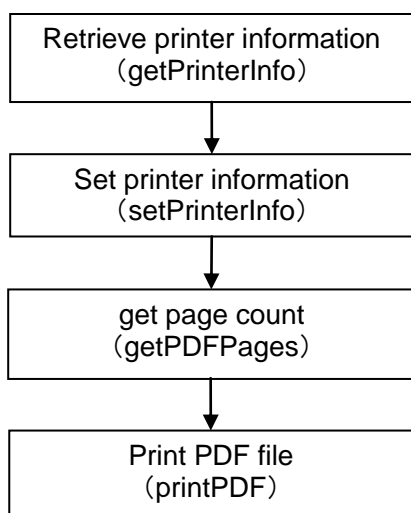
    //print
    printResult = new PrinterStatus();
    printResult = myPrinter.printFile("/mnt/sdcard/ABC.jpg");

}
```

### 3. Processing Flow

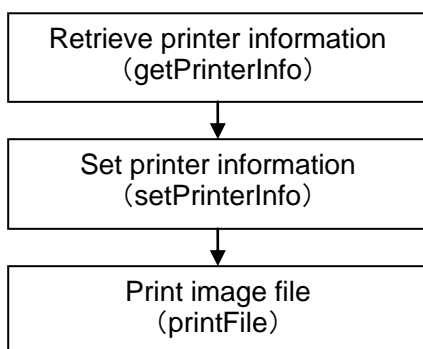
Outline a general flow of print processing.

#### 3.1. Processing Flow of Printing PDF File



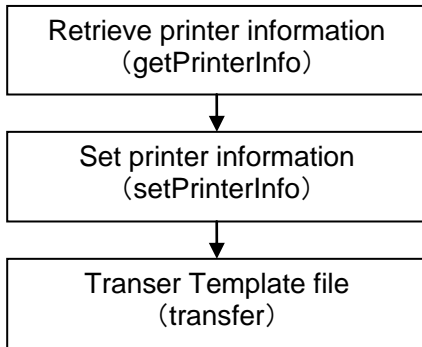
[Refer to 3.6 for multiple printing.](#)

#### 3.2. Processing Flow of Printing Image File



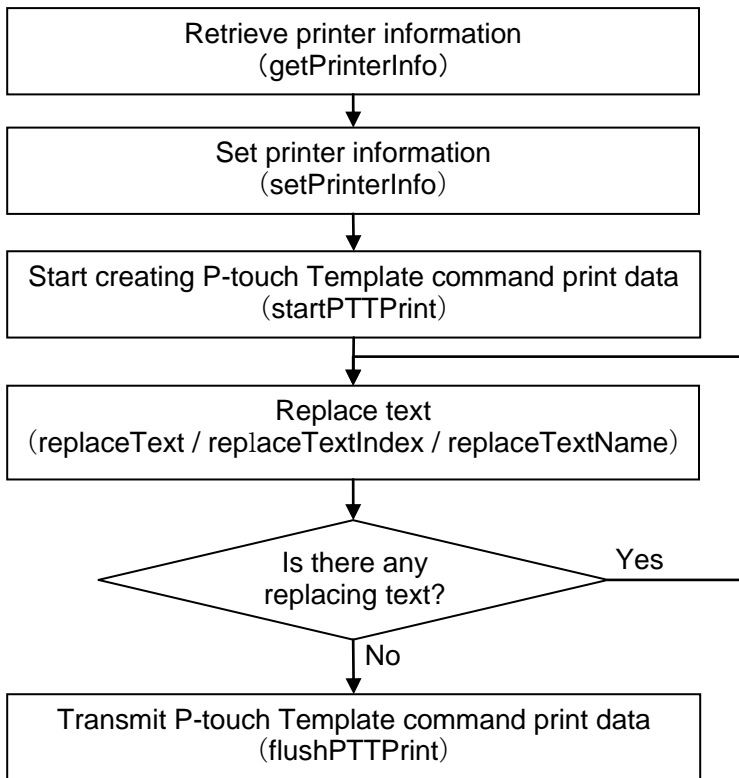
[Refer to 3.6 for multiple printing.](#)

### 3.3. Processing Flow of Transferring Template file



[Refer to 3.6 for multiple transferring.](#)

### 3.4. Processing Flow of Printing P-touch Template



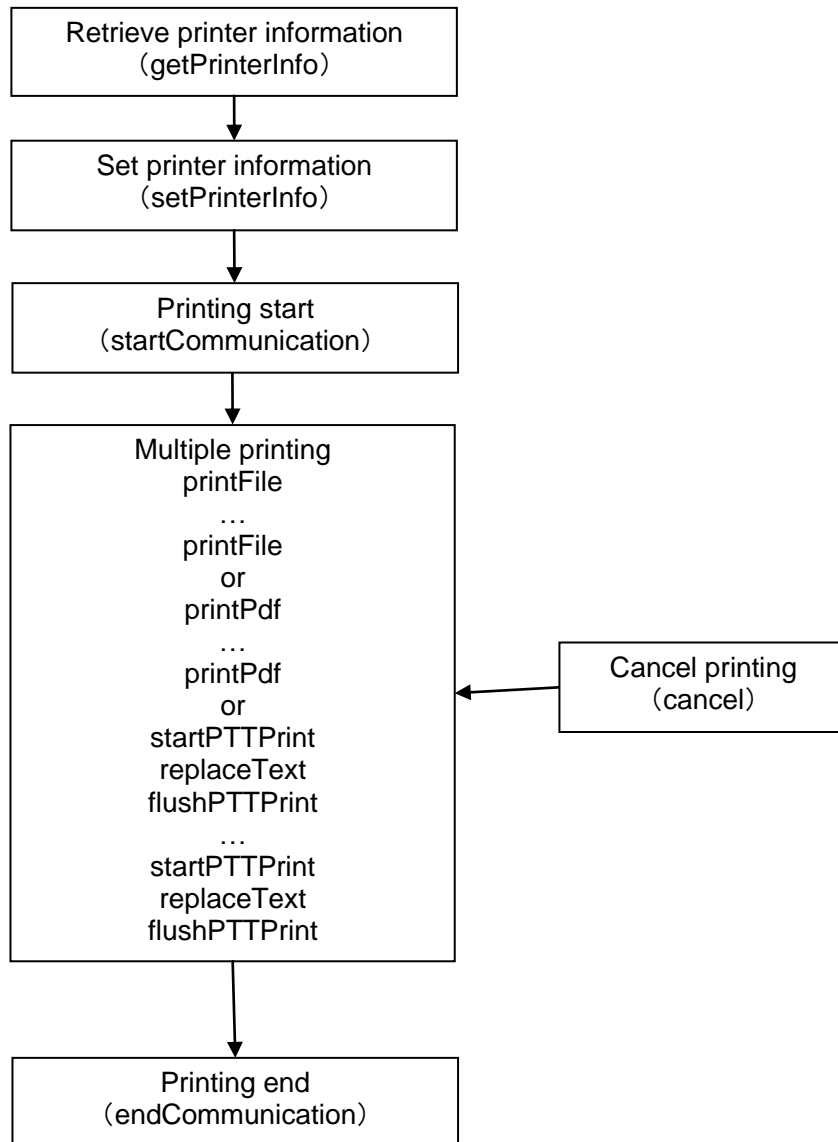
[Refer to 3.6 for multiple printing.](#)

### 3.5. About P-touch Template Print

For more details, please refer to P-touch Template Manual / Command Reference. They can be downloaded in Manual page of each printer model.

The entrance site is: [http://welcome.solutions.brother.com/bsc/public\\_s/index.html](http://welcome.solutions.brother.com/bsc/public_s/index.html)

### 3.6. Processing Flow of Multiple Printing and Cancel





## 4. API Reference

### 4.1. com.brother.ptouch.sdk.Printer class

#### 4.1.1. Public Method List

Setting methods	
<a href="#">LabelParam</a>	<a href="#">getLabelParam()</a> Returns size information of TD and RJ roll. Call it after setCustomPaper().
<a href="#">NetPrinter[]</a>	<a href="#">getNetPrinters</a> (String modelName) Returns the information of the printers connected to Wi-Fi access point.
<a href="#">NetPrinter[]</a>	<a href="#">getNetPrinters</a> (String[] modelNameList) Returns the information of the listed printers connected to Wi-Fi access point.
<a href="#">PrinterInfo</a>	<a href="#">getPrinterInfo()</a> Returns the printer information.
<a href="#">PrinterStatus</a>	<a href="#">getPrinterStatus()</a> * Returns the printer status.
boolean	<a href="#">setPrinterInfo</a> ( <a href="#">PrinterInfo</a> printerInfo) Sets the printer Information.
void	<a href="#">setBluetooth</a> (BluetoothAdapter bluetoothAdapter) Passes Bluetooth adapter to the library (Bluetooth only).
void	<a href="#">setMessageHandle</a> (Handler handler, int MsgType) Passes message handler to the library (if you want to use the messages from the library).
