

iOS ZPL Program Manual

Bluetooth

1. Defined in the TSCBLEManager Class

1.1 sharedInstance

Singleton.

- (void) sharedInstance

1.2 startScan

Search for bluetooth printers.

- (void) startScan

1.3 stopScan

Stop searching for bluetooth printers.

- (void) stopScan

1.4 connectDevice

Connect a Printer.

- (void) connectDevice:(CBPeripheral *)peripheral

[Parameter]

-peripheral: Device.

1.5 disconnectRootPeripheral

Disconnect a Printer.

- (void) disconnectRootPeripheral

1.6 writeCommandWithData

Data printing.

- (void) writeCommandWithData: (NSData *) data

[Parameter]

- data: Data to print.

1.7 printerStatus

Get printer status

- (void)printerStatus:(TSCBLEPrinterStatusBlock)statusBlock;

[Parameter]

- statusBlock:Status callback result.

TSCBLEManagerDelegte

★ TSCbleUpdatePeripheralList

Discover peripherals.

- (void) TSCbleUpdatePeripheralList: (NSArray *) peripherals RSSIList:

(NSArray *) rssiList

[Parameter]

- peripherals: Peripheral List.

- rssiList: Rssi List.

★ TSCbleConnectPeripheral

Peripheral connected succeeded.

- (void) TSCbleConnectPeripheral: (CBPeripheral *) peripheral

[Parameter]

- peripheral: Device.

★ TSCbleFailToConnectPeripheral

Peripheral connected failed.

- (void) TSCbleFailToConnectPeripheral: (CBPeripheral *) peripheral
error: (NSError *)error

[Parameter]

- peripheral: Device.

- error: Connect error.

★ TSCbleDisconnectPeripheral

Peripheral disconnected.

- (void) TSCbleDisconnectPeripheral: (CBPeripheral *) peripheral

[Parameter]

- peripheral: Device.

★ TSCbleWriteValueForCharacteristic

Send data succeeded.

- (void) TSCbleWriteValueForCharacteristic: (CBCharacteristic *) character error: (NSError *) error

[Parameter]

- character: Device attributes.

- error: Send error.

★ TSCbleReceiveValueForCharacteristic

Receive data from printer.

- (void) TSCbleReceiveValueForCharacteristic: (CBCharacteristic *) character error: (NSError *) error

[Parameter]

- character: Device attributes.

- error: Receive error.

★ TSCbleCentralManagerDidUpdateState

App Bluetooth status update.

- (void) TSCbleCentralManagerDidUpdateState:(NSInteger)state;

[Parameter]

- state: Bluetooth status value

CBManagerStateUnsupported	The platform/hardware doesn't support Bluetooth Low Energy.
CBManagerStateUnauthorized	The app is not authorized to use Bluetooth Low Energy.

CBManagerStatePoweredOff	Bluetooth powered off.
CBManagerStatePoweredOn	Bluetooth power on.

WiFi

2. Defined in the TSCWIFIManager Class

2.1 sharedInstance

Singleton.

- (void) sharedInstance

2.2 connectWithHost

Connect a Printer.

- (void) connectWithHost: (NSString *) hostStr port: (UInt16 *) port

[Parameter]

- hostStr: Connect printer ip address.

- port: Port Number.

2.3 disconnect

Disconnect a Printer.

- (void) disconnect

2.4 writeCommandWithData

Data printing.

- (void) writeCommandWithData: (NSData *) data

[Parameter]

- data: Data to print.

TSCWIFIManagerDelegate

★ TSCwifiConnectedToHost

Connected a Printer.

- (void) TSCwifiConnectedToHost: (NSString *) host port: (UInt16) port

[Parameter]

- host: IP Address.
- port: Port Number.

★ TSCwifiDisconnectWithError

Disconnected a Printer.

- (void) TSCwifiDisconnectWithError: (NSError *) error

[Parameter]

- error: error.

★ TSCwifiWriteValueWithTag

Print successful.

- (void) TSCwifiWriteValueWithTag:(long)tag

★ TSCwifiReceiveValueForData

Receive data from printer.

- (void) TSCwifiReceiveValueForData:(NSData *)data

[Parameter]

- data: Printer data.

ZPL

3. Defined in the ZPLCommand Class

3.1 XA

label begin

+ (NSData *)XA

* @return data

3.2 XZ

label end

+ (NSData *)XZ

* @return data

3.3 setLabelWidth

set label width

+ (NSData *)setLabelWidth:(int)width

* @param width: label width.

* @return data

3.4 setLabelHeight

set label width

+ (NSData *)setLabelHeight:(int)height

* @param height: label height.

* @return data

3.5 setPageCount

set page count

+ (NSData *)setPageCount:(int)count

* @param count: copies.

