Android_WIFI_SDK Development Document

1. Introduction

(1) Software Name:

com.Printer.WIFI

(2) Class Library Name:

Class Name	Description
WifiPrintDriver	WIFI connection and printer operation

2. The Method in Class WifiPrintDriver

- instantiation

WifiPrintDriver (this, mHandler);

Set Handler to receive the messages from SDK, Including state changes, Wifi to send data, Wifi receive data (printer returned data: the error status is returned by MESSAGE_READ) as well as a successful connection and connection failures. Corresponding constants are:
MESSAGE_STATE_CHANGE, MESSAGE_WRITE, MESSAGE_READ, MESSAGE_TOAST

- open and close the connection method

1. Connect to the printer device via WIFI

Public static boolean WIFISocket(String ip, int port);

Parameter: IP: Device IP address

Port: Device port number

The return value: True: Connection is successful

False: Connection is fail

2. Close WIFI connection

Public static boolean Close();

Disconnect from Wi-Fi equipment

3. Check the WIFI connection state

Public static boolean IsNoConnection();

The return value: True: disconnected state

False: connected state

- basic print method

1、Begin(); Initialize the printer

2、Print String or byte data type, if the SDK do not provided the command in instruction manual, a developer can use this method to be sent the command directly to the printer

（1）public static void WIFI_Write (String dataString)

Parameter： dataString：String data need to send

（2）public static void WIFI _Write (String dataString, boolean bGBK)

Parameter： dataString：String data need to send

bGBK：GBK Flag，true or false

（3）public static void WIFI _Write (byte[] out)

Parameter： out：byte data need to send

（4）public static void WIFI _Write (byte[] out, int dataLen)

Parameter： out：byte data need to send

dataLen：data length

3、Print and line feed

public static void LF();

4、Print and carriage return

public static void CR();

5、Print a self-test page

public static void SelftestPrint ();

- print position related methods

1、Set right-side character spacing

public static void SetRightSpacing (byte Distance);

[Range] 0 <= Distance <= 255

[Description] Sets the character spacing for the right side of the character to :

[Distance×0.125 mm (Distance×0.0049'')]

2、Set absolute print position

public static void SetAbsolutePrintPosition (byte nL, byte nH);

[Range] 0 <=nL <=255 0 <=nH <=255

[Description] Sets the distance from the beginning of the line to the

position at which subsequent characters are to be printed.The distance from the beginning of the line to the print position is :
[(nL + nH×256)×0.125 mm]

3、Set relative print position

public static void SetRelativePrintPosition (byte nL, byte nH);

[Range] 0 <=nL <=255 0 <=nH <=255

[Description] Sets the print starting position based on the current position using horizontal or vertical motion units.This command sets the distance from the current position to:
[(nL + nH ×256) ×0.125 mm]

4、Select default line spacing

public static void SetDefaultLineSpacing ();

[Description] Selects 3.75 mm (30× 0.125 mm) line spacing

5、Set line spacing

public static void SetLineSpacing (byte LineSpacing);

[Range] 0 <= LineSpacing <= 255

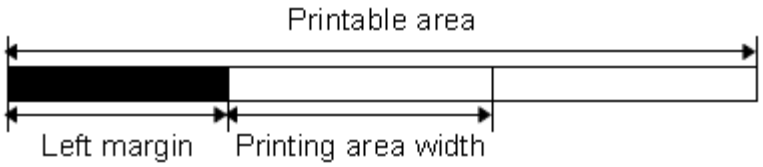
[Description] Sets the line spacing to [n×0.125 mm]

6、Set left margin

public static void SetLeftStartSpacing (byte nL, byte nH);

[Range] 0 <=nL <=255 0 <=nH <=255

[Description] Sets the left margin using nL and nH.The left margin is set to :
[(nL + nH ×256) × 0.125 mm]



7、Set printing area width

public static void SetAreaWidth (byte nL, byte nH);

[Range] 0 <=nL <=255 0 <=nH <=255

[Description] Sets the printing area width to the area specified by nL and nH. The printing area width is set to :
[(nL + nH ×256) ×0.125mm (0.0049")]

- character set related methods

1、Select print mode

public static void SetCharacterPrintMode (byte CharacterPrintMode);

[Range] 0 ≤ n ≤ 255

[Description] Selects print mode(s) using n as follows:

Bit	Off/On	Hex	Decimal	Function
0	Off	00	0	Character Font A (12×24).
	On	01	1	Character Font B (9×17).
1	-	-	-	Undefined.
2	-	-	-	Undefined.
3	Off	00	0	Emphasized mode not selected.
	On	08	8	Emphasized mode selected.
4	Off	00	0	Double-height mode not selected.
	On	10	16	Double-height mode selected.
5	Off	00	0	Double-width mode not selected.
	On	20	32	Double-width mode selected.
6	-	-	-	Undefined.
7	Off	00	0	Underline mode not selected.
	On	80	128	Underline mode selected.

2、Turn underline mode on/off

public static void SetUnderline(byte UnderlineEn);

[Range] 0 ≤ UnderlineEn ≤ 2, 48 ≤ UnderlineEn ≤ 50

[Description] Turns underline mode on or off, based on the following values

n	Function
0, 48	Turns off underline mode
1, 49	Turns on underline mode (1 dot thick)
2, 50	Turns on underline mode (2 dots thick)

3、Turn emphasized mode on/off

public static void SetBold (byte BoldEn);

[Range] 0 ≤ BoldEn ≤ 255

[Description] Turns emphasized mode on or off

When the LSB of n is 0, emphasized mode is turned off.

When the LSB of n is 1, emphasized mode is turned on.

4、Select character font

public static void SetCharacterFont(byte Font);

[Range] Font = 0, 1, 48, 49

[Description] Selects the character font.

n	Function
0, 48	Character Font A (12× 24) selected.
1, 49	Character Font B (9×17) selected.

