Label Printer SDK of iOS

PV3/PV4

BARCODE PRINTER

Ver. 1.01

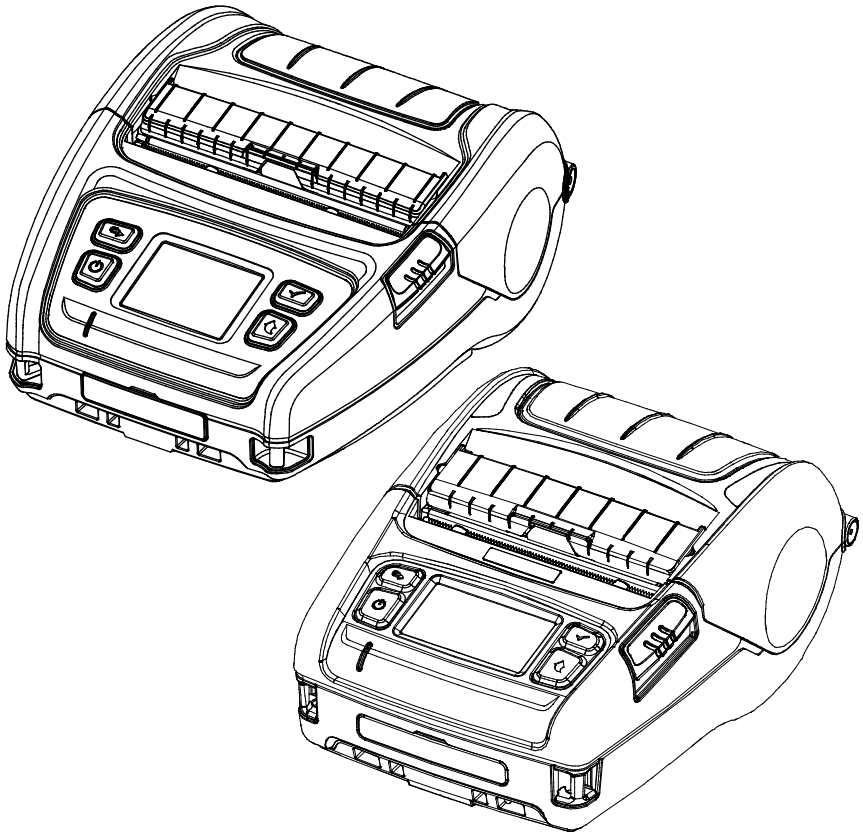


Table of Contents

1. About This Manual

This SDK Manual contains the description of the library API that is required for the development of iOS applications.

1-1 Supported iOS Version

• iOS 9.0 and later.

1-2 List of Supported Printer / Interface

Model	Wi-Fi	Bluetooth	BLE
PV3	O	O	O
PV4	O	O	O

※BLE: Bluetooth Low Energy

1-3 Available range of X/Y coordinates for each model

Model	Min Width	Max Width
PV3	0	576
PV4	0	832

※ The maximum Y Coordinate is dependent on paper length

1-4 List of Supported Methods

Method		Remarks
General	*open*	
	close	
Search	lookupPrinterWithCount: interval:	
	cancelToLookupPrinter	
	getPairedDevices	
	getSerchedDevices	
Connection	*connectWithAddress:port:*	
	connectWithTarget:timeout:	
	connectWithSerialNumber:	
	isConnected	
	disconnect	
	disconnectWithTimeout:	
Print	*doPrint*	
Text	*drawTextDeviceFont:* xPosition: yPosition: fontSelection: fontWidth: fontHeight: rightSideCharacterSpacing: fontRotation: reverse: bold: textAlignment:	
	drawTextVectorFont: xPosition: yPosition: fontSelection: fontWidth: fontHeight: rightSideCharacterSpacing: fontRotation: reverse: bold: italic: textAlignment:	

	Method	Remarks
Barcode	*drawBarcode1D:* xPosition: yPosition: barcodeType: widthNarrow: widthWide: height: hri: quietZoneWidth: rotation:	
	drawBarcodeMaxiCode: xPosition: yPosition: mode:	
	drawBarcodePDF417: xPosition: yPosition: maximumRowCount: maximumColumnCount: errorCorrectionLevel: dataCompressionMethod: printBarcodeText: barcodeOriginPoint: moduleWidth: barHeight: rotation:	
	drawBarcodeQRCode: xPosition: yPosition: barcodeSize: model: errorColectionLevel: rotation:	
	drawBarcodeDataMatrix: xPosition: yPosition: barcodeSize: reverse: rotation:	
	drawBarcodeAztec: xPosition: yPosition: barcodeSize: extendedChannel: errorCorrectionLevel: menuSymbol: numberOfSymbols: optionalID: rotation:	

	Method	Remarks
Barcode	drawBarcodeCode49: xPosition: yPosition: widthNarrow: widthWide: height: hri: startingMode: rotation:	
	drawBarcodeCodaBlock: xPosition: yPosition: widthNarrow: widthWide: height: securityLevel: numberOfCharactersPerrow: mode: numberOfRowToEncode:	
	drawBarcodeMicroPDF: xPosition: yPosition: moduleWidth: barcodeHeight: mode: rotation:	
	drawBarcodeIMB: xPosition: yPosition: printBarcodeText: rotation:	
	drawBarcodeMSI: xPosition: yPosition: widthNarrow: widthWide: height: checkDigitSelection: printCheckDigitInHRI: hri: rotation:	
	drawBarcodePlessey: xPosition: yPosition: widthNarrow: widthWide: height: printCheckDigit: hri: rotation:	

Method		Remarks
Barcode	drawBarcodeTLC39: xPosition: yPosition: widthNarrow: widthWide: height: rowHeightOfMicroPDF417: narrowWidthOfMicroPDF417: rotation:	
	drawBarcodeRSS: xPosition: yPosition: barcodeType: magnification: separatorHeight: barcodeHeight: segmentWidth: rotation:	
	drawBarcodeGS1DataBar: xPosition: yPosition: barcodeType: magnification: separatorHeight: barcodeHeight: segmentWidth: rotation:	
Block & Circle	drawBlock: startPosY: endPosX: endPosY: option: thickness:	
	drawCircle: startPosY: sizeSelection: multiplier:	
Image	drawImageData: stratPosX: startPosY: width: useDithering:	
Status	checkPrinterStatus:	

Method		Remarks
Information	getSDKVersionString	
	getReleasedDateString	
	getDpi	
	getMaxWidth	
	getModelName	
	getFirmareVersion	
Printer Setting	setOrientation	
	setICS: codepage	
	setMargin: verticalMargin	
	setLength setPrintingType	
	setSpeed	
	setOffset	
	setDensity	
	setCuttingPosition	
	setWidth	
Print RawData	printRawData	

2. LabelPrinterSDK Class Reference

Inherits from	NSObject
Framework	libLabelPrinterSDK.a
Declared	LabelPrinterSDK.h

2-1 Overview

• libLabelPrinterSDK Class is the main object that controls the printer operation.

2-2 Methods

2-2-1 open

This method initializes the settings to use the LabelPrinterSDK class.

[Declaration]

-(SDK_RESULT_CODES) open;

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_OPEN_ALREADY	0XF003	SDK is already open

[Note]

This method should be called before calling other methods in the LabelPrinterSDK.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

SDK_RESULT_CODES result = [sdk open];

If (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-2 close

This method terminates the use of the LabelPrinterSDK class.

[Declaration]

-(SDK_RESULT_CODES) close;

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_NO_OPEN	0XF002	SDK is not open

[Note]

All resources inside the LabelPrinterSDK will be released when this method is called.
This method should be called to end the use of the printer.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk close];

…

If (result == SDK_RESULT_SUCCESS) {
	…
} else {
	…
}
```

2-2-3 lookupPrinterWithCount

It searches for connectable printers.

[Declaration]

-(void) lookupPrinterWithcount:(CGFloat) lookupCount
Interval:(CGFloat) interval

[Parameters]

lookupCount : It specifies the number of printer search attempts. (Range: 1~255)
interval : It specifies the interval between printer search attempts. (Range: 0.2~10(seconds))

[Note]

If the parameter is (lookupCount=10, interval=0.2), it will search printers 10 times for every 0.2 seconds for a total of 2 seconds.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];
[sdk open];

[sdk lookupPrinterWithCount:5 interval:1];
```

2-2-4 cancelToLookupPrinter

It cancels the ongoing printer search.

[Declaration]

-(SDK_RESULT_CODES) cancelToLookupPrinter;

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL	0XF000	Fail

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];
[sdk open];

// Start Lookup Printer
[sdk lookupPrinterWithCount:10 interval:1];

…

// Cancel Lookup Printer
SDK_RESULT_CODES result = [sdk CancelToLookupPrinter];

if (result == SDK_RESULT_SUCCESS) {
	…
} else {
	…
}
```

2-2-5 getPairedDevices

It brings up a list of Bluetooth (Classic) devices that are currently paired.

[Declaration]

-(NSArray*) getPairedDevices;

[Return Value]

It returns a list of discovered printers (Bluetooth).

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];
[sdk open];

// XCode 6.3 or Later
//       NSArray<LabelPrinterObject*>* arrPairedDevices = [sdk getPairedDevices];

NSArray* arrPairedDevices = [sdk getPairedDevices];
LabelPrinterObject *printerObj = [arrPairedDevices firstObject];

if (printerObj != nil) {
      NSLog(@"%@", [printerObj getBluetoothDeviceName]);
}
```

2-2-6 getSearchedDevices

It brings up a list of Wi-Fi / BLE devices that are currently discovered.

