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iOS Module Program Manual

# ZPL Printer

Mobile Printer

Rev. 1.78b

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## 1. Instruction

This iOS Module Program Manual describes the method which is exposed from Library and Header file needed in developing iOS Mobile application.

The library contains bitcode.

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## 2. Method.

Defined in the ZPLPrinter Class.

### 2.1 OpenPort

Connect a Printer.

- (long) openPort:(NSString\*)portName withPortParam:(int) port

[Parameter]

- portName : IP Address or “**bluetooth**” to using for Bluetooth.

- port : Port Numer (Default 9100)

[Return value]

0                      Connection established.

-1 , -2                Connection failed

-3                      Invalid device

### 2.2 ClosePort

Disconnect a Printer.

- (long) closePort

[Return value]

0              Success

-1              Failure

### 2.3 setInternationalFont

Set a international character sets using for parameter.

- (long) setInternationalFont:(int) internationalFont

[Parameter]

\* internationalFont

- Set the international character sets.

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## 2.4 SetupPrinter

This function is used for defining paper form.

- (long) setupPrinter:(NSString \*) orientation withmTrack:(NSString \*) mTrack  
withWidth:(int) width withHeight:(int) height

[Parameter]

\* orientation (Print Orientation)

Variable	Description
ZPL_ROTATION_0	Print text with no rotation.
ZPL_ROTATION_90	Print text with 90 rotation.(counterclockwise)
ZPL_ROTATION_180	Print text with 180 rotation.(counterclockwise)
ZPL_ROTATION_270	Print text with 270 rotation.(counterclockwise)

\* mTrack (Media Tracking)

Variable	Description
ZPL_SENSE_CONTINUOUS	Continuous media.
ZPL_SENSE_GAP	Non continuous media web sensing. (Gap)
ZPL_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.

- (long) setSpeed:(int) speed

[Parameter]

\* speed [2-12]

- Print speed.

## 2.6 SetDarkness

This method is used for adjust print contrast.

- (long) setDarkness:(int) darkness

[Parameter]

\* darkness [00-30]

- Density of printer.

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## 2.7 StartPage

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

- (long) startPage

## 2.8 EndPage

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

- (long) endPage:(int) quantity

[Parameter]

\* quantity

- Number of pages.

## 2.9 PrintText

This method is used for printing text.

- (long) printText:(NSString \*) deviceFont withOrientation:(NSString \*) orientation  
withWidth:(int) width withHeight:(int) height withPrintX:(int) printX  
withPrintY:(int) printY withData:(NSString \*) data

[Parameter]

\* deviceFont

- Device font in printer [ FONT\_A ~ FONT\_H ]

\* orientation

Variable	Description
ZPL_ROTATION_0	Print text with no rotation.
ZPL_ROTATION_90	Print text with 90 rotation.(counterclockwise)
ZPL_ROTATION_180	Print text with 180 rotation.(counterclockwise)
ZPL_ROTATION_270	Print text with 270 rotation.(counterclockwise)

\* height, width

- Set the height and width of text (Dots)

\* printX, printY

- Set the x, y coordination of printing position.

\* data

- Set the data of string to print.

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## 2.10 PrintImage

Print Image.

- (long) printImage:(NSString \*) filePath withPrintX:(int) printX withPrintY:(int) printY  
withBrightness:(int) bright

[Parameter]

\* filename

- Set the path of image file.

\* printX, printY

- Set the x, y coordination of printing position.

\* bright

- Set the brightness [ 0 ~ 10 ].

## 2.11 PrintCircle

Draw the circle.

- (long) printCircle:(int) printX withPrintY:(int) printY withWidth:(int) width  
withDiameter:(int) diameter withThickness:(int) thickness  
withLineColor:(NSString \*) lineColor

[Parameter]

\* printX, printY

- 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

Draw the diagonal line.

- (long) printDiagonalLine:(int) printX withPrintY:(int) printY withWidth:(int) width  
withHeight:(int) height withThickness:(int) thickness  
withLineColor:(NSString \*) lineColor withDirection:(NSString \*) direction

[Parameter]

- 
- \* printX, printY
    - 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.

- (long) printEllipse:(int) printX withPrintY:(int) printY withWidth:(int) width withHeight:(int) height  
withThickness:(int) thickness withLineColor:(NSString \*) lineColor;

[Parameter]

- \* printX, printY
  - 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

- (long) printRectangle:(int) printX withPrintY:(int) printY withWidth:(int) width  
withHeight:(int) height withThickness:(int) thickness  
withLineColor:(NSString \*) lineColor withRounding:(NSString \*) rounding

[Parameter]

- \* printX, printY
  - Set the x, y coordination of rectangle position [Dots].
- \* width, height
  - Set the width and height of rectangle (Dots)



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\* 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.

- (long) printBarcode:(NSString \*) barcodeType withBarcodeProp:(NSString \*) barcodeProp  
withPrintX:(int) printX withPrintY:(int) printY withData:(NSString \*) data

[Parameter]

\* barcodeType

Variable	Description
ZPL_BCS_Code11	Code 11
ZPL_BCS_Interleaved_2OF5	Interleaved 2 of 5
ZPL_BCS_Code39	Code 39
ZPL_BCS_Code49	Code 49
ZPL_BCS_PlanetCode	Planet Code
ZPL_BCS_PDF417	PDF 417
ZPL_BCS_EAN8	EAN 8
ZPL_BCS_UPCE	UPC E
ZPL_BCS_Code93	Code 93
ZPL_BCS_CODABLOCK	CODA BLOCK
ZPL_BCS_Code128	Code 128
ZPL_BCS_UPSMAXICODE	UPS MAXICODE
ZPL_BCS_EAN13	EAN 13
ZPL_BCS_MicroPDF417	Micro PDF
ZPL_BCS_Industrial_2OF5	Industrial 2 of 5
ZPL_BCS_Standard_2OF5	Standard 2 of 5
ZPL_BCS_Codabar	Codabar
ZPL_BCS_LOGMARS	LogMARS
ZPL_BCS_MSI	MSI
ZPL_BCS_Aztec	Aztec
ZPL_BCS_Plessey	Plessey
ZPL_BCS_QRCode	QR Code
ZPL_BCS_RSS	RSS
ZPL_BCS_UPCEANEXT	UPC EAN Ext
ZPL_BCS_TLC39	TLC 39
ZPL_BCS_UPCA	UPC A

