METAPACE

Application Programming Guide
OPOS Driver

Rev. 1.01   Metapace T-3II
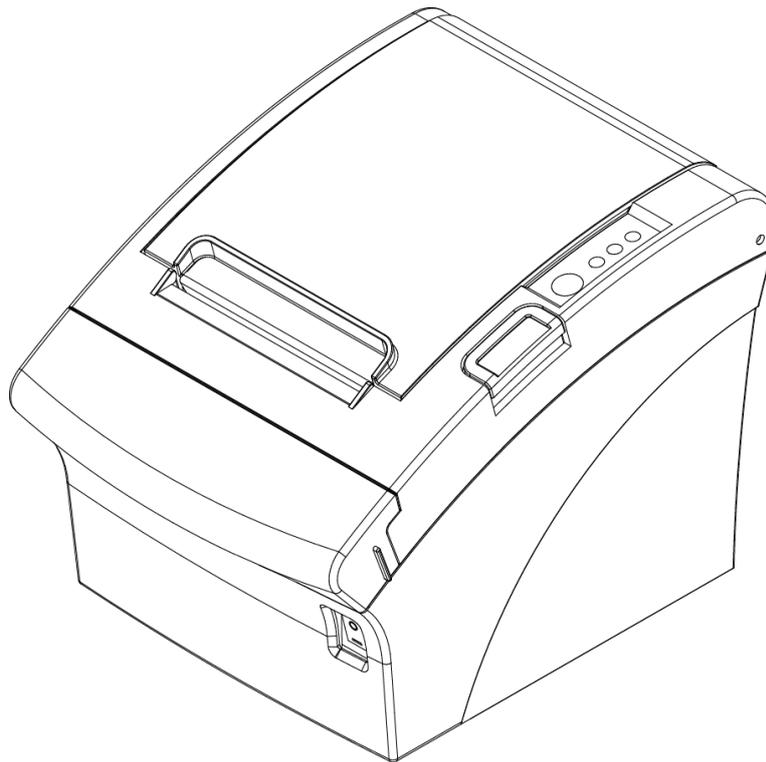
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1. Instruction

This is a manual about how to set and configure device and to develop applications to use Metapace T-3II POS printer with Metapace OPOS driver.

You must set the device using the PSP Launcher before using the Metapace printer.

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

[Reference Sites]
http://monroecs.com/opos.htm: OLE for Retail POS Committee
http://www.metapace.com: Driver Update

We at Metapace 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

1) Communication Configuration for serial interface.

　　You will set communication configuration in METAPACE OPOS Setup Utility.

Printer Model	Baudrate	Printer Type	etc
Metapace T-3II	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 Name	1 Color Thermal: Metapace T-3II
CapCompareFirmwareVersion	FALSE
CapPowerReporting	TRUE
CapStatisticsReporting	FALSE
CapUpdateFirmware	FALSE
CapUpdateStatistics	FALSE
CapTransaction	TRUE
CapCoverSensor	FALSE
CapConcurrentRecSlp	FALSE
CapConcurrentJrnSlp	FALSE
CapConcurrentJrnRec	FALSE
CapCharacterSet	TRUE
CapRecUnderline	TRUE
CapRecPageMode	FALSE
CapCuncurrentPageMode	FALSE
CapRecStamp	FALSE
CapRecRotate180	TRUE
CapRecRight90	FALSE
CapRecPapercut	TRUE
CapRecNearEndSensor	FALSE
CapRecMarkFeed	FALSE
CapRecLeft90	FALSE
CapRecItalic	FALSE
CapRecEmptySensor	FALSE
CapRecDwideDhigh	TRUE
CapRecDwide	TRUE
CapRecDhigh	TRUE
CapRecColor	FALSE
CapRecCartridgeSensor	FALSE
CapRecBold	TRUE
CapRecBitmap	TRUE
CapRecBarCode	TRUE
CapRec2Color	FALSE
CapRecPresent	TRUE

3-1-2 Property default value / Range

* List Property

Model	RecLineCharsList	RecBarCode RotationList	FontTypefaceList	RecBitmapList
Metapace T-3II	"42,56"	""	""	0,L90,R90,180

* CharacterSetList Property

Model	Value
Metapace T-3II	"437,1(Katakana),850,860,863,865,1252,866,852,858,862,864,23(Thai 42),1253,1254,1257,27(Farsi),1251,737,775,31(Thai14),32(Hebrew_old),1255,34(Thai11),35(Thai18),36(Cyrillic),857,928,39(Thai16),1256"

* Receipt Width and Height Property

Model	RecLineHeight	RecLineWidth	RecLinePaperCut
Metapace T-3II	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	X
pageModePrint	O (Dot, Ink type printer unsupported)
printBarCode	O
printBitmap	O
printImmediate	O
printMemoryBitmap	O
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	0~100
[#]fP	0~100
[#]sP	X
sL	X
[#]B	1~20
tL	O
bL	O
[#]lF	0~9999
[#]uF Base Pitch [inch]	O
[#]rF Maximum[inch]	X
#E	O
#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

Metapace OPOS Driver supports following image formats;
  - GIF, JPG, BMP Image Format.
The image will be converted into monochrome or 2 colors depending on printer model.

