

# **OPOS DRIVER 1.13**

## **Application Development Guide**

**For Ver. 1.13.0.1**

## **Notes**

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# 1 Introduction

The OPOS Driver complies with OPOS1.13. This document provides the explanation of device (POS printer)-dependent specifications and precautions. When you want to develop applications by using this driver, refer to "UnifiedPOS Version 1.13" beforehand.

## 1.1 OPOS Driver

This driver provides an open device driver architecture that can easily integrate the POS printer and the cash drawer connected to it by the POS system based on Microsoft Windows Operating System. This driver has been developed for the following purpose.

- Definition of architecture for accessing the Win32-based POS printer/cash drawer connected to it .
- Definition of interface of POS printer supporting POS solution and cash drawer connected to it.

## 1.2 Operating Environment

### Object Operating System

This driver supports the following Windows operating systems.

- Windows XP
- Windows Vista
- Windows 7
- Windows 8
- Windows 10

From Windows Vista/7, operating system's registry structure is modified. Some applications that was programmed for Windows XP may not work correctly.

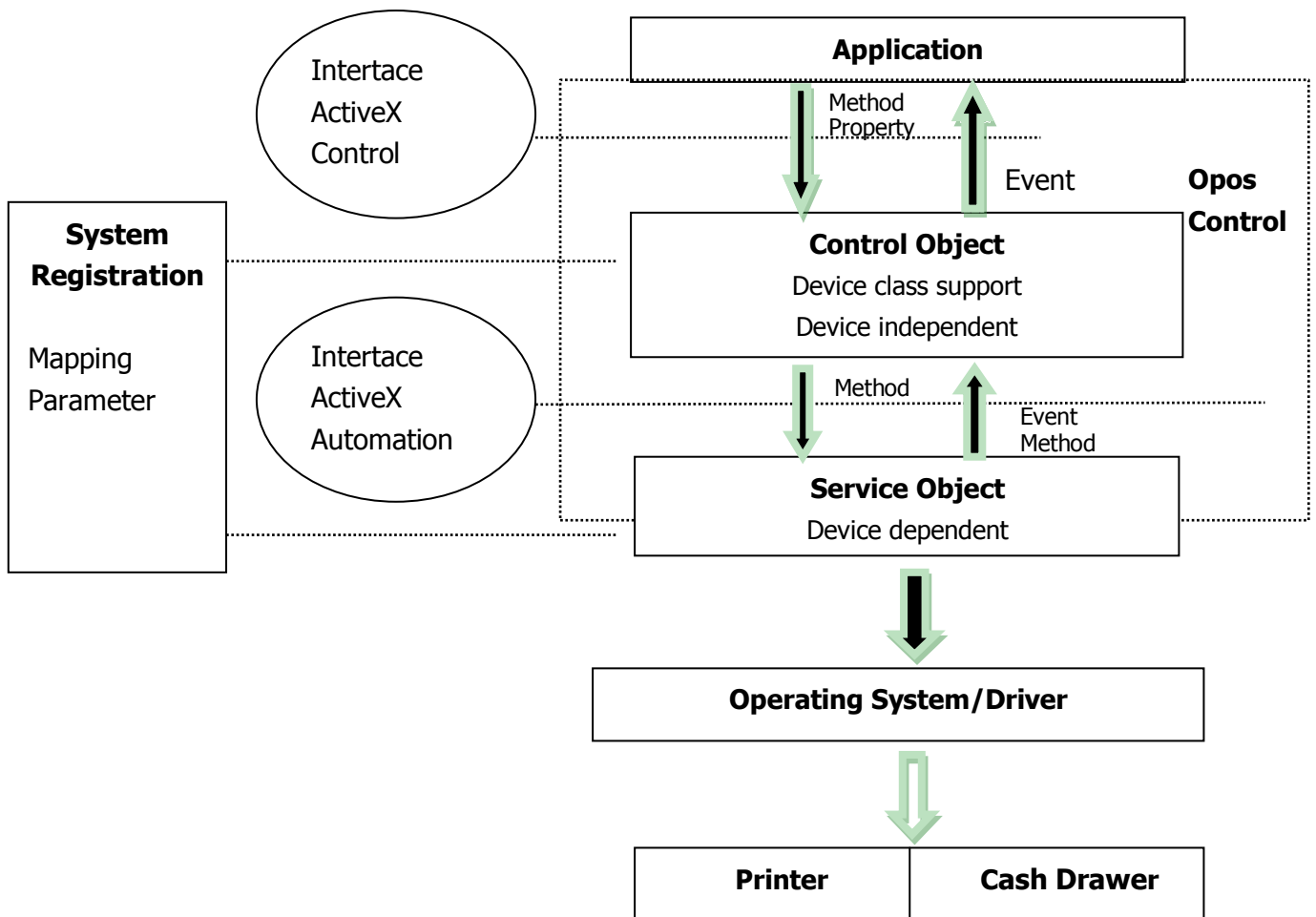
## 1.3 Application Developer

- Application developer who wants to use this driver must be familiar with the following items.
- OPOS1.13 specifications
- General characteristics of POS printer
- Terms and structure of ActiveX control and OLE automation
