

iOS POS Program Manual

Bluetooth

1. Defined in the POSBLEManager 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:
(POSBLEManagerWriteCallBackBlock) writeBlock;

- (void)writeCommandWithData:(NSData *)data receiveCallBack:
(POSBLEManagerReceiveCallBackBlock)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 printerCheck

Check printer connect status.

- (BOOL) printerCheck

[Return value]

- BOOL: YES or NO.

2.0 printerStatus

Printer status.

- (void) printerStatus: (POSBLEPrinterStatusBlock *) statusBlock

[Parameter]

- statusBlock: Status callback method.

POSBLEManagerDelegte

★ POSbleUpdatePeripheralList

Discover peripherals.

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

(NSArray *) rssiList

[Parameter]

- peripherals: Peripheral List.

- rssiList: Rssi List.

★ POSbleConnectPeripheral

Peripheral connected succeeded.

- (void) POSbleConnectPeripheral: (CBPeripheral *) peripheral

[Parameter]

- peripheral: Device.

★ POSbleFailToConnectPeripheral

Peripheral connected failed.

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

[Parameter]

- peripheral: Device.
- error: Connect error.

★ POSbleDisconnectPeripheral

Peripheral disconnected.

- (void) POSbleDisconnectPeripheral: (CBPeripheral *) peripheral

[Parameter]

- peripheral: Device.

★ POSbleWriteValueForCharacteristic

Send data succeeded.

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

[Parameter]

- character: Device attributes.
- error: Send error.

★ POSbleReceiveValueForCharacteristic

receive data from printer.

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

[Parameter]

- character: Device attributes.
- error: Receive error.

★ POSbleCentralManagerDidUpdateState

App Bluetooth status update.

- (void) POSbleCentralManagerDidUpdateState: (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 POSWIFIManager 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.

2.5 printerCheck

Check printer connect status.

- (BOOL) printerCheck

[Return value]

- BOOL: YES or NO.

2.6 printerStatus

Printer status.

- (void) printerStatus: (POSBLEPrinterStatusBlock *) statusBlock

[Parameter]

- statusBlock: Status callback method.

2.7 createUdpSocket

Create udp socket.

- (BOOL) createUdpSocket

[Return value]

- BOOL: YES or NO

2.8 closeUdpSocket

Close udp socket.

- (void) closeUdpSocket

2.9 sendFindCmd

Search printers with udp socket data.

- (void) sendFindCmd:

(POSWIFIManagerFoundPrinterBlock)printerBlock

[Parameter]

- printerBlock: Callback method

2.10 connectWithMac

Connect with mac address.

- (void) connectWithMac: (NSString *)macStr

[Parameter]

- macStr: Mac address text

2.11 writeCommandWithData

Write command to printer with subpackage.

- (void) writeCommandWithData: (NSData *)data subpackageLength: (int)subpackageLength writeCallback: (POSWIFIManagerWriteBlock)writeBlock

[Parameter]

- data: Print data.
- subpackageLength: Data subpackage length.
- writeCallback: Callback method.

2.12 setIPConfigWithIP

Set ip configuration.

- (void)setIPConfigWithIP: (NSString *)ip Mask:(NSString *)mask Gateway:(NSString *)gateway DHCP:(BOOL)dhcp

[Parameter]

- ip: ip address.
- mask: mask address.
- gateway: gateway address.
- dhcp: YES or NO.

2.13 setWiFiConfigWithIP

Set ip configuration.

- (void)setWiFiConfigWithIP: (NSString *)ip Mask:(NSString *)mask Gateway:(NSString *)gateway ssid:(NSString *)ssid password: (NSString *)password encrypt:(NSUInteger)encrypt

[Parameter]

- ip: ip address.
- mask: mask address.
- gateway: gateway address.
- ssid: ssid number.

- password: wifi password.
- encrypt: wifi encrypt method.

2.14 printerSN

Printer SN Code.

- (void) printerSN: (POSWiFiPrinterSNBlock *) snBlock
[Parameter]
- snBlock: Serial Number callback method.

POSWiFiManagerDelegate

★ POSwifiConnectedToHost

Connected a Printer.

- (void) POSwifiConnectedToHost: (NSString *) host port: (UInt16) port
[Parameter]
- host: IP Address.
- port: Port Number.

★ POSwifiDisconnectWithError

Disconnected a Printer.

- (void) POSwifiDisconnectWithError: (NSError *) error
[Parameter]
- error: error.

★ POSwifiWriteValueWithTag

Print successful.