boolean	<a href="#">setCustomPaper</a> (Model printerModel, String filePath) Passes a custom paper setting file to the library (only for RJ).
UsbDevice	<a href="#">getUsbDevice</a> (UsbManager usbManager) Get a connected USB device.(only for USB)
boolean	<a href="#">startCommunication</a> () Multiple printing or transferring starts. Must be used with endCommunication().
boolean	<a href="#">endCommunication</a> () Multiple printing or transferring ends. Must be used with startCommunication().

boolean	<a href="#">cancel()</a> Cancel printing which is invalid during sending data.
---------	---

Printing methods of file and image object	
int	<a href="#">getPDFPages(String filepath)</a> Returns page count of the pdf file.
<a href="#">PrinterStatus</a>	<a href="#">printPDF(String filepath, int pagenum) *</a> Prints a selected page of the pdf file.
<a href="#">PrinterStatus</a>	<a href="#">printFile(String filepath) *</a> Prints a file (Image file: bmp, jpg, png, Print file: prn).
<a href="#">PrinterStatus</a>	<a href="#">printImage(Bitmap object) *</a> Prints a bitmap object.

Printing and transferring methods of P-touch Template	
boolean	<a href="#">startPTTPrint(int key, String encode)</a> Starts creating the print data for P-touch Template.
boolean	<a href="#">replaceText(String data)</a> Replaces a text in P-touch Template.
boolean	<a href="#">replaceTextIndex(String data, int index)</a> Replaces a text in P-touch Template (specified by the object number).
boolean	<a href="#">replaceTextName(String data, String objName)</a> Replaces text in P-touch Template (specified by the object name).
<a href="#">PrinterStatus</a>	<a href="#">flushPTTPrint()*</a> Transmits print data for P-touch Template.
<a href="#">PrinterStatus</a>	<a href="#">transfer(String filepath) *</a> Transfers a template file (*.pdz, *.blf) to the printer The template file (*.pdz, *.blf) is created by P-touch Transfer Manager which is Windows application. The pdz file is for USB and Bluetooth, and the blf file is for Wi-Fi. <a href="#">Refer to 1.2.2 about supported printer and interface.</a>

\*Do not call the function in different threads at the same time.

#### 4.1.2. Method details

4.1.2.1. boolean setPrinterInfo([PrinterInfo](#) printerInfo)

**[Interpretation]**

Sets the printer information.

