

(8)Interface of Thermal USB Printer

Thermal printer interface is under `com.telpo.tps550.api.printer`, including the operating class `UsbThermalPrinter` and error class definition

Brief introduction of class	
Class	Explanation
UsbThermalPrinter	Control Class of Thermal USB printer
Brief introduction of error	
Error	Explanation
NoPaperException	No paper
OverHeatException	Over Heat

Constant defined by ThermalPrinter is as below:

Field	
Qualifier and type	Field and annotation
static int	ALGIN_LEFT Left algin
static int	ALGIN_MIDDLE Middle algin
static int	ALGIN_RIGHT Right algin
static int	DIRECTION_BACK Direction of paper travelling:back
static int	DIRECTION_FORWORD Direction of paper travelling:forward
static int	STATUS_NO_PAPER Printer's paper out
static int	STATUS_OK Printer is ready to work
static int	STATUS_OVER_FLOW Printer's cache is full
static int	STATUS_OVER_HEAT Printer engine is overheating
static int	STATUS_UNKNOWN The status of printer is unknown
static int	WALK_DOTLINE paper skipping by point row
static int	WALK_LINE paper skipping by character row

Main interface:

• start

```
public void start(int mode)throws PosException
```

Apply for printer resources, operation of printer is after applying. When it is done ,call stop()to release printer.

Parameter:

Mode: when it equals to 0, normal printing type

When it equals to 1, fast printing type, and it needs much more current, be care to use it. If you want to print the picture which is all black, it would probably cause the machine to crash.

Throw:

[DeviceAlreadyOpenException](#) - Re-apply when resources are already applied

[DeviceNotFoundException](#) - Device is not found

• reset

```
public void reset()
```

Reset the printer, restore all setting to default,clear cache

- **Throw:**
- `DeviceNotOpenException` - Device or resource is not applied or opened

• `walkPaper`

- `public void walkPaper(int line)`
- Paper skipping
- **Parameter:**
- `line` – Number of point row,>0
- **Throw:**
- `java. lang. IllegalArgumentException` - Whenthe number of point row is less or equal to zero
- `DeviceNotOpenException` - Device or resource is not applied or opened
- `DeviceOverFlowException` - Cache is full during printing
- `NoPaperException` - Paper out during printing

• `stop`

- `public void stop()`
- Release printer,this must been done if you do not use printer

• `checkStatus`

- `public int checkStatus()`
- Testing status of printer
- **Return:**
- Value of return:
- `STATUS_OK`
- `STATUS_NO_PAPER`
- `STATUS_OVER_HEAT`
- `STATUS_OVER_FLOW`
- `STATUS_UNKNOWN`
- **Throw:**
- `DeviceNotOpenException` - Device or resource is not applied or opened

• `setFontSize`

- `public void setFontSize(int type)`
- throws [PosException](#)
- Setfont
- **Parameter:**
- `type` - Font-size,1-2 The default is font 1
- For ASC, font 1 size is 8*162 while font 2 size is 12*24
- For DBCS, font 1 size is 8*162 while font 2 size is 12*24
- **Throw:**
- `java. lang. IllegalArgumentException` - Occurs when multiple is less than 1 or more than 2
- [DeviceNotOpenException](#) - Device or resource is not applied or opened

• `enlargeFontSize`

- `public static void enlargeFontSize(int widthMultiple,int heightMultiple)`
- Increase the printing fonts' width and height
- **Parameter:**
- `widthMultiple` - 1-2times,original status of printer is 1
- `heightMultiple` - 1-2times,original status of printer is 1
- **Throw:**
- `java. lang. IllegalArgumentException` - Occurs when multiple is less than 1 or more than 2
- `DeviceNotOpenException` - Device or resource is not applied or opened
- NOTE:This function is invalid on USB printing VERSION 2

• `setHighlight`

<ul style="list-style-type: none">• public void setHighlight(boolean mode)• Set if black and write reversed or not• Parameter:• mode - true, Allow printing with black and write reversed• false, forbid printing with black and write reversed• Throw:• DeviceNotOpenException - Device or resource is not applied or opened	
• setGray	
<ul style="list-style-type: none">• public void setGray(int level)• setting printing gray value• Parameter:• level – 0-7, default is 1• Throw:• java. lang. IllegalArgumentException – occurs when gray value is less than 1 or bigger than 20• DeviceNotOpenException - Device or resource is not applied or opened	
• setAlgin	
<ul style="list-style-type: none">• public void setAlgin(int mode)• setting printing alginment• Parameter:• mode - alginment• ALGIN_LEFT left• ALGIN_MIDDLE middle• ALGIN_RIGHT right algin• Throw:• java. lang. IllegalArgumentException – Occurs when alignment Parametermode is illegal• DeviceNotOpenException - Device or resource is not applied or opened	algin algin
• addString	
<ul style="list-style-type: none">• public void addString(java. lang. String content)• Add printing content• Parameter:• content - Content to print• Throw:• DeviceNotOpenException - Device or resource is not applied or opened• java. lang. NullPointerException - \ Parametercontent is empty	
• clearString	
<ul style="list-style-type: none">• public void clearString()• Clear all printing content already added• Throw:• DeviceNotOpenException - Device or resource is not applied or opened	
• printString	
<ul style="list-style-type: none">• public void printString()• Start printing, do not paper skip when finished• Throw:• DeviceNotOpenException - Device or resource is not applied or opened• DeviceOverFlowException - Occurs when cache is full during printing• NoPaperException - Occurs when paper out during printing	
• printStringAndWalk	
<ul style="list-style-type: none">• public void printStringAndWalk(int direction,int mode,int lines)• Start printing and paper rolling	

