

iOS TSPL 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.

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.

TSPL

3. Defined in the TSCCommand Class

3.1 sizeByymmWithWidth

Defines the label width and height.

- + (NSData *) sizeByymmWithWidth: (double) m andHeight: (double) n

[Parameter]

- m: label width
- n: label height

[Return value]

- NSData *: Send data.

3.2 sizeByinchWithWidth

Defines the label width and height.

+ (NSData *) sizeByinchWithWidth: (double) m andHeight: (double) n

[Parameter]

- m: label width

- n: label height

[Return value]

- NSData *: Send data.

3.3 gapByymmWithWidth

Defines the gap distance between to labels.

+ (NSData *) gapByymmWithWidth: (double) m andHeight: (double) n

[Parameter]

- m: the gap distance between two labels

- n: the offset distance of the gap

[Return value]

- NSData *: Send data.

3.4 gapByinchWithWidth

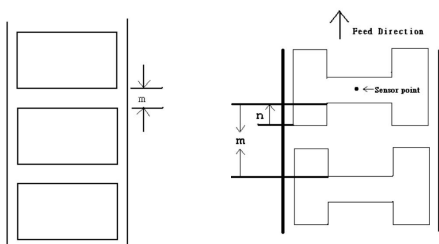
Defines the gap distance between to labels.

+ (NSData *) gapByinchWithWidth: (double) m andHeight: (double) n

[Parameter]

- m: the gap distance between two labels

- n: the offset distance of the gap



[Return value]

- NSData *: Send data.

3.5 blineBymmWithM

Sets the height of the black line and the user-defined extra label feeding length each from feed takes.

+ (NSData *) blineBymmWithM: (double) m andN: (double) n

[Parameter]

- m: the height of black line. 2.54 ~ 25.4mm

- n: the extra label feeding length. 0 ~ label length

[Return value]

- NSData *: Send data.

3.6 blineByinchWithM

Sets the height of the black line and the user-defined extra label feeding length each from feed takes.

+ (NSData *) blineByinchWithM: (double) m andN: (double) n

[Parameter]

- m: the height of black line. 0.1 ~ 1 inch

- n: the extra label feeding length. 0 ~ label length

[Return value]

- NSData *: Send data.

3.7 offSetBymmWithM

Sets the position of label under the pee-off mode.

+ (NSData *) offSetBymmWithM: (double) m

[Parameter]

- m: the offset distance

[Return value]

- NSData *: Send data.

3.8 offSetByinchWithM

Sets the position of label under the pee-off mode.

+ (NSData *) offSetByinchWithM: (double) m

[Parameter]

- m: the offset distance

[Return value]

- NSData *: Send data.

3.9 speed

Defines the print speed.

+ (NSData *) speed: (double) n

[Parameter]

- n: Printing speed in inch per second

[Return value]

- NSData *: Send data.

3.10 density

Sets the printing darkness.

+ (NSData *) density: (int) n

[Parameter]

- n: 0 ~ 15

[Return value]

- NSData *: Send data.

3.11 direction

Defines the print direction

+ (NSData *) density: (int) n

[Parameter]

- n: 0: forward 1: reverse

[Return value]

- NSData *: Send data.

3.12 cls

Clears the cache buffer

+ (NSData *) cls

[Return value]

- NSData *: Send data.

3.13 feed

Feeds label with the specified length

+ (NSData *) feed: (int) n

[Parameter]

- n: the length label feeds. 1 ~ 9999 by dot.

[Return value]

- NSData *: Send data.

3.14 backFeed

Feeds label in reverse.

+ (NSData *) backFeed: (int) n

[Parameter]

- n: the length label feeds in reverse. 1 ~ 9999 by dot.

[Return value]

- NSData *: Send data.

3.15 formFeed

Feeds label to the beginning of next label

+ (NSData *) formFeed

[Return value]

- NSData *: Send data.

3.16 limitFeedBymm

Use to stop feeding paper while feed paper wrong

+ (NSData *) limitFeedBymm: (double) n

[Parameter]

- n: the limit length of wrong.

[Return value]

- NSData *: Send data.

3.17 limitFeedByinch

Use to stop feeding paper while feed paper wrong

+ (NSData *) limitFeedByinch: (double) n

[Parameter]

- n: the limit length of wrong.

[Return value]

- NSData *: Send data.

3.18 home

Feeds label until the sensor has determined origin

+ (NSData *) home

[Return value]

- NSData *: Send data.

3.19 referenceWithX

Defines the reference point the of the label

+ (NSData *) referenceWithX: (int) x andY: (int) y

[Parameter]

- x: Horizontal coordinate.

