

**BIXOLON**

Application Programming Guide

# OPOS Driver

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Ver. 3.15

<http://www.bixolon.com>

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## Caution

Some semiconductor devices are easily damaged by static electricity. You should turn the printer "OFF", before you connect or remove the cables on the rear side, in order to guard the printer against the static electricity. If the printer is damaged by the static electricity, you should turn the printer "OFF".

# Introduction

This is a manual about how to set and configure device and to develop applications For BIXOLON POS printer with BIXOLON OPOS driver.

Before use BIXOLON POS printer, set and configure printer by using BIXOLON OPOS driver Setup Utility.

Throughout this manual, "OLE for Retail POS" is called "OPOS"

Throughout this manual, "Unified for Retail POS" is called "UPOS"

[Further Source]

OLE for Retail POS committee available from <http://monroecs.com/opos.htm>

Driver Update from <http://www.bixolon.com>

# 1. Development environment

## 1-1 Communication Configuration

- Communication Configuration for serial interface.
- You will set communication configuration in BIXOLON OPOS Setup Utility.

Printer Model	Baud Rate	Printer Type	etc
STP-103 / STP-103II STP-103III / STP-131	9600/19200/38400/57600/ 115200	Mono Thermal	
SRP-270 / SRP-275 SRP-275II / SRP-275III	9600/19200	2 Color Dot	
SRP-280	9600/19200	Mono Dot	
SRP-350 / SRP-350N	9600/19200/38400/57600	Mono Thermal	
SRP-500	9600/19200	2 Color Inkjet	
SRP-330 / SRP-330II SRP-330III SRP-340 / SRP-340II SRP-350III / SRP-350plusIII SRP-350plus / SRP-350plusF SRP-350II / SRP-350IIK SRP-350plusII SRP-350V / SRP-350plusV SRP-370 / SRP-380 SRP-F310 / SRP-F310II SRP-S300 / SRP-E300 SRP-380II	9600/19200/38400/57600/ 115200	Mono Thermal	
SRP-332II / SRP-332III SRP-342II SRP-352plus / SRP-352plusII SRP-352III / SRP-352plusIII SRP-352V / SRP-352plusV SRP-F312 / SRP-F312II SRP-F313II / SRP-372 SRP-382 / SRP-E302 SRP-Q200 / SRP-B300 SRP-S320 / SRP-S3000 SRP-S200 / SRP-382II	9600/19200/38400/57600/ 115200	Mono Thermal	203 dpi
SRP-383	9600/19200/38400/57600/ 115200	Mono Thermal	300 dpi
BK3-3 / BK3-2 / BK5-3	9600/19200/38400/57600/ 115200	Mono Thermal	203 dpi
SPP-200	9600/19200/38400/57600/ 115200	Mono Thermal	203 dpi
SPP-R200 / SPP-R200II SPP-R200III SPP-R300 / SPP-R310 SPP-R400 / SPP-R410	9600/19200/38400/57600/ 115200	Mono Thermal	203 dpi

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G30	9600/19200/38400/57600/ 115200	Mono Thermal	203 dpi
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- Check the default communication setting.  
For more details refer to the user manual included in the printer package.
- A printer which does not support Serial Interface is not indicated.

## 2. Properties / Methods

### 2-1 Printer Type

- Property value will be determined by the printer type, as shown in the below table.  
(Some property values related to Receipt may be different depending on printer model.)