ZPL_BCS_DataMatrix	Data Matrix
ZPL_BCS_POSTNET	POSTNET

\* barcodeProp

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

\* printX, printY

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

\* data

- Set the barcode data to print.

## 2.16 SetBarcodeField

Set the barcode properties.

- (long) setBarcodeField:(int) moduleWidth withRatio:(NSString \*) ratio  
withBarHeight:(int) barHeight

[Parameter]

\* moduleWidth

Set the module width. [1-10] (Dots)

\* ratio

- wide bar to narrow bar width ratio [2.0 - 3.0 (in 0.1 increments)]

\* barHeight

- barcode height [10 ~ ] (Dots)

## 2.17 PrintPDF417

Print the PDF417 barcode.

- (long) printPDF417:(int) printX withPrintY:(int) printY withOrientation:(NSString \*) orientation  
withCellWidth:(int) cellWidth withSecurity:(int) security withNumOfRow:(int) numOfRow  
withTruncate:(NSString \*) truncate withData:(NSString \*) data

[Parameter]

\* printX, printY

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

\* orientation

Variable	Description
ZPL_ROTATION_0	Print text with no rotation.

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ZPL_ROTATION_90	Print text with 90 rotation.(counterclockwise)
ZPL_ROTATION_180	Print text with 180 rotation.(counterclockwise)
ZPL_ROTATION_270	Print text with 270 rotation.(counterclockwise)

\* cellWidth [1-30]

- Number of data columns to encode.

\* security [1-8]

- Security level (error detection and correction).

\* 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.

- (long) printDataMatrix:(int) printX withPrintY:(int) printY withOrientation:(NSString \*) orientation  
withCellWidth:(int) cellWidth withQuality:(int) quality withData:(NSString \*) data

[Parameter]

\* printX, printY

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

\* orientation

Variable	Description
ZPL_ROTATION_0	Print text with no rotation.
ZPL_ROTATION_90	Print text with 90 rotation.(counterclockwise)
ZPL_ROTATION_180	Print text with 180 rotation.(counterclockwise)
ZPL_ROTATION_270	Print text with 270 rotation.(counterclockwise)

\* cellWidth

- dimensional height of individual symbol elements.

\* quality [ *Accepted Values:* 0, 50, 80, 100, 140, 200]

- Quality Level

\* data

- Set the datamatrix barcode data to print.

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## 2.19 PrintQRCode

Print the QR Code barcode.

- (long) printQRCode:(int) printX withPrintY:(int) printY withOrientation:(NSString \*) orientation  
withModel:(int) model withCellWidth:(int) cellWidth withData:(NSString \*) data

[Parameter]

\* printX, printY

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

\* orientation

Variable	Description
ZPL_ROTATION_0	Print text with no rotation.
ZPL_ROTATION_90	Print text with 90 rotation.(counterclockwise)
ZPL_ROTATION_180	Print text with 180 rotation.(counterclockwise)
ZPL_ROTATION_270	Print text with 270 rotation.(counterclockwise)

\* model

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

\* cellWidth [1-10] or magnification factor.

- magnification factor

\* data

- Set the QR Code barcode data to print.

## 2.20 directCommand

Send ZPL command to printer directly.

- (long) directCommand:(NSString \*) command

[Parameter]

\* command

- Set the ZPL command to send.

## 2.21. printString

Send ZPL command to printer directly.

- (long) printString:(NSString \*) data

[Parameter]

\* data

- Set the ZPL command to send.

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## 2.22. printerCheck

← Added in 1.71

This function is used for printer status checking.

You should call the status() fuction to get the status value after invoke this function.

If you using for bluetooth interface, please refer to the bluetooth programming manual.

- (long) printerCheck

### [Return Values]

0 : This value returns when a function succeeds.

-1 : This value returns when a function fails.

## 2.23. status

← Added in 1.71

This function is used for getting the printer status.

This function does not support in the Bluetooth Interface.

this function.

- (long) status

### [Return Values]

Variable	Description
STS_ZPL_NORMAL	Printer's status is no error and MSR is not ready.
STS_ZPL_BUSY	Printer's status is busy.
STS_ZPL_PAPER_EMPTY	Printer's status is no paper.
STS_ZPL_COVER_OPEN	Printer' cover is open status.
STS_ZPL_BATTERY_LOW	Printer battery capacity is low.

## 2.24. getPrinterInfo

← Added in 1.71

This function is used to get the information of printer.

If you using for bluetooth interface, please refer to the bluetooth programming manual.

-(long) getPrinterInfo:(unsigned char \*)SendBuf charsToSend:(int)wLength  
withRecvBuf:(unsigned char \*)RecvBuf;

### [Parameter]

\* SendBuf

- Set the ZPL command to send.

\* wLength

- Set the length of ZPL command to send.

\* RecvBuf

- Set the buffer to read from printer.

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[Return Values]

Length of data from printer.

## **2.25. resetPrinter**

← Added in 1.71

This function is used to reboot the printer.

- (long) resetPrinter

[Return Values]

0 : This value returns when a function succeeds.

-1 : This value returns when a function fails.