

Android Module Program Manual

ZPL Printer

Mobile Printer

Rev. 1.094

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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
CMP_ROTATION_0	Print text with no rotation.
CMP_ROTATION_90	Print text with 90 rotation.(counterclockwise)
CMP_ROTATION_180	Print text with 180 rotation.(counterclockwise)
CMP_ROTATION_270	Print text with 270 rotation.(counterclockwise)

* mTrack (Media Tracking)

Variable	Description
CMP_SENSE_CONTINUOUS	Continuous media.
CMP_SENSE_GAP	Non continuous media web sensing. (Gap)
CMP_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 [CMP_FONT_A ~ CMP_FONT_H]

- * orientation

Variable	Description
CMP_ROTATION_0	Print text with no rotation.
CMP_ROTATION_90	Print text with 90 rotation.(counterclockwise)
CMP_ROTATION_180	Print text with 180 rotation.(counterclockwise)
CMP_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)
```

```
void printImage(Bitmap bitmap, int x, int y)
```

[Parameter]

* filename

- Set the path of image file.

* bitmap

- Set the object of image.

* 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 [CMP_LINE_COLOR_B(Black), CMP_LINE_COLOR_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 [CMP_LINE_COLOR_B(Black) , CMP_LINE_COLOR_W(White)]

* direction

- Set the direction of line

[CMP_DIAGONAL_R(Right-Upper), CMP_DIAGONAL_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 [CMP_LINE_COLOR_B(Black) , CMP_LINE_COLOR_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 [CMP_LINE_COLOR_B(Black) , CMP_LINE_COLOR_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
CMP_BARCODE_Code11	Code 11
CMP_BARCODE_Interleaved_2OF5	Interleaved 2 of 5
CMP_BARCODE_Code39	Code 39
CMP_BARCODE_Code49	Code 49
CMP_BARCODE_PlanetCode	Planet Code
CMP_BARCODE_PDF417	PDF 417
CMP_BARCODE_EAN8	EAN 8
CMP_BARCODE_UPCE	UPC E
CMP_BARCODE_Code93	Code 93
CMP_BARCODE_CODABLOCK	CODA BLOCK
CMP_BARCODE_Code128	Code 128
CMP_BARCODE_UPSMAXICODE	UPS MAXICODE
CMP_BARCODE_EAN13	EAN 13
CMP_BARCODE_MicroPDF417	Micro PDF
CMP_BARCODE_Industrial_2OF5	Industrial 2 of 5
CMP_BARCODE_Standard_2OF5	Standard 2 of 5
CMP_BARCODE_Codabar	Codabar
CMP_BARCODE_LOGMARS	LogMARS
CMP_BARCODE_MSI	MSI
CMP_BARCODE_Aztec	Aztec
CMP_BARCODE_Plessey	Plessey
CMP_BARCODE_QRCode	QR Code
CMP_BARCODE_RSS	RSS
CMP_BARCODE_UPCEANEXT	UPC EAN Ext
CMP_BARCODE_TLC39	TLC 39
CMP_BARCODE_UPCA	UPC A
CMP_BARCODE_DataMatrix	Data Matrix
CMP_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
CMP_ROTATION_0	Print text with no rotation.
CMP_ROTATION_90	Print text with 90 rotation.(counterclockwise)
CMP_ROTATION_180	Print text with 180 rotation.(counterclockwise)
CMP_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 cellSize, String data)
```

```
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
CMP_ROTATION_0	Print text with no rotation.
CMP_ROTATION_90	Print text with 90 rotation.(counterclockwise)
CMP_ROTATION_180	Print text with 180 rotation.(counterclockwise)
CMP_ROTATION_270	Print text with 270 rotation.(counterclockwise)

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

- Quality Level

* cellSize[2-20]

- Set the cell size

* 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

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

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

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

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

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

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

* Alignment

- This value is alignment.

Variable	Description
CMP_ZPL_LEFT	Left alignment
CMP_ZPL_CENTER	Center alignment
CMP_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

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.

2.23 downloadGraphic

This function is used for downloading the graphic.

void downloadGraphic(String filename, String imageSavedName)

[Parameter]

* filename

- Set the path of image file.

* imageSavedName

- Set the name of saved image in printer's flash memory. [1 to 8 alphanumeric characters]

2.24 printGraphic

This function is used for print the saved image with x, y coordination.

void printGraphic(String imageSavedName, int x, int y, int xMagnification, int yMagnification)

[Parameter]

* imageSavedName

- Set the name of saved image in printer's flash memory. [1 to 8 alphanumeric characters]

* x, y

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

* xMagnification, yMagnification

- Set the magnification factor on the x and y – axis. [1 to 10]

2.25 deleteGraphic

This function is used for delete the saved image.

void deleteGraphic(String imageSavedName)

[Parameter]

* imageSavedName

- Set the name of saved image in printer's flash memory. [1 to 8 alphanumeric characters]