1 Color Dot printer list	SRP-280
2 Color Dot printer list	SRP-270, SRP-275, SRP-275II, SRP-275III
Thermal printer list	STP-103, STP-103II, STP-103III, STP-131, SRP-330, SRP-330II, SRP-332II, SRP-330III, SRP-332III, SRP-340, SRP-350II, SRP-350IIC, SRP-340II, SRP-342II, SRP-350, SRP-350N, SRP-350III, SRP-352III, SRP-350plus, SRP-350plusF, SRP-352plus, SRP-350plusII, SRP-352plusII, SRP-350plusIII, SRP-352plusIII, SRP-350V, SRP-352V, SRP-350plusV, SRP-352plusV SRP-370, SRP-372, SRP-F310, SRP-F312, SRP-380, SRP-382, SRP-383, SRP-380II, SRP-382II SRP-F310II, SRP-F312II, SRP-F313II, SRP-S300, SRP-Q300, SRP-Q302, SRP-QE300, SRP-QE302, SRP-Q200, SRP-E300, SRP-E302, BK3-3, BK3-2, BK5-3, SRP-B300, SRP-S320, SRP-S3000, SRP-S200, SPP-200, SPP-C200, SPP-C300, SPP-R200, SPP-R200II, SPP-R200III, SPP-R210, SPP-R220, SPP-R300, SPP-R310, SPP-R400, SPP-R410, G30
Ink printer list	SRP-500



## 2-2 Properties Range / Default Value

### 2-2-1 Capability properties setting value

Capability property	1 Color Dot	2 Color Dot	Thermal	Ink
Cap Compare Firmware Version	FALSE	FALSE	FALSE	FALSE
Cap Power Reporting	TRUE	TRUE	TRUE	TRUE
Cap Statistics Reporting	FALSE	FALSE	FALSE	FALSE
Cap Update Firmware	FALSE	FALSE	FALSE	FALSE
Cap Update Statistics	FALSE	FALSE	FALSE	FALSE
Cap Transaction	TRUE	TRUE	TRUE	TRUE
Cap Cover Sensor	FALSE	TRUE	TRUE	TRUE
Cap Concurrent Rec Slp	FALSE	FALSE	FALSE	FALSE
Cap Concurrent Jrn Slp	FALSE	FALSE	FALSE	FALSE
Cap Concurrent Jrn Rec	FALSE	FALSE	FALSE	FALSE
Cap Character Set	TRUE	TRUE	TRUE	TRUE
Cap Rec Underline	TRUE	TRUE	TRUE	TRUE
Cap Rec Page Mode	FALSE	FALSE	TRUE	FALSE
Cap Cuncurrent Page Mode	FALSE	FALSE	FALSE	FALSE
Cap Rec Stamp	FALSE	FALSE	FALSE	FALSE
Cap Rec Rotate 180	TRUE	TRUE	TRUE	TRUE
Cap Rec Right 90	FALSE	FALSE	TRUE	FALSE
Cap Rec Papercut	TRUE	TRUE	TRUE	TRUE
Cap Rec Near End Sensor	TRUE	FALSE	TRUE	FALSE
Cap Rec Mark Feed	FALSE	FALSE	FALSE	FALSE
Cap Rec Left 90	FALSE	FALSE	TRUE	FALSE
Cap Rec Italic	FALSE	FALSE	FALSE	FALSE
Cap Rec Empty Sensor	TRUE	TRUE	TRUE	TRUE
Cap Rec Dwide Dhigh	TRUE	TRUE	TRUE	TRUE
Cap Rec Dwide	TRUE	TRUE	TRUE	TRUE
Cap Rec Dhigh	TRUE	TRUE	TRUE	TRUE
Cap Rec Color	FALSE	TRUE	FALSE	TRUE
Cap Rec Cartridge Sensor	FALSE	FALSE	FALSE	TRUE
Cap Rec Bold	TRUE	TRUE	TRUE	TRUE
Cap Rec Bitmap	TRUE	TRUE	TRUE	TRUE
Cap Rec BarCode	FALSE	FALSE	TRUE	TRUE
Cap Rec 2Color	FALSE	TRUE	FALSE	TRUE
Cap Rec Present	TRUE	TRUE	TRUE	TRUE