5、Turn 90° clocrotation mode on/off

public static void SetRotate (byte RotateEn);

[Range] 0 ≤ RotateEn ≤ 1, 48 ≤ RotateEn ≤ 49

[Description] Turns 90° clockwise rotation mode on/off

RotateEn is used as follows:

RotateEn	**Function**
0,48	Turns off 90° clockwise rotation mode
1,49	Turns on 90° clockwise rotation mode

6、Select justification

public static void SetAlignMode(byte AlignMode);

[Range] 0 ≤ AlignMode ≤ 2, 48 ≤ AlignMode ≤ 50

[Description] Aligns all the data in one line to the specified position.

AlignMode selects the justification as follows:

n	**Justification**
0,48	Left justification
1, 49	Centering
2, 50	Right justification

7、Turns on/off upside-down printing mode

public static void SetInvertPrint (byte InvertModeEn);

[Range] 0 ≤ InvertModeEn ≤ 255

[Description] Turns upside-down printing mode on or off.

- When the LSB of n is 0, upside-down printing mode is turned off.
- When the LSBof n is 1, upside-down printing mode is turned on.

8、Select character size

public static void SetFontEnlarge (byte FontEnlarge);

[Range] 0 <= FontEnlarge <= 255

[Description] Selects the character height using bits 0 to 2 and selects the character width using bits 4 to 7, as follows:

Bit	**Off/On**	**Hex**	**Decimal**	**Function**
0	Character height selection. See Table 2.			
1				
2				
3				
4	Character width selection. See Table 1.			
5				
6				
7				

Table 1 **Table 2**

Character Width Selection

Hex	Decimal	Width
00	0	1(normal)
10	16	2(double-width)
20	32	3
30	48	4
40	64	5
50	80	6
60	96	7
70	112	8

Character Height Selection

Hex	Decimal	Width
00	0	1(normal)
01	1	2(double-height)
02	2	3
03	3	4
04	4	5
05	5	6
06	6	7
07	7	8

9、Turn white/black reverse printing mode

public static void SetBlackReversePrint (byte BlackReverseEn);

[Range] 0 ≤ BlackReverseEn ≤ 255

[Description] Turns on or off white/black reverse printing mode.

- When the LSB of n is 0, white/black reverse mode is turned off.
- When the LSB of n is 1, white/black reverse mode is turned on.

● kanji control commands related methods

1、Set print mode(s) for Kanji characters

public static void SetChineseCharacterMode (byte ChineseCharacterMode);

[Range] 0 ≤ ChineseCharacterMode ≤ 255

[Description] Sets the print mode for Kanji characters, using ChineseCharacterMode as follows:

Bit	Off/On	Hex	Decimal	Function
0	—	—	—	Undefined.
1	—	—	—	Undefined.
2	Off	00	0	Double-width mode is OFF.
	On	04	4	Double-width mode is ON.
3	Off	00	0	Double-height mode is OFF.
	On	08		Double-height mode is ON.
4	—	—	—	Undefined.
5	—	—	—	Undefined.
6	—	—	—	Undefined.
7	Off	00	0	Underline mode is OFF.
	On	80	128	Underline mode is ON.

2、Select Kanji character mode

public static void SelChineseCodepage ();

[Description] Selects Kanji character mode.

3、Cancel Kanji character mode

public static void CancelChineseCodepage ();

[Description] Cancels Kanji character mode.

4、Turn underline mode on/off for Kanji characters

public static void SetChineseUnderline (byte ChineseUnderlineEn);

[Range] 0 ≤ ChineseUnderlineEn ≤ 2, 48 ≤ ChineseUnderlineEn ≤ 50

[Description] Turns underline mode for Kanji characters on or off, based on the following values of ChineseUnderlineEn.

ChineseUnderlineEn	**Function**
0, 48	Turns off underline mode for Kanji characters
1, 49	Turns on underline mode for Kanji characters (1-dot thick)
2, 50	Turns on underline mode for Kanji characters (2-dot thick)

- Cash drawer control method

1、Generate pulse

public static void OpenDrawer (byte DrawerNumber, byte PulseStartTime, byte PulseEndTime);

[Range] DrawerNumber = 0,1,48,49
0 ≤ PulseStartTime ≤ 255
0 ≤ PulseEndTime ≤ 255

[Description] Outputs the pulse specified by PulseStartTime and PulseEndTime to connector pin DrawerNumber as follow :
On time= PulseStartTime x 2 millisecond
Off time= PulseEndTime x 2 millisecond
DrawerNumber =0/48 Drawer kick –out connector pin 2;
DrawerNumber =1/49 Drawer kick –out connector pin 5.

- cutting paper related methods

1、full cut paper

public static void CutPaper ();

2、partial cut paper

public static void PartialCutPaper ();

3、Select cut mode and cut paper

① public static void FeedAndCutPaper (byte CutMode);

② public static void FeedAndCutPaper (byte CutMode, byte FeedDistance)

[Range]

① CutMode = 1, 49

② CutMode = 66, 0 ≤ FeedDistance ≤ 255

[Description] Selects a mode for cutting paper and executes paper cutting.

The value of m selects the mode as follows:

CutMode	Print mode
1, 49	Partial cut (one point left uncut)
66	Feeds paper (cutting position + [FeedDistance×0.125 mm]), and cuts the paper partially (one point left uncut).

- special print methods

1、Barcode print

public static void AddCodePrint(int CodeType, String data);

[Description] CodeType：Barcode types, support UPCA 、UPCE 、EAN13 、EAN8 、CODE39 、ITF 、CODEBAR 、CODE93 、Code128_B;

data：Barcode data

2、Image Print

public static void printImage();

Printing a specific image