[Declaration]

-(NSArray*) getSearchedDevices;

[Return Value]

It returns a list of discovered printers (Wi-Fi /BLE).

※ BLE: Bluetooth Low Energy

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];
[sdk open];

// XCoe 6.3 or Later
//       NSArray<LabelPrinterObject*>* arrSearchDevices = [sdk getSearchedDevices];

NSArray<LabelPrinterObject*>* arrSearchDevices = [sdk getSearchedDevices];
LabelPrinterObject *printerObj = [arrSearchDevices firstObject];

if (printerObj != nil) {
      NSLog(@"%@", [printerObj getModelName]);
}
```

2-2-7 connectWithAddress

This method tries to connect the printer.

[Declaration]

-(SDK_RESULT_CODES)connectWithAddress:(NSString*)address
port:(NSString*) port;

[Parameters]

address : Wi-Fi Printer: Enter the IP Address.
Bluetooth Printer: Enter the Mac Address.

port : Enter the communication port of the printer.(Default : 9100)
Bluetooth printers are not supported.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL	0XF000	Fail
SDK_RESULT_FAIL_NO_OPEN	0XF002	SDK is not open
SDK_RESULT_FAIL_OPEN_ALREADY	0XF003	SDK is already open
SDK_RESULT_FAIL_CONNECT_ALREADY	0XF005	Printer is already connected
SDK_RESULT_FAIL_INVALID_PARAMETER	0XF008	Invalid parameter

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];
[sdk open];

NSString *address = @"192.168.0.249";
NSString *port = @"9100";

SDK_RESULT_CODES result = [sdk connectWithAddress:address port:port];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-8 connectWithTarget:timeout

This method tries to connect to the printer. (Target Printer Use)

[Declaration]

```
-(SDK_RESULT_CODES) connectWithTarget:(LabelPrinterObject*)printer
 timeout:(NSInteger)timeout;
```

[Parameters]

target : It specifies the printer to be connected..
timeout : It specifies the timeout value to use when connecting to the printer.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL	0XF000	Fail
SDK_RESULT_FAIL_NO_OPEN	0XF002	SDK is not open
SDK_RESULT_FAIL_OPEN_ALREADY	0XF003	SDK is already open
SDK_RESULT_FAIL_CONNECT_ALREADY	0XF005	Printer is already connected
SDK_RESULT_FAIL_INVALID_PARAMETER	0XF008	Invalid parameter

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

LabelPrinterObject* printer = [[sdk getPairedDevices] firstObject];

if (printer == nil) {
	return;
}

SDK_RESULT_CODES result = [sdk connectWithTarget:printer timeout:10];

if (result == SDK_RESULT_SUCCESS) {
	…
} else {
	…
}
```

2-2-9 connectWithSerialNumber

This method tries to connect to the printer. (Serial Number Use)

[Declaration]

-(SDK_RESULT_CODES) connectWithSerialNumber:(NSString*)serialNumber;

[Parameters]

serialNumber : It specifies the Serial Number of the printer to be connected.
(ex:STD123456789012)
Wi-Fi interface is not supported.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL	0XF000	Fail
SDK_RESULT_FAIL_NO_OPEN	0XF002	SDK is not open
SDK_RESULT_FAIL_OPEN_ALREADY	0XF003	SDK is already open
SDK_RESULT_FAIL_CONNECT_ALREADY	0XF005	Printer is already connected
SDK_RESULT_FAIL_INVALID_PARAMETER	0XF008	Invalid parameter

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

NSString *serialNo = @"STD123456789012";

SDK_RESULT_CODES result = [sdk connectWithSerialNumber:serialNo];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-10 isConnected

This method checks the status of printer connection.

[Declaration]

-(BOOL) isConnected;

[Return Value]

YES: printer is connected.
NO: printer is not connected.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

bool isConnected = [sdk isConnected];

if (isConnected == YES) {
	…
} else {
	…
}
```

2-2-11 disconnect

This method disconnects the printer.

[Declaration]

-(SDK_RESULT_CODES) disconnect;

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL	0XF000	Fail

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk disconnect];

if (result == SDK_RESULT_SUCCESS) {
	…
} else {
	…
}
```

2-2-12 disconnectWithTimeout

This method disconnects the printer within the specified Timeout period.

[Declaration]

-(SDK_RESULT_CODES) disconnectWithTimeout:(NSInteger)timeout;

[Parameters]

timeout : Set the Timeout period. (Unit: Second)

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL	0XF000	Fail

[Note]

If data remains in the output buffer,
buffer will be cleared and printer will be disconnected within the Timeout period.
If this parameter is set to -1, this method does not return until all buffers are cleared.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk disconnectWithTimeout:10];

if (result == SDK_RESULT_SUCCESS) {
	…
} else {
	…
}
```

2-2-13 doPrint

Let the printer start printing the content of image buffer.

[Declaration]

-(SDK_RESULT_CODES) doPrint:(NSInteger)numberOfCopies;

[Parameters]

numberOfCopies : Number of label sets

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

if (sdk.isConnected == NO) {
    return;
}

NSInteger copies = 5;

SDK_RESULT_CODES result = [sdk doPrint:copies];

if (result == SDK_RESULT_SUCCESS ) {
    …
} else {
    …
}
```

2-2-14 drawTextDeviceFont

Draw text (Device Font) on the image buffer

[Declaration]

```
-(SDK_RESULT_CODES) drawTextDeviceFont:(NSString*)text
                            xPosition:(NSInteger)xPostion
                            yPosition:(NSInteger)yPostion
                       fontSelection:(char)fontSelection
                            fontWidth:(NSInteger)fontWidth
                            fontHeight:(NSInteger)fontHeight
        rightSideCharacterSpacing:(NSInteger)rightSideCharacterSpacing
                          fontRotation:(NSInteger)fontRotation
                               reverse:(BOOL)reverse
                                  bold:(BOOL)bold
                          textAlignment:(NSInteger)textAlignment;
```

[Parameters]

text : Text string to print.
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
fontSelection : Font selection

Code	Value	Description
SDK_DEVICE_FONT_6PT	'0'	9 X 15 (dots)
SDK_DEVICE_FONT_8PT	'1'	12 X 20 (dots)
SDK_DEVICE_FONT_10PT	'2'	16 X 25 (dots)
SDK_DEVICE_FONT_12PT	'3'	19 X 30 (dots)
SDK_DEVICE_FONT_15PT	'4'	24 X 38 (dots)
SDK_DEVICE_FONT_20PT	'5'	32 X 40 (dots)
SDK_DEVICE_FONT_30PT	'6'	48 X 76 (dots)
SDK_DEVICE_FONT_14PT	'7'	22 X 34 (dots)
SDK_DEVICE_FONT_18PT	'8'	28 X 44 (dots)
SDK_DEVICE_FONT_24PT	'9'	37 X 58 (dots)
SDK_DEVICE_FONT_KOREAN1	'a'	16 X 16 (dots) (ASCII 9 X 15)
SDK_DEVICE_FONT_KOREAN2	'b'	24 X 24 (dots) (ASCII 12 X 24)
SDK_DEVICE_FONT_KOREAN3	'c'	20 X 20 (dots) (ASCII 12 X 20)
SDK_DEVICE_FONT_KOREAN4	'd'	26 X 26 (dots) (ASCII 16 X 30)
SDK_DEVICE_FONT_KOREAN5	'e'	20 X 26 (dots) (ASCII 16 X 30)
SDK_DEVICE_FONT_KOREAN6	'f'	38 X 38 (dots) (ASCII 22 X 34)
SDK_DEVICE_FONT_GB2312	'm'	24 X 24 (dots) (ASCII 12 X 24)
SDK_DEVICE_FONT_BIG5	'n'	24 X 24 (dots) (ASCII 12 X 24)
SDK_DEVICE_FONT_SHIFT_JIS	'j'	24 X 24 (dots) (ASCII 12 X 24)

fontWidth : Horizontal multiplier (range : 1~9)
fontHeight : Vertical multiplier (range : 1~9)
rightSideCharacterSpacing : Right side character spacing (ex: 5, +3, -10…)

fontRotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

reverse : Using Reverse Text (YES: Use, NO: Not use)
bold : Using **Bold Text**(YES: Use, NO: Not use)
textAlignment : Text Alignment

Code	Value	Description
SDK_ALIGNMENT_LEFT	0	Align to left
SDK_ALIGNMENT_RIGHT	1	Align to right
SDK_ALIGNMENT_CENTER	2	Align to center
SDK_ALIGNMENT_STRING_FROM_RIGHT_2_LEFT	2	Print characters from right to left

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL	0XF000	Fail

[Note]

- When textAlignment is set to SDK_ALIGNMENT_CENTER, it has the same effect as the SDK_ALIGNMENT_STRING_FROM_RIGHT_2_LEFT option.
- Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawTextDeviceFont:@"LabelPrinter DeviceFont Test"
                xPosition:100
                yPosition:100
          fontSelection:SDK_DEVICE_FONT_KOREAN6
                fontWidth:1
               fontHeight:1
rightSideCharacterSpacing:0
           fontRotation:SDK_ROTATION_DEGREES_0
                reverse:NO
                   bold:NO
          textAlignment:SDK_ALIGNMENT_CENTER];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-15 drawTextVectorFont