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

## 2-2-2 Properties default value / range

### 1) List Property

Model	Rec Line Chars List	Rec BarCode Rotation List	Font Type face List	Rec Bitmap List
STP-103 / STP-103II STP-103III	"24,32"	""	""	0, L90, R90,180
STP-131	"42,56"	""	""	0, L90, R90,180
SRP-270 / SRP-275 SRP-275II / SRP-275III	"33,40"	""	""	0, L90, R90,180
SRP-280	"35,42"	""	""	0, L90, R90,180
SRP-370	"42,56"	""	""	0, L90, R90,180
SRP-372	"47,63"	""	""	0, L90, R90,180
SRP-500	"36,42"	""	""	0, L90, R90,180
SRP-350N	"32,42"	""	""	0, L90, R90,180
SRP-330 / SRP-340 SRP-330II / SRP-340II SRP-330III SRP-350 / SRP-370 SRP-350plus SRP-350plusF SRP-350II / SRP-350IIK SRP-350plusII SRP-350III SRP-350plusIII SRP-350V / SRP-352V SRP-380 / SRP-F310 SRP-F310II / SRP-Q300 SRP-QE300 / SRP-E300 SRP-380II	"42,56"	""	""	0, L90, R90,180
SRP-332II / SRP-342II SRP-332III SRP-352plus SRP-352plusII SRP-352III SRP-352plusIII SRP-350plusV SRP-352plusV SRP-382 / SRP-382II SRP-F312 / SRP-F312II SRP-S300 / SRP-Q302 SRP-QE302 / SRP-E302 SRP-B300 / SRP-S320 SRP-S3000	"48,64"	""	""	0, L90, R90,180
SRP-B300 (42CPL)	"42,60"	""	""	0, L90, R90,180
SRP-383	"48,72"	""	""	0, L90, R90,180
SRP-F313II BK5-3 (640dot mode)	"53,71"	""	""	0, L90, R90,180

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SRP-Q200 / BK3-2 SRP-S200	"36,48"	""	""	0, L90, R90,180
BK3-3 / BK5-3 (576dot mode)	"48,64"	""	""	0, L90, R90,180
SPP-200	"48,64"	""	""	0, L90, R90,180
SPP-R200 / SPP-R200II SPP-R200III SPP-R210 / SPP-R220 SPP-C200	"32,42"	""	""	0, L90, R90,180
SPP-R300 / SPP-R310 SPP-C300	"48,64"	""	""	0, L90, R90,180
SPP-R400 / SPP-R410	"69,92"	""	""	0, L90, R90,180
G30	"48,64"	""	""	0, L90, R90,180

## 2) Character Set List Property

Model	Value
STP-103 / STP-103II / STP-103III	437,850,1(Katakana),860,863,865,858,255
STP-131	437,850,1(Katakana),860,863,865,255
SRP-270	437,850,860,863,865,858,255
SRP-275 / SRP-275II SRP-275III	437,850,860,863,1(Katakana),865,866,1252,852, 858,862,864,23(Thai42),1253,1254,1257,27(Farsi), 1251,737,775,255
SRP-280	Only China
SRP-350 / SRP-350N	437,850,1(Katakana),860,863,865,858,255
SRP-370 / SRP-372	437,850,1(Katakana),860,863,865,858.855,857,864, 23(Thai42),1253,1251,737,39(Thai16),1255,255
SRP-500	437,850,860,863,865,1252,866,255
SRP-330 SRP-350plus / SRP-350plusF SRP-352plus	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), 1256,255
SRP-330II / SRP-332II SRP-330III / SRP-332III SRP-340 / SRP-340II / SRP-342II SRP-350II / SRP-350IIK SRP-350III / SRP-352III SRP-350plusII / SRP-352plusII SRP-350plusIII / SRP-352plusIII SRP-350V / SRP-352V SRP-350plusV / SRP-352plusV SRP-F310 / SRP-F312 SRP F310II / SRP-F312II SRP-F313II / SRP-S300 SRP-QE300 / SRP-QE302 SRP-E300 / SRP-E302 SRP-Q200 BK3-3 / BK3-2 / BK5-3 SRP-B300 / SRP-S320 SRP-S3000 / SRP-S200 SRP-380II / SRP-382II SPP-200 SPP-R200 / SPP-R200II SPP-R200III SPP-R210 / SPP-R220 SPP-R300 / SPP-R310 SPP-R400 / SPP-R410 SPP-C200 / SPP-C300	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),1250,255,949,932,950,936