**[Argument]**

printerInfo: Printer information class

**[Return value]**

true: Success  
false: Failed

**[Reference]**

[Processing Flow of Printing File](#)

4.1.2.2. void setBluetooth([BluetoothAdapter](#) bluetoothAdapter)

**[Interpretation]**

Passes Bluetooth adapter to the library (Bluetooth only).

**[Argument]**

bluetoothAdapter: Bluetooth adapter

**[Return value]**

None

4.1.2.3. void setMessageHandle([Handler](#) handler, int MsgType)

**[Interpretation]**

Passes message handler to the library (if you want to use the messages from the library).

**[Argument]**

Handler: Message handler  
MsgType: Identifies the messages

**[Return value]**

None

4.1.2.4. [PrinterInfo](#) getPrinterInfo()

**[Interpretation]**

Returns the printer information which is currently set.

**[Argument]**

None

**[Return value]**

[Printer information](#)

4.1.2.5. [PrinterStatus](#) getPrinterStatus ()

**[Interpretation]**

Returns the printer status which is currently set.

**[Argument]**

None

**[Return value]**

[Printer status](#)

4.1.2.6. int getPDFPages(String filepath)

**[Interpretation]**

Returns page count of the selected pdf file.

**[Argument]**

filepath: File path

**[Return value]**

Page count

**[Reference]**

[Processing Flow of Printing PDF File](#)

4.1.2.7. [PrinterStatus](#) printPDF(String filepath, int pagenum)

**[Interpretation]**

Prints a selected page of the pdf file.

**[Argument]**

filepath: File path

pagenum: Page number

**[Return value]**

[Printer status](#)

**[Reference]**

[PDF File Print Processing Flow](#)

4.1.2.8. [PrinterStatus](#) printFile(String filepath)

**[Interpretation]**

Prints a selected file (Image file: jpg, png, bmp, Print file: prn).

**[Argument]**

filepath: File path

**[Return value]**

[Printer status](#)

**[Reference]**

[Processing Flow of Printing Image File](#)

4.1.2.9. PrinterStatus printImage(Bitmap object)

**[Interpretation]**

Prints a bitmap object

**[Argument]**

object: Bitmap object

**[Return value]**

[Printer status](#)

**[Reference]**

[Processing Flow of Printing Image File](#)

4.1.2.10. boolean startPTTPrint(int key, String encode)

**[Interpretation]**

Start creating the print data for P-touch Template.

Specify a template and the encode type.

Please refer to [Processing Flow of Printing P-touch Template](#).

Please use default setting in P-touch Template Setting Tool.

It may not be able to print from this SDK if you change the settings.

**[Argument]**

key: Key number assigned to the Template.

encode: Specify null.

**[Return value]**

true: Success  
false: Failed

**[Reference]**

[Processing Flow of Printing P-touch Template](#)

4.1.2.11. boolean replaceText(String data)

**[Interpretation]**

Replaces text in P-touch Template.  
Texts are replaced in order of small object number.

**[Argument]**

data: Replacing text

**[Return value]**

true: Success  
false: Failed

**[Reference]**

[Processing Flow of Printing P-touch Template](#)

4.1.2.12. boolean replaceTextIndex(String data, int index)

**[Interpretation]**

Replaces text in P-touch Template (specified by the object number).  
The text specified by the object number is replaced.

**[Argument]**

data: Replacing text.  
index: Object number to replace the text.

model	Object number
MW-145BT/MW-260	1~50
PJ-663	1~200
RJ-4030/RJ-4040	1~99
TD-2120/TD-2130	1~99

**[Return value]**

true: Success  
false: Failed

**[Reference]**

[Processing Flow of Printing P-touch Template](#)

4.1.2.13. `boolean replaceTextName(String data, String objectName)`

**[Interpretation]**

Replaces text in P-touch Template (specified by the object name).  
The text specified by the object name is replaced.

**[Argument]**

data: Replacing text.  
objectName: Object name to replace the text.

**[Return value]**

true: Success  
false: Failed

**[Reference]**

[Processing Flow of Printing P-touch Template](#)

4.1.2.14. [PrinterStatus](#) `flushPTTPrint()`

**[Interpretation]**

Transmits print data for P-touch Template.

**[Argument]**

None

**[Return value]**

[Printer status](#)

**[Reference]**

[Processing Flow of Printing P-touch Template](#)

4.1.2.15. [NetPrinter\[\]](#) `getNetPrinters(String modelName)`

**[Interpretation]**

Returns the information of the printers connected to Wi-Fi access point.

**[Argument]**

modelName: Printer model name

**[Return value]**

Net printer list

4.1.2.16. [NetPrinter\[\]](#) getNetPrinters(String modelName[])

**[Interpretation]**

Returns the information of the listed printers connected to Wi-Fi access point.

**[Argument]**

modelName[]: A list of printer model name.

**[Return value]**

Net printer list

4.1.2.17. boolean setCustomPaper([Model](#) printerModel String filePath)

**[Interpretation]**

Passes a custom paper setting file to the library (only for RJ).

**[Argument]**

printerModel: Printer model.

filePath: Custom paper setting file path.

**[Return value]**

true: Success

false: Failed

4.1.2.18. [PrinterStatus](#) transfer(String filePath)

**[Interpretation]**

Transfers a template file (\*.pdz) to the printer via Bluetooth.

**[Argument]**

filePath: Template file path.

**[Return value]**

[Printer status](#)

**[Reference]**

[Processing Flow of Printing P-touch Template](#)

4.1.2.19. LabelParam getLabelParam()

**[Interpretation]**

Returns size information of TD and RJ roll.