- ActiveX control container development environment such as Microsoft Visual Studio C# and Microsoft Visual C++, etc.

## 1.4 OPOS Control

The OPOS control, conforming to ActiveX control specifications, provides the application with property, method, and/or event. It consists of control object (CO) for device class and service object (SO). CO supplies application interface (API) and SO executes the API,

The OPOS software is implemented by the use of the layer shown in the following figure.



Picture 1-1 OPOS software structure

**Device Class**

This is a category of the POS device sharing the set of property, method and event.

**Control Object (CO)**

Control Object provides the application with a set of property, method and event for each device class. CO is a standard Active (OLE 32 bit) control and is not visible at the time of execution. As a rule, this driver uses OPOS standard CO. (OPOS standard CO is installed automatically at the installation of this driver.)

**Service Object (SO)**

Service Object is called by Control Object and executes the function specified by OPOS for each device. It is implemented as automation server and provides the set of methods called by CO. This driver provides the processing dependent on the POS printer and cash drawer connected to the printer.

## 1.5 OPOS Driver Precautions

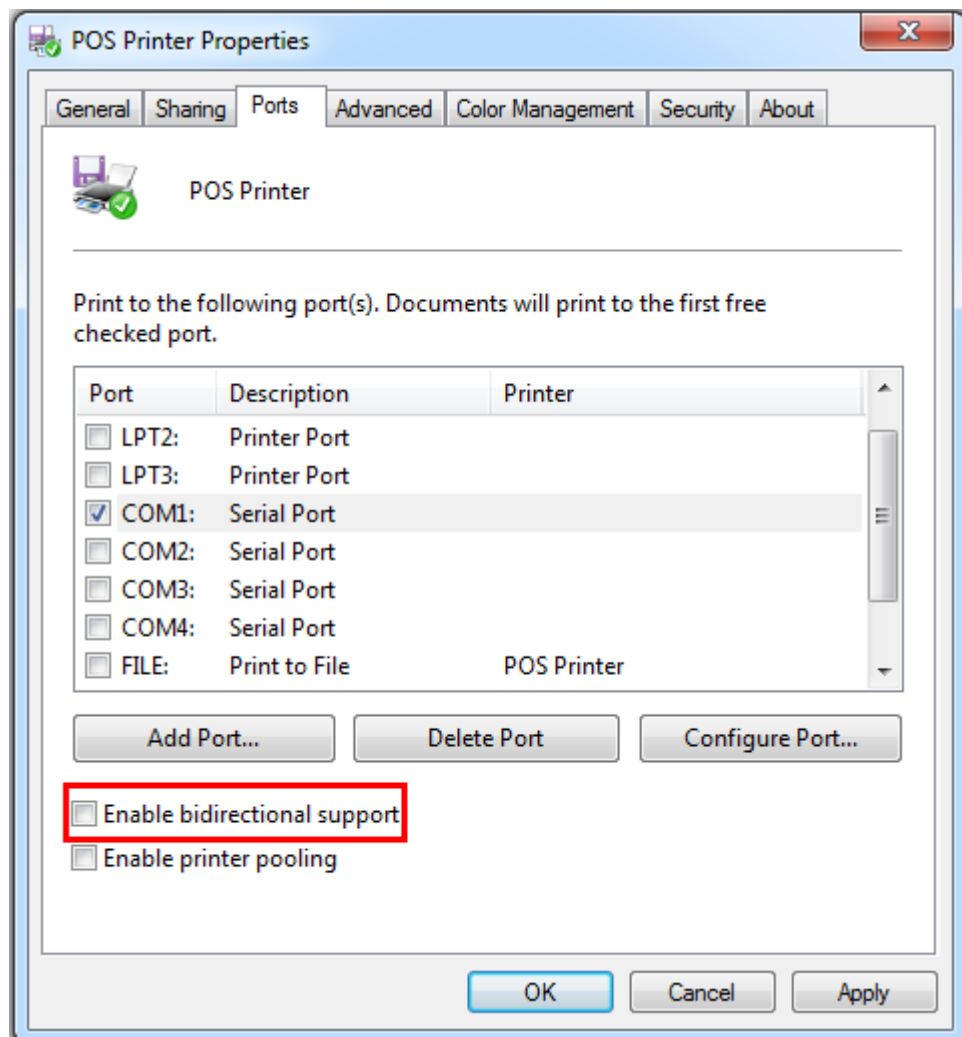
- In case of printer with USB interface, bidirectional communication which is registers to the Windows must be cancelled.

