

POS Thermal Receipt Printer

A11 Prime



Application Programming Guide

JPOS Driver

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1. Manual Information

This manual provides information on the Posbank JavaPOS driver as well as on the usage POS printer products offered by Posbank.

The following are terms contained in this manual.

- JDK : Java Development Kit
- JRE : Java Runtime Environment
- JavaPOS : Java Point of Sale
- JCL Utility : JavaPOS Configuration Utility

[Reference Websites]

<http://www.javapos.com> : Java POS committee website

<http://java.sun.com> : Official Java website

<http://www.posbank.com> : Posbank printers website

We at Posbank maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

2. Development environment

2-1 Communication Configuration

Communication Configuration for serial interface
You will set communication configuration in JCL Utility.

Printer Model	Baudrate	Printer Type	etc
A11 Prime	9600/19200/38400/57600/115200	Mono Thermal	

* Check the default communication setting.
For more details refer to the user manual included in the printer package.

3. Property / Method

3-1 Property Range / Default Value

3-1-1 Capability property setting value

Capability property	A11 Prime
CapCompareFirmwareVersion	FALSE
CapPowerReporting	TRUE
CapStatisticsReporting	FALSE
CapUpdateFirmware	FALSE
CapUpdateStatistics	FALSE
CapTransaction	TRUE
CapCoverSensor	TRUE
CapConcurrentRecSlp	FALSE
CapConcurrentJrnSlp	FALSE
CapConcurrentJrnRec	FALSE
CapCharacterSet	TRUE
CapRecUnderline	TRUE
CapRecPageMode	TRUE
CapCuncurrentPageMode	FALSE
CapRecStamp	FALSE
CapRecRotate180	TRUE
CapRecRight90	TRUE
CapRecPapercut	TRUE
CapRecNearEndSensor	TRUE
CapRecMarkFeed	TRUE
CapRecLeft90	TRUE
CapRecItalic	FALSE
CapRecEmptySensor	TRUE
CapRecDwideDhigh	TRUE
CapRecDwide	TRUE
CapRecDhigh	TRUE
CapRecColor	FALSE
CapRecCartridgeSensor	FALSE
CapRecBold	TRUE
CapRecBitmap	TRUE
CapRecBarCode	TRUE
CapRec2Color	FALSE
CapRecPresent	TRUE

* May be capability setting values are different depending on the printer model.

3-1-2 Property default value / Range

- List Property

Model	RecLineCharsList	RecBarCodeRotationList	FontTypefaceList	RecBitmapList
A11 Prime	"42,56"	๔๔๗	๔๔๗	0,L90,R90,180

- CharacterSetList Property

Model	Value
A11 Prime	437,1(Katakana),850,860,863,865,1252,866,852,858,862 864,23(Thai42),1253,1254,1257,27(Farsi),1251,737,775 31(Thai14),32(Hebrew Old),1255,34(Thai11),35(Thai18) 855,857,928,39(Thai16),1256,1258,42(Khmer),1250,255

- Receipt Width and Height Property

Model	RecLineHeight	RecLineWidth	RecLinePaperCut
A11 Prime	24	512	5

- RecLineSpacing Property

Property	Range		
	Default	Max	Min
RecLineSpacing	16	127	0

3-1-3 POSPrinter Method

Method	Value
beginInsertion	X
beginRemoval	X
changePrintSide	X
clearPrintArea	O
cutPaper	O
drawRuledLine	X
endInsertion	X
endRemoval	X
markFeed	O
pageModePrint	O
printBarCode	O
printBitmap	O
printImmediate	O
printMemoryBitmap	X
printNormal	O
printTwoNormal	X
rotatePrint	O
setBitmap	O
setLogo	O
transactionPrint	O
validateData	O

O: Supported X: Not supported

3-1-4 POSPrinter Escape Sequences

Escape Sequence	Value
[#]P	O (value range: 0~100)
[#]fP	O (value range: 0~100)
[#]sP	X
sL	X
[#]B	O (value range: 1~20)
tL	O
bL	O
[#]lF	O (value range: 0~9999)
[#]uF Base Pitch [inch]	O
[#]rF Maximum [inch]	X
#E	X
#R	X
#dL	X
#fT	O
[!]bC	O
[!][#]uC	O
[!]iC	X
[#]rC	O
[!]rvC	O
[#]sC	X
1C	O
2C	O
3C	O
4C	O
#hC	O
#vC	O
[#]fC	X
[!]tbC	X
[!]tpC	X
cA	O
rA	O
lA	O
[!][#]stC	X
N	O

O: Supported X: Not supported

3-1-5 Color bitmap printing support

Posbank JavaPOS Driver supports following image formats.

- GIF, JPG, BMP Image Format.

The image will be converted into Mono color or 2 Colors depending on printer model.

4. Extended Functions

This section is to explain DirectIO method.

This method will operate properly only with Posbank POS printer.