Draw text (Vector Font) string on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawTextVectorFont:(NSString*)text
                              xPosition:(NSInteger)xPostion
                              yPosition:(NSInteger)yPostion
                          fontSelection:(char)fontSelection
                              fontWidth:(NSInteger)fontWidth
                             fontHeight:(NSInteger)fontHeight
          rightSideCharacterSpacing:(NSInteger)rightSideCharacterSpacing
                           fontRotation:(NSInteger)fontRotation
                                reverse:(BOOL)reverse
                                   bold:(BOOL)bold
                                 italic:(BOOL)italic
      textWriteDirectionRightToLeft:(BOOL)textWriteDirectionRightToLeft
                          textAlignment:(NSInteger)textAlignment;
```

[Parameters]

text : Text string to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
fontSelection : Font selection

Code	Value	Description
SDK_VECTOR_FONT_ASCII	'U'	ASCII (1Byte code)
SDK_VECTOR_FONT_KS5601	'K'	KS5601 (2Byte code)
SDK_VECTOR_FONT_BIG5	'B'	BIG5 (2Byte code)
SDK_VECTOR_FONT_GB2312	'G'	GB2312 (2Byte code)
SDK_VECTOR_FONT_SHIFT_JIS	'J'	Shift-JIS (2Byte code)
SDK_VECTOR_FONT_OCR_A	'a'	OCR-A (1Byte code)
SDK_VECTOR_FONT_OCR_B	'b'	OCR-B (1Byte code)

fontWidth : Font Width (range : 1~1500).
fontHeight : Font height (range : 1~1500).
rightSideCharacterSpacing : Right-side character spacing (ex: 5, +3, -10…).
fontRotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

reverse : Using Reverse Text (YES: Use, NO: Not use)
bold : Using **Bold Text**(YES: Use, NO: Not use)
italic : Using italic (YES: Use, NO: Not use)
textWriteDirectionRightToLeft : Text string write direction(YES: right to left, NO: left to right)

textAlignment : Text Alignment

Code	Value	Description
SDK_ALIGNMENT_LEFT	0	Align to left
SDK_ALIGNMENT_RIGHT	1	Align to right
SDK_ALIGNMENT_CENTER	2	Align to center
SDK_ALIGNMENT_STRING_FROM_RIGHT_2_LEFT	2	Print characters from right to left

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL	0XF000	Fail

[Note]

- When textAlignment is set to SDK_ALIGNMENT_STRING_FROM_RIGHT_2_LEFT, it has the same effect as the SDK_ALIGNMENT_CENTER option.
- Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawTextVectorFont:@"LabelPrinter VectorFont Test"
                                xPosition:100
                                yPosition:100
                           fontSelection:SDK_VECTOR_FONT_KS5601
                                fontWidth:30
                               fontHeight:30
        rightSideCharacterSpacing:0
                            fontRotation:SDK_ROTATION_DEGREES_0
                                 reverse:NO
                                    bold:NO
                                  italic:NO
  textWriteDirectionRightToLeft:NO
                           textAlignment:SDK_ALIGNMENT_CENTER
];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-16 drawBarcode1D

Draw 1D Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcode1D:(NSString*)data
                         xPosition:(NSInteger)xPostion
                         yPosition:(NSInteger)yPostion
                       barcodeType:(NSInteger)barcodeType
                       widthNarrow:(NSInteger)widthNarrow
                         widthWide:(NSInteger)widthWide
                            height:(NSInteger)height
                               hri:(NSInteger)hri
                   quietZoneWidth:(NSInteger)quietZoneWidth
                          rotation:(NSInteger)rotation;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
barcodeType : Barcode selection

Code	Value	Description
SDK_BARCODE_TYPE_CODE39	0	Code39
SDK_BARCODE_TYPE_CODE128	1	Code128
SDK_BARCODE_TYPE_I2Of5	2	Interleaved 2of5
SDK_BARCODE_TYPE_CODABAR	3	Codabar
SDK_BARCODE_TYPE_CODE93	4	Code93
SDK_BARCODE_TYPE_UPC_A	5	UPC-A
SDK_BARCODE_TYPE_UPC_E	6	UPC-E
SDK_BARCODE_TYPE_EAN13	7	EAN13
SDK_BARCODE_TYPE_EAN8	8	EAN8
SDK_BARCODE_TYPE_EAN128	9	UCC/EAN128
SDK_BARCODE_TYPE_CODE11	10	Code11
SDK_BARCODE_TYPE_PLANET	11	Planet
SDK_BARCODE_TYPE_INDUSTRIAL_2Of5	12	Industrial 2of5
SDK_BARCODE_TYPE_STANDARD_2Of5	13	Standard 2of5
SDK_BARCODE_TYPE_LOGMARS	14	Logmars
SDK_BARCODE_TYPE_UPC_EAN_EXTENSIONS	15	UPC/EAN Extensions
SDK_BARCODE_TYPE_POSTNET	16	Postnet

widthNarrow : Narrow bar width
widthWide : Wide bar width
height : Barcode height

hri : HRI (Human Readable Interpretation)

Code	Value	Description
SDK_BARCODE_HRI_NONE	0	HRI is not used.
SDK_BARCODE_HRI_BELOW_FONTSIZE1	1	Position of HRI: Below barcode Font Size: 1
SDK_BARCODE_HRI_ABOVE_FONTSIZE1	2	Position of HRI: Above barcode Font Size: 1
SDK_BARCODE_HRI_BELOW_FONTSIZE2	3	Position of HRI: Below barcode Font Size: 2
SDK_BARCODE_HRI_ABOVE_FONTSIZE2	4	Position of HRI: Above barcode Font Size: 2
SDK_BARCODE_HRI_BELOW_FONTSIZE3	5	Position of HRI: Below barcode Font Size: 3
SDK_BARCODE_HRI_ABOVE_FONTSIZE3	6	Position of HRI: Above barcode Font Size: 3
SDK_BARCODE_HRI_BELOW_FONTSIZE4	7	Position of HRI: Below barcode Font Size: 4
SDK_BARCODE_HRI_ABOVE_FONTSIZE4	8	Position of HRI: Above barcode Font Size: 4

quietZoneWidth : Quiet zone is added to the front and end of the barcode for safe scanning.(0~20)

rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL	0XF000	Fail
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data
SDK_RESULT_FAIL_INVALID_PARAMETER	0XF008	Invalid parameter

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcode1D:@"1234567890128"
             xPosition:100
             yPosition:100
          barcodeType:SDK_BARCODE_TYPE_UPC_A
          widthNarrow:2
             widthWide:2
                 height:100
                     hri:SDK_BARCODE_HRI_BELOW_FONTSIZE2
     quietZoneWidth:0
               rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
       …
} else {
       …
}
```

2-2-17 drawBarcodeMaxiCode

Draw Maxicode Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcodeMaxiCode:(NSString*)data
                                xPosition:(NSInteger)xPostion
                                yPosition:(NSInteger)yPostion
                                     mode:(NSInteger)mode;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position(X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position(Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
mode : MaxiCode Mode

Code	Value	Description
SDK_MAXICODE_MODE_0	0	MaxiCode Mode 0
SDK_MAXICODE_MODE_2	2	MaxiCode Mode 2
SDK_MAXICODE_MODE_3	3	MaxiCode Mode 3
SDK_MAXICODE_MODE_4	4	MaxiCode Mode 4

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodeMaxiCode:@"Maxicode Test"
      xPosition:100
      yPosition:100
           mode:SDK_MAXICODE_MODE_0];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-18 drawBarcodePDF417

Draw PDF417 Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcodePDF417:(NSString*)data
                              xPosition:(NSInteger)xPostion
                              yPosition:(NSInteger)yPostion
                       maximumRowCount:(NSInteger)maximumRowCount
                    maximumColumnCount:(NSInteger)maximumColumnCount
                 errorCorrectionLevel:(NSInteger)errorCorrectionLevel
               dataCompressionMethod:(NSInteger)dataCompressionMethod
                    printBarcodeText:(BOOL)printBarcodeText
                 barcodeOriginPoint:(NSInteger)barcodeOriginPoint
                          moduleWidth:(NSInteger)moduleWidth
                            barHeight:(NSInteger)barHeight
                             rotation:(NSInteger)rotation;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
maximumRowCount : Maximum Row Count (range : 3~90)
maximumColumnCount : Maximum Column Count (range : 1 ~ 30)
errorCorrectionLevel : Error correction level

Code	Value	Description
SDK_ERROR_CORRECTION_LEVEL0	0	Error Correction Level 0
SDK_ERROR_CORRECTION_LEVEL1	1	Error Correction Level 1
SDK_ERROR_CORRECTION_LEVEL2	2	Error Correction Level 2
SDK_ERROR_CORRECTION_LEVEL3	3	Error Correction Level 3
SDK_ERROR_CORRECTION_LEVEL4	4	Error Correction Level 4
SDK_ERROR_CORRECTION_LEVEL5	5	Error Correction Level 5
SDK_ERROR_CORRECTION_LEVEL6	6	Error Correction Level 6
SDK_ERROR_CORRECTION_LEVEL7	7	Error Correction Level 7
SDK_ERROR_CORRECTION_LEVEL8	8	Error Correction Level 8

dataCompressionMethod : Data compression method

Code	Value	Description
SDK_DATA_COMPRESSION_METHOD_TEXT	0	2char / codeword
SDK_DATA_COMPRESSION_METHOD_NUMERIC	1	2.93 char / codeword
SDK_DATA_COMPRESSION_METHOD_BINARY	2	1.2bytes / codeword

printBarcodeText : HRI (YES: below the barcode, NO: Not printed)

barcodeOriginPoint : Barcode origin point

Code	Value	Description
SDK_BARCODE_ORIGIN_POINT_CENTER	0	Set the reference point of the barcode to the center.
SDK_BARCODE_ORIGIN_POINT_UPPER_LEFT	1	Set the reference point of the barcode in the upper leftcorner.