- y: Vertical coordinate.

[Return value]

- NSData *: Send data.

3.20 codePage

Set international coding

+ (NSData *) codePage: (NSString *) str

[Parameter]

- str:

Variable	Describe
437	United States
850	Multilingual
852	Slavic
860	Portuguese
863	Canadian / French
865	Nordic
1250	Central Europe
1252	Latin I
1253	Greek
1254	Turkish

[Return value]

- NSData *: Send data.

3.21 print

Prints the label format currently stored in the image buffer.

+ (NSData *) print: (int) m

[Parameter]

- m: print count.

[Return value]

- NSData *: Send data.

3.22 cut

Cuts the labels.

+ (NSData *) cut

[Return value]

- NSData *: Send data.

3.23 soundWithLevel

Sets the sound frequency of the beeper.

+ (NSData *) soundWithLevel: (int) level andInterval: (int) interval

[Parameter]

- level: sound level 0 ~ 9.

- interval: sound interval 1 ~ 4095. by ms

[Return value]

- NSData *: Send data.

3.24 selfTest

The printer will print out the printer information.

+ (NSData *) selfTest

[Return value]

- NSData *: Send data.

3.25 initialPrinter

Restore printer settings to default.

+ (NSData *) initialPrinter

[Return value]

- NSData *: Send data.

3.26 barWithX

Draws a bar on the label format

+ (NSData *) barWithX: (int) x andY: (int) y andWidth:(int) w andHeight:
(int) h

[Parameter]

- x: the upper left corner x-coordinate.

- y: the upper left corner y-coordinate.

- w: bar width.

- h: bar height.

[Return value]

- NSData *: Send data.

3.27 barcodeWithX

Prints 1D barcodes

+ (NSData *) barcodeWithX: (int) x andY: (int) y andCodeType: (NSString *) codetype andHeight: (int) height andHunabReadable: (int) readable andRotation: (int) rotation andNarrow: (int) narrow andWide: (int) wide andContent: (NSString *) content usStrEnCoding: (NSStringEncoding) strEnCoding

[Parameter]

- x: the x-coordinate.

- y: the y-coordinate.

- codetype:

Variable	Describe
128	Code 128, switching code subset automatically
128M	Code 128, switching code subset manually
EAN128	EAN 128, switching code subset automatically
25	Interleaved 2 of 5
25C	Interleaved 2 of 5 with check digit
39	Code 39
39C	Code 39 with check digit
93	Code 93
EAN13	EAN 13
EAN13+2	EAN 13 with 2 digits add-on
EAN13+5	EAN 13 with 5 digits add-on
EAN8	EAN 8
EAN8+2	EAN 8 with 2 digits add-on
EAN8+5	EAN 8 with 5 digits add-on
CODA	Codabar
POST	Postnet

Variable	Describe
UPCA	UPC-A
UPCA+2	UPC-A with 2 digits add-on
UPA+5	UPC-A with 5 digits add-on
UPCE	UPC-E
UPCE+2	UPC-E with 2 digits add-on
UPE+5	UPC-E with 5 digits add-on
CPOST	China post
MSI	MSI
MSIC	MSI with check digit
PLESSEY	PLESSEY
ITF14	ITF14
EAN14	EAN14
11	Code 11
TELEPEN	Telepen
TELEPENN	Telepen number
PLANET	Planet
CODE49	Code 49
DPI	Deutsche Post Identcode
DPL	Deutsche Post Leitcode

- height: bar height. by dot.

- readable: HRI readable, 0 ~ 3.

Variable	Describe
0	NONE
1	LEFT
2	MIDDLE
3	RIGHT

- rotation: 0, 90, 180, 270

- narrow: space of uint by dot. default: 2.

- wide: width of uint by dot. default: 2.
- content: barcode's content.
- strEnCoding: content's encoding.

[Return value]

- NSData *: Send data.

3.28 bitmapWithX

Draws bitmap images.

+ (NSData *) bitmapWithX: (int) x andY: (int) y andMode: (int) mode
andImage: (UIImage *) image

[Parameter]

- x: the x-coordinate.
- y: the y-coordinate.
- mode

Variable	Describe
0	OVERWRITE
1	OR
2	XOR

- image: bitmap data.

[Return value]

- NSData *: Send data.

3.29 boxWithX

Draws rectangles on the label.

+ (NSData *) boxWithX: (int) x andY: (int) y andEndX: (int) x_end
andEndY: (int) y_end andThickness: (int) thickness

[Parameter]

- x: the x-coordinate of upper left corner.
- y: the y-coordinate of upper left corner.

