



TSC Auto ID Technology Co., Ltd.

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Instructions for TSC iOS Library Functions

1. **openport(a)**

Description: Start the printer spool.

Parameter:

a: String; the IP Address, for example:“192.168.1.50”

2. **openportMFI(a)**

Description: Start the printer spool with Apple MFi Bluetooth

Parameter:

a: String; the Bluetooth module name “com.issc.datapath”

3. **(NSMutableArray) searchBLEDevice(a)**

Description: Search BLE Device during specific time.

Parameter:

a: Integer: Search time, like: 5

Need to use NSMutableArray variable to receive the discovered devices.

4. **openport_ble(a)**

Description: Start the BLE port.

Parameter:

a: CBPeripheral: Device discovered by **searchBLEDevice** function

5. **closeport()**

Description: Close Windows printer spool

Parameter: None

6. **setup(a,b,c,d,e,f,g)**

Description: Set up label width, label height, print speed, print density, sensor type, gap/black mark vertical distance and gap/black mark offset distance

Parameter:

a: String, set up label width; unit: mm

b: String, set up label height; unit: mm

c: String, set up print speed, (selectable print speeds depend on different printer models)

1.0: Set print speed at 1.0"/sec

1.5: Set print speed at 1.5"/sec

2.0: Set print speed at 2.0"/sec

3.0: Set print speed at 3.0"/sec

4.0: Set print speed at 4.0"/sec

6.0: Set print speed at 6.0"/sec

8.0: Set print speed at 8.0"/sec

10.0: Set print speed at 10.0"/sec



- 12.0: Set print speed at 12.0"/sec
- 14.0: Set print speed at 14.0"/sec
- d: String, set up print density
 - 0~15 : 0: Minimum darkness, 15: Maximum darkness
- e: String, sets up the sensor type for the media
 - 0: Gap sensor
 - 1: Black mark sensor
- f: String, set up vertical gap height of the gap/black mark. Unit: mm
- g: String, set up offset distance of the gap/black mark. Unit: mm.

7. clearBuffer()

Description: Clear the printer image buffer

Parameter: None

8. barcode(a,b,c,d,e,f,g,h,i)

Description: Use built-in bar code formats to print

Parameter:

- a: String; the starting point of the bar code along the X direction, given in dot (203 DPI: 1 dot=1/8 mm; 300 DPI: 1dot=1/12 mm)
- b: String; the starting point of the bar code along the Y direction, given in dots (203 DPI: 1 dot=1/8 mm; 300 DPI: 1 dot=1/12 mm)
- c: String
 - 128: Code 128, switching code subset A, B, C automatically
 - 128M: Code 128, switching code subset A, B, C manually.
 - EAN128: Code 128, switching code subset A, B, C automatically
 - 25: Interleaved 2 of 5
 - 25C: Interleaved 2 of 5 with check digits
 - 39: Code 39
 - 39C: Code 39 with check digits
 - 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
 - UPCA: UPC-A
 - UPCA+2: UPC-A with 2 digits add-on
 - UPCA+5: UPC-A with 5 digits add-on
 - UPCE: UPC-E
 - UPCE+2: UPC-E with 2 digits add-on
 - UPCE+5: UPC-E with 5 digits add-on



- d: String; set up bar code height, given in dots
- e: String, set up whether to print human recognizable interpretation (text) or not.
 - 0: prints no interpretation
 - 1: prints interpretation
- f: String; set up rotation
 - 0: rotates 0 degree
 - 90: rotates 90 degrees
 - 180: rotates 180 degrees
 - 270: rotates 270 degrees
- g: String; set up narrow bar ratio, refer to TSPL user's manual
- h: String; sets up wide bar ratio, refer to TSPL user's manual
- i: String; bar code content

9. printerfont(a,b,c,d,e,f,g)

Description: Use printer built-in fonts to print

Parameter:

- a: String; the starting point of text (character string) along the X direction, given in dots
(203 DPI: 1 dot=1/8 mm; 300 DPI: 1 dot=1/12 mm)
- b: String; the starting point of text (character string) along the Y direction, given in dots
(203 DPI: 1 dot=1/8 mm; 300 DPI: 1 dot=1/12 mm)
- c: String; built-in font type name, totally 12 different sizes of fonts
 - 1: 8*12 dots
 - 2: 12*20 dots
 - 3: 16*24 dots
 - 4: 24*32 dots
 - 5: 32*48 dots
 - TST24.BF2: Traditional Chinese 24*24
 - TST16.BF2: Traditional Chinese 16*16
 - TTT24.BF2: Traditional Chinese 24*24
 - TSS24.BF2: Simplified Chinese 24*24
 - TSS16.BF2: Simplified Chinese 16*16
 - K: Kanji or Korean font 24*24
 - L: Kanji or Korean font 16*16
- d: String; set up the rotation of the text (character string)
 - 0: rotates 0 degree
 - 90: rotate 90 degrees
 - 180: rotate 180 degrees
 - 270: rotate 270 degrees
- e: String; set up the magnification rate of text (character string) along the X direction, range: 1~8
- f: String; set up the magnification rate of text (character string) along the Y direction, range: 1~8



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g: String; prints the content of text (character string)

10. sendcommand(a)

Description: Sends built-in commands to the bar code printer

Parameter:

a: String; refer to TSPL programming manual commands for details

11. printlabel(a,b)

Description: Print label content

Parameter:

a: String; set up the number of label sets

b: String, sets up the number of print copies

12. formfeed()

Description: Skip to next top of form. This function should be used after setup function

Parameter: None

13. nobackfeed()

Description: disable the backfeed function

Parameter: None

14. windowsfont(a,b,c,d,e,f,g,h)

Description: Use Windows font to print text

Parameter:

a: Integer, the starting point of the text along the X direction, given in dots

b: Integer, the starting point of the text along the Y direction, given in dots

c: Integer, the font height, given in points.

d: Integer, rotation in counter clockwise direction

0 -> 0 degree

90-> 90 degree

180-> 180 degree

270-> 270 degree

e: Integer, font style

0-> Normal

1-> Italic

2-> Bold

3-> Bold and Italic

f: Integer, font with underline

1-> Without underline

g: String, font type face. Specify the true type font name. For example:

Arial, Times new Roman.

h: String, text to be printed

15. downloadPCX(a,b)



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Description: Download mono PCX graphics file to the printer

Parameter:

- a: String; file name (including file retrieval path)
- b: String, names of files that are to be downloaded in the printer memory
(Please use capital letters)

16. (NSData) printer_status()

Description: Response printer status

Parameter: None

17. (NSString*) smartbattery_status(a)

Description: Response the smart battery status.

Parameter:

a: Integer; type of return status.

- | | | |
|-------------------|-----------------------|---------------------------|
| 0 : serial number | 3 : temperature | 6 : replacement threshold |
| 1 : voltage | 4 : discharged counts | 7 : health |
| 2 : capacity | 5 : manufacture date | 8 : maximum capacity |