Call it after setCustomPaper().

**[Argument]**



None

**[Return value]**

LabelParam

**[Reference]**

None

4.1.2.20. UsbDevice getUsbDevice(UsbManager usbManager)

**[Interpretation]**

Get a connected USB device.

**[Argument]**

usbManager: android.hardware.usb.UsbManager

**[Return value]**

UsbDevice: UsbDevice of Brother printer.

Null means no supported Brother printer is found.

**[Reference]**

None

4.1.2.21. boolean startCommunication()

**[Interpretation]**

Multiple printing or transferring starts. Must be used with endCommunication().

**[Argument]**

None

**[Return value]**

True is always returned.

**[Reference]**

[Processing Flow of Multiple Printing and Cancel](#)

4.1.2.22. boolean endCommunication()

**[Interpretation]**

Multiple printing or transferring ends. Must be used with startCommunication().

**[Argument]**

None

**[Return value]**

True is always returned.

**[Reference]**

[Processing Flow of Multiple Printing and Cancel](#)

4.1.2.23. boolean cancel()

**[Interpretation]**

Cancel printing which is invalid during sending data.

**[Argument]**

None

**[Return value]**

True is always returned.

**[Reference]**

[Processing Flow of Multiple Printing and Cancel](#)

## 4.2. com.brother.ptouch.sdk.PrinterInfo Class

### 4.2.1. Member Variable

Field		
Type	Variable Name	Detail
<a href="#">Model</a>	printerModel	Printer model
<a href="#">Port</a>	port	Interface
String	ipAddress	IP address (detail in <a href="#">4.2.2.3</a> )
String	macAddress	Mac address (detail in <a href="#">4.2.2.3</a> )
<a href="#">PaperSize</a>	paperSize	Paper size
int	numberOfCopies	Number of copies to print
<a href="#">Orientation</a>	orientation	Paper orientation of image printing
<a href="#">PrintMode</a>	printMode	Print mode of image printing
<a href="#">Halftone</a>	halftone	Method of changing monochrome
<a href="#">Align</a>	align	Horizontal alignment of image printing
<a href="#">VAlign</a>	valign	Vertical alignment of image printing
<a href="#">Margin</a>	margin	Margins of image printing
boolean	pjCarbon	Setting carbonpaper mode for Poket Jet printer true: carbon, false: not carbon
int	pjDensity	Setting density for Pocket Jet printer Set value: from 0 (light) to 10 (dark) Default value: 5
<a href="#">PjFeedmode</a>	pjFeedmode	Setting paper feed mode for Pocket Jet printer
int	customPaperWidth	Setting width of custom paper (Pocket Jet only) Set value: must be multiple of 8 Max: 2464dots Place to insert paper: by the farleft line of LTR
int	CustomPaperlength	Setting length of custom paper (Pocket Jet only) Max: 65535dots
int	customFeed	Setting length of feeding paper (Pocket Jet only) Max: 65535dots – print dots Minus will be ignored
int	rjDensity	Adjusting density for RJ/TD printer Set value: from -5(light) to 5 (dark)
boolean	rotate180	Rotate 180 degrees (TD only)
boolean	peelMode	Use label peeler (TD with label peeler only)

## 4.2.2. Details of Member Variable

### 4.2.2.1. Model

Printer Model

[Refer to 1.2.1. The list of supported model and interface about file printing.](#)

[Refer to 1.2.2. The list of supported model and interface about P-touch Template printing and transferring](#)

### 4.2.2.2. Port

Interface

[Refer to 1.2.1. The list of supported model and interface about file printing.](#)

[Refer to 1.2.2. The list of supported model and interface about P-touch Template printing and transferring](#)

### 4.2.2.3. How to set IP address and MAC address

<b>Print by Bluetooth (MW series, PJ series, RJ-4030)</b>	
Set MAC address	Search the printer which matches the Mac address from Bluetooth paired printer list to print. If there is no match printer, it results in error of no printer found. (MAC address must be set if print by PJ-500 series)
Do not set MAC address	Search the printer which firstly matches printer model from Bluetooth paired printer list to print. (It result in communication error if print by PJ-500 series)

<b>Print by Wi-Fi (RJ-4040)</b>	
Set both MAC address and IP address	Search the printer which matches both Mac address and IP address from printer list connected with Wi-Fi access point to print. If there is no match printer, it results in error of ERROR_NO_MATCH_ADDRESS.
Set IP address and do not set MAC address	Search the printer which matches IP address from printer list connected with Wi-Fi access point to print.
Set MAC address and do not set IP address	Search the printer which matches MAC address from printer list connected with Wi-Fi access point to print.
Do not set both MAC address and IP address	It results in error of ERROR_NO_ADDRESS.

Set address: set PrinterInfo.macAddress or PrinterInfo.ipAddress by address characters.

Do not set address: set PrinterInfo.macAddress or PrinterInfo.ipAddress by null characters.

#### 4.2.2.4. PaperSize

Paper size

<b>enum PaperSize</b>	
CUSTOM	CUSTOM
A7	A7
A6	A6
A4	A4
LETTER	Letter
LEGAL	Legal

#### 4.2.2.5. Orientation

Paper orientation of image printing

<b>enum Orientation</b>	
PORTRAIT	Portrait
LANDSCAPE	Landscape

※PDF print is invalid. It is automatically rotated for the right position and print.

#### 4.2.2.6. PrintMode

Print mode of image printing

enum PrintMode	
ORIGINAL	Dot by dot ※It may be able to insufficient memory error when the image size is large.
FIT_TO_PAGE	Fit to paper size ※It is automatically reduced the size of image when the image size is large.

