

Positivo Printer

Developer Documentation

v3 (2023.02.22)

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1. IPrinterService

1.1. Interface IPrinterService

AIDL: IPrinterService

JAR/AAR: Printer

Delphi: Jprintermodule_Printer

1.1.1. printerInit

Function description

Initialize device's printer

Only applicable for AIDL, internal-only for others

Parameter list

Parameter	Type
callback	IPrinterCallback

Return

None

1.1.2. printTextWithAttributes

Function description

Print formatted text

Parameter list

Parameter	Type	Description
text	String	Input text to print
attributes	Map	Attributes to text format
callback	IPrinterCallback	Callback

Return

None

Example code:

```
Map<String,Integer> maptext1 = new HashMap<String,Integer>();
maptext1.put(PrinterManager.KEY_LINESPACE,10);
maptext1.put(PrinterManager.KEY_TEXTSIZE,26);
maptext1.put(PrinterManager.KEY_TYPEFACE, 1);
maptext1.put(PrinterManager.KEY_ALIGN, 1);
maptext1.put(PrinterManager.KEY_MARGINLEFT, 0);
maptext1.put(PrinterManager.KEY_MARGINRIGHT, 0);

printTextWithAttributes("Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer a neque magna", map1, mCallback);
```

1.1.3. printColumnsTextWithAttributes

Function description

Print formatted columns text (table)

Parameter list

Parameter	Type	Description
text	String	Input text to print
attributes	List	Attributes to text format
callback	IPrinterCallback	Callback

Return

None

Example code:

```
String[] row1Texts = {"Name","Lables","Counts","Money"};
String[] row2Texts = {"Apple","Iphone","1","6088"};

Map<String,Integer> attrColsMap = new HashMap<String,Integer>();

attrColsMap.put(KEY_LINESPACE,0);
attrColsMap.put(KEY_TEXTSIZE,20);
attrColsMap.put(KEY_ALIGN, 0);
attrColsMap.put(KEY_WEIGHT, 1);

Map<String,Integer> attrCols1Map = attrColsMap;
Map<String,Integer> attrCols2Map = attrColsMap;
Map<String,Integer> attrCols3Map = attrColsMap;
Map<String,Integer> attrCols4Map = attrColsMap;

ArrayList<Map<String, Integer>> attrRow = new ArrayList<Map<String, Integer>>();
attrRow.add(attrCols1Map);
attrRow.add(attrCols2Map);
attrRow.add(attrCols3Map);
attrRow.add(attrCols4Map);

printColumnsTextWithAttributes(row1Texts, attrRow, mCallback);
printColumnsTextWithAttributes(row2Texts, attrRow, mCallback);
```

1.1.4. printBitmap

Function description

Print bitmap

Parameter list

Parameter	Type	Description
Bitmap	Bitmap	Input bitmap to print
callback	IPrinterCallback	Callback

Return

None

1.1.5. printBitmapWithAttributes

Function description

Print bitmap with attributes

Parameter list

Parameter	Type	Description
Bitmap	Bitmap	Input bitmap to print
attributes	Map	Attributes to bitmap format
callback	IPrinterCallback	Callback

Return

None

Example code:

```
Bitmap logo_300x473 = new Bitmap();
Bitmap logo_410x490 = new Bitmap();

Map<String,Integer> map1 = new HashMap<String,Integer>();
map1.put(KEY_ALIGN, 0);
map1.put(KEY_MARGINLEFT, 5);
map1.put(KEY_MARGINRIGHT, 5);

printBitmap(logo_410x490,map1, mCallback);
printBitmap(logo_300x473,map1, mCallback);
```

1.1.6. printQRCode

Function description

Print QRcode image

Parameter list

Parameter	Type	Description
text	String	Input text to generate QRcode image
align	Integer	Align atributes ex: [0:center 1:left 2:right]
size	Integer	Size of QRcode image ex: [100(px)]
callback	IPrinterCallback	Callback

Return

None

1.1.7. printBarCode

Function description

Print BarCode image

Parameter list

Parameter	Type	Description
content	String	Input content to generate BarCode image
align	Integer	Align atributes ex: [0:center 1:left 2:right]
height	Integer	BarCode height
width	Integer	BarCode width
showContent	Boolean	Show content+image or only image
callback	IPrinterCallback	Callback

Return

None

1.1.8. setPrinterSpeed

Function description

Set printer speed level

Parameter list

Parameter	Type	Description
level	Integer	Speed level; [lower 1 < ... < 6 faster]
callback	IPrinterCallback	Callback

Return

None

1.1.9. sendRAWData

Function description

Send Raw data to printer mcu

Parameter list

Parameter	Type	Description
data	byte[]	Raw data
callback	IPrinterCallback	Callback

Return

None

1.1.10. printerTemperature

Function description

Get printer temperature

Parameter list

Parameter	Type	Description
callback	IPrinterCallback	Callback

Return

Return value	Description
Integer	0: Abnormal (temperature > 65) 1: Normal (temperature <=65)