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iOS SDK Example

```
#include <TSCLIB/TSCLIB.h>
TSCSDK *lib = [TSCSDK new];
//[lib openportMFI:@"com.issc.datapath"];
[lib openport:@"10.0.10.194"];

//NSData *status = [lib printer_status];
//0x00:Normal, 0x01:Head opened, 0x10:Pause

[lib sendCommand:@"DIRECION 1\r\n"];
//[lib setup:@"100" height:@"120" speed:@"4" density:@"10" sensor:@"0" vertical:@"2"
offset:@"0"];
[lib sendCommand:@"SIZE 100 mm, 120 mm\r\n"];
[lib sendCommand:@"SPEED 4\r\n"];
[lib sendCommand:@"DENSITY 10\r\n"];
[lib sendCommand:@"GAP 2 mm, 0 mm\r\n"];
//[lib sendCommand:@"BLINE 2 mm, 0 mm\r\n"];

[lib clearBuffer];

//Using downloaded font to print text
/*[lib sendCommand:@"CODEPAGE UTF-8\r\n"];
[lib sendCommand_utf8:@"TEXT 30,30,\"ARIALUNI.TTF\",0,8,8,\"中文 English にほんご
한국어\r\n"];*/
[lib sendCommand:@"TEXT 30,30,\"2\",0,2,2,\"1234567\r\n"];
[lib printerfont:@"30" y:@"100" fontName:@"2" rotation:@"0" magnificationRateX:@"2"
magnificationRateY:@"2" content:@"Printer Font Test!"];
[lib windowfont:30 y:170 height:32 rotation:0 style:0 withUnderline:0 fontName:@"Arial"
content:@"中文 English にほんご한국어"];
//fontName: Please refer to "iosfonts.com"

[lib barcode:@"30" y:@"300" barcodeType:@"39" height:@"70" readable:@"1"
rotation:@"0" narrow:@"2" wide:@"6" code:@"12345"];

//Download PCX
NSBundle *mainBunle = [NSBundle mainBundle];
NSString *absolutePath = [mainBunle pathForResource:@"UL" ofType:@"pcx"];
[lib downloadPCX:absolutePath asName:@"UL.PCX"];
[lib sendCommand:@"PUTPCX 300,250,\"UL.PCX\r\n"];

[lib printlabel:@"1" copies:@"1"];
[lib closeport:4.0];
```



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iOS SDK BLE Example

```
#include <TSCLIB/TSCLIB.h>
#include <CoreBluetooth/CoreBluetooth.h>
TSCLIB *lib = [TSCLIB new];
NSMutableArray* deviceList = [lib searchBLEDevice: 2];
for(int i=0;i<deviceList.count;i++)
{
    //NSLog(@"peripheral\n% @\n",deviceList[i]);
    if([((CBPeripheral *)deviceList[i]).name isEqualToString:@"Alpha-3R"])//BLE NAME
    {
        [lib openportBLE:((CBPeripheral *)deviceList[i]);]
    }
}

//NSData *status = [lib printer_status];
//0x00:Normal, 0x01:Head opened, 0x10:Pause

[lib sendCommand:@"DIRECION 1\r\n"];
//[lib setup: @"100" height: @"120" speed: @"4" density: @"10" sensor: @"0" vertical: @"2"
offset: @"0"];
[lib sendCommand:@"SIZE 100 mm, 120 mm\r\n"];
[lib sendCommand:@"SPEED 4\r\n"];
[lib sendCommand:@"DENSITY 10\r\n"];
[lib sendCommand:@"GAP 2 mm, 0 mm\r\n"];
//[lib sendCommand:@"BLINE 2 mm, 0 mm\r\n"];

[lib clearBuffer];

//Using downloaded font to print text
/*[lib sendCommand:@"CODEPAGE UTF-8\r\n"];
[lib sendCommand_utf8: @"TEXT 30,30,\"ARIALUNI.TTF\",0,8,8,\"中文 English にほんご
한국어\r\n"];*/
[lib sendCommand:@"TEXT 30,30,\"2\",0,2,2,\"1234567\r\n"];
[lib printerfont: @"30" y: @"100" fontName: @"2" rotation: @"0" magnificationRateX: @"2"
magnificationRateY: @"2" content: @"Printer Font Test!"];
//[lib windowsfont:30 y:170 height:32 rotation:0 style:0 withUnderline:0
fontName:@"Arial" content:@"中文 English にほんご한국어"];
//fontName: Please refer to "iosfonts.com"

[lib barcode: @"30" y: @"300" barcodeType: @"39" height: @"70" readable: @"1"
rotation: @"0" narrow: @"2" wide: @"6" code: @"12345"];

//Download PCX
/*NSBundle *mainBunle = [NSBundle mainBundle];
NSString *absolutePath = [mainBunle pathForResource: @"UL" ofType: @"pcx"];
[lib downloadPCX: absolutePath asName: @"UL.PCX"];
[lib sendCommand: @"PUTPCX 300,250,\"UL.PCX\r\n"];*/
```