#### 4.2.2.7. Halftone

Method of changing monochrome

enum Halftone	
THRESHOLD	Threshold
PATTERNDITHER	Pattern dither
ERRORDIFFUSION	Error diffusion

#### 4.2.2.8. Align

Horizontal alignment of image printing

enum Align	
LEFT	Aligns to the left
CENTER	Aligns to the center
RIGHT	Aligns to the right

※PDF print is invalid. It automatically fit to the paper, and prints it.

#### 4.2.2.9. VAlign

Vertical alignment of image printing

enum VAlign	
TOP	Aligns to the top
MIDDLE	Aligns to the center
BOTTOM	Aligns to the bottom

※PDF print is invalid. It automatically fit to the paper, and prints it.

#### 4.2.2.10. Margin

Margins of image printing

Field		
public int	left	Light margin (Unit of dot) ※Effective when <a href="#">Align</a> is only LEFT
public int	top	Top margin (Unit of dot) ※Effective when <a href="#">VAlign</a> is only TOP

※PDF print is invalid. It automatically fit to the paper, and prints it.

#### 4.2.2.11. PjFeedmode

Set paper feed mode

enum PjFeedmode	
PJ_FEED_MODE_FREE	No feed (Roll paper)
PJ_FEED_MODE_FIXEDPAGE	Fixed page size feed (Roll paper)
PJ_FEED_MODE_ENDOFPAGE	A page feed (Cut paper)
PJ_FEED_MODE_ENDOFPAGERETRACT	A page feed (Roll paper with mark)

#### 4.2.2.12. Error Code

enum ErrorCode	
ERROR_NONE	No errors
ERROR_NOT_SAME_MODEL	Error: Found a different type of printer
ERROR_BROTHER_PRINTER_NOT_FOUND	Error: Cannot find a Brother printer
ERROR_PAPER_EMPTY	Error: Paper empty
ERROR_BATTERY_EMPTY	Error: Battery weak
ERROR_COMMUNICATION_ERROR	Error: Failed to retrieve printer status
ERROR_OVERHEAT	Error: Overheat error
ERROR_PAPER_JAM	Error: Paper Jam
ERROR_HIGH_VOLTAGE_ADAPTER	Error: High-voltage adaptor
ERROR_CHANGE_CASSETTE	Error: Cassette-change during printing
ERROR_FEED_OR_CASSETTE_EMPTY	Error: Feed error or paper empty
ERROR_SYSTEM_ERROR	Error: System error
ERROR_NO_CASSETTE	Error: No paper-cassette
ERROR_WRONG_CASSETTE_DIRECT	Error: Wrong paper-cassette direction
ERROR_CREATE_SOCKET_FAILED	Error: Failed to create socket

ERROR_CONNECT_SOCKET_FAILED	Error: Failed to connect ※1
ERROR_GET_OUTPUT_STREAM_FAILED	Error: Failed to retrieve output stream
ERROR_GET_INPUT_STREAM_FAILED	Error: Failed to retrieve input stream
ERROR_CLOSE_SOCKET_FAILED	Error: Failed to close socket
ERROR_OUT_OF_MEMORY	Error: Insufficient memory ※2
ERROR_SET_OVER_MARGIN	Error: Over set margin ※3
ERROR_NO_SD_CARD	Error: No SD card
ERROR_FILE_NOT_SUPPORTED	Error: Non supported file
ERROR_EVALUATION_TIMEUP	Error: Expired trial period for PDF printing
ERROR_WRONG_CUSTOM_INFO	Error: Wrong information in custom paper setting file
ERROR_NO_ADDRESS	Error: not set IP and MAC address
ERROR_NO_MATCH_ADDRESS	Error: IP and Mac address is not match for selected printer
ERROR_FILE_NOT_FOUND	Error: File do not exist
ERROR_TEMPLATE_FILE_NOT_MATCH_MODEL	Error: Template file is not a match for selected printer
ERROR_TEMPLATE_NOT_TRANS_MODEL	Error: Selected printer model do not support Template print
ERROR_COVER_OPEN	Error: The cover is open (RJ)
ERROR_WRONG_LABEL	Error: Wrong roll
ERROR_PORT_NOT_SUPPORTED	Error: Unsupported interface
ERROR_WRONG_TEMPLATE_KEY	Error: No file specified by the template key exists
ERROR_CANCEL	Error: printing is cancelled

※1 It may be able to resolve when you set disable PIN code for MW-140BT and MW-260.

※2 Image size as a small when printing image.

※3 Change margin set value as a small or image size as a small.



#### 4.2.2.13. Msg

##### Message

This library sends following message when performing print process.

Please use the following messages as necessary if you want to display progress situation and so on.

(It is not a problem whether you use the following messages or not.)

enum Msg	
MESSAGE_START_COMMUNICATION	Communication start
MESSAGE_START_CONNECT	Start connecting socket
MESSAGE_END_CONNECTED	Success socket connection
MESSAGE_START_GET_OUTPUT_STREAM	Start retrieving output stream
MESSAGE_END_GET_OUTPUT_STREAM	Finish retrieving output stream
MESSAGE_START_GET_INPUT_STREAM	Start retrieving input stream
MESSAGE_END_GET_INPUT_STREAM	Finish retrieving input stream
MESSAGE_START_SEND_STATUS_REQUEST	Start transmitting status request
MESSAGE_END_SEND_STATUS_REQUEST	Finish transmitting status request
MESSAGE_START_READ_PRINTER_STATUS	Start receiving printer status
MESSAGE_END_READ_PRINTER_STATUS	Finish receiving printer status
MESSAGE_START_CREATE_DATA	Start creating data
MESSAGE_END_CREATE_DATA	Finish creating data
MESSAGE_START_SEND_DATA	Start transmitting data
MESSAGE_END_SEND_DATA	Finish transmitting data
MESSAGE_START_SEND_TEMPLATE	Start transmitting template file
MESSAGE_END_SEND_TEMPLATE	Finish transmitting template file
MESSAGE_START_SOCKET_CLOSE	Start cutting off socket
MESSAGE_END_SOCKET_CLOSE	Finish cutting off socket
MESSAGE_PRINT_COMPLETE	Print success
MESSAGE_PRINT_ERROR	An error occurred
MESSAGE_PAPER_EMPTY	Paper empty
MESSAGE_END_COMMUNICATION	Communication finish
MESSAGE_START_COOLING	Cooling start
MESSAGE_END_COOLING	Cooling end
MESSAGE_WAIT_PEEL	Wait for peeling label

※For more details, please refer to source code of sample application.