moduleWidth : Module Width (range : 2~9)
BarHeight : Bar Height (range : 4~99)
rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodePDF417:@"PDF417 Test!!!"
                 xPosition:100
                 yPosition:100
           maximumRowCount:10
       maximumColumnCount:5
    errorCorrectionLevel:SDK_ERROR_CORRECTION_LEVEL0
dataCompressionMethod:SDK_DATA_COMPRESSION_METHOD_TEXT
          printBarcodeText:false
       barcodeOriginPoint:SDK_BARCODE_ORIGIN_POINT_CENTER
              moduleWidth:5
                 barHeight:50
                   rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
        …
} else {
        …
}
```

2-2-19 drawBarcodeQRCode

Draw QRCode Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcodeQRCode:(NSString*)data
                            xPosition:(NSInteger)xPostion
                            yPosition:(NSInteger)yPostion
                          barcodeSize:(NSInteger)barcodeSize
                                model:(NSInteger)model
                   errorColectionLevel:(NSInteger)errorColectionLevel
                             rotation:(NSInteger)rotation;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
barcodeSize : Barcode size (range : 1~9)
model : Model Selection

Code	Value	Description
SDK_QRCODE_MODEL_1	1	QR Model 1
SDK_QRCODE_MODEL_2	2	QR Model 2

errorCorrectionLevel : ECC Level

Value	Description
0	7%
1	15%
2	25%
3	30%

rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

if (sdk.isConnected == NO) {
      return;
}

SDK_RESULT_CODES result =
[sdk drawBarcodeQRCode:@"QRCode Test!!!"
                  xPosition:50
                  yPosition:50
                barcodeSize:2
                      model:SDK_QRCODE_MODEL_1
      errorColectionLevel:SDK_ERROR_CORRECTION_LEVEL0
                   rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-20 drawBarcodeDataMatrix

Draw QRCode Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcodeDataMatrix:(NSString*)data
                                 xPosition:(NSInteger)xPostion
                                 yPosition:(NSInteger)yPostion
                                barcodeSize:(NSInteger)barcodeSize
                                   reverse:(BOOL)reverse
                                  rotation:(NSInteger)rotation;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
barcodeSize : Barcode Size (range : 1~9)
reverse : Reverse mode (YES: Reverse, NO: Normal)
rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodeDataMatrix:@"DataMatrix Test!!!"
                  xPosition:50
                  yPosition:50
                barcodeSize:2
                    reverse:NO
                   rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-21 drawBarcodeAztec

Draw Aztec Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcodeAztec:(NSString*)data
                            xPosition:(NSInteger)xPostion
                            yPosition:(NSInteger)yPostion
                          barcodeSize:(NSInteger)barcodeSize
                    extendedChannel:(BOOL)extendedChannel
              errorCorrectionLevel:(NSInteger)errorCorrectionLevel
                           menuSymbol:(BOOL)menuSymbol
                    numberOfSymbols:(NSInteger)numberOfSymbols
                           optionalID:(NSString*)optionalID
                            rotation:(NSInteger)rotation;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
barcodeSize : Barcode size (range : 1~10)
extendedChannel : Extended channel interpretation code (YES: Enable, NO: Disable)
errorCorrectionLevel : Error control and symbol size/type

Value	Error control and symbol size/type
0	Default error correction level
1 ~ 99	Error correction percentage

menuSymbol : Menu symbol (YES: Enable, NO: Disable)
numberOfSymbols : Number of symbols for structured append: (range : 1 ~ 26)
optionalID : Optional ID field for structured append: ID field string (Maximum 24 character)
rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodeAztec:@"Aztec Test!!!"
                xPosition:50
                yPosition:50
              barcodeSize:5
        extendedChannel:false
errorCorrectionLevel:0
               menuSymbol:false
        numberOfSymbols:10
               optionalID:nil
                 rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-22 drawBarcodeCode49

Draw Code49 Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES)drawBarcodeCode49:(NSString*)data
                            xPosition:(NSInteger)xPostion
                            yPosition:(NSInteger)yPostion
                          widthNarrow:(NSInteger)widthNarrow
                            widthWide:(NSInteger)widthWide
                               height:(NSInteger)height
                                  hri:(NSInteger)hri
                          startingMode:(NSInteger)startingMode
                             rotation:(NSInteger)rotation;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
widthNarrow : Narrow bar width
widthWide : Wide bar width
hri : HRI

Value	Description
0	Not Printed
1	Below the barcode
2	Above the barcode

height : Barcode height
startingMode : Starting mode

Code	Value	Description
SDK_STARTINGMODE_REGULAR_ALPHANUMERIC	0	Regular Alphanumeric Mode
SDK_STARTINGMODE_MULTIPLE_READ_ALPHANUMERIC	1	Multiple Read Alphanumeric
SDK_STARTINGMODE_REGULAR_NUMERIC	2	Regular Numeric Mode
SDK_STARTINGMODE_GROUP_ALPHANUMERIC	3	Group Alphanumeric Mode
SDK_STARTINGMODE_REGULAR_ALPHANUMRIC_SHIFT1	4	Regular Alphanumeric Shift 1
SDK_STARTINGMODE_REGULAR_ALPHANUMRIC_SHIFT2	5	Regular Alphanumeric Shift 2
SDK_STARTINGMODE_AUTOMATIC	7	Automatic Mode

rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint** API is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodeCode49:@"Code49 Test!!!"
                 xPosition:50
                 yPosition:50
               widthNarrow:4
                 widthWide:2
                     height:100
                         hri:SDK_BARCODE_HRI_BELOW_FONTSIZE1
            startingMode:SDK_STARTINGMODE_AUTOMATIC
                  rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-23 drawBarcodeCodaBlock

Draw CodaBlock Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcodeCodaBlock:(NSString*)data
                                xPosition:(NSInteger)xPostion
                                yPosition:(NSInteger)yPostion
                              widthNarrow:(NSInteger)widthNarrow
                                widthWide:(NSInteger)widthWide
                                   height:(NSInteger)height
                            securityLevel:(BOOL)securityLevel
                numberOfCharactersPerrow:(NSInteger)numberOfCharactersPerrow
                                     mode:(char)mode
                    numberOfRowToEncode:(NSInteger)numberOfRowToEncode;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
widthNarrow : Narrow bar width
widthWide : Wide bar width
height : Barcode height
securityLevel : Security level (YES: Enable, NO: Disable)
numberOfCharactersPerrow : Number of characters per row (data columns): 2~62
mode : Mode

Code	Value	Description
SDK_CODABLOCK_MODE_A	'A'	Code 39 character set is used.
SDK_CODABLOCK_MODE_E	'E'	Code 128 character set is used.
SDK_CODABLOCK_MODE_F	'F'	Code 128 character set is used. Function 1 is added automatically.

numberOfRowToEncode : Number of rows to encode

Mode	Value
SDK_CODABLOCK_MODE_A	1 ~ 18
SDK_CODABLOCK_MODE_E	2 ~ 4
SDK_CODABLOCK_MODE_F	2 ~ 4

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodeCodaBlock:@"CodaBlock Test!!!"
                 xPosition:100
                 yPosition:100
               widthNarrow:4
                 widthWide:2
                    height:100
             securityLevel:false
   numberOfCharactersPerrow:10
                      mode:SDK_CODABLOCK_MODE_A
          numberOfRowToEncode:10];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-24 drawBarcodeMicroPDF

Draw Micro PDF 417 Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcodeMicroPDF:(NSString*)data
                                xPosition:(NSInteger)xPostion
                                yPosition:(NSInteger)yPostion
                               moduleWidth:(NSInteger)moduleWidth
                            barcodeHeight:(NSInteger)barcodeHeight
                                     mode:(NSInteger)mode
                                 rotation:(NSInteger)rotation;
```

[Parameters]

text : Barcode data to print
xPosition : Horizontal position (X)
(Reference: *1-3 Available range of X/Y coordinates for each model*)
yPosition : Vertical position (Y)
(Reference: *1-3 Available range of X/Y coordinates for each model*)
moduleWidth : Module Width (range : 2~8)
barcodeHeight : Barcode height (range : 1~99)
mode : mode

Mode (M)	Number of Data Columns	Number of Data Rows	% of Cws for EC	Max Alpha Characters	Max Digits	Remarks
0	1	11	64	6	8	
1	1	14	50	12	17	
2	1	17	41	18	26	
3	1	20	40	22	32	
4	1	24	33	30	44	
5	1	28	29	38	55	
6	2	8	50	14	20	
7	2	11	41	24	35	
8	2	14	32	36	52	
9	2	17	29	46	67	
10	2	20	28	56	82	
11	2	23	28	64	93	
12	2	26	29	72	105	
13	3	6	67	10	14	
14	3	8	58	18	26	
15	3	10	53	26	38	
16	3	12	50	34	49	
17	3	15	47	46	67	
18	3	20	43	66	96	
19	3	26	41	90	132	
20	3	32	40	114	167	
21	3	38	39	138	202	
22	3	44	38	162	237	
23	4	6	50	22	32	
24	4	8	44	34	49	
25	4	10	40	46	67	
26	4	12	38	58	85	
27	4	15	35	76	111	
28	4	20	33	106	155	
29	4	26	31	142	208	
30	4	32	30	178	261	
31	4	38	29	214	313	
32	4	44	28	250	366	
33	4	4	50	14	20	

rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodeMicroPDF:@"MicroPDF417 Test!!!"
                       xPosition:100
                       yPosition:100
                     moduleWidth:4
                  barcodeHeight:100
                           mode:0
                       rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-25 drawBarcodeIMB