SRP-Q300 / SRP-Q302 SRP-380 / SRP-382 / SRP-383	997,437,1(Katakana),850,860,863,865,1252,866,852, 858,862,864,23(Thai42),1253,1254,1257,27(Farsi),12 51,737,775,31(Thai14),1255,34(Thai11),874,35(Thai1 8),855,857,928,39(Thai16),1256,1258,42(KHMER),12 50,255,949,932,950,936
G30	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),1250,255,949,932,950,936

## 3) Receipt Width and Height Property

Model	Rec Line Height	Rec Line Width	Rec Line Paper Cut
STP-103 / STP-103II / STP-103III	24	342	5
STP-131	24	512	5
SRP-270 / SRP-275 SRP-275II / SRP-275III	9	512	9
SRP-280	9	512	9
SRP-500	12	512	10
SRP-350N	24	342	5
SRP-330 / SRP-340 SRP-350 / SRP-370 SRP-350plus / SRP-350plusF SRP-330II / SRP-340II SRP-330III SRP-350II / SRP-350IIK SRP-350plusII SRP-350III / SRP-350plusIII SRP-350V / SRP-352V SRP-F310 / SRP-F310II SRP-380 / SRP-380II SRP-Q300 / SRP-QE300 SRP-E300	24	512	5
SRP-372 / SRP-352plus SRP-332II / SRP-342II SRP-332III SRP-352plusII SRP-352III / SRP-352plusIII SRP-350plusV / SRP-352plusV SRP-F312 / SRP-F312II SRP-382 / SRP-382II SRP-Q302 / SRP-QE302 SRP-E302 / SRP-B300 SRP-S300 / SRP-S320 SRP-S3000	24	576	5
SRP-B300(42CPL)	24	546	5
SRP-383	34	864	5
SRP-F313II	24	640	5
SRP-Q200 / BK3-2	24	432	3
SRP-S200	24	432	5
BK3-3 BK5-3(576dot mode)	24	576	3
BK5-3(640dot mode)	24	640	3
SPP-200	24	576	2
SPP-R200 / SPP-R200II SPP-R200III / SPP-R210 SPP-R220 / SPP-C200	24	384	5
SPP-R300 / SPP-R310 / SPP-C300	24	576	5
SPP-R400 / SPP-R410	24	832	5
G30	24	576	5

**4) Rec Line Spacing Property**

Property	Range		
	Default	Max	Min
Rec Line Spacing	16	127	0

## 2-2-3 POS Printer Methods

Method	Value
Begin Insertion	X
Begin Removal	X
Change Print Side	X
Clear Print Area	O
Cut Paper	O
Draw Ruled Line	X
End Insertion	X
End Removal	X
Mark Feed	X
Page Mode Print	O (Dot, Ink type printer unsupported)
Print Bar Code	O
Print Bitmap	O
Print Immediate	O
Print Memory Bitmap	O
Print Normal	O
Print Two Normal	X
Rotate Print	O
Set Bitmap	O
Set Logo	O
Transaction Print	O
Validate Data	O

O: Supported    X: Not supported



## 2-2-4 POS Printer 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
[#]IF	O (Value range: 0~9999)
[#]uF Base Pitch [inch]	O
[#]rF Maximum [inch]	X
#E	O
#R	O
#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
IA	O
[!][#]stC	X
N	O

O: Supported    X: Not supported



To know more about Escape Sequence, please refer to UPOS 1.14.

### 2-2-5 Color bitmap printing support

BIXOLON OPOS 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.

### 2-2-6 PageMode printing support

BIXOLON Thermal printers support page mode printing.

(BIXOLON Dot Matrix Printer and Ink Jet printer don't support this feature.)

#### \* Methods used with Page Mode Printing

Method	Value
Print Normal	O
Print Bitmap	X
Print Barcode	O
Print Memory Bitmap	X

O: Supported    X: Not supported

## 3. Extended Functions

This section is to explain Direct IO method.

This method will operate properly only with BIXOLON POS printer.