### 4.3. com.brother.ptouch.sdk.PrinterStatus Class

Fields		
Type	Variable Name	Detail
<a href="#">ErrorCode</a>	errorCode	Error code
int	batteryLevel	<a href="#">Battery level</a>

#### 4.3.1. Battery Level

Printer	Detail
MW-140BT	-1: Not supported, -1 is always returned.
MW-260	-1: Failed to retrieve battery level 0 (empty) ~ 100 (full)
MW-145BT	-1: Failed to retrieve battery level 1: Battery weak 2: Battery middle 3: Battery full
PJ-662 PJ-663	-1: Failed to retrieve battery level 0: Full charge by lithium-ion battery or connecting AC adapter 1: Battery weak 2: Battery middle 3: Battery full
RJ-4030 RJ-4040 TD-2120N TD-2130N	-1: Failed to retrieve battery level 4: AC adapter 3: need charge 2: Battery weak 1: Battery middle 0: Battery full

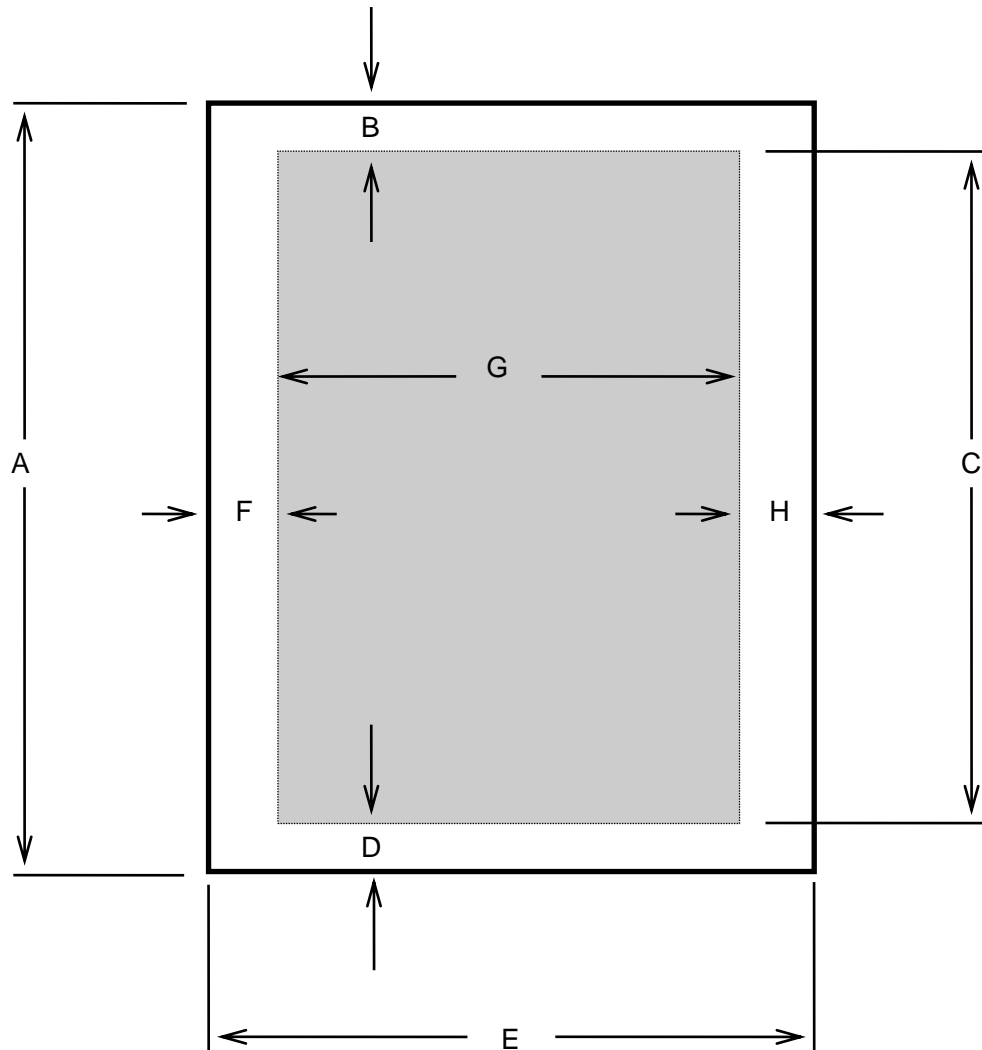
#### 4.4. com.brother.ptouch.sdk.NetPrinter Class

Fields		
Type	Variable Name	Detail
String	modelName	Model name
String	serNo	Serial number
String	ipAddress	IP address
String	macAddress	MAC address
String	nodeName	Node name

#### 4.5. com.brother.ptouch.sdk.LabelParam Class

Fields		
Type	Variable Name	Detail
int	labelWidth	Width of label (mm)
int	labelLength	Length of label (mm)
int	imageAreaWidth	Width of printable area (dot)
int	imageAreaLength	Length of printable area (dot)
	others	Unsupported

## 5.Paper Size



A: Length

C: Length of printable area

E: Width

G: Width of printable area

B: Top margin

D: Bottom Margin

F: Left margin

H: Right margin

## 5.1. PJ Series

### 5.1.1. PJ-663, PJ-560, PJ-563 (300dpi model)

Paper	A	B	C	D	E	F	G	H
A4	297.0 mm 3507 dots	PJ-500 6.8 mm 80 dots PJ-600 2.5 mm 30 dots	279.4 mm 3300 dots	PJ-500 10.8 mm 127 dots PJ-600 15 mm 177 dots	210.0 mm 2480 dots	3.4 mm 40 dots	203.2 mm 2400 dots	3.4 mm 40 dots
Legal	355.6 mm 4200 dots	PJ-500 6.8 mm 80 dots PJ-600 2.5 mm 30 dots	347.1 mm 4100 dots	PJ-500 1.7 mm 20 dots PJ-600 5.9 mm 70 dots	215.9 mm 2550 dots	3.6 mm 43 dots	208.6 mm 2464 dots	3.6 mm 43 dots