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[lib printlabel: @ "1" copies: @ "1"];

[lib closeport:2.0];

//[lib closeport:10.0]; //With Windowsfont

//[lib closeport:30.0]; //With Windowsfont & downloadPCX



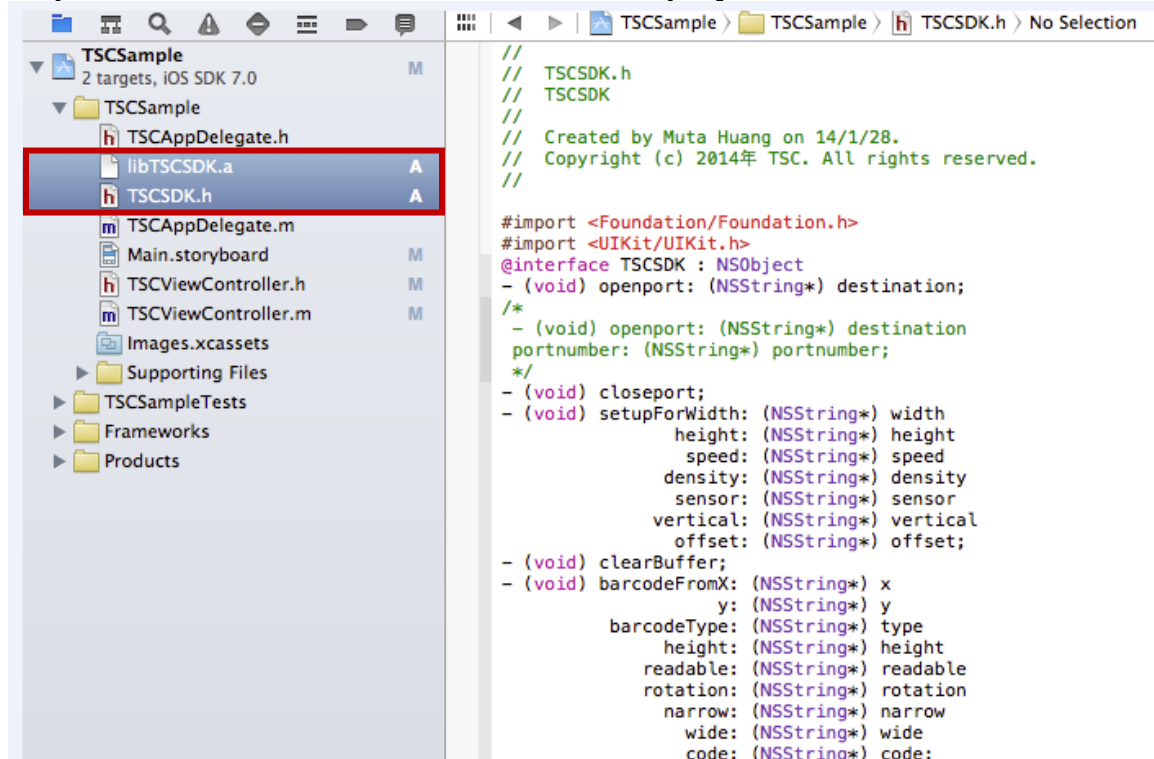
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How to Use TSC iOS SDK?

Step 1. Add **libTSCSDK.a** and **TSCSDK.h** to project.



Step 2. Import library.

#import <TSCSDK.h>

Step3. Call function.

TSCSDK *lib = [TSCSDK new];