- x_end: the x-coordinate of lower right corner.
- y_end: the y-coordinate of lower right corner.
- thickness: the line width.

[Return value]

- NSData *: Send data.

3.30 ellipseWithX

Draws ellipse on the label.

+ (NSData *) ellipseWithX: (int) x andY: (int) y andWidth: (int) width
andHeight: (int) height andThickness: (int) thickness

[Parameter]

- x: the x-coordinate of upper left corner(in dots).
- y: the y-coordinate of upper left corner(in dots).
- width: specify the width of the ellipse(in dots).
- height: specify the height of the ellipse(in dots).
- thickness: the line width(in dots).

[Return value]

- NSData *: Send data.

3.31 eraseWithX

Clears the specified region.

+ (NSData *) eraseWithX: (int) x andY: (int) y andWidth: (int) width
andHeight: (int) height

[Parameter]

- x: the x-coordinate of starting point.
- y: the y-coordinate of starting point.
- width: the region width.
- height: the region height.

[Return value]

- NSData *: Send data.

3.32 qrCodeWithX

Prints qr code.

+ (NSData *) qrCodeWithX: (int) x andY: (int) y andEccLevel: (NSString *) ecclevel andCellWidth: (int) cellwidth andMode:(NSString *) mode andRotation: (int) rotation andContent: (NSString *) content usStrEnCoding: (NSStringEncoding) strEnCoding

[Parameter]

- x: the x-coordinate.
- y: the y-coordinate.
- ecclevel:

Variable	Describe
L	7%
M	15%
Q	25%
H	30%

- cellwidth: 1 ~ 10.
- mode:

Variable	Describe
A	Auto-generated coding
M	Manual-generated coding

- rotation: 0, 90, 180, 270
- content: qr data.
- strEnCoding: content's coding.

[Return value]

- NSData *: Send data.

3.33 reverseWithX

Reverses a region.

+ (NSData *) reverseWithX: (int) x andY: (int) y andWidth: (int) width andHeight: (int) height

[Parameter]

- x: the x-coordinate of starting point.
- y: the y-coordinate of starting point.
- width: the region width.
- height: the region height.

[Return value]

- NSData *: Send data.

3.34 textWithX

Prints text on label.

+ (NSData *) textWithX: (int) x andY: (int) y andFont: (NSString *) font andRotation: (int) rotation andX_mul: (int) x_mul andY_mul: (int) y_mul andContent: (NSString *) content usStrEnCoding: (NSStringEncoding) strEnCoding

[Parameter]

- x: the x-coordinate of starting point.
- y: the y-coordinate of starting point.
- font:

Variable	Describe
0	Monotype CG Triumvirate Bold Condensed, font width and height is stretchable
1	8 * 12 fixed pitch dot font
2	12 * 20 fixed pitch dot font
3	16 * 24 fixed pitch dot font
4	24 * 32 fixed pitch dot font
5	32 * 48 fixed pitch dot font
6	14 * 19 fixed pitch dot font
7	21 * 27 fixed pitch dot font
8	14 * 25 fixed pitch dot font

- rotation: 0, 90, 180, 270
- x_mul: horizontal multiplication, up to 10x.
- y_mul: vertical multiplication, up to 10x.
- content: text string.
- strEncoding: content's encoding.

[Return value]

- NSData *: Send data.

3.35 setAutoResponse

Set printer automatic return information

+ (NSData *)setAutoResponse:(AutoResponse)response

Variable	Describe
OFF	Turn off the printer automatic return information function
ON	Turn on the printer automatic return information function
BATCH	Turn on the printer's automatic return information function to return information after the completion of the whole batch of tasks

[Return value]

- NSData *: Send data.

3.36 zlibBitmapWithX

Draw bitmap images, support compression

+(NSData *) zlibBitmapWithX:(int) x andY:(int) y andMode:(int) mode
andImage:(UIImage*) image;

[Parameter]

- x: the x-coordinate.

- y: the y-coordinate.

- mode:

Variable	Describe
0	OVERWRINTE
1	OR
2	XOR
3	OVERWRINTE + zlib
4	OR +zlib
5	XOR + zilb

- image:bitmap data.

[Return value]

- NSData *: Send data.

3.37 putBmpWithX

Print pictures in BMP format

+ (NSData *)putBmpWithX:(int)x andY:(int)y andFileName:(NSString *)filename;

[Parameter]

-x:X coordinate of BMP image

-y:Y coordinate of BMP image

-filename:Downloaded BMP image name (supports ZPL *.GRF files)

[Return value]

- NSData *: Send data.