Draw IMB(Inteligent Mail Barcode) on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcodeIMB:(NSString*)data
                         xPosition:(NSInteger)xPostion
                         yPosition:(NSInteger)yPostion
                 printBarcodeText:(BOOL)printBarcodeText
                          rotation:(NSInteger)rotation;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
printBarcodeText : HRI (YES: bellow the barcode, NO: Not printed)
rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodeIMB:@"Inteligent Mail Barcode Test!!!"
              xPosition:100
              yPosition:100
   printBarcodeText:NO
               rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-26 drawBarcodeMSI

Draw MSI Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcodeMSI:(NSString*)data
                          xPosition:(NSInteger)xPostion
                          yPosition:(NSInteger)yPostion
                        widthNarrow:(NSInteger)widthNarrow
                          widthWide:(NSInteger)widthWide
                             height:(NSInteger)height
                 checkDigitSelection:(NSInteger)checkDigitSelection
               printCheckDigitInHRI:(BOOL)printCheckDigitInHRI
                                hri:(NSInteger)hri
                           rotation:(NSInteger)rotation;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
widthNarrow : Narrow bar width
widthWide : Wide bar width
height : Barcode height
checkDigitSelection : Check digit selection

Code	Value	Description
SDK_CHECKDIGIT_NONE	0	No Check Digit
SDK_CHECKDIGIT_1MOD10	1	Check Digit 1 Mod 10
SDK_CHECKDIGIT_2MOD10	2	Check Digit 2 Mod 10
SDK_CHECKDIGIT_1MOD11_AND_1MOD_10	3	Check Digit 1 Mod 10

printCheckDigitInHRI : Print check digit in HRI (YES: Print, NO: Not print)
hri : HRI

Value	Description
0	Not printed
1	Below the bar code
2	Above the bar code

rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodeMSI:@"943457842"
                xPosition:100
                yPosition:100
            widthNarrow:4
                widthWide:2
                    height:100
checkDigitSelection:SDK_CHECKDIGIT_1MOD10
printCheckDigitInHRI:YES
                        hri:SDK_BARCODE_HRI_BELOW_FONTSIZE1
                rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-27 drawBarcodePlessey

Draw Plessey Barcode on the image buffer.

[Declaration]

```
-(long) drawBarcodePlessey:(NSString*)data
                  xPosition:(NSInteger)xPostion
                  yPosition:(NSInteger)yPostion
                widthNarrow:(NSInteger)widthNarrow
                  widthWide:(NSInteger)widthWide
                     height:(NSInteger)height
           printCheckDigit:(BOOL)printCheckDigit
                        hri:(NSInteger)hri
                   rotation:(NSInteger)rotation;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
widthNarrow : Narrow bar width
widthWide : Wide bar width
height : Barcode height
printCheckDigitInHRI : Print check digit (YES: Print check digit, NO: Not print check digit)
hri : HRI

Value	Description
0	Not printed
1	Below the bar code
2	Above the bar code

rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodePlessey:@"12345678"
                  xPosition:100
                  yPosition:100
                widthNarrow:4
                  widthWide:2
                     height:100
          printCheckDigit:YES
                        hri:SDK_BARCODE_HRI_BELOW_FONTSIZE1
                 rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-28 drawBarcodeTLC39

Draw TLC39 Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcodeTLC39:(NSString*)data
                            xPosition:(NSInteger)xPostion
                            yPosition:(NSInteger)yPostion
                          widthNarrow:(NSInteger)widthNarrow
                            widthWide:(NSInteger)widthWide
                               height:(NSInteger)height
                rowHeightOfMicroPDF417:(NSInteger)rowHeightOfMicroPDF417
            narrowWidthOfMicroPDF417:(NSInteger)narrowWidthOfMicroPDF417
                             rotation:(NSInteger)rotation;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
widthNarrow : Narrow bar width of the Code 39
widthWide : Wide bar width of the Code 39
height : Height of the code39
rowHeightOfMicroPDF417 : Row height of microPDF417 (range : 1 ~ 255)
narrowWidthOfMicroPDF417 : narrowWideHeight of microPDF417 (range 1 ~ 10)
rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodeTLC39:@"123456,ABCD12345678901234"
                 xPosition:100
                 yPosition:100
               widthNarrow:4
                 widthWide:2
                     height:100
   rowHeightOfMicroPDF417:3
narrowWidthOfMicroPDF417:2
                  rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
      …
} else {
      …
}
```

2-2-29 drawBarcodeRSS

Draw RSS Barcode on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBarcodeRSS:(NSString*)data
                          xPosition:(NSInteger)xPostion
                          yPosition:(NSInteger)yPostion
                        barcodeType:(NSInteger)barcodeType
                      magnification:(NSInteger)magnification
                    separatorHeight:(NSInteger)separatorHeight
                      barcodeHeight:(NSInteger)barcodeHeight
                       segmentWidth:(NSInteger)segmentWidth
                           rotation:(NSInteger)rotation;
```

[Parameters]

data : Barcode data to print
xPosition : Horizontal position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
yPosition : Vertical position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
barcodeType : RSS barcode type

Code	Value	Description
SDK_RSS_BARCODE_TYPE_RSS14	0	RSS14
SDK_RSS_BARCODE_TYPE_RSS14_TRUNCATED	1	RSS14 truncated
SDK_RSS_BARCODE_TYPE_RSS14_STACKED	2	RSS14 stacked
SDK_RSS_BARCODE_TYPE_RSS14_STACKED_OMNIDIRECTIONAL	3	RSS14 Stacked omnidirectional
SDK_RSS_BARCODE_TYPE_RSS_LIMITED	4	RSS limited
SDK_RSS_BARCODE_TYPE_RSS_EXPANDED	5	RSS Expanded
SDK_RSS_BARCODE_TYPE_UPC_A	6	RSS UPC A
SDK_RSS_BARCODE_TYPE_UPC_E	7	RSS UPC E
SDK_RSS_BARCODE_TYPE_EAN13	8	EAN13
SDK_RSS_BARCODE_TYPE_EAN8	9	EAN 8
SDK_RSS_BARCODE_TYPE_UCC_EAN128_CC_A_B	10	EAN128 CC-A/B
SDK_RSS_BARCODE_TYPE_UCC_EAN128_CC_C	11	EAN128 CC-C

magnification : magnification. *(range : 1~10)*
separatorHeight : Height of separator (*range :* 1~2)
barcodeHeight : this parameter only affects the UCC/EAN barcode type and CC-A/B/C barcode type.
segmentWidth : This parameter only affects the RSS expanded barcode type (*range :* 0~22 Even number only)

rotation : Rotation

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodeRSS:@"12345678901|this is composite info"
                xPosition:100
                yPosition:100
             barcodeType:SDK_RSS_BARCODE_TYPE_RSS14
          magnification:2
      separatorHeight:1
          barcodeHeight:20
            segmentWidth:10
                 rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
        …
} else {
        …
}
```

2-2-31 drawBlock

Draw line, Block, Box & Slope on the image buffer.

[Declaration]

```
-(SDK_RESULT_CODES) drawBlock:(NSInteger)startPosX
        startPosY:(NSInteger)startPosY
        endPosX:(NSInteger)endPosX
        endPosY:(NSInteger)endPosY
            option:(char)option
        thickness:(NSInteger)thickness
```

[Parameters]

startPosX : Horizontal start position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)

startPosY : Vertical start position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)

endPosX : Horizontal end position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)

endPosY : Vertical end position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)

option : Options

Code	Value	Description
SDK_DRAW_BLOCK_OPTION_LINE_OVERWRITING	'O'	Line Overwriting
SDK_DRAW_BLOCK_OPTION_LINE_EXCLUSIVE_OR	'E'	Line Exclusive OR
SDK_DRAW_BLOCK_OPTION_LINE_DELETE	'D'	Line Delete
SDK_DRAW_BLOCK_OPTION_SLOPE	'S'	Slope (a oblique line)
SDK_DRAW_BLOCK_OPTION_BOX	'B'	Box

thickness : block thickness

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
[sdk drawBarcodeRSS:@"12345678901|this is composite info"
                xPosition:100
                yPosition:100
            barcodeType:SDK_RSS_BARCODE_TYPE_RSS14
          magnification:2
      separatorHeight:1
          barcodeHeight:20
            segmentWidth:10
                  rotation:SDK_ROTATION_DEGREES_0];

if (result == SDK_RESULT_SUCCESS) {
        …
} else {
        …
}
```

2-2-32 drawCircle

Draw Circle on the image buffer

[Declaration]

```
-(SDK_RESULT_CODES) drawCircle:(NSInteger)startPosX
            startPosY:(NSInteger)startPosY
       sizeSelection:(NSInteger)sizeSelection
            multiplier:(NSInteger)multiplier
```

[Parameters]

startPosX : Horizontal start position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
startPosY : Vertical start position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
sizeSelection : Circle Size Selection

Code	Value	Diameter (mm)	Width x Hegith(Dots)
SDK_DRAW_CIRCLE_SIZE_40X40	1	5	40 × 40
SDK_DRAW_CIRCLE_SIZE_56X56	2	7	56 × 56
SDK_DRAW_CIRCLE_SIZE_72X72	3	9	72 × 72
SDK_DRAW_CIRCLE_SIZE_88X88	4	11	88 × 88
SDK_DRAW_CIRCLE_SIZE_104X104	5	13	104 × 104
SDK_DRAW_CIRCLE_SIZE_168X168	6	21	168 × 168

multiplier : Multiplier(1~4)

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk drawCircle:100
                                  startPosY:100
                             sizeSelection:SDK_DRAW_CIRCLE_SIZE_40X40
                                 multiplier:1];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-33 drawImageData

Draw image data on specific position of image buffer.
If you don't set image dithering, the default setting is 'NO'

[Declaration]