* @return data

3.6 setCustomFont

set custom font

+ (NSData *)setCustomFont:(NSString *)fontName extension:(NSString *)extension alias:(NSString *)alias codePage:(CodePage)codePage

* @param fontName: font name.

* @param extension: extension name

* @param alias: alias name

* @param codePage

CODE_PAGE_USA1	USA 1
CODE_PAGE_USA2	USA 2
CODE_PAGE_UK	England
CODE_PAGE_NL	Netherland
CODE_PAGE_DK	Denmark/Norway
CODE_PAGE_SWEDE	Sweden/Finland

CODE_PAGE_GER	Germany
CODE_PAGE_FR1	French 1
CODE_PAGE_FR2	French 2
CODE_PAGE_ITA	Italy
CODE_PAGE_ES	Spain
CODE_PAGE_JA	Japan
CODE_PAGE_UTF8	UTF-8
CODE_PAGE_UTF16_BIG	UTF-16 Big-Endian
CODE_PAGE_UTF16_LITTLE	UTF-16 Little-Endian

* @return data

3.7 drawTextWithx (FNT type)

Draws text.

+ (NSData *)drawTextWithx:(int)x y:(int)y fontName:(FontName)fontName
content:(NSString *)content

+ (NSData *)drawTextWithx:(int)x y:(int)y fontName:(FontName)fontName
hRatio:(int)hRatio wRatio:(int)wRatio content:(NSString *)content

+ (NSData *)drawTextWithx:(int)x y:(int)y fontName:(FontName)fontName
rotation:(RotationType)rotation hRatio:(int)hRatio wRatio:(int)wRatio
content:(NSString *)content

* @param x x-coordinate

* @param y y-coordinate

* @param fontName

Type	Font	Matrix
FNT_9_5	A	9 * 5
FNT_11_7	B	11 * 7
FNT_18_10	C,D	18 * 10
FNT_42_20	E	42 * 20
FNT_26_13	F	26 * 13
FNT_60_40	G	60 * 40

FNT_34_22	H	34 * 22
FNT_24_24	GS	24 * 24
FNT_20_18	P	20 * 18
FNT_28_24	Q	28 * 24
FNT_35_31	R	35 * 31
FNT_40_35	S	40 * 35
FNT_48_42	T	48 * 42
FNT_59_53	U	59 * 53
FNT_80_71	V	80 * 71
FNT_15_12	O	15 * 12

* @param rotation

ROTATION_0	0
ROTATION_90	90
ROTATION_180	180
ROTATION_270	270

* @param hRatio Integral multiples

* @param wRatio Integral multiples

* @param content text

* @return data

3.8 drawTextWithx (Custom font)

Draws text.

```
+ (NSData *)drawTextWithx:(int)x y:(int)y customFontName:(NSString *)customFontName hSize:(int)hSize wSize:(int)wSize content:(NSString *)content
```

```
+ (NSData *)drawTextWithx:(int)x y:(int)y customFontName:(NSString *)customFontName rotation:(RotationType)rotation hSize:(int)hSize wSize:(int)wSize content:(NSString *)content
```

* @param x x-coordinate

* @param y y-coordinate

* @param customFontName custom font

* @param rotation

ROTATION_0	0
ROTATION_90	90
ROTATION_180	180
ROTATION_270	270

- * @param hSize Integral multiples
- * @param wSize Integral multiples
- * @param content text
- * @return data

3.9 drawTextWithx (Default: FNT_26_13)

Draws text.

- + (NSData *)drawTextWithx:(int)x y:(int)y content:(NSString *)content
- * @param x x-coordinate
- * @param y y-coordinate
- * @param content text
- * @return data

3.10 drawBarcodeWithx

Draws 1D barcode.

- + (NSData *)drawBarcodeWithx:(int)x y:(int)y codeType:(CodeType)codeType text:(NSString *)text
- + (NSData *)drawBarcodeWithx:(int)x y:(int)y codeType:(CodeType)codeType height:(int)height text:(NSString *)text
- + (NSData *)drawBarcodeWithx:(int)x y:(int)y orientation:(ZPLRotation)orientation codeType:(CodeType)codeType width:(int)width height:(int)height hriText:(HriText)hriText text:(NSString *)text
- * @param x: x-coordinate
- * @param y: y-coordinate
- * @param codeType:

CODE_TYPE_11	Code 11
CODE_TYPE_25	Interleaved 2 of 5

CODE_TYPE_39	Code 39
CODE_TYPE_49	Code 49
CODE_TYPE_PLANET	Planet
CODE_TYPE_EAN8	EAN 8
CODE_TYPE_UPCE	UPC-E
CODE_TYPE_93	Code 93
CODE_TYPE_128	Code 128
CODE_TYPE_EAN13	EAN 13
CODE_TYPE_CODA	Codabar
CODE_TYPE_MSI	MSI
CODE_TYPE_PLESSEY	PLESSEY
CODE_TYPE_UPCEAN	UPC/EAN
CODE_TYPE_UPCA	UPC-A

* @param orientation:

ROTATION_0	0
ROTATION_90	90
ROTATION_180	180
ROTATION_270	270

* @param width: 1~10 default:2

* @param height: barcode height

* @param hriText:

HRI_TEXT_NONE	NONE
HRI_TEXT_BELOW	BELOW
HRI_TEXT_ABOVE	ABOVE

* @param text: barcode content

* @return data

3.11 drawQRCodeWithx

Draws qr code.

+ (NSData *)drawQRCodeWithx:(int)x y:(int)y factor:(int)factor text:
(NSString *)text

- * @param x: x-coordinate
- * @param y: y-coordinate
- * @param factor: Magnification factor: 1 ~ 10
- * @param text: qr content
- * @return data

3.12 drawImageWithx

Draws image.

- + (NSData *)drawImageWithx:(int)x y:(int)y image:(UIImage *)image
- + (NSData *)drawImageWithx:(int)x y:(int)y wRatio:(int)wRatio hRatio:(int)hRatio image:(UIImage *)image
- * @param x x-coordinate
- * @param y y-coordinate
- * @param wRatio width ratio 1~10
- * @param hRatio height ratio 1~10
- * @param image bitmap
- * @return data

3.13 drawReverseColorWithx

Draws the label in reverse color.

- + (NSData *)drawReverseColorWithx:(int)x y:(int)y width:(int)width height:(int)height radius:(int)radius
- * @param x x-coordinate
- * @param y y-coordinate
- * @param width width scope
- * @param height height scope
- * @param radius corners 0~8 default:0
- * @return data

3.14 drawBoxWithx

Draws rectangle.

- + (NSData *) drawBoxWithx:(int)x y:(int)y width:(int)width height:(int)height thickness:(int)thickness
- + (NSData *)drawBoxWithx:(int)x y:(int)y width:(int)width height:(int)height thickness:(int)thickness radius:(int)radius

- * @param x x-coordinate
- * @param y y-coordinate
- * @param width width scope
- * @param height height scope
- * @param thickness line width
- * @param radius corners 0~8 default:0
- * @return data

3.15 setStringEncoding

Sets the character encoding.

- + (void)setStringEncoding:(NSStringEncoding)encoding
- * @param encoding NSStringEncoding

3.16 setDensity

Set label density

- + (NSData *)setDensity:(int)density
- * @param density: label density: 0 ~ 30.
- * @return data

3.17 setSpeed

Set label speed

- + (NSData *)setSpeed:(int)speed
- * @param speed: label speed:1 ~ 14
- * @return data

3.18 direction

Printing direction

- + (NSData *)direction:(BOOL) n
- * @param n: YES=Normal NO=Reverse default value: YES
- * @return data

3.19 printGraphic

Calling graphics

- + (NSData *)printGraphic:(int)x
y:(int)y

source:(NSString *)source
name:(NSString *)name
xMagnification:(int)xMagnification
yMagnification:(int)yMagnification

*@ param x x-coordinate

*@ param y y coordinate

*@ param source The source device where the image has been stored.
Accepted values: R, E, B, and A, default value: R search priority (R, E, B, and A)

*@ param name is the name of the stored image. Accepted value: 1 to 8 alphanumeric characters. If no name is specified, use UNKNOWN

*@ param xMagnification The amplification factor of the x-axis.
Accepted values: 1 to 10, default value: 1

*@ param yMagnification The amplification factor of the y-axis.
Accepted values: 1 to 10, default value: 1

*@ return data

3.20 downloadGraphic

Download graphics

+ (NSData *)downloadGraphic:(NSString *)source name:(NSString *)name
image:(UIImage *)image

*@ param source The source device for storing images. Accepted values:
R, E, B, and A, default value: R search priority (R, E, B, and A)

*@ param name stores the name of the image. Accepted value: 1 to 8 alphanumeric characters. If no name is specified, use UNKNOWN

*@ param image image

*@ return data

3.21 deleteDownloadGraphic

Delete downloaded graphics

+ (NSData *)deleteDownloadGraphic:(NSString *)source name:(NSString *)name

*@ param source The source device for storing images. Accepted values: R, E, B, and A, default value: R search priority (R, E, B, and A)

*@ param name stores the name of the image. Accepted value: 1 to 8 alphanumeric characters. If no name is specified, use UNKNOWN

*@ return data