If you are using Windows XP, click "Start" button on the task bar and "Printers and Faxes". Printers registered to Windows are shown in the opened window. Right-click the printer to be used by OPOS and click "Printer Properties" to show dialog described later.

If you are using Windows Vista or Windows 7, click "Start" button on the task bar and "Devices and Printers". Printers registered to Windows are shown in the opened window. Right-click the printer to be used by OPOS and click "Printer Properties" to show dialog described later.

Uncheck "Enable bidirectional support" check button in the "Ports" tab and click OK button.

In the following figure, the "Enable bidirectional support" checkbox is indexed by red arrow, and unchecked.



**Picture 1-2 Disable Windows Printer Bidirectional Support**

- Please note that proper operation is not guaranteed at the environment where OPOS driver by other company is installed.
- Also refer to the notes in each chapter.

## 2 OPOS Printer Service Object

For the details, method of use, etc. of property, method and event, refer to "UnifiedPOS Version 1.13".

### 2.1 POS Printer Service Object and Method Relations

**Tabel 2-1 POS Printer Service Object and Method Relations**

Method	Status of support by the driver		Notes
Open	✓		
Close	✓		
ClaimDevice	✓		
ReleaseDevice	✓		
CheckHealth	✓	OPOS_CH_INTERNAL OPOS_CH_EXTERNAL	
ClearInput		Not applied because no input device is used.	Not applicable with OPOS Printer
ClearOutput	✓		Data being transmitted cannot be stopped.
CompareFirmwareVersion		Not supported(OPOS_E_ILLEGAL)	
DirectIO	✓		
ResetStatistics		Not supported(OPOS_E_ILLEGAL)	
RetrieveStatistics		Not supported(OPOS_E_ILLEGAL)	
UpdateFirmware		Not supported(OPOS_E_ILLEGAL)	
UpdateStatistics		Not supported(OPOS_E_ILLEGAL)	
PrintNormal	✓		
PrintTwoNormal		Not supported(OPOS_E_ILLEGAL)	
PrintImmediate	✓		
BeginInsertion		Not supported(OPOS_E_ILLEGAL)	
EndInsertion		Not supported(OPOS_E_ILLEGAL)	
BeginRemoval		Not supported(OPOS_E_ILLEGAL)	
EndRemoval		Not supported(OPOS_E_ILLEGAL)	
CutPaper	✓	Partial cut (1-99) ,Full cut (100)	

Method	Status of support by the driver		Notes
RotatePrint	✓		
PrintBarCode	✓	PTR_BCS_UPCA PTR_BCS_UPCE PTR_BCS_JAN8 PTR_BCS_EAN8 PTR_BCS_JAN13 PTR_BCS_EAN13 PTR_BCS_ITF PTR_BCS_Codabar PTR_BCS_Code39 PTR_BCS_Code93 PTR_BCS_Code128(Auto) PTR_BCS_Code128_Parsed( A,B,C)	
PrintBitmap	✓		
TransactionPrint	✓		
ValidateData		Not supported (OPOS_E_ILLEGAL)	
SetBitmap	✓	Raster bit image mode NV bit image mode	<a href="#">(Refer to Set Bitmap Method/ESC  #B Escape Sequence in 2.5. POS Printer Service Object and Precautions.)</a>
SetLogo	✓		
ChangePrintSide		Not supported (OPOS_E_ILLEGAL)	
MarkFeed		Not supported (OPOS_E_ILLEGAL)	
ClearPrintArea	✓		
PageModePrint	✓		
PrintMemoryBitmap		Not supported (OPOS_E_ILLEGAL)	
DrawRuledLine		Not supported (OPOS_E_ILLEGAL)	