```
-(SDK_RESULT_CODES) drawImageData:(UIImage*)image
                          stratPosX:(NSInteger)startPosX
                          startPosY:(NSInteger)startPosY
                              width:(NSInteger)width
                        useDithering:(BOOL)useDithering
```

[Parameters]

ImageData : printing image
startPosX : Horizontal start position (X)
(Reference: 1-3 Available range of X/Y coordinates for each model)
startPosY : Vertical start position (Y)
(Reference: 1-3 Available range of X/Y coordinates for each model)
width : printing image width
(Reference: 1-3 Available range of X/Y coordinates for each model)
useDithering : Select to use image dithering

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_NO_CONNECT	0XF004	Printer is not connected
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Note]

Contents requested by this API will be printed when **2-2-13 doPrint API** is called.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

UIImage* img = [UIImage imageNamed:@"test"];

SDK_RESULT_CODES result = [sdk drawImageData:img
                                    stratPosX:100
                                    startPosY:100
                                        width:300];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-34 checkPrinterStatus

Check printer status and report status data to host.

[Declaration]

-(SDK_RESULT_CODES) checkPrinterStatus:(blockType1) statusReceiver;

[Parameters]

statusReceiver : It implements the function to be performed when the status of the printer is received.

Code	Value	Description
SDK_STATUS_PRINTER_PAPEREMPTY	0x00000080	Paper empty
SDK_STATUS_PRINTER_COVEROPEN	0x00000040	Cover open
SDK_STATUS_PRINTER_MOTOR_OVERHEAT	0x00000020	Motor overheat
SDK_STATUS_PRINTER_TPH_OVERHEAT	0x00000010	Thermal head(TPH) overheat
SDK_STATUS_PRINTER_GAP_ERROR	0x00000008	Gap detection error(Auto-sensing failure)
SDK_STATUS_ PRINTER_BOARD_OVERHEAT	0x00000004	Board overheat
SDK_STATUS_PRINTER_WAIT_TAKEN	0x00000002	Wait for paper to be taken
SDK_STATUS_PRINTER_BUILDING_LABEL	0x00008000	On building label to be printed in image buffer
SDK_STATUS_PRINTER_PRINTING_LABEL	0x00004000	On printing label in image buffer
SDK_STATUS_PRINTER_ISSUED_LABEL	0x00002000	Issued label is paused in peeler unit

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk checkPrinterStatus:^(NSInteger parameter) {
    switch (parameter) {
        case SDK_STATUS_PRINTER_COVEROPEN:
            NSLog(@"COVER OPEN");
            break;
        case SDK_STATUS_PRINTER_GAP_ERROR:
            NSLog(@"GAP ERROR");
            break;
        case SDK_STATUS_PRINTER_PAPEREMPTY:
            NSLog(@"Printer Paper Empty");
            break;
        case SDK_STATUS_PRINTER_RIBBON_END:
            NSLog(@"Printer Ribbon End");
            break;
        case SDK_STATUS_PRINTER_CUTTER_JAMMED :
            NSLog(@"Printer Cutter Jammed");
            break;
        case SDK_STATUS_PRINTER_TPH_OVERHEAT :
            NSLog(@"Printer TPH Overheat");
            break;
        default:
            break;
    }
}];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-35 getSDKVersionString

It confirms the SDK version.

[Declaration]

-(NSString*) getSDKVersionString

[Return Value]

It returns SDK Version..

[Example]

```
NSLog(@"%@", [LabelPrinterSDK getSDKVersionString]);
```

2-2-36 getReleasedDateString

It confirms the date when SDK was distributed.

[Declaration]

-(NSString*) getReleasedDateString

[Return Value]

It returns SDK release date.

[Example]

```
NSLog(@"%@", [LabelPrinterSDK getReleasedDateString]);
```

2-2-37 getDpi

Check the DPI(Dot per Inch) value of the connected printer.

[Declaration]
-(NSInteger) getDpi;

[Return Value]
Return the DPI value set on the printer.
If not connected to the printer, return 0.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

NSInteger dpi = [sdk getDpi];
NSLog(@"DPI : %ld", dpi);
```

2-2-38 getMaxWidth

Check the Maximum printable width on the connected printer.

[Declaration]
-(NSInteger) getMaxWidth;

[Return Value]
Return the maximum printable width value.
If not connected to the printer, return 0.

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

NSInteger maxWidth = [sdk getMaxWidth];
NSLog(@"MAX WIDTH : %ld", maxWidth);
```

2-2-39 setOrientation

Set printing direction.

[Declaration]
-(SDK_RESULT_CODES) setOrientation:(NSInteger)orientation

[Parameters]
orientation : Printing direction

Code	Value	Description
SDK_ORIENTATION_TOP_BOTTOM	0	Print from top to bottom
SDK_ORIENTATION_BOTTOM_TOP	1	Print from bottom to top

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result =
                        [sdk setOrientation:SDK_ORIENTATION_TOP_BOTTOM];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-40 setICS:codepage

To select international character set and code table

[Declaration]
-(SDK_RESULT_CODES) setICS:(NSInteger)ics codepage:(NSInteger)cp

[Parameters]
ics : International character set

Code	Value	Description
SDK_CONFIG_ICS_USA	0	U.S.A
SDK_CONFIG_ICS_FRANCE	1	France
SDK_CONFIG_ICS_GERMANY	2	Germany
SDK_CONFIG_ICS_UK	3	U.K
SDK_CONFIG_ICS_DENMARK_I	4	Denmark I
SDK_CONFIG_ICS_SWEDEN	5	Sweden
SDK_CONFIG_ICS_ITALY	6	Italy
SDK_CONFIG_ICS_SPAIN_I	7	Spain I
SDK_CONFIG_ICS_NORWAY	8	Norway
SDK_CONFIG_ICS_DENMARK_II	9	Denmark II
SDK_CONFIG_ICS_JAPAN	10	Japan
SDK_CONFIG_ICS_SPAIN_II	11	Spain II
SDK_CONFIG_ICS_LATIN_AMERICA	12	Latin America
SDK_CONFIG_ICS_KOREA	13	Korea
SDK_CONFIG_ICS_SLOVENIA_CROATIA	14	Slovenia/Croatia
SDK_CONFIG_ICS_CHINA	15	China

cp : codepage

Code	Value	Description	
SDK_CONFIG_CODEPAGE_CP437	0	CP437	U.S.A
SDK_CONFIG_CODEPAGE_CP850	1	CP850	Latin1
SDK_CONFIG_CODEPAGE_CP852	2	CP 852	Latin2
SDK_CONFIG_CODEPAGE_CP860	3	CP 860	Portuguese
SDK_CONFIG_CODEPAGE_CP863	4	CP 863	Canadian French
SDK_CONFIG_CODEPAGE_CP865	5	CP 865	Nordic
SDK_CONFIG_CODEPAGE_CP1252	6	WCP 1252	Latin I
SDK_CONFIG_CODEPAGE_CP865_WCP1252	7	CP 865 + WCP 1252	European Combined
SDK_CONFIG_CODEPAGE_CP857	8	CP 857	Turkish
SDK_CONFIG_CODEPAGE_CP737	9	CP 737	Greek
SDK_CONFIG_CODEPAGE_WCP1250	10	WCP 1250	Latin 2
SDK_CONFIG_CODEPAGE_WCP1253	11	WCP 1253	Greek
SDK_CONFIG_CODEPAGE_WCP1254	12	WCP 1254	Turkish
SDK_CONFIG_CODEPAGE_CP855	13	CP 855	Cyrillic
SDK_CONFIG_CODEPAGE_CP862	14	CP 862	Hebrew
SDK_CONFIG_CODEPAGE_CP866	15	CP 866	Cyrillic
SDK_CONFIG_CODEPAGE_WCP1251	16	WCP 1251	Cyrillic
SDK_CONFIG_CODEPAGE_WCP1255	17	WCP 1255	Hebrew
SDK_CONFIG_CODEPAGE_CP928	18	CP 928	Greek
SDK_CONFIG_CODEPAGE_CP864	19	CP 864	Arabic
SDK_CONFIG_CODEPAGE_CP775	20	CP 775	Baltic
SDK_CONFIG_CODEPAGE_WCP1257	21	WCP1257	Baltic
SDK_CONFIG_CODEPAGE_CP858	22	CP858	Latin 1 + Euro

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk setICS:SDK_CONFIG_ICS_USA
                                codepage:SDK_CONFIG_CODEPAGE_CP437];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-41 setMargin:verticalMargin

Set marginal value of the image buffer.
This method moves the origin point and make become the new origin.

[Declaration]

```
-(SDK_RESULT_CODES) setMargin:(NSInteger)horizontalMargin
                          verticalMargin:(NSInteger)verticalMargin
```

[Parameters]

horizontalMargin : Horizontal margin
verticalMargin : Vertical margin

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk setMargin:10
                                  verticalMargin:10];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-42 setLength

Set length of label and gap(or Black mark) and specify media type.

[Declaration]