Letter	279.4 mm 3300 dots	PJ-500 6.8 mm 80 dots PJ-600 2.5 mm 30 dots	270.9 mm 3200 dots	PJ-500 1.7 mm 20 dots PJ-600 5.9 mm 70 dots	215.9 mm 2550 dots	3.6 mm 43 dots	208.6 mm 2464 dots	3.6 mm 43 dots

### 5.1.2. PJ-662, PJ-562 (200dpi model)

Paper	A	B	C	D	E	F	G	H
A4	297.0 mm 2338 dots	PJ-500 6.8 mm 54 dots PJ-600 2.5 mm 20 dots	279.4 mm 2200 dots	PJ-500 10.8 mm 84 dots PJ-600 15.0 mm 118 dots	210.0 mm 1654 dots	5.0 mm 40 dots	200 mm 1600 dots	5.0 mm 40 dots
Legal	355.6 mm 2800 dots	PJ-500 6.8 mm 54 dots PJ-600 2.5 mm 20 dots	347.1 mm 2733 dots	PJ-500 1.7 mm 13 dots PJ-600 6.0 mm 47 dots	215.9 mm 1727 dots	6.0 mm 48 dots	204 mm 1632 dots	6.0 mm 48 dots
Letter	279.4 mm 2200 dots	PJ-500 6.8 mm 54 dots PJ-600 2.5 mm 20 dots	270.9 mm 2133 dots	PJ-500 1.7 mm 13 dots PJ-600 6.0 mm 47 dots	215.9 mm 1727 dots	6.0 mm 48 dots	204 mm 1632 dots	6.0 mm 48 dots

## 5.2. MW Series

### 5.2.1. MW-260

Paper	A	B	C	D	E	F	G	H
A6	148 mm 1748 dots	3.75 mm 44 dots	140.5 mm 1660 dots	3.75 mm 44 dots	105 mm 1240 dots	3.75 mm 44 dots	97.5 mm 1152 dots	3.75 mm 44 dots

### 5.2.2. MW-140BT, MW-145BT

Paper	A	B	C	D	E	F	G	H
A7	105 mm 1240 dots	2.5 mm 30 dots	99.9 mm 1180 dots	2.5 mm 30 dots	74 mm 874 dots	2.5 mm 29 dots	69.1 mm 816 dots	2.5 mm 29 dots

## 6. Sample application

### 6.1. Brother Print SDK Demo

#### 6.1.1. Outline

Application: Brother Print SDK Demo

Content:

- Image (jpg, bmp, png) and prn file print
- PDF print
- P-touch template command print
- Template file (\*.pdz, \*.blf) transfer

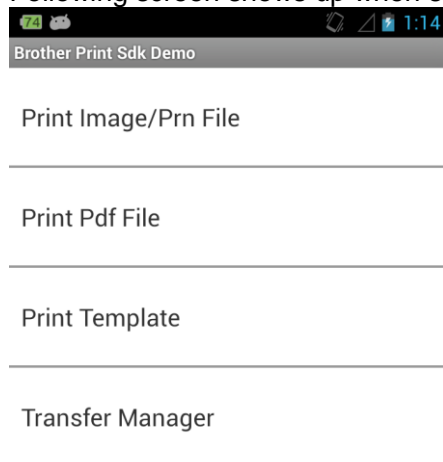
Environment:

- Android OS 2.2 or later (Android OS 3.1 or later for USB)
- SD card
- [About supported model and interface refer to 1.2.1 and 1.2.2.](#)

#### 6.1.2. Usage

##### 6.1.2.1. Start Up Application

Following screen shows up when starting up application.



Print Image/Prn File: Print image file (jpg, bmp, png) and prn file (output file by PC driver).

Print Pdf File: Print pdf file.

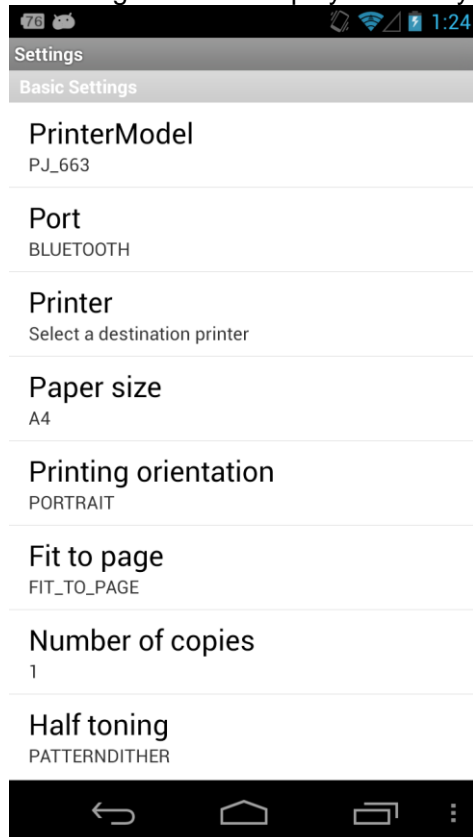
Print Template: Print by P-touch Template command.

