Icod SDK User Manual

Version：v2.1.1

First、Integrated SDK

1. Copy the jar of the sdk to the libs file . Click jar right to find as a library

2. Copy the .so file of the corresponding system type you need to the jniLibs file

Second、parameter configuration

Add permissions in AndroidManifest.xml (add dynamic write file permissions above Android6.0)：

```
<uses-feature android:name="android.hardware.usb.host" />
  <!-- WIFIManage permission -->
  <!-- Allows applications to access information about networks -->
  <uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" />
```

```
<!-- Allows applications to access information about Wi-Fi networks -->
<uses-permission android:name="android.permission.ACCESS_WIFI_STATE" />
<!-- Allows applications to change network connectivity state -->
<uses-permission android:name="android.permission.CHANGE_NETWORK_STATE" />
<!-- Allows applications to change network connectivity state -->
<uses-permission android:name="android.permission.CHANGE_WIFI_STATE" />
<!-- Allows applications to enter Wi-Fi Multicast mode -->
<uses-permission android:name="android.permission.CHANGE_WIFI_MULTICAST_STATE" />
<uses-permission android:name="android.permission.WAKE_LOCK" />
<!-- Internet permission -->
<uses-permission android:name="android.permission.INTERNET" >
</uses-permission>
<!-- SDCard permission -->
<uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE" />
<uses-permission android:name="android.permission.MOUNT_UNMOUNT_FILESYSTEMS" />
<!-- If your application uses Wi-Fi, declare so with a <uses-feature> element in the manifest file
-->
<uses-feature android:name="android.hardware.wifi" />
<!-- Bluetooth permission -->
<uses-permission android:name="android.permission.BLUETOOTH" />
<uses-permission android:name="android.permission.BLUETOOTH_ADMIN" />
```

Third、simple initialization

```
Utils.init( context: this);
// 增加日志文件，true:开启日志输出
// Add log file, true: turns log output on
PrinterAPI.getInstance().setOutput(true);
// 添加终端日志
// Add terminal log
Logger.addLogStrategy(new AndroidLogCatStrategy());
```

Fourth、Function calls

0、return value declaration

0: For success

-1: For failure

-2: Wrong parameter

-3: Not supported for character length

-4: Characters are not supported (the next two are for barcode printing)

1、connect ingon printer

Function: connect(io)

How to connect	InterfaceAPI io	Parameter description
USB	new USBAPI(Context context)	context: Context
Bluetooth	new BluetoothAPI(Context context)	context: Context
Serial	new SerialAPI(File device, int baudRate, int flowControl)	device: serial port baudRate:Baud Rate flowControl: Whether to open flow control (0:Close 1: On)
WIFI	new SocketAPI(String site, int port)	Site: ip address Port: Port No.
USBNative	new UsbNativeAPI()	

2、Close the connection and release the resource

Function: disconnect()

Parameter: None

3、printer connection status

Function: isConnect ()

Parameter: None

Return: true connected false not connected

4、write instructions Send custom instructions

Function: sendOrder(byte[] cmd)

Parameter: cmd - Instruction array

Function: sendOrder(byte[] cmd, int timeOut)

Parameter: cmd - Instruction array

timeOut - Time-out unit ms

Function: hexMsg (String msg, boolean isHex)

Parameter: msg - instruction string, format is ##0a 23 0d##

isHex - true data is hex false is decimal

5、write instructions

Function: writeIO(byte[] writeBuffer,

int offsetSize,

int writeSize,

int waitTime)

Parameter: writeBuffer - instruction byte array

offsetSize - Offset, generally 0

writeSize - Array size

WaitTime - Wait Time

6、read instructions

Function: readIO(byte[] readBuffer,

int offsetSize,

int readSize,

int waitTime)

Parameter: readBuffer - instruction byte array

offsetSize - Offset

ReadSize - Read Size

WaitTime - Wait Time

7、initialization

Function: init()

Parameter: None

Description: This instruction is used to empty the buffer and restore the default values generally called before or after the printed , to avoid the effect of hitting the whole of the data behind it can be used with the initAllPrinter method.

Function: initAllPrinter(int n)

Parameter: n - 1. fers2. Error recovery and cleanup of buffers

8、print self-test page

Function: selfTestPage ()

Parameter: None

9、perform test printing

Function: doTestPrint (int n, int m)

Parameter: n - 0 for basic sheet; 1 2 for paper roll

m - 1 Let the printer into hexadecimal; 2 printer state printing;3 roll paper mode printing

10、Set the log output file flag

Function: setOutput(boolean output)

Parameter: output - true. Turn on log output

11、real-time status transfer

Function: getStatus()

Parameter: None

Return: Printer real-time status array, parsed by parseStatus function

Function: getPrinterStatus (int n)

Parameter: n - n = 1, 49

Return: 12 for paper-deficient state 3 for paper will be exhausted

Description: Transfer status when serial connection

12、parsing printer status

Function: parseStatus(byte[] mCmd)

Parameter: mCmd - Status data

13、Print string

Function: printString(String text)

Parameter: text - printed string

Function: printString(String text,
String charsetName,
boolean isFeed)