```
-(SDK_RESULT_CODES) setLength:(NSInteger) labelLength
          gapLength:(NSInteger) gapLength
          mediaType:(char) mediaType
        offsetLength:(NSInteger)offsetLength
```

[Parameters]

labelLength : Label length
gapLength : Gap length or thickness of black line
mediaType : Media type

Code	Value	Description
SDK_MEDIA_TYPE_GAP	'G'	Gap
SDK_MEDIA_TYPE_CONTINUOUS	'C'	Continuous
SDK_MEDIA_TYPE_BLACK_MARK	'B'	Black mark

offsetLength : Offset Length between Black mark(or Gap) and perforation line

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];
…

SDK_RESULT_CODES result = [sdk setLength:1216
                                    gepLength:1
                                    mediaType:SDK_MEDIA_TYPE_BLACK_MARK
                                offsetLength:1];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-43 setSpeed

Set print speed.

[Declaration]
-(SDK_RESULT_CODES) setSpeed:(NSInteger) speedValue

[Parameters]
speedValue : speed set value

Code	Value	Description
SDK_SPEED_VALUE_1_0_IPS	1	1.0 Inch print per second
SDK_SPEED_VALUE_2_0_IPS	2	2.0 Inch print per second
SDK_SPEED_VALUE_3_0_IPS	3	3.0 Inch print per second
SDK_SPEED_VALUE_4_0_IPS	4	4.0 Inch print per second
SDK_SPEED_VALUE_5_0_IPS	5	5.0 Inch print per second

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk setSpeed:SDK_SPEED_VALUE_4_0_IPS];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-44 setOffset

Save (set) offset length between black marks(or gap) and dotted lines

[Declaration]
-(SDK_RESULT_CODES) setOffset:(NSInteger)offsetValue

[Parameters]
offsetValue : offset(range : -100~100)

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk setOffset:1];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-45 setDensity

Set print Density.

[Declaration]
-(SDK_RESULT_CODES) setDensity:(NSInteger) densityValue

[Parameters]
densityValue : Density level (range : 0~20)

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk setDensity:10];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-46 setCuttingPosition

This method regulates the label cutting location after printing.
Tear-off position or Cut position can adjust.

[Declaration]
-(SDK_RESULT_CODES) setCuttingPosition:(NSInteger)cuttiongPosition

[Parameters]
cuttiongPosition : tear-off/cutter position(range : -100~100)

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk setCuttingPosition:1];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-47 setWidth

Set label width.
Resize the image buffer to match the label size.

[Declaration]
-(SDK_RESULT_CODES) setWidth:(NSInteger) widthValue

[Parameters]
widthValue : label width
(Reference: 1-3 Available range of X/Y coordinates for each model)

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

SDK_RESULT_CODES result = [sdk setWidth:811];

if (result == SDK_RESULT_SUCCESS) {
    …
} else {
    …
}
```

2-2-48 printRawData

Executes the printing by commands to the printer.
Please refer to SLCS(Programming) Manual for command generation.

[Declaration]
-(SDK_RESULT_CODES) printRawData:(NSData*)rawData;

[Parameters]
rawData : Instruction data generated by SLCS

[Return Value]

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

unsigned char command[] = { 0x53, 0x53, 0x33, 0x0d, 0x10, 0x00 };
NSData *data = [NSData dataWithBytes:&command length:sizeof(command)];

SDK_RESULT_CODES result = [sdk printRawData:data];

if (result == SDK_RESULT_SUCCESS) {
      NSLog(@"SUCCESS");
} else {
      NSLog(@"FAIL");
}
```

2-2-49 getModelName

Check the Model Name of the connected printer.

[Declaration]
-(NSString *) getModelName;

[Return Value]
Printer model name

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

NSString* modelName = [sdk getModelName];

NSLog(modelName);
```

2-2-50 getFirmwareVersion

Check the Firmware Version of the connected printer.

[Declaration]
-(NSString *) getFirmwareVersion;

[Return Value]
Printer firmware version

[Example]

```
LabelPrinterSDK* sdk = [LabelPrinterSDK new];

…

NSString* fwVer = [sdk getFirmwareVersion];

NSLog(fwVer);
```

3. Constants

Constants used in the provided SDK are defined in the “LabelPrinterSDK_Defines.h” file.

3-1 Result Codes

• Results Codes are the values returned from various methods, which indicate error conditions of the corresponding method.

Code	Value	Description
SDK_RESULT_SUCCESS	0X0000	Success
SDK_RESULT_FAIL	0XF000	Fail
SDK_RESULT_FAIL_NO_OPEN	0XF002	SDK is not open
SDK_RESULT_FAIL_OPEN_ALREADY	0XF003	SDK is already open
SDK_RESULT_FAIL_NO_CONNECT	0XF004	Printer is not connected
SDK_RESULT_FAIL_CONNECT_ALREADY	0XF005	Printer is already connected
SDK_RESULT_FAIL_WRITE_ERROR	0XF006	Failed to send data
SDK_RESULT_FAIL_READ_ERROR	0XF007	Failed to receive data
SDK_RESULT_FAIL_INVALID_PARAMETER	0XF008	Invalid parameter

3-2 Alignment

• Alignment constants are used to specify the alignment property.

Code	Value	Description
SDK_ALIGNMENT_LEFT	0	Align to left
SDK_ALIGNMENT_RIGHT	1	Align to right
SDK_ALIGNMENT_CENTER	2	Align to center
SDK_ALIGNMENT_STRING_FROM_RIGHT_2_LEFT	2	Print characters from right to left

[Note]
SDK_ALIGNMENT_CENTER : Only valid for “Vector Fonts”.
SDK_ALIGNMENT_STRING_FROM_RIGHT_2_LEFT : Only valid for Device Font.

3-3 Barcode HRI

• The below constants are used to specify the position and font of HRI when printing barcodes that supports HRI.

Code	Value	Description
SDK_BARCODE_HRI_NONE	0	HRI is not used.
SDK_BARCODE_HRI_BELOW_FONTSIZE1	1	Position of HRI: Below barcode Font Size: 1
SDK_BARCODE_HRI_ABOVE_FONTSIZE1	2	Position of HRI: Above barcode Font Size: 1
SDK_BARCODE_HRI_BELOW_FONTSIZE2	3	Position of HRI: Below barcode Font Size: 2
SDK_BARCODE_HRI_ABOVE_FONTSIZE2	4	Position of HRI: Above barcode Font Size: 2
SDK_BARCODE_HRI_BELOW_FONTSIZE3	5	Position of HRI: Below barcode Font Size: 3
SDK_BARCODE_HRI_ABOVE_FONTSIZE3	6	Position of HRI: Above barcode Font Size: 3
SDK_BARCODE_HRI_BELOW_FONTSIZE4	7	Position of HRI: Below barcode Font Size: 4
SDK_BARCODE_HRI_ABOVE_FONTSIZE4	8	Position of HRI: Above barcode Font Size: 4

3-4 MaxiCode Modes

• MaxiCode Mode constants are used to set the barcode option when printing Maxi code barcode.

Code	Value	Description
SDK_MAXICODE_MODE_0	0	MaxiCode Mode 0
SDK_MAXICODE_MODE_2	2	MaxiCode Mode 2
SDK_MAXICODE_MODE_3	3	MaxiCode Mode 3
SDK_MAXICODE_MODE_4	4	MaxiCode Mode 4

3-5 1D Barcode Types

• One-dimensional Barcode Types constants are used to set the barcode option when printing 1D barcode.

Code	Value	Description
SDK_BARCODE_TYPE_CODE39	0	Code39
SDK_BARCODE_TYPE_CODE128	1	Code128
SDK_BARCODE_TYPE_I2Of5	2	Interleaved 2of5
SDK_BARCODE_TYPE_CODABAR	3	Codabar
SDK_BARCODE_TYPE_CODE93	4	Code93
SDK_BARCODE_TYPE_UPC_A	5	UPC-A
SDK_BARCODE_TYPE_UPC_E	6	UPC-E
SDK_BARCODE_TYPE_EAN13	7	EAN13
SDK_BARCODE_TYPE_EAN8	8	EAN8
SDK_BARCODE_TYPE_EAN128	9	UCC/EAN128
SDK_BARCODE_TYPE_CODE11	10	Code11
SDK_BARCODE_TYPE_PLANET	11	Planet
SDK_BARCODE_TYPE_INDUSTRIAL_2Of5	12	Industrial 2of5
SDK_BARCODE_TYPE_STANDARD_2Of5	13	Standard 2of5
SDK_BARCODE_TYPE_LOGMARS	14	Logmars
SDK_BARCODE_TYPE_UPC_EAN_EXTENSIONS	15	UPC/EAN Extensions
SDK_BARCODE_TYPE_POSTNET	16	Postnet

3-6 Barcode Origin Point

• Barcode Origin Point constants are used to set the reference origin position of barcode.

Code	Value	Description
SDK_BARCODE_ORIGIN_POINT_CENTER	0	Set the reference point of the barcode to the center.
SDK_BARCODE_ORIGIN_POINT_UPPER_LEFT	1	Set the reference point of the barcode in the upper left corner.

3-7 Error Correction Level

• Error Correction Level constants are used to set the level of error correction for possible corruption of barcode.

Code	Value	Description
SDK_ERROR_CORRECTION_LEVEL0	0	Error Correction Level 0
SDK_ERROR_CORRECTION_LEVEL1	1	Error Correction Level 1
SDK_ERROR_CORRECTION_LEVEL2	2	Error Correction Level 2
SDK_ERROR_CORRECTION_LEVEL3	3	Error Correction Level 3
SDK_ERROR_CORRECTION_LEVEL4	4	Error Correction Level 4
SDK_ERROR_CORRECTION_LEVEL5	5	Error Correction Level 5
SDK_ERROR_CORRECTION_LEVEL6	6	Error Correction Level 6
SDK_ERROR_CORRECTION_LEVEL7	7	Error Correction Level 7
SDK_ERROR_CORRECTION_LEVEL8	8	Error Correction Level 8

3-8 Data Compression Method

• Data Compression Method constants are used to specify the data compression property.

