

Android Module Program Manual

ZPL Printer

Mobile Printer

Rev. 1.092

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2. Method.

1. Instruction

This Android Module Program Manual describes the method which is exposed from Jar package file needed in developing Android Mobile application.

2. Method.

Defined in the ZPLPrinter Class. Constant variable are defined in ZPLConst Interface.

2.1 ZPLPrinter

This is Constructor method. ZPLPrinter object select a character set using for parameter.

If do not use a parameter, default character set is ISO-8859-1.

ZPLPrinter() , ZPLPrinter(String charset) ,

ZPLPrinter(DeviceConnection connection) ,

ZPLPrinter(String charset, DeviceConnection connection)

[Parameter]

* charset

- Character set name.

* connection

- Device connection. (USBPortConnection, WiFiMultiConnection)

2.2 setCharSet

set a character set using for parameter.

If do not use a parameter, default character set is ISO-8859-1.

setCharSet(String charset) ,

[Parameter]

* charset

- Character set name.

2.3 setInternationalFont

Set a international character sets using for parameter.

setInternationalFont(int internationalFont) ,

[Parameter]

* internationalFont

- Set the international character sets.

2.4 SetupPrinter

This function is used for defining paper form.

void setupPrinter(char orientation, char mTrack, int width, int height)

[Parameter]

* orientation (Print Orientation)

| Variable | Description |
|--------------|---|
| ROTATION_0 | Print text with no rotation. |
| ROTATION_90 | Print text with 90 rotation.(counterclockwise) |
| ROTATION_180 | Print text with 180 rotation.(counterclockwise) |
| ROTATION_270 | Print text with 270 rotation.(counterclockwise) |

* mTrack (Media Tracking)

| Variable | Description |
|------------------|--|
| SENSE_CONTINUOUS | Continuous media. |
| SENSE_GAP | Non continuous media web sensing. (Gap) |
| SENSE_WEB | Non continuous media mark sensing. (Blackmark) |

* width , height

Page width and height. (Dots)

2.5 SetSpeed

This method is used for adjust print speed.

void setSpeed(String speed)

[Parameter]

* speed [2-12]

- Print speed.

2.6 SetDarkness

This method is used for adjust print contrast.

void setDarkness(String darkness)

[Parameter]

* darkness [00-30]

- Density of printer.

2.7 StartPage

Define Start page. This method is used at the beginning of page.

void startPage()

2.8 EndPage

Define End page. This method is used at the end of page.

```
void endPage(int quantity)
```

[Parameter]

- * quantity
 - Number of pages.

2.9 PrintText

This method is used for printing text.

```
void printText(char deviceFont,char orientation,int height,int width,int x,int y,String data)
```

[Parameter]

- * deviceFont
 - Device font in printer [FONT_A ~ FONT_H]

- * orientation

| Variable | Description |
|--------------|---|
| ROTATION_0 | Print text with no rotation. |
| ROTATION_90 | Print text with 90 rotation.(counterclockwise) |
| ROTATION_180 | Print text with 180 rotation.(counterclockwise) |
| ROTATION_270 | Print text with 270 rotation.(counterclockwise) |

- * height, width
 - Set the height and width of text (Dots)

- * x , y
 - Set the x, y coordination of printing position.

- * data
 - Set the data of string to print.

2.10 PrintImage

Print Image.

```
void printImage(String filename, int x, int y)
```

[Parameter]

- * filename

- Set the path of image file.

* x,y

- Set the x, y coordination of printing position.

2.11 PrintCircle

Draw the circle.

```
void printCircle(int x,int y,int diameter,int thickness,char lineColor)
```

[Parameter]

* x, y

- Set the x, y coordination of printing position [Dots].

* diameter

- Set the diameter.

* thickness

- Set the thickness of line.

* lineColor

- Set the color of line [B(Black), W(White)]

2.12 PrintDiagonalLine

```
void printDiagonalLine(int x,int y,int width, int height, int thickness, char lineColor, char direction)
```

[Parameter]

* x,y

- Set the x, y coordination of diagonal line position [Dots].

* width, height

- Set the width and height of diagonal line (Dots)

* thickness

- Set the thickness of line [1-32000]

* lineColor

- Set the color of line [B(Black) , W(White)]

* direction

- Set the direction of line [R(Right-Upper), L(Left-Upper)]

2.13 PrintEllipse

Print ellipse.

```
void printEllipse(int x,int y,int width,int height,int thickness,char lineColor)
```

[Parameter]

* x,y

- Set the x, y coordination of ellipse position [Dots].

