

iOS ZPL Program Manual

Bluetooth

1. Defined in the TSCBLEManager Class

1.1 sharedInstance

Singleton Object.

- (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

Send data to printer (Write with Response)

- (void) writeCommandWithData: (NSData *) data

- (void) writeCommandWithData:(NSData *)data writeCallBack:
(TSCBLEManagerWriteCallBackBlock)writeBlock;

- (void)writeCommandWithData:(NSData *)data receiveCallBack:
(TSCBLEManagerReceiveCallBackBlock)receiveBlock;

[Parameter]

- data: Data to print.
- writeBlock: Write result callback
- receiveBlock: Callback to receive data

1.7 sendDatawithPackageSize

Sends data in specified package sizes and reports (Write with Response)

- (void)sendData:(NSData *)data withPackageSize:(NSUInteger)packageSize
completion:(void (^)(BOOL success, NSUInteger totalBytesSent, NSUInteger
currentPackageIndex, NSError *error))completion;

[Parameter]

- data:Data to print.
- packageSize:The size of each data package to be sent, in bytes.
- completion:
 - success: A Boolean indicating whether the data was sent successfully.
 - totalBytesSent: The total number of bytes that have been sent.
 - currentPackageIndex: The index of the current package being sent.
 - error: An NSError object that describes the problem, if any.

1.8 writeCommandDataWithoutResponse

Send data to printer (Write without Response)

- (void)writeCommandDataWithoutResponse:(NSData *)data;

[Parameter]

- data:Data to print.

1.9 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.
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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