Parameter: text - printed string
charsetName - Character Set
isFeed - whether to wrap

14、Print grating bitmap

Function: printRasterBitmap(Bitmap bitmap)

Parameter: bitmap - bitmap

Function: printRasterBitmap(Bitmap bitmap, boolean toGray)

Parameter: bitmap - bitmap
toGray - true:graying

Function: printRasterBitmap(Bitmap bitmap,
boolean toGray,
int timeOut)

Parameter: bitmap - bitmap
toGray - true:graying

timeOut - Timeout

Function: printRasterBitmap(Bitmap bitmap,
boolean toGray,
int timeOut,
boolean check)

Parameter: bitmap - bitmap
toGray - true:graying
timeOut - Timeout
check - Is it necessary to detect whether the data has been sent to the printer in its . Solve the problem of the first print normal second garbled code .

Function: printRasterBitmap(Bitmap bitmap,
boolean toGray,
int timeOut,
boolean isJini,
boolean check)

Parameter: bitmap - bitmap
toGray - true:graying
timeOut - Timeout
isJini - whether to use the local method
check - Is it necessary to detect whether the data has been sent to the printer in its . Solve the problem of the first print normal second garbled code .

Function: printImageForPin (Bitmap bitmap)

Parameter: bitmap - bitmap

Description: Pin-printed picture

15、Set the bar code height

Function: setBarCodeHeight (int n)

Parameter: n - [0-255],default 162

16、Set the width of the barcode

Function: setBarCodeWidth (int n)

Parameter: n - [2-16] Our printer range is 2-6 universal printer 2-16 so some values don't work

17、print bar code

Function: printBarCode (int m, int n, String barcode)

Parameter: m - Use barcode system type
n - Use barcode system type
barcode - string

18、print QR code

Function: printQRCode(String text, int modeSize, boolean isCut)

Parameter: text - for QR code content

modeSize - Set bar code size(1FAIL6)default to 6

isCut - whether paper is cut after printing the QR code

19、PDF barcode printing

Function: printPDFCode(String text,
int errorSize,
int hSize,
int vSize)

Parameter: text - FOR PDF barcode content

errorSize - error correction level, control bar code size recommendation 4-8

hSize - Width 0-30(Recommended 0)

vSize - Height 3-90(Recommended 0)

20、 print and wrap

Function: printFeed()

Parameter: None

21、print and return paper

Function: printBackFlow(int n)

Parameter: n - Paper-backnnned n/144 inches

22、printing and papering

Function: printAndFeedPaper (int n)

Parameter: n - n * 0.125mm

23、mark the print feed feed to the beginning of the print

Function: feedToStartPos ()

Parameter: None

24、cut paper

Function: fullCut ()

Parameter: None

Description: Full-cut

Function: halfCut ()

Parameter: None

Description: Half-cut

Function: cutPaper (int m, int n)

Parameter: m - 66 (leave a little uncut)
n - 0

Description: Select paper-cutting mode

25、choose alignment

Function: setAlignMode (int type)

Parameter: type - 0 is left,1 is centered, 2 is aligned right

26、choose the standard mode

Function: standardMode ()

Parameter: None

27、select page mode

Function: pageMode ()

Parameter: None

28、page mode back to standard mode

Function: printAndBackToStd()

Parameter: None

29、set relative to the current print position (nl+nh*256)*0.125 mm

Function: setRelativePosition (int nl, int nh)

Parameter: nl - 0-255

nh - 0-255

30、set absolute (first location of the current line print)) print position (nl+nh*256)*0.125 mm

Function: setAbsolutePosition(int nl, int nh)

Parameter: nl - 0-255

nh - 0-255

31、set the left blank amount (nl+nh*256)*0.125 mm

Function: setLeftMargin (int nl, int nh)

Parameter: nl - 0-255

nh - 0-255

32、set the width of the print area

Function: setPrnAreaWidth (int nL, int nH)

Parameter: Width (nl+nh*256) * 0.125 mm

82.5 mm paper width model default nl-128,nh-2

79.5 mm paper width model default nl-64, nh-2

60 mm paper width model default value nl-192, nh-1

58 mm paper width model default nl-176, nh-1

33、set line spacing

Function: setLineSpace (int n)

Parameter: n - n*0.125 mm Default 30

34、set the default line spacing

Function: setDefaultLineSpace ()

Parameter: None

35、set the right spacing of characters

Function: setCharRightSpace (int n)

Parameter: n - n*0.125 mm

36、set 58mm

Function: set58mm()

Parameter: None

37、set 80mm

Function: set80mm()

Parameter: None

38、select print mode

Function: setFontStyle(int type)

Parameter: type - the value is as follows [0-255]

Bit	Off/On	Hex code	Decimal code	Function
0	Off	00	0	Character type A (12 × 24)。
	On	01	1	Character type B (9 × 17)。
1	-	-	-	Undefined
2	-	-	-	Undefined
3	Off	00	0	De-emphasis mode
	On	08	8	Set the accent mode
4	Off	00	0	Unlift double-height mode
	On	10	16	Set the double-height mode
5	Off	00	0	Un double width mode
	On	20	32	Set double width mode
6	-	-	-	Undefined
7	Off	00	0	Ununderscore mode
	On	80	128	Set underscore mode