* width, height

- Set the width and height of ellipse [Dots].

* thickness

- Set the thickness of line [2-4095]

* lineColor

- Set the color of line [B(Black) , W(White)]

2.14 PrintRectangle

Print rectangle

```
void printRectangle(int x,int y,int width,int height,int thickness,char lineColor,int rounding)
```

[Parameter]

* x,y

- Set the x, y coordination of rectangle position [Dots].

* width, height

- Set the width and height of rectangle (Dots)

* thickness

- Set the thickness of line [1-32000]

* lineColor

- Set the color of line [B(Black) , W(White)]

* rounding

- Set the level of rounding [0-8]

2.15 PrintBarcode

Print barcode.

```
void printBarcode(String barcodeType, ArrayList<String> barcodeProp,int x,int y,String data)
```

[Parameter]

* barcodeType

| Variable | Description |
|--------------------------|--------------------|
| BARCODE_Code11 | Code 11 |
| BARCODE_Interleaved_2OF5 | Interleaved 2 of 5 |
| BARCODE_Code39 | Code 39 |
| BARCODE_Code49 | Code 49 |
| BARCODE_PlanetCode | Planet Code |
| BARCODE_PDF417 | PDF 417 |
| BARCODE_EAN8 | EAN 8 |
| BARCODE_UPCE | UPC E |
| BARCODE_Code93 | Code 93 |
| BARCODE_CODABLOCK | CODA BLOCK |
| BARCODE_Code128 | Code 128 |
| BARCODE_UPSMAXICODE | UPS MAXICODE |
| BARCODE_EAN13 | EAN 13 |
| BARCODE_MicroPDF417 | Micro PDF |
| BARCODE_Industrial_2OF5 | Industrial 2 of 5 |
| BARCODE_Standard_2OF5 | Standard 2 of 5 |
| BARCODE_Codabar | Codabar |
| BARCODE_LOGMARS | LogMARS |
| BARCODE_MSI | MSI |
| BARCODE_Aztec | Aztec |
| BARCODE_Plessey | Plessey |
| BARCODE_QRCode | QR Code |
| BARCODE_RSS | RSS |
| BARCODE_UPCEANEXT | UPC EAN Ext |
| BARCODE_TLC39 | TLC 39 |
| BARCODE_UPCA | UPC A |
| BARCODE_DataMatrix | Data Matrix |
| BARCODE_POSTNET | POSTNET |

* barcodeProp

- Set the barcode properties. See the SetBarcodeFiled() function.
- Reference to ZPL Command.

* x, y

- Set the x, y coordination of barcode position [Dots].

* data

- Set the barcode data to print.

2.16 SetBarcodeField

Set the barcode properties.

```
void setBarcodeField(ArrayList<String> barcodeProp)
```

[Parameter]

* barcodeProp

Input below order in ArrayList.

- moduleWidth [1-10] (Dots)
- wide bar to narrow bar width ratio [2.0 - 3.0 (in 0.1 increments)]
- barcode height [10 ~] (Dots)

2.17 PrintPDF417

Print the PDF417 barcode.

```
void printPDF417(int x,int y,char orientation,int security,int numOfColumn, int numOfRow, char truncate, String data)
```

[Parameter]

* x,y

- Set the x, y coordination of pdf417 barcode position [Dots].

* orientation

| Variable | Description |
|--------------|---|
| ROTATION_0 | Print text with no rotation. |
| ROTATION_90 | Print text with 90 rotation.(counterclockwise) |
| ROTATION_180 | Print text with 180 rotation.(counterclockwise) |
| ROTATION_270 | Print text with 270 rotation.(counterclockwise) |

* security [1-8]

- Security level (error detection and correction).

* numOfColumn [1-30]

- Number of data columns to encode.

* numOfRow [3-90]

- Number of data rows to encode.

* truncate [Y, N]

- Truncate right row indicators and stop pattern.

* data

- Set the pdf417 barcode data to print.

2.18 PrintDataMatrix

Print the DataMatrix barcode.

void printDataMatrix(int x,int y,char orientation,int quality,int columns, int rows, String data)

[Parameter]

* x, y

- Set the x, y coordination of datamatrix barcode position [Dots].