- (void) POSwifiWriteValueSuccessWithTag:(long)tag

★ POSwifiReceiveValueForData

receive data from printer.

- (void) POSwifiReceiveValueForData:(NSData *)data

[Parameter]

- data: Printer data.

★ POSwifiUDPSearchFoundPrinter

Search printer through udp data.

- (void) POSwifiUDPSearchFoundPrinter:(PrinterProfile *)foundPrinter

[Parameter]

- foundPrinter: Printer found.

★ POSwifiUDPSearchFinishDiscovery

Search printer finished.

- (void) POSwifiReceiveValueForData

ESC/POS

3. Defined in the PosCommand Class

3.1 initializePrinter

Initialize the printer.

+ (NSData *) initializePrinter

[Return value]

- NSData *: Send data.

3.2 printAndFeedLine

Print and wrap.

+ (NSData *) printAndFeedLine

[Return value]

- NSData *: Send data.

3.3 printAndBackStandardModel

Print and go back to standard mode.

+ (NSData *) printAndBackStandardModel

[Return value]

- NSData *: Send data.

3.4 cancelPrintDataByPageModel

Cancel print data in page mode.

+ (NSData *) cancelPrintDataByPageModel

[Return value]

- NSData *: Send data.

3.5 printUnderPageModel

Printing in page mode.

+ (NSData *) printUnderPageModel

[Return value]

- NSData *: Send data.

3.6 setDefaultLineSpace

Set default line spacing.

+ (NSData *) setDefaultLineSpace

[Return value]

- NSData *: Send data.

3.7 setLeftSpaceWithnL

Set left margin.

+ (NSData *) setLeftSpaceWithnL:(int) nL andnH:(int) nH

[Parameter]

- nL: 0 ~ 255

- nH: 0 ~ 255

(nL+nH*256) print area width

[Return value]

- NSData *: Send data.

3.8 selectPagemodel

Select page mode.

+ (NSData *) selectPagemodel

[Return value]

- NSData *: Send data.

3.9 selectFont

Select font.

+ (NSData *) selectFont: (int) n

[Parameter]

- n:

0, 48	ASCII (12 * 24)
1, 49	ASCII (9 * 17)

[Return value]

- NSData *: Send data.

3.10 selectInternationalCharacterSets

Select international character set.

+ (NSData *) selectInternationalCharacterSets: (int) n

[Parameter]

- n:

0	America
1	France
2	Germany
3	England
4	Denmark 1
5	Sweden
6	Italy
7	Spain 1
8	Japan

9	Norway
10	Denmark 2
11	Spain 2
12	Latin America
13	Korea
14	Slovenia / Croatia
15	China

[Return value]

- NSData *: Send data.

3.11 selectStandardModel

Select standard mode

+ (NSData *) selectStandardModel

[Return value]

- NSData *: Send data.

3.12 printAndFeedForwardWhitN

Print and advance paper n lines.

+ (NSData *) printAndFeedForwardWhitN: (int) n

[Parameter]

- n: 0~255.

[Return value]

- NSData *: Send data.

3.13 selectOrCancelInvertPrintModel

Select or cancel the black and white reverse print mode.

+ (NSData *) selectOrCancelInvertPrintModel: (int) n

[Parameter]

- n: 1: select; 0: cancel.

[Return value]

- NSData *: Send data.

3.14 setHorizontalAndVerticalMoveUnitWithX

Set horizontal and vertical movement units.

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

[Parameter]

- x: horizontal, 0~255

- y: vertical, 0~255

[Return value]

- NSData *: Send data.

3.15 setBarcodeHeight

Set barcode height.

+ (NSData *) setBarcodeHeight: (int) n

[Parameter]

- n: 1~255, default: 162.

[Return value]

- NSData *: Send data.

3.16 setBarcodeWidth

Set barcode width.

+ (NSData *) setBarcodeWidth: (int) n

[Parameter]

- n: 2~6, default: 3.

[Return value]

- NSData *: Send data.

3.17 printBarcodeWithM

Print barcode.

+ (NSData *) printBarcodeWithM: (int) m andContent: (NSString *)
content useEnCodeing: (NSStringEncoding) strEncoding

[Parameter]

- m:

0	UPC-A
1	UPC-E
2	JAN13 (EAN13)
3	JAN8 (EAB13)
4	CODE39
5	ITF
6	CODABAR

- content: barcode content.

- strEncoding: Character Encoding.

[Return value]

- NSData *: Send data.

3.18 printRasteBmpWithM

Print raster bitmap.