39、set / unbold print

Function: setEmphasizedMode (int n)

Parameter: n - Minimum is valid: 1 is set 0 bit lift

40、set / unbold underscore

Function: setEnableUnderLine (int enable)

Parameter: enable - Minimum is valid: 1 is set 0 bit lift

41、set / unoverlap printing

Function: setOverlapMode (int n)

Parameter: n - Minimum is valid: 1 is set 0 bit lift

42、Set / Unsmoothe Mode

Function: setEnableSmoothPrn (int n)

Parameter: n -Minimum is valid: 1 is set 0 bit lift

43、set / unturned 90 degrees rotation

Function: setRotate(int n)

Parameter: n - 0,48 Unset 1,49 set

44、Set / Unturned perversion

Function: setReverse(boolean reverse)

Parameter: reverse - true、setting upside down false、unreverseed

45、Activate / Disable Panel Button

Function: setEnablePanelButton (int n)

Parameter: n - Minimum valid: 1 Prohibit0-bit activation

46、set concentration

Function: setPrintColorSize (int n)

Parameter: n - Only 1-4 concentrations of general font aggravation

47、set Baud Rate

Function: changeBd (int bd)

Parameter: bd - Baud Rate

48、set font times the width and height set character size

Function: setCharSize (int hsize, int vsize)

Parameter: hsize - 0-7(normal is 0)

vsize - 0-7(normal is 0)

49、select an international character set

Function: setInterCharSet (int n)

Parameter: n -[0-13], default 0

n	Character
0	United States
1	France
2	Germany
3	United Kingdom
4	Denmark I
5	Sweden
6	Italy
7	Spain I
8	Japan
9	Norway
10	Denmark II
11	Spain II
12	Latin America
13	Korea

50、select character code table

Function: setCharCodeTable (int n)

Parameter: n - [0-5]、[16-19]、255

n	页
0	PC437[Us European Standard]
1	Katakana
2	PC850[multilingual]
3	PC860[Portuguese]
4	PC863[Canada - French]

5	PC865[Nordic]
16	WPC1252
17	PC866[Slav 2]
18	PC852[Latin 2]
19	PC858[Europe]
255	Space Page

51、select page mode

Function: pageMode ()

Parameter: None

52、page mode back to standard mode

Function: printAndBackToStd()

Parameter: None

Function: pagePrintAndBack2Standard()

Parameter: None

53、in page mode Set relative to the current print position (nl+nh*256)*0.125 mm

Function: setPageRelativePosition (int nl, int nh)

Parameter: nl - 0-255

nh - 0-255

54、set the page mode printing area unit: mm

Function: pageModeArea(int x, int y, int width, int height)

Parameter: x - Print horizontal start position

y - Print vertical start position

width - print area width

Height - Print area height

55、print buffer data in page mode

Function: pagePrint()

Parameter: None

56、page mode cancel printing data

Function: pageRemoveAllData ()

Parameter: None

57、select the print direction in page mode

Function: pageSelectDirection (int n)

Parameter: n - 0:left to right 1:bottom to top 2:right to left 3:from top to bottom

58、set absolute print position in page mode (nl+nh*256)*0.125 mm

Function: setAbsolutePosition(int nl, int nh)

Parameter: nl - 0-255

nh - 0-255

59、set black marker offset

Function: markLengthSet(int printerType,

int ticketType,

int Q0,

int L0,

int mPrintLen,

int mTicketLen,

int mCutLen)

Parameter: printerType - 0 pin printer is by 0.175 ; The other is 0.125

ticketType - 0 is the first line of printing before the black ; Others after the black label

L0 - Distance from the black-label sensor position to the tear-up line position

Q0 - The distance from the print edited needle to the location of the black label sensor

mTicketLen - Ticket Master

mPrintLen - Black mark distance to first line print location

mCutLen - The distance from the black marker to the cut paper position

60、send black paper to the start ingon situ

Function: pointTest()

Parameter: None

61、whether it is a black label status

Function: pointTest()

Parameter: None

Return: true is currently black

62、return switch dial

Function: getSwitch1Value ()

Parameter: None

Return: value for switch-1 dial switch; -1 indicates error

Function: getSwitch2Value ()

Parameter: None

Return: value for switch-2 dial switch; -1 indicates error

63、into hex

Function: comeInHex ()

Parameter: None

64、select the print sheet sensor to output the paper missing signal

Function: setPaperSensor (int n)

Parameter: n - 8 transfer paper missing status, 2 transfer paper will be in full state

65、select the print paper sensor to stop printing

Function: setSensorToStopPrint (int n)

Parameter: n - 2 transfer paper will be

66、Chinese character mode

Function: chineseFontSet (int n)

Parameter: n - 0 for prohibited 4 allowed to be doubled width 8 allowed to be doubled height 128 allowed to underline

67、small font

Function: smallFontSizeSet ()

Parameter: None