### 3-1 Direct IO Method

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

## 3-1-1 BIXOLON OPOS Direct IO Commands Description

Command	Constant	Description
PTR_DI_OUTPUT	1	Output the pString data
PTR_DI_INTERNATIONAL_CHAR	2	Define the international character set
PTR_DI_350NV_PRINT	3	Print the Mono Color NV image
PTR_DI_370NV_PRINT	4	Print the 2 Color NV image
PTR_DI_275500NV_PRINT	5	Print the NV image for the dot printer
PTR_DI_MOBILE_MSR_READ	6	Read the data of MSR
PTR_DI_MOBILE_MSR_READ_TRACK1	7	Get the Track 1 information from MSR data
PTR_DI_MOBILE_MSR_READ_TRACK2	8	Get the Track 2 information from MSR data
PTR_DI_MOBILE_MSR_READ_TRACK3	9	Get the Track 3 information from MSR data
PTR_DI_MOBILE_MSR_READ_CLEAR	10	Clear the MSR Data
PTR_DI_MOBILE_MSR_INIT	13	Initialize the MSR Device
PTR_DI_MOBILE_BEEP	14	Play a beep sound (Mobile printer only)
PTR_DI_GET_PRESENTER_STATUS	15	Check BK3-3 Presenter's status
PTR_DI_G30_ALARM	16	Play the alarm (G30 only)

\* The constant of Command can be set at inf file of Printer model in BIXOLON OPOS Driver installation folder.

\* Example of setting the constant of command (inf file of Printer model)

```
[DIRECTIO]
PREDEFINE    = 0
GETPRESENTERSTATUS = 15
```

## 3-2 Direct IO Command

### 3-2-1 Direct 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 "Binary Conversion"	
Return	Result Code	Result Code Extended
	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_BUSY	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	0

## 3-2-2 International character set setting

Argument	Command	PTR_DI_INTERNATIONAL_CHAR
	pData	constant value which pre-defined 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_SPAIN: 7 PRN_DI_CHAR_JAPAN: 8 PRN_DI_CHAR_NORWAY: 9 PRN_DI_CHAR_DENMARK2: 10
	pString	Empty string
Description	Sets International character set. If Character Set property value is changed, International character set will be reset.	
Return	Result Code	Result Code Extended
	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_BUSY	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	0

**3-2-3 NV Image printing**

Argument	Command	PTR_DI_350NV_PRINT PTR_DI_370NV_PRINT PTR_DI_275500NV_PRINT
	pData	Null
	pString	Sequence data
Description	Print the NV image corresponding to the sequence.	
Return	Result Code	Result Code Extended
	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_BUSY	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	0

**3-2-4 Read the MSR data of mobile printer**

Argument	Command	PTR_DI_MOBILE_MSR_READ
	pData	Null
	pString	Null
Description	Read the MSR data. Track information is read using PTR_DI_MOBILE_MSR_READ_TRACK command.	
Return	Result Code	Result Code Extended
	OPOS_SUCCESS	0
	OPOS_E_ILLEGAL	0



**3-2-5 Get the track information of MSR Data**

Argument	Command	PTR_DI_MOBILE_MSR_READ_TRACK1 PTR_DI_MOBILE_MSR_READ_TRACK2 PTR_DI_MOBILE_MSR_READ_TRACK3
	pData	Null
	pString	Appropriate Track information
Description	Get the Track information from MSR data.	
Return	Result Code	Result Code Extended
	OPOS_SUCCESS	0
	OPOS_E_ILLEGAL	0

**3-2-6 Clear the MSR data**

Argument	Command	PTR_DI_MOBILE_MSR_READ_CLEAR
	pData	Null
	pString	Null
Description	Clear the MSR data.	
Return	Result Code	Result Code Extended
	OPOS_SUCCESS	0
	OPOS_E_ILLEGAL	0

**3-2-7 Initialize the MSR of mobile printer**

Argument	Command	PTR_DI_MOBILE_MSR_INIT
	pData	Null
	pString	Null
Description	Initialize the MSR device.	
Return	Result Code	Result Code Extended
	OPOS_SUCCESS	0
	OPOS_E_ILLEGAL	0

**3-2-8 Check BK3-3 Presenter's status**

Argument	Command	PTR_DI_GET_PRESENT_STATUS
	pData	Input buffer
	pString	Null
Description	Check BK3-3 Presenter's status. The status value is saved in pData after executing Direct IO command. status: Paper near end(0x01), Paper Empty(0x04), Paper in(0x08), Paper jam(0x80)	
Return	Result Code	Result Code Extended
	OPOS_SUCCESS	0
	OPOS_E_FAILURE	0

**3-2-9 Play the alarm (G30 only)**

Argument	Command	PTR_DI_G30_ALARM
	pData	Alarm play count
	pString	Null
Description	Play the alarm the number of times passed in as an argument (pData).	
Return	Result Code	Result Code Extended
	OPOS_SUCCESS	0
	OPOS_E_ILLEGAL	0

### \* Example (POS Application)

```
#define PRT_STS_NORMAL          0
#define PRT_STS_PAPER_NEAR_END    1
#define PRT_STS_PAPEREMPTY      4
#define PRT_STS_PAPER_IN        8
#define PRT_STS_PAPER_JAM       128

LONG pData=0;
BSTR pString;
const int PTR_DI_GET_PRESENTER_STATUS = 15;
LONG ret = posPrinter.DirectIO(PTR_DI_GET_PRESENTER_STATUS, &pData, &pString);

if(ret == OPOS_SUCCESS)
{
    if(pData == 0x00)
        printf("Presenter Normal\n");

    else
    {
        if (pData & PRT_STS_PAPER_NEAR_END)
            printf("Presenter : Near end\n");

        if (pData & PRT_STS_PAPEREMPTY)
            printf("Presenter : Paper empty\n");

        if (pData & PRT_STS_PAPER_IN)
            printf("Presenter : Paper in\n");

        if (pData & PRT_STS_PAPER_JAM)
            printf("Presenter : Paper jam\n");
    }
}
```

### 3-3 Direct IO Event

- Not used.

## 4. Error Information

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

### 4-1 Result Code List

#### 4-1-1 Claim Device method

Method	Result Code	Result Code Extended
Claim Device	OPOS_E_ILLEGAL	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_CUTTER
		OPOS_EPTR_OVERHEAT
		OPOS_EPTR_REC_EMPTY
		OPOS_EPTR_JRN_EMPTY

**4-1-2 Check Health method**

Method	Result Code	Result Code Extended
Check Health	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT



### 4-1-3 Clear Output method

Method	Result Code	Result Code Extended
Clear Output	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0

## 4-1-4 Direct IO method

Method	Result Code	Result Code Extended
Direct IO	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
		OPOS_EPTR_COVER_OPEN
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
		OPOS_EPTR_COVER_OPEN
	OPOS_E_EXTENDED	OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

## 4-1-5 Print Normal method

Method	Result Code	Result Code Extended
Print Normal	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

## 4-1-6 Print Immediate method

Method	Result Code	Result Code Extended
Print Immediate	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

## 4-1-7 Cut Paper method

Method	Result Code	Result Code Extended
Cut Paper	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

## 4-1-8 Rotate Print method

Method	Result Code	Result Code Extended
Rotate Print	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

## 4-1-9 Print Bitmap method

Method	Result Code	Result Code Extended
Print Bitmap	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_NOEXIST	0
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY
		OPOS_EPTR_SLP_EMPTY
		OPOS_EPTR_TOOBIG
		OPOS_EPTR_BADFORMAT

## 4-1-10 Set Bitmap method

Method	Result Code	Result Code Extended
Set Bitmap	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_NOEXIST	0
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY
		OPOS_EPTR_SLP_EMPTY
		OPOS_EPTR_TOOBIG
		OPOS_EPTR_BADFORMAT



**4-1-11 Set Logo method**

Method	Result Code	Result Code Extended
Set Logo	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0

## 4-1-12 Transaction Print method

Method	Result Code	Result Code Extended
Transaction Print	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0
	OPOS_E_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_NOEXIST	0
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY
		OPOS_EPTR_SLP_EMPTY

## Revision history

[illegible]