+ (NSData *) printRasteBmpWithM: (PrintRasterType) m andImage: (UIImage *) image andType: (BmpType) type andPaperHeight: (int) paperheight

[Parameter]

- m:

RasterNoImorWH	Normal
RasterDoubleWidth	Double width
RasterDoubleHeight	Double height
RasterDoubleWH	Double width and height

- image: image

- type: Dithering or Threshold.

- paperheight: Paper height.

[Return value]

- NSData *: Send data.

3.19 selectAlignment

Set alignment.

+ (NSData *) selectAlignment: (int) n

[Parameter]

- n:

0, 48	left alignment
1, 49	center alignment
2, 50	right alignment

[Return value]

- NSData *: Send data.

3.20 selectHRICharactersPrintPosition

Set HRI Character print position.

+ (NSData *) selectHRICharactersPrintPosition: (int) n

[Parameter]

- n:

0, 48	none
1, 49	above
2, 50	below
3, 51	above and below

[Return value]

- NSData *: Send data.

3.21 setPrintAreaWidthWithnL

Set the print area width.

+ (NSData *) setPrintAreaWidthWithnL: (int) nL andnH:(int)nH

[Parameter]

- nL: $0 \leq nL \leq 255$

- nH: $0 \leq nH \leq 255$

(nL+nH*256) print area width

[Return value]

- NSData *: Send data.

3.22 printQRCode

Print QR code.

+ (NSData *) printQRCode: (int) n level:(int)errLevel code:
(NSString*)code useEnCodeing: (NSStringEncoding)strEncoding

[Parameter]

- n: unit size 1~16

- errLevel:error correct level 48~51

48	error correct level L (7%)
49	error correct level M (15%)
50	error correct level Q (25%)
51	error correct level H (30%)

- strEncoding: Character Encoding.

[Return value]

- NSData *: Send data.

3.23 creatCashBoxContorPulseWithM

Generate cash box control pulses.

+ (NSData *) creatCashBoxContorPulseWithM: (int) m andT1:(int) t1
andT2:(int) t2

[Parameter]

- m:

0, 48	pin 2
0, 49	pin 5

- t1: 0 ~ 255, default 30
- t2: 0 ~ 255, default 255

Cash drawer open pulse high level time [t1 * 2ms], low level [t2 * 2ms],
if t2 < t1, low level [t1 * 2ms]

[Return value]

- NSData *: Send data.

3.24 setBeeper

Set printer beeper.

+ (NSData *) setBeeper: (BOOL) onSwitch

[Parameter]

- onSwitch: YES or NO

[Return value]

- NSData *: Send data.

3.25 setCutterAndBeeper

Set printer beeper count after cutter.

+ (NSData *) setCutterAndBeeper: (int) count interval:(int)interval

[Parameter]

- count: beeper count
- interval: interval * 50ms

[Return value]

- NSData *: Send data.

3.26 setCashBoxOpen

Set printer cash box open.

+ (NSData *) setCashBoxOpen

[Return value]

- NSData *: Send data.

4. Defined in the PTable Class

4.1 addAutoTableH

Add automatic word wrapping table content.

```
+ (NSData *)addAutoTableH:(NSArray<NSString *> *)titles titleLength:
(NSArray<NSNumber *> *)lengths align:(TableAlignType)align;
```

[Parameter]

- titles: text content array

- lengths: The character length array corresponding to this content array

- align:

AllLeftAlign	All text content left aligned
AllRightAlign	All text content is right aligned
FirstLeftAlign	Only the first column of text content is left aligned

[Return value]

- NSData *: Send data.

(Note: The length of the text content array must be consistent with the length of the character length array. One Chinese character defaults to 2 characters in length, and the other characters default to 1 character in length.)

4.2 addBarcodeRow

Add barcode.

```
+ (NSData *)addBarcodeRow:(NSString *)data type:
(BCSBarcodeType)type hri:(BarHriText)hri;
```

[Parameter]

- data: text content

- type: barcode type

BCS_UPCA	UPCA
----------	------

BCS_UPCE	UPCE
BCS_EAN13	EAN13/JAN13
BCS_EAN8	EAN8/JAN8
BCS_Code39	CODE39
BCS_ITF	ITF
BCS_Codabar	CODABAR
BCS_Code93	CODE93
BCS_Code128	CODE128

- hri:barcode text position

BAR_HRI_TEXT_NONE	None
BAR_HRI_TEXT_BELOW	Barcode below text
BAR_HRI_TEXT_ABOVE	Barcode above text
BAR_HRI_TEXT_BOTH	Both up and down

[Return value]

- NSData *: Send data.