3-1-6 Page Mode printing

METAPACE Thermal printers support page mode printing.

* Methods used with Page Mode Printing

Method	Value
printNormal	O
printBitmap	X
printBarcode	X
PrintMemoryBitmap	X

O: Supported   X: Not supported

4. Extended Functions

This section is to explain DirectIO method. This method will operate properly only with Metapace POS printer.

4-1 DirectIO Method

Parameter	Explanation	Type
Command	Output format	Long
PData	Number of output data / Value defined by command	Long
PString	Output Data	String

METAPACE OPOS DirectIO Command

Command	Description
PTR_DI_OUTPUT	Output defined pString data
PTR_DI_INTERNATIONAL_CHAR	International characterset define.

PTR_DI_OUTPUT

	Command	PTR_DI_OUTPUT
Argument	PData	
	PString	Output data
Description	Sends data without any process after checking printer status. "pString" is not affected by "BinaryConversion"	
Return	Result Code	ResultCodeExtended
	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

PTR_DI_INTERNATIONAL_CHAR

	Command	PTR_DI_INTERNATIONAL_CHAR
Argument	PData	One of the commands: PTR_DI_CHAR_USA PTR_DI_CHAR_FRANCE PTR_DI_CHAR_GERMANY PTR_DI_CHAR_UK PTR_DI_CHAR_DENMARK1 PTR_DI_CHAR_SWEDEN PTR_DI_CHAR_ITALY PTR_DI_CHAR_SPAIN1 PTR_DI_CHAR_NORWAY PTR_DI_CHAR_DENMARK2
	PString	Printing position
Description	Sets International character set. If CharacterSet property value is changed, International character set will be reset.	
Return	Result Code	ResultCodeExtended
	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

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

ClaimDevice

Method	Result Code	ResultCodeExtended
ClaimDevice	OPOS_E_ILLEGAL	OPOS_EPTR_UNRECOVERABLE
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_CUTTER
		OPOS_EPTR_OVERHEAT
		OPOS_EPTR_REC_EMPTY
		OPOS_EPTR_JRN_EMPTY

CheckHealth

Method	Result Code	ResultCodeExtended
CheckHealth	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_OFFLINE	0
	OPOS_E_FAILURE	OPOS_EPTR_UNRECOVERA BLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT

ClearOutput

Argument	Argument	Argument
ClearOutput	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0

DirectIO

Method	Result Code	ResultCodeExtended
DirectIO	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_UNRECOVERA BLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

PrintNormal

Method	Result Code	ResultCodeExtended
PrintNormal	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_UNRECOVERA BLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

PrintImmediate

Method	Result Code	ResultCodeExtended
PrintImmediate	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_UNRECOVERA BLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

CutPaper

Method	Result Code	ResultCodeExtended
CutPaper	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_UNRECOVERA BLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

RotatePrint

Method	Result Code	ResultCodeExtended
RotatePrint	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_UNRECOVERA BLE
		OPOS_EPTR_CUTTER
		OPOS_EPTR_MECHANICAL
		OPOS_EPTR_OVERHEAT
	OPOS_E_EXTENDED	OPOS_EPTR_COVER_OPEN
		OPOS_EPTR_JRN_EMPTY
		OPOS_EPTR_REC_EMPTY

PrintBitmap

Method Name	Result Code	ResultCodeExtended
PrintBitmap	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_UNRECOVERA BLE
		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

SetBitmap

Method	Result Code	ResultCodeExtended
SetBitmap	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_UNRECOVERA BLE
		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

SetLogo

Method	Result Code	ResultCodeExtended
SetLogo	OPOS_SUCCESS	0
	OPOS_E_CLOSED	0
	OPOS_E_CLAIMED	0
	OPOS_E_NOTCLAIMED	0
	OPOS_E_DISABLED	0
	OPOS_E_ILLEGAL	0

TransactionPrint

Method	Result Code	ResultCodeExtended
TransactionPrint	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_UNRECOVERA BLE
		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