* orientation

| Variable | Description |
|--------------|---|
| ROTATION_0 | Print text with no rotation. |
| ROTATION_90 | Print text with 90 rotation.(counterclockwise) |
| ROTATION_180 | Print text with 180 rotation.(counterclockwise) |
| ROTATION_270 | Print text with 270 rotation.(counterclockwise) |

* quality [0, 50, 80, 100, 140, 200]

- Quality Level

* columns [9-49]

- Columns to encode (odd value(Quality 0-140), even value (quality 200))

* rows [9-49]

- rows to encode (odd value(Quality 0-140), even value (quality 200))

* data

- Set the datamatrix barcode data to print.

2.19 PrintQRCode

Print the QR Code barcode.

void printQRCode(int x,int y,int model,int magfactor,char ECL,String data)

[Parameter]

* x, y

- Set the x, y coordination of QR Code barcode position [Dots].

* model

- 1 (original) , 2 (enhanced - recommended)

- * magfactor [1-10]
 - magnification factor
- * ECL [H,Q,M,L]
 - Error Correct Level
- * data
 - Set the QR Code barcode data to print.

2.20 directCommand

Send ZPL command to printer directly.

void directCommand(String command)

[Parameter]

- * command
 - Set the ZPL command to send.

2.21 printAndroidFont ← Added in 1.085

This function is used for android embedded font printing with alignment.

void PrintAndroidFont(String textString, int widthDots, int textSize, int printY, int alignment)

void PrintAndroidFont(Typeface typeface, String textString, int widthDots, int textSize, int printY,
int alignment)

void PrintAndroidFont(Typeface typeface, Boolean isBold, String textString, int widthDots,
int textSize, int printY, int alignment)

void PrintAndroidFont(Typeface typeface, Boolean isBold, Boolean isItalic, String textString,
int widthDots, int textSize, int printY, int alignment)

void PrintAndroidFont(Typeface typeface, Boolean isBold, Boolean isItalic, boolean isUnderline,
String textString, int widthDots, int textSize, int printY, int alignment)

[Parameter]

- * textString
 - Unicode which has a null-terminated string. It receives text to print as a factor.
- * widthDots
 - It receives the printing width value of the text to print as a factor. (Unit is dot)
- * textSize
 - It receives the font size value of the text to print as a factor. (Unit is point)
- * printY
 - Set the start y coordination of font position. (Unit is dot)
- * Alignment

- This value is alignment.

| Variable | Description |
|---------------|------------------|
| LK_ZPL_LEFT | Left alignment |
| LK_ZPL_CENTER | Center alignment |
| LK_ZPL_RIGHT | Right alignment |

* typeface

- It receives the typeface of the android's font as a factor.

| Variable | Description |
|------------|-----------------|
| SANS_SERIF | SANS_SERIF font |
| SERIF | SERIF font |
| MONOSPACE | MONOSPACE font |

* isBold

- It receives the bold of the android's font as a factor.

* isItalic

- It receives the italic of the android's font as a factor.

* isUnderline

- It receives the underline of the android's font as a factor.

2.22 printAndroidFont ← Added in 1.085

This function is used for android embedded font printing with x, y coordination.

```
void PrintAndroidFont(int printX, int printY, String textString, int widthDots, int textSize)
```

```
void PrintAndroidFont(int printX, int printY, Typeface typeface, String textString, int widthDots, int textSize)
```

```
void PrintAndroidFont(int printX, int printY, Typeface typeface, Boolean isBold, String textString, int widthDots, int textSize)
```

```
void PrintAndroidFont(int printX, int printY, Typeface typeface, Boolean isBold, Boolean isItalic, String textString, int widthDots, int textSize)
```

```
void PrintAndroidFont(int printX, int printY, Typeface typeface, Boolean isBold, Boolean isItalic, boolean isUnderline, String textString, int widthDots, int textSize)
```

[Parameter]

* printX, printY

- Set the start x, y coordination of font position. (Unit is dot)

* textString

- Unicode which has a null-terminated string. It receives text to print as a factor.

* widthDots

- It receives the printing width value of the text to print as a factor. (Unit is dot)

* textSize

- It receives the font size value of the text to print as a factor. (Unit is point)

* typeface

- It receives the typeface of the android's font as a factor.

| Variable | Description |
|------------|-----------------|
| SANS_SERIF | SANS_SERIF font |
| SERIF | SERIF font |
| MONOSPACE | MONOSPACE font |

* isBold

- It receives the bold of the android's font as a factor.

* isItalic

- It receives the italic of the android's font as a factor.

* isUnderline

- It receives the underline of the android's font as a factor.