## 2.2 POS Printer Service Object and Property Relations

**Tabel 2-2 POS Printer Service Object and Property Relations**

Property	Attribute	Status of support by the driver		Notes
BinaryConversion	R/W	✓	OPOS_BC_NONE (Default) OPOS_BC_NIBBLE OPOS_BC_DECIMAL	<a href="#">(Refer to Binary Conversion in 2.5.POS Printer Service Object and Precautions.)</a>
CapCompareFirmwareVersion	R		FALSE	
CapPowerReporting	R		FALSE	
CapUpdateFirmware	R		FALSE	
CapStatisticsReporting	R		FALSE	
CheckHealthText	R	✓	External HCheck: Successful	
Claimed	R	✓	ClaimDevice → True ReleaseDevice → False	
DeviceEnabled	R/W	✓	TRUE FALSE	
FreezeEvents	R/W	✓	TRUE : Event notification disabled FALSE: Event notification enabled	
OpenResult	R	✓	In other than OPOS_SUCCESS, refer to OpenResult properties in "UnifiedPOS Version 1.13".	
OutputID	R	✓	Increment (+1)	<a href="#">(Refer to OutPutID property/ OutputCompleteEvent event in 2.5.POS Printer Service Object and Precautions.)</a>
PowerNotify	R/W		Not supported	
PowerState	R		Not supported	
ResultCode	R	✓	In other than OPOS_SUCCESS, refer to ResultCode properties in "UnifiedPOS Version 1.13".	<a href="#">(Refer to ResultCode/ ResultCodeExtended Property in</a>

ResultCodeExtended	R	✓		<a href="#">(Refer to ResultCode/ResultCodeExtended Property in</a>
State	R	✓	In other than OPOS_S_IDLE, refer to State properties in "UnifiedPOS Version 1.13".	
ControlObjectDescription	R	✓	OPOS POSPrinter Control 1.13.001 [Public, by CRM/RCS-Dayton]	
ControlObjectVersion	R	✓	1013001	
ServiceObjectDescription	R	✓	OPOS POSPrinter Service Object 1.13.001	
ServiceObjectVersion	R	✓	1011001	
DeviceDescription	R	✓	High Performance Printer	
DeviceName	R	✓	Printer	
CapCharacterSet	R	✓	PTR_CCS_ASCII	
CapConcurrentJrnRec	R		Not supported	
CapConcurrentPageMode	R		Not supported	
CapConcurrentJrnSlp	R		Not supported	
CapConcurrentRecSlp	R		Not supported	
CapCoverSensor	R	✓	TRUE: With cover open sensor	
CapTransaction	R	✓	TRUE: Batch processing of characters is possible.	
CapJrnPresent	R		Not supported	
CapJrn2Color	R		Not supported	
CapJrnBold	R		Not supported	
CapJrnDhigh	R		Not supported	
CapJrnDwide	R		Not supported	
CapJrnDwideDhigh	R		Not supported	
CapJrnEmptySensor	R		Not supported	
CapJrnItalic	R		Not supported	
CapJrnNearEndSensor	R		Not supported	
CapJrnUnderline	R		Not supported	
CapJrnCartridgeSensor	R		Not supported	
CapJrnColor	R		Not supported	
CapRecPresent	R	✓	TRUE : Receipt is possible.	
CapRec2Color	R		Not supported	
CapRecBarCode	R	✓	TRUE: BarCode printing is possible.	

CapRecBitmap	R	✓	TRUE: Bitmap printing is possible.	
CapRecBold	R	✓	TRUE: Bold attribute setting is possible.	
CapRecDhigh	R	✓	TRUE: Double height attribute setting is possible.	
CapRecDwide	R	✓	TRUE: Double width setting is possible.	
CapRecDwideDhigh	R	✓	TRUE: Quadruple attribute setting is possible.	
CapRecEmptySensor	R	✓	TRUE: Paper-Out sensor is active. FALSE: Paper-Out sensor is nonactive.	
CapRecItalic	R		Not supported	
CapRecLeft90	R	✓	TRUE: Rotate Left 90 is possible.	
CapRecNearEndSensor	R	✓	TRUE: With Paper Near-End sensor	
CapRecPapercut	R	✓	Only partial cut (90) is supported.	
CapRecRight90	R	✓	TRUE: Rotate Right 90 is possible.	
CapRecRotate180	R	✓	TRUE: Rotate 180 is possible.	
CapRecStamp	R		Not supported	
CapRecUnderline	R	✓	TRUE: Underline attribute setting is possible.	
CapRecCartridgeSensor	R	✓	PTR_CART_OK	
CapRecColor	R	✓	PTR_COLOR_PRIMARY	
CapRecMarkFeed	R		Not supported	
CapRecPageMode	R	✓	TRUE: PageMode is possible.	
CapRecRuledLine	R		Not supported	
CapSlpPresent	R		Not supported	
CapSlpFullslip	R		Not supported	
CapSlp2Color	R		Not supported	
CapSlpBarCode	R		Not supported	
CapSlpBitmap	R		Not supported	
CapSlpBold	R		Not supported	
CapSlpDhigh	R		Not supported	
CapSlpDwide	R		Not supported	
CapSlpDwideDhigh	R		Not supported	
CapSlpEmptySensor	R		Not supported	