Transfer Manager: Transfer template file (\*.pdz, \*.blf).

Close the application when you tap [Back] button on the device.

### 6.1.2.2. Printer Setting

Following screen is displayed when you tap [Printer Settings] button in the menu.



#### 【Description】

Basic Settings

Printer Model: Select printer model (Select paired printer)

Port: BLUETOOTH, NET, USB

Printer: Select printer from printers paired with Bluetooth or printers connected with Wi-Fi access point

Paper Size: A4, A6, A7, CUSTOM(RJ)are automatically selected. Letter, Legal, CUSTOM(PJ) select by yourself.

Paper Orientation: Vertical, Horizontal

Print Size: Fit with original size and paper

(It is impossible to print if the image size is over print area.)

Number of copies: Number of copies

Halftone: Threshold, Pattern dither, Error diffusion

Horizontal Alignment: Align to the left, right and center

#### Other Settings

IP address (auto set when you select printer)

MAC address (auto set when you select printer)

Left margin value: Left margin

Vertical Alignment: Align to the left, right and center

Top Margin value: Top margin

Carbon: Carbon paper or not (PJ only)

PJ Density: from 0 to 10 (PJ only)

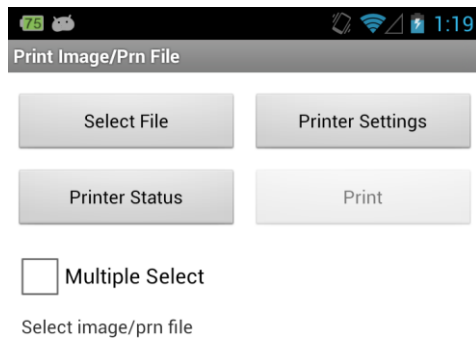
Feed mode: Select the type of paper for feeding mode after a page of print (PJ only)



Custom Paper Width (PJ only)  
Custom Paper Length (PJ only)  
Feed Paper Setting (PJ only)  
RJ and TD Custom Setting: Select RJ and TD custom paper setting file.  
**Restriction:** Refer to [6.3 How to add custom paper setting files](#).  
RJ and TD Density: from -5 to 5  
Rotate 180: Print by 180 degree rotated (TD only)  
PeelMode: Set peeler (TD only)

Return to the main screen when you tap [Back] button on device after finish setting.

### 6.1.2.3. Print Image/Prn File



Multiple Select: Check it when print several files at a time (also clear selected files by checking or unchecking).

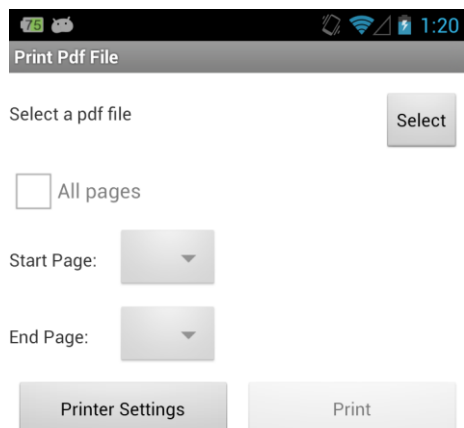
Select File: Select files in SD card.

Printer Settings: Select printer and set printing information.

Printer Status: Get printer status.

Print: Printing start.

#### 6.1.2.4. Print Pdf File



Select File: Select files in SD card.

All pages: Check it when print all pages in the PDF file.

Start Page: Specify the first print page number.

End Page: Specify the last print page number.

Printer Settings: Select printer and set printing information.

Print: Printing start.

### 6.1.2.5. Print Template

Print Template

Template Key: 1 Encoding: ENG

Text  Index  ObjectName

Replace Texts:

Text:

Add Delete Next Template

Input Data:

Printer Settings Print



Template Key: File key number which saved in printer.  
Encoding: Select character code in printer (English, Japanese, Chinese).  
Text: Replace text in template by index order  
Index: Replace text in template by index number of Text object.  
ObjectName: Replace text in template by object name.

Text: The content to replace by

Add: Add a line of template command of Text, Index or ObjectName.

Delete: Delete a line of template command.

Next Template: Add a next new page.

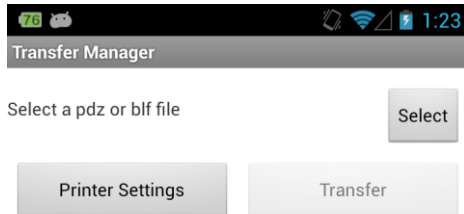
Printer Settings: Select printer and set printing information.

Print: Printing start.

Template file is necessary to save the printer previously.

For saving method, please refer to [3.5. About P-touch Template Print.](#)

#### 6.1.2.6. Transfer Manager



Select File: Select files in SD card.

Printer Settings: Select printer and set printing information.

Transfer: Transferring start. The pdz file is for USB and Bluetooth, and the blf file is for Wi-Fi.

## 6.2. How to add custom paper setting files

Put the custom paper setting files (made by Custom Label Tool on Windows PC) in "customPaperFileSet" folder in the root folder of SD memory card.

## 7. Others

### 7.1. Deal with unstable connection for Bluetooth

[Bluetooth] check box to be OFF at Bluetooth setting screen, and then ON again.  
Return to the main screen to press [Back] button, and restart application  
ON/OFF printer power.