4-1 DirectIO Method

Argument	Explanation	Type
Command	Pre-define constant	Long
pData	Number of output data / Value defined by command	Long
pString	Output Data	String

Posbank JavaPOS DirectIO Command

Command	Constant value	Description
PTR_DI_OUTPUT	0	Output defined pString data
PTR_DI_INTERNATIONAL_CHAR	1	International character set define

PTR_DI_OUTPUT

Argument	Command	PTR_DI_OUTPUT
	pData	Null
	pString	Output data
Description	Sends data without any process after checking printer status. “pString” is not affected by “BinaryConversion”	
Return	Result Code	ResultCodeExtended
	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_BUSY	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	0

PTR_DI_INTERNATIONAL_CHAR

Argument	Command	PTR_DI_INTERNATIONAL_CHAR
	pData	pre-defined constant PRN_DI_CHAR_USA: 0 PRN_DI_CHAR_FRANCE: 1 PRN_DI_CHAR_GERMANY: 2 PRN_DI_CHAR_UK: 3 PRN_DI_CHAR_DENMARK1: 4 PRN_DI_CHAR_SWEDEN: 5 PRN_DI_CHAR_ITALY: 6 PRN_DI_CHAR_SPAIN1: 7 PRN_DI_CHAR_JAPAN: 8 PRN_DI_CHAR_NORWAY: 9 PRN_DI_CHAR_DENMARK2: 10
	pString	Printing position
Description	Sets International character set. If CharacterSet property value is changed, International character set will be reset.	
Return	Result Code	ResultCodeExtended
	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_BUSY	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	0

4-2 DirectIOEvent Event

Not used.

5. Error Information

This section is to explain returned error information when use POSPrinter methods.
For more details, please refer to the UPOS specifications.

5-1 ResultCode List

- Claim

Method	Result Code	ResultCodeExtended
Claim	JPOS_E_ILLEGAL	JPOS_EPTR_UNRECOVERABLE
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_CUTTER
		JPOS_EPTR_OVERHEAT
		JPOS_EPTR_REC_EMPTY
		JPOS_EPTR_JRN_EMPTY

- CheckHealth

Method	Result Code	ResultCodeExtended
CheckHealth	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERABLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT

- ClearOutput

Method	Result Code	ResultCodeExtended
ClearOutput	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0

- DirectIO

Method	Result Code	ResultCodeExtended
DirectIO	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_UNRECOVERABLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY

- PrintNormal

Method	Result Code	ResultCodeExtended
PrintNormal	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERABLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY

- PrintImmediate

Method	Result Code	ResultCodeExtended
PrintImmediate	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERABLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY

- CutPaper

Method	Result Code	ResultCodeExtended
CutPaper	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERABLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY

- RotatePrint

Method	Result Code	ResultCodeExtended
RotatePrint	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERABLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY

- PrintBitmap

Method	Result Code	ResultCodeExtended
PrintBitmap	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERABLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_NOEXIST	0
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY
		JPOS_EPTR_SLP_EMPTY
		JPOS_EPTR_TOOBIG
		JPOS_EPTR_BADFORMAT

- SetBitmap

Method	Result Code	ResultCodeExtended
SetBitmap	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERABLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_NOEXIST	0
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY
		JPOS_EPTR_SLP_EMPTY
		JPOS_EPTR_TOOBIG
		JPOS_EPTR_BADFORMAT

- SetLogo

Method	Result Code	ResultCodeExtended
SetLogo	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0

- TransactionPrint

Method	Result Code	ResultCodeExtended
TransactionPrint	JPOS_SUCCESS	0
	JPOS_E_CLOSED	0
	JPOS_E_CLAIMED	0
	JPOS_E_NOTCLAIMED	0
	JPOS_E_DISABLED	0
	JPOS_E_ILLEGAL	0
	JPOS_E_OFFLINE	0
	JPOS_E_FAILURE	JPOS_EPTR_UNRECOVERABLE
		JPOS_EPTR_CUTTER
		JPOS_EPTR_MECHANICAL
		JPOS_EPTR_OVERHEAT
	JPOS_E_NOEXIST	0
	JPOS_E_EXTENDED	JPOS_EPTR_COVER_OPEN
		JPOS_EPTR_JRN_EMPTY
		JPOS_EPTR_REC_EMPTY
		JPOS_EPTR_SLP_EMPTY

6. Precautions

- 1) Reproduction of any part of this documentation by any means is prohibited.
- 2) The contents of this documentation are subject to change without notice.
- 3) Comments and notification of any mistakes in this documentation are gratefully accepted.
- 4) This software cannot be used with other equipment than the specified.
- 5) Posbank will not be responsible for any consequences resulting from the use of any information in this documentation.
- 6) Posbank JavaPOS driver is designed to operate properly with the latest firmware of each model.
If the printer doesn't operate properly, please check the firmware version and contact the manufacturer.

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