- **Parameter:**
- direction - paper skipping direction after printing
DIRECTION_FORWORD, paper skipping forward
DIRECTION_BACK, paper skipping backward
- mode – paper skipping mode
WALK_DOTLINE, point row
WALK_LINE, character row
- lines – the number of paper skipping lines, 1-255
- **Throw:**
- java. lang. IllegalArgumentException – Parameter is not correct
- DeviceNotOpenException - Occurs when cache is full during printing
- DeviceOverflowException - Occurs when cache is full during printing
- NoPaperException - Occurs when paper out during printing

- **setLineSpace**

- public void setLineSpace(int lineSpace)
- setting linespacing
- **Parameter:**
- lineSpace -,0-255 Linespacing,unit point row,0-255
- **Throw:**
- java. lang. IllegalArgumentException – occurs when Linespacing is less than 1 or bigger than 255lineSpace
- DeviceNotOpenException - Occurs when cache is full during printing

- **printLogo**

```
public void printLogo(Bitmap image,boolean isBuffer)
        throws PosException
```

Printing images

Parameter:

image –Image resource Bitmap object, the width must be less than 384 pixels and an integer multiple of 8, high pixel must be an integer multiple of 8

isBuffer - true, add into the buffer line, when calling printString或printStringAndWalk, buffer line’ s data will be printed together, which is usually used to print the picture and words at the same time

false, print directly, no need to add into buffer line

Throw:

java.lang.NullPointerException – when Parameterimage is empty

java.lang.IllegalArgumentException – when the width or height of the image is not correct

DeviceNotOpenException - Occurs when cache is full during printing

DeviceOverflowException - Occurs when cache is full during printing

NoPaperException - Occurs when paper out during printing

- **paperCut**

```
public void paperCut()
paperCut (Only TPS650 have cutter)
```

Throw:
DeviceNotOpenException - Occurs when resource or device is not applying or not opened

- **setBold**

```
public void setBold(boolean isBold)
Set bold
parameter : isBold-----true, bold
false, not bold
```

throw:
DeviceNotOpenException

- **setTextSize**

```
public void setTextSize(int size)
Set text size
parameter : size-----The font size is in the range of 8-64
```

throw:

DeviceNotOpenException -

Note: This function is suitable for USB printing in two phases, USB printing is not valid for one phase

- **setUnderline**

public void setUnderline(boolean mode)

Add an underscore to the text

parameter : mode-----true, Add underline
-----false, Cancel underline

throw:

DeviceNotOpenException -

Note: This function is suitable for USB printing in two phases, USB printing is not valid for one phase

- **measureText**

public int measureText(String text)

Gets the total width of the input text

parameter : text-----input text

throw:

DeviceNotOpenException

Note: This function is suitable for USB printing in two phases, USB printing is not valid for one phase

- **addStringOffset**

public void addStringOffset(int offset,String context)

Add inline offset print content

parameter : offset-----Line offset, must be an integer multiple of 8, not less than the left margin, and can not be greater than (384 right margin)

context-----print content

throw:

DeviceNotOpenException

IllegalArgumentException

NullPointerException

Note: This function is suitable for USB printing in two phases, USB printing is not valid for one phase

* Please note that this method can only be used in the contents of a line to add, more than one line of characters will be intercepted do not print

* When the contents of the same line are added, offset needs to be added from small to large

* In the same line to add content, the middle does not allow to change the print format, otherwise it will lead to automatic wrap

* In the same line of content to add the process, call addString () method will automatically wrap

* End the contents of this line to add, call the endLine () method

- **endLine**

public void endLine()

Ends the contents of the current print line to be added for the addStringOffset method after the call is wrapped

throw:

DeviceNotOpenException

Note: This function is suitable for USB printing in two phases, USB printing is not valid for one phase

- **setAutoBreak**

public void setAutoBreak(boolean isAutoBreak)

Sets whether or not to use smart typography, using smart typesetting by default

Parameter:

isAutoBreak-----true, Enable smart typesetting
false, Disable smart typesetting

throw:

DeviceNotOpenException

Note: This function is suitable for USB printing in two phases, USB printing is not valid for one phase