1.1.11. printerPaper**Function description**

Get printer paper status

Parameter list

Parameter	Type	Description
callback	IPrinterCallback	Callback

Return

Return value	Description
Boolean	True: Detect paper False: No paper

1.1.12. getFirmwareVersion**Function description**

Get firmware version

Parameter list

None

Return

Return value	Description
String	Firmware version

1.1.13. getBootloaderVersion

Function description

Get bootloader version

Parameter list

None

Return

Return value	Description
String	bootloader version

1.1.14. upgradePrinter

Function description

Upgrade printer bootloader and firmware
Deprecated, no use

Parameter list

None

Return

None

1.1.15. printerReset

Function description

Reset device's printer
Deprecated, no use

Parameter list

Parameter	Type
callback	IPrinterCallback

Return

None

1.1.16. printerWrapPaper**Function description**

Test wrap paper at device's printer

Parameter list

Parameter	Type	Description
n	Integer	Lines to wrap
callback	IPrinterCallback	Callback

Return

None

1.1.17. printText**Function description**

Simple print text

Parameter list

Parameter	Type	Description
text	String	Input text to print
callback	IPrinterCallback	Callback

Return

None

2. IPrinterCallback

2.1 Interface IPrinterCallback

AIDL: IPrinterCallback

JAR/AAR: PrinterCallback

Delphi: Jprintermodule_PrinterCallback

2.1.1 onException

Function description

Exception data

Parameter list

Parameter	Type	Description
code	Integer	Exception code
msg	String	Exception message

Return

None

2.1.2 onLength

Function description

Print length rounding values

Parameter list

Parameter	Type	Description
current	Long	length of current word
total	Long	total length of printing after power on

Return

None

2.1.3 onRealLength

Function description

Print length not rounding values (mm)

Parameter list

Parameter	Type	Description
current	Double	length of current word
total	Double	total length of printing after power on

Return

None

2.1.4 onComplete

Function description

Called when the given task completes

Parameter list

None

Return

None

3. Printer Broadcast

Class

android.content.BroadcastReceiver

Intent

"br.com.positivo.printer.onRealLength"

Extras list

Name	Type	Description
onRealCurrentLength	Double	length of current print (mm)
onRealTotalLength	Double	total length of printing after power on (mm)

Example code

Adding receiver in AndroidManifest.xml

```
<receiver android:name="PrinterBroadcastReceiver" >
    <intent-filter>
        <action android:name="br.com.positivo.printer.onRealLength" />
    </intent-filter>
</receiver>
```

Sample Broadcast

```
package br.com.positivo.printerapp;

import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.util.Log;

public class PrinterBroadcastReceiver extends BroadcastReceiver {
    @Override
    public void onReceive(Context context, Intent intent) {
        Log.d("PrinterBroadcast", "onRealCurrentLength: "
            + intent.getDoubleExtra("onRealCurrentLength", 0));
        Log.d("PrinterBroadcast", "onRealTotalLength: "
            + intent.getDoubleExtra("onRealTotalLength", 0));
    }
}
```

4. Printer Attributes

4.1 Align

Key`key_attributes_weight`**Supported by**`printTextWithAttributes`, `printBitmapWithAttributes`**Values**

0 ... 2

Default

1 (left)

Reference values

0 (center), 1 (left), 2 (right)

Paper usage

N/A

4.2 Text Size

Key`key_attributes_textsize`**Supported by**`printTextWithAttributes`, `printColumnsTextWithAttributes`**Values**

1 ... 32.767

Default

24

Reference values

16 (FONT_SMALL), 24 (FONT_NORMAL), 36 (FONT_LARGE)

Paper usage

N/A

4.3 Type Face / Font

Key`key_attributes_typeface`**Supported by**`printTextWithAttributes`, `printColumnsTextWithAttributes`

Values

0 ... 8

Default

0

Reference values

- 0: default font
- 1: bold default font
- 2: serif default font
- 3: Arial
- 4: FangHei
- 5: Franklin Gothic
- 6: Haettenschweiler
- 7: HuaSong
- 8: Sans Mono

Paper usage

N/A

4.4 Margin Left

Key

key_attributes_marginleft

Supported by

printTextWithAttributes

Values

1 ... 384

Default

1

Reference values

N/A

Paper usage

- 1: 0,5 cm
- 10: 0,6 cm
- 20: 0,7 cm
- 30: 0,85cm
- 40: 0,95cm

4.5 Margin Right, Top and Bottom

Currently, not supported

4.6 Line Space

Key`key_attributes_linespace`**Supported by**`printTextWithAttributes`**Values**

10 ... 32.767

Default

10

Reference values

N/A

Paper usage

0,2 cm every 10.

Space (cm) = 0,2 * (value/10)

4.7 Weight

Key`key_attributes_weight`**Supported by**`printColumnsTextWithAttributes`**Values**

1 ... 32.767

Default

10

Reference values

N/A

Paper usage

N/A