Code	Value	Description
SDK_DATA_COMPRESSION_METHOD_TEXT	0	2char / codeword
SDK_DATA_COMPRESSION_METHOD_NUMERIC	1	2.93 char / codeword
SDK_DATA_COMPRESSION_METHOD_BINARY	2	1.2bytes / codeword

3-9 QRCode Model

• QR Code Model constants are used to set the options in printing QR barcode.

Code	Value	Description
SDK_QRCODE_MODEL_1	1	QR Model 1
SDK_QRCODE_MODEL_2	2	QR Model 2

3-10 Code 49 Starting Mode

• Code 49 Starting Mode constants are used to set the properties of Starting Mode in printing Code 49 barcode.

Code	Value	Description
SDK_STARTINGMODE_REGULAR_ALPHANUMERIC	0	Regular Alphanumeric Mode
SDK_STARTINGMODE_MULTIPLE_READ_ALPHANUMERIC	1	Multiple Read Alphanumeric
SDK_STARTINGMODE_REGULAR_NUMERIC	2	Regular Numeric Mode
SDK_STARTINGMODE_GROUP_ALPHANUMERIC	3	Group Alphanumeric Mode
SDK_STARTINGMODE_REGULAR_ALPHANUMRIC_SHIFT1	4	Regular Alphanumeric Shift 1
SDK_STARTINGMODE_REGULAR_ALPHANUMRIC_SHIFT2	5	Regular Alphanumeric Shift 2
SDK_STARTINGMODE_AUTOMATIC	7	Automatic Mode

3-11 Codablock Mode

• Codablock Mode constants are used to set the options when printing Codablock barcode.

Code	Value	Description
SDK_CODABLACK_MODE_A	‘A’	Code 39 character set is used.
SDK_CODABLACK_MODE_E	‘E’	Code 128 character set is used.
SDK_CODABLACK_MODE_F	‘F’	Code 128 character set is used. Function 1 is added automatically.

3-12 Check Digit Option

• These constants are used to set the Check Digit property when printing MSI barcode.

Code	Value	Description
SDK_CHECKDIGIT_NONE	0	No Check Digit
SDK_CHECKDIGIT_1MOD10	1	Check Digit 1 Mod 10
SDK_CHECKDIGIT_2MOD10	2	Check Digit 2 Mod 10
SDK_CHECKDIGIT_1MOD11_AND_1MOD_10	3	Check Digit 1 Mod 10

3-13 RSS Barcode Type

• RSS Barcode Type constants are used to set the barcode type when printing RSS barcode.

Code	Value	Description
SDK_RSS_BARCODE_TYPE_RSS14	0	RSS14
SDK_RSS_BARCODE_TYPE_RSS14_TRUNCATED	1	RSS14 truncated
SDK_RSS_BARCODE_TYPE_RSS14_STACKED	2	RSS14 stacked
SDK_RSS_BARCODE_TYPE_RSS14_STACKED_OMNIDIRECTIONAL	3	RSS14 Stacked omnidirectional
SDK_RSS_BARCODE_TYPE_RSS_LIMITED	4	RSS limited
SDK_RSS_BARCODE_TYPE_RSS_EXPANDED	5	RSS Expanded
SDK_RSS_BARCODE_TYPE_UPC_A	6	RSS UPC A
SDK_RSS_BARCODE_TYPE_UPC_E	7	RSS UPC E
SDK_RSS_BARCODE_TYPE_EAN13	8	EAN13
SDK_RSS_BARCODE_TYPE_EAN8	9	EAN 8
SDK_RSS_BARCODE_TYPE_UCC_EAN128_CC_A_B	10	EAN128 CC-A/B
SDK_RSS_BARCODE_TYPE_UCC_EAN128_CC_C	11	EAN128 CC-C

3-14 Rotation Degrees

• Rotation Degrees constants are used to set the rotation property of the printing.

Code	Value	Description
SDK_ROTATION_DEGREES_0	0	No rotation
SDK_ROTATION_DEGREES_90	1	90 degrees of rotation
SDK_ROTATION_DEGREES_180	2	180 degrees of rotation
SDK_ROTATION_DEGREES_270	3	270 degrees of rotation.

3-15 Device Fonts

• Device Fonts constants are used to set the property of Device Font.

Code	Value	Description
SDK_DEVICE_FONT_6PT	'0'	9 X 15 (dots)
SDK_DEVICE_FONT_8PT	'1'	12 X 20 (dots)
SDK_DEVICE_FONT_10PT	'2'	16 X 25 (dots)
SDK_DEVICE_FONT_12PT	'3'	19 X 30 (dots)
SDK_DEVICE_FONT_15PT	'4'	24 X 38 (dots)
SDK_DEVICE_FONT_20PT	'5'	32 X 40 (dots)
SDK_DEVICE_FONT_30PT	'6'	48 X 76 (dots)
SDK_DEVICE_FONT_14PT	'7'	22 X 34 (dots)
SDK_DEVICE_FONT_18PT	'8'	28 X 44 (dots)
SDK_DEVICE_FONT_24PT	'9'	37 X 58 (dots)
SDK_DEVICE_FONT_KOREAN1	'a'	16 X 16 (dots) (ASCII 9 X 15)
SDK_DEVICE_FONT_KOREAN2	'b'	24 X 24 (dots) (ASCII 12 X 24)
SDK_DEVICE_FONT_KOREAN3	'c'	20 X 20 (dots) (ASCII 12 X 20)
SDK_DEVICE_FONT_KOREAN4	'd'	26 X 26 (dots) (ASCII 16 X 30)
SDK_DEVICE_FONT_KOREAN5	'e'	20 X 26 (dots) (ASCII 16 X 30)
SDK_DEVICE_FONT_KOREAN6	'f'	38 X 38 (dots) (ASCII 22 X 34)
SDK_DEVICE_FONT_GB2312	'm'	24 X 24 (dots) (ASCII 12 X 24)
SDK_DEVICE_FONT_BIG5	'n'	24 X 24 (dots) (ASCII 12 X 24)
SDK_DEVICE_FONT_SHIFT_JIS	'j'	24 X 24 (dots) (ASCII 12 X 24)

3-16 Vector Fonts

• Vector Fonts constants are used to set the property of Vector Fonts.

Code	Value	Description
SDK_VECTOR_FONT_ASCII	'U'	ASCII (1Byte code)
SDK_VECTOR_FONT_KS5601	'K'	KS5601 (2Byte code)
SDK_VECTOR_FONT_BIG5	'B'	BIG5 (2Byte code)
SDK_VECTOR_FONT_GB2312	'G'	GB2312 (2Byte code)
SDK_VECTOR_FONT_SHIFT_JIS	'J'	Shift-JIS (2Byte code)
SDK_VECTOR_FONT_OCR_A	'a'	OCR-A (1Byte code)
SDK_VECTOR_FONT_OCR_B	'b'	OCR-B (1Byte code)

3-17 Draw Block Options

• Draw Block Options constants are used to set the Draw Block Options.

Code	Value	Description
SDK_DRAW_BLOCK_OPTION_LINE_OVERWRITING	'O'	Line Overwriting
SDK_DRAW_BLOCK_OPTION_LINE_EXCLUSIVE_OR	'E'	Line Exclusive OR
SDK_DRAW_BLOCK_OPTION_LINE_DELETE	'D'	Line Delete
SDK_DRAW_BLOCK_OPTION_SLOPE	'S'	Slope(a oblique line)
SDK_DRAW_BLOCK_OPTION_BOX	'B'	Box

3-18 Draw Circle Sizes

• Draw Circle Sizes constants are used to set the property related to the size when using the Draw Circle Method.

Code	Value	Diameter (mm)	Width x Hegith(Dots)
SDK_DRAW_CIRCLE_SIZE_40X40	1	5	40 × 40
SDK_DRAW_CIRCLE_SIZE_56X56	2	7	56 × 56
SDK_DRAW_CIRCLE_SIZE_72X72	3	9	72 × 72
SDK_DRAW_CIRCLE_SIZE_88X88	4	11	88 × 88
SDK_DRAW_CIRCLE_SIZE_104X104	5	13	104 × 104
SDK_DRAW_CIRCLE_SIZE_168X168	6	21	168 × 168

3-19 International Character Set

• These constants are used to set the International Character Set.

Code	Value	Description
SDK_CONFIG_ICS_USA	0	U.S.A
SDK_CONFIG_ICS_FRANCE	1	France
SDK_CONFIG_ICS_GERMANY	2	Germany
SDK_CONFIG_ICS_UK	3	U.K
SDK_CONFIG_ICS_DENMARK_I	4	Denmark I
SDK_CONFIG_ICS_SWEDEN	5	Sweden
SDK_CONFIG_ICS_ITALY	6	Italy
SDK_CONFIG_ICS_SPAIN_I	7	Spain I
SDK_CONFIG_ICS_NORWAY	8	Norway
SDK_CONFIG_ICS_DENMARK_II	9	Denmark II
SDK_CONFIG_ICS_JAPAN	10	Japan
SDK_CONFIG_ICS_SPAIN_II	11	Spain II
SDK_CONFIG_ICS_LATIN_AMERICA	12	Latin America
SDK_