CapSlpItalic	R		Not supported	
CapSlpLeft90	R		Not supported	
CapSlpRight90	R		Not supported	
CapSlpRotate180	R		Not supported	
CapSlpUnderline	R		Not supported	
CapSlpBothSidesPrint	R		Not supported	
CapSlpCartridgeSensor	R		Not supported	
CapSlpColor	R		Not supported	
CapSlpPageMode	R		Not supported	
CapSlpRuledLine	R		Not supported	
AsyncMode	R/W	✓	TRUE/FALSE	<a href="#">(Refer to AsyncMode Property in 2.5.POS Printer Service Object and Precautions.)</a>
CartridgeNotify	R/W		Not supported	
CharacterSet	R/W	✓	437: English version	
CharacterSetList	R	✓	437: OEM United States 737: Greek (DOS) 850: Western European 852: Central European (DOS) 855: OEM Cyrillic 857: Turkish (DOS) 858: OEM Multilingual Latin I 860: Portuguese (DOS) 862: Hebrew (DOS) 864: Arabic 865: Nordic (DOS) 874: Thai (Windows) 932: Japanese (Shift-JIS) 936: Chinese Simplified (GB2312) 949: Korean 950: Chinese Traditional (Big5) 1047: IBM Latin-1 1250: Central European (Windows) 1255: Hebrew (Windows) 1256: Arabic (Windows) 28591: Western European (ISO)	

CoverOpen	R	✓	TRUE: POS printer cover is open. FALSE: POS printer cover is closed.	
ErrorLevel	R	✓	PTR_EL_NONE PTR_EL_RECOVERABLE PTR_EL_FATAL	<a href="#">(Refer to ErrorLevel Property in 2.5.POS Printer Service Object and Precautions.)</a>
ErrorStation	R	✓	PTR_S_RECEIPT	
ErrorString	R	✓	Description on present error is retained.	
FontTypefaceList	R	✓	Font A, B	
FlagWhenIdle	R/W	✓		
MapMode	R/W	✓	PTR_MM_DOTS(Default) PTR_MM_TWIPS PTR_MM_ENGLISH PTR_MM_METRIC	
PageModeArea	R		576,936 (PTR_MM_DOTS)	
PageModeDescriptor	R		PTR_PM_BITMAP PTR_PM_BARCODE PTR_PM_BM_ROTATE PTR_PM_BC_ROTATE	
PageModeHorizontalPosition	R/W		0	
PageModePrintArea	R/W		0,0, 576,936	
PageModePrintDirection	R/W		PTR_PD_LEFT_TO_RIGHT(Default) PTR_PD_BOTTOM_TO_TOP PTR_PD_RIGHT_TO_LEFT PTR_PD_TOP_TO_BOTTOM	
PageModeStation	R/W		PTR_S_RECEIPT	
PageModeVerticalPosition	R/W		0	
RotateSpecial	R/W		PTR_RP_NORMAL(Default) PTR_RP_RIGHT90 PTR_RP_LEFT90 PTR_RP_ROTATE180	
JrnLineChars	R/W		Not supported	
JrnLineCharsList	R		Not supported	
JrnLineHeight	R/W		Not supported	
JrnLineSpacing	R/W		Not supported	
JrnLineWidth	R		Not supported	
JrnLetterQuality	R/W		Not supported	

JrnEmpty	R		Not supported	
JrnNearEnd	R		Not supported	
JrnCartridgeState	R		Not supported	
JrnCurrentCartridge	R/W		Not supported	
RecLineChars	R/W	✓	48 (Default) OPOS_SUCCESS (Normal setting) OPOS_E_ILLEGAL (Illegal line character width is specified.)	According to the value, the Font size is changed. Value should be chosen from RecLineCharsList property. (Refer <a href="#">to RecLineChars/RecLineCharsList Property in 2.5 POS Printer Service Object and Precautions.</a> )
RecLineCharsList	R	✓	48,64	(Refer <a href="#">to RecLineChars/RecLineCharsList Property in 2.5 POS Printer Service Object and Precautions.</a> )
RecLineHeight	R/W	✓	24	The value is changed according to the RecLineChars property.
RecLineSpacing	R/W	✓	30	If the value is smaller than RecLineHeight, the value is changed according to the RecLineHeight property.
RecLineWidth	R	✓	512	
RecLetterQuality	R/W	✓		

RecEmpty	R	✓	TRUE: Receipt paper out FALSE: With receipt paper	
RecNearEnd	R	✓	TRUE: Receipt paper near end FALSE: With receipt paper	
RecSidewaysMaxLines	R	✓		
RecSidewaysMaxChars	R	✓		
RecLinesToPaperCut	R	✓	5	
RecBarCodeRotationList	R	✓	0,R90,L90,180	
RecCartridgeState	R		0	
RecCurrentCartridge	R/W	✓	PTR_COLOR_PRIMARY	
RecBitmapRotationList	R	✓	0,R90,L90,180	
SlpLineChars	R/W		Not supported	
SlpLineCharsList	R		Not supported	
SlpLineHeight	R/W		Not supported	
SlpLineSpacing	R/W		Not supported	
SlpLineWidth	R		Not supported	
SlpLetterQuality	R/W		Not supported	
SlpEmpty	R		Not supported	
SlpNearEnd	R		Not supported	
SlpSidewaysMaxLines	R		Not supported	
SlpSidewaysMaxChars	R		Not supported	
SlpMaxLines	R		Not supported	
SlpLinesNearEndToEnd	R		Not supported	
SlpBarCodeRotationList	R		Not supported	
SlpPrintSide	R		Not supported	
SlpCartridgeState	R		Not supported	
SlpCurrentCartridge	R/W		Not supported	

## 2.3 POS Printer Service Object and OPOS Escape Sequence

### Relations

**Tabel 2-3 POS Printer Service Object and OPOS Escape Sequence Relations**

Escape Sequence		Status of support by the driver		Notes
Paper cut	ESC [#]P	✓	0-100	Partial cut (0-99) ,Full cut (100)
Feed and paper cut	ESC [#]fP	✓	0-100	
Feed, cut, and stamp print	ESC [#]sP		Not supported	
Bitmap print	ESC #B	✓	1-20 Specifies Bitmap number registered by the Set Bit map method. Printing is carried out in raster bit image or NV bit image mode.	After Bitmap printing, print position returns to the initial state (left-justified). ( <a href="#">Refer to Set Bitmap Method/ESC #B Escape Sequence in 2.5. POS Printer Service Object and Precautions.</a> )
Top logo print	ESC tL	✓		
Bottom logo print	ESC bL	✓		
Stamp print	ESC sL		Not supported	
Multi-line feed	ESC [#]lF	✓		
Unit feed	ESC [#]uF	✓		
Reverse feed	ESC [#]rF		Not supported	
Embedded data	ESC #E	✓		
Barcode	ESC #R	✓		
Ruled-line	ESC #dL		Not supported	
Font type	ESC #fT	✓		
Bold	ESC [!]bC	✓		If "!" is specified, then bold is disabled.
Underline	ESC [!][#]uC	✓		If "!" is specified, then underline is disabled.
Italic	ESC [!]iC		Not supported	
Custom color	ESC [#]rC		Not supported	
Reverse character	ESC [!]rvC	✓		If "!" is specified, then reverse character is disabled.
Shaded character	ESC [#]sC		Not supported	

Escape Sequence		Status of support by the driver		Notes
Standard	ESC 1C	✓		
Double width	ESC 2C	✓		
Double height	ESC 3C	✓		
Quadruple	ESC 4C	✓		
Horizontal magnification	ESC [#]hC	✓	1, 2, 4, 8	
Vertical magnification	ESC [#]vC	✓	1, 2, 4, 8	
Color specification	ESC [#]fC		Not supported	
Centering	ESC cA	✓		
Right adjustment	ESC rA	✓		
Left adjustment	ESC lA	✓		
Normal	ESC N	✓		
Strike-through	ESC ![#]stC		Not supported	
Subscript	ESC ![#]tbC		Not supported	
Superscript	ESC ![#]tpC		Not supported	

## 2.4 POS Printer Service Object and Event Relations

**Tabel 2-4 POS Printer Service Object and Event Relations**

Event	Status of support by the driver		Notes
DataEvent		Not supported	Not applicable with OPOSPrinter
DirectIOEvent		Not supported	Not applicable with OPOSPrinter
ErrorEvent	✓		<a href="#">(Refer to ErrorEvent in 2.5 POS Printer Service Object and Precautions.)</a>
OutputCompleteEvent	✓		<a href="#">(Refer to OutPutID property/Output Complete Event event in 2.5 POS Printer Service Object and Precautions.)</a>
StatusUpdateEvent	✓		

## 2.5 POS Printer Service Object and Precautions

### **RotatePrint Method**

Printing size dynamically changes by printing data within the value of RecSidewaysMaxChars.

### **SetBitmap Method/ESC| #B Escape Sequence**

Bitmap is registered by specifying Bitmap number (1 - 20) using the SetBitmap method and bitmap printing is carried out by specifying the registered number in the ESC|#B escape sequence. This driver has two modes, raster bit image mode and NV bit image mode. Specification of each mode is as shown below.

- Raster bit image mode  
SO stores own bitmap using the SetBitmap method. When SO is closed, the stored bitmap is cleared. Therefore, it is necessary to register bitmap each time SO is opened. In this mode, bitmap is memorized including printing position designated at the time of registration.
- NV bit image mode  
By using the SetBitmap method, SO writes bitmap to the nonvolatile memory (Flash ROM) of the printer.  
Therefore, it is not necessary to register bitmap each time SO is opened.  
In this mode, the printing position designated at the time of registration is not stored and printing starts from the left end.
- 

### **AsyncMode Property**

- TRUE

Output method (PrintNormal, CutPaper, RotatePrint, PrintBarCode, PrintBitmap, PageModePrint and TransactionPrint) is executed asynchronously.

- FALSE

Output method is printed synchronously. When error occurs at the asynchronous output, error event is reported at about 0.5-s intervals.

### **ErrorLevel Property**

- PTR\_EL\_NONE

Indicated when error is not detected.

- PTR\_EL\_RECOVERABLE

Indicated as recoverable error when Paper Out/Cover Open.

- PTR\_EL\_FATAL

Indicated as irrecoverable error at Auto Cutter error happened.

### **BinaryConversion Property**

Installation example (C#) using the BinaryConversion property and PrintNormal method is described.

- Opos\_BC\_NONE

Character is stored with one byte without data conversion.

- Opos\_BC\_NIBBLE

Each byte is converted to two characters.

- -OPOS\_BC\_DECIMAL

Each byte is converted to three characters. To create three ASCII characters from each byte,

You can use fuction: String.Format("0:d3",Byte) to implement this convert.

### **ErrorEvent**

Notifies the application that a POS Printer error has been detected and that a suitable response by the application is necessary to process the error condition.

In case of ErrorCode, refer to Error Codes Property in "UnifiedPOS Version 1.13".

If ErrorCode is E\_EXTENDED, then ErrorCodeExtendedhas one of the following values:

- EPTR\_COVER\_OPEN

Indicated the printer cover is open.

- EPTR\_REC\_EMPTY

Indicated the receipt station is out of paper.

ErrorLocus value is EL\_OUTPUT, ErrorResponse value is ER\_RETRY.

### **OutPutID Property/ OutputCompleteEvent Event**

Identifier of asynchronous output started just before is retained and incremented by +1 with the following output.

### **RecLineChars/ RecLineCharsList Property**

The number of one-byte characters of the font printed in one line on the paper is specified.

- RecLineChars property: Specifies the maximum number of digits of FontA corresponding to the specified paper size.

- RecLineCharsList property: Lists the maximum number of digits of FontA, FontB corresponding to the specified paper size.

### **ResultCode/ ResultCodeExtended Property**

When the value of the ResultCode property is other than OPOS\_SUCCESS, refer to the ResultCode property in "UnifiedPOS Version 1.13"

In case of OPOS\_E\_Extended, refer to ResultCodeExtended Property in "UnifiedPOS Version 1.13"

## 3 Cash Drawer Printer Service Object

For the details, method of use, etc. of property, method and event, refer to “UnifiedPOS Version 1.13”.

### 3.1 Cash Drawer Service Object and Method Relations

**Tabel 3-1 Cash Drawer Service Object and Method Relations**

Method	Status of support by the driver		Notes
Open	✓		
Close	✓		
ClaimDevice	✓		
ReleaseDevice	✓		
CheckHealth	✓	OPOS_CH_INTERNAL OPOS_CH_EXTERNAL	
ClearInput		Not supported(OPOS_E_ILLEGAL)	Not applicable with OPOS Drawer.
ClearOutput		Not supported(OPOS_E_ILLEGAL)	Not applicable with OPOS Drawer.
CompareFirmwareVersion		Not supported	
DirectIO		Not supported(OPOS_E_ILLEGAL)	
ResetStatistics		Not supported(OPOS_E_ILLEGAL)	
RetrieveStatistics		Not supported(OPOS_E_ILLEGAL)	
UpdateFirmware		Not supported	
UpdateStatistics		Not supported(OPOS_E_ILLEGAL)	

Method	Status of support by the driver		Notes
OpenDrawer	✓		
WaitForDrawerClose	✓		

## 3.2 Cash Drawer Service Object and Property Relations

**Tabel 3-2 Cash Drawer Service Object and Property Relations**

Property	Attribute	Status of support by the driver		Notes
AutoDisable	R/w			Not applicable with OPOS Drawer.
BinaryConversion	R/W			Not applicable with OPOS Drawer.
CapCompareFirmwareVersion	R		FALSE	
CapPowerReporting	R	✓	OPOS_PR_NONE	<a href="#">(Refer to CapPowerReporting/Powermotify/PowerState Property in 3.4.Cash Drawer Service Object and Precautions.)</a>
CapUpdateFirmware	R		FALSE	
CapStatisticsReporting	R		FALSE	
CheckHealthText	R	✓	External HCheck: Successful	
Claimed	R	✓	TRUE/FALSE	
DeviceEnabled	R/W	✓	TRUE/FALSE	
FreezeEvents	R/W	✓	TRUE : Event notification disabled FALSE: Event notification enabled	
OpenResult	R	✓	OPOS_SUCCESS	
OutputID	R			Not applicable with OPOS Drawer.
PowerNotify	R/W		FALSE	
PowerState	R		FALSE	
ResultCode	R	✓		
ResultCodeExtended	R	✓		
State	R	✓		
ControlObjectDescription	R	✓	OPOS CashDrawerr Control 1.13.001 [Public, by CRM/RCS-Dayton]	
ControlObjectVersion	R	✓		
ServiceObjectDescription	R	✓	POS Printer OPOS Service Object 1.13.001 UPOS 1.13, Copyright (C) 2013- CORP	
ServiceObjectVersion	R	✓	1013001	

DeviceDescription	R	✓	POS CashDrawer	
DeviceName	R	✓	Printer	
CapStatus	R	✓		
CapStatusMultiDrawerDetect	R	✓	FALSE	
DrawerOpened	R	✓		

### 3.3 Cash Drawer Service Object and Event Relations

**Tabel 3-3 Cash Drawer Service Object and Event Relations**

Event	Status of support by the driver		Notes
DataEvent		Not supported	Not applicable with OPOSDrawer
DirectIOEvent		Not supported	Not applicable with OPOSDrawer
ErrorEvent		Not supported	Not applicable with OPOSDrawer
OutputCompleteEvent		Not supported	Not applicable with OPOSDrawer
StatusUpdateEvent	✓		

### 3.4 Cash Drawer Service Object and Precautions

#### **CapPowerReporting/ Powermotify/ PowerState Property**

This service object supports only cash drawer connected to the drawer kick connector at the back of the printer. Therefore the value of the CapPowerReporting property shall be "OPOS\_PR\_NONE".

#### **CapStatusMultiDrawerDetect Property**

Two cash drawers can be connected by using Y-Shape cable to drawer kick connector at this service object but individual detection of cash drawer open/close situation is not possible. For this reason, CapStatusMultiDrawerDetect Property value becomes "FALSE".

When CapStatusMultiDrawerDetect Property is "FALSE", only the following status is informed.

- a) All cash drawers are closed.
- b) One or more cash drawer(s) is open.

In addition, each [Pin 3 Signal at Drawer Open Status] should be set in the same way when registering multiple numbers of cash drawers from [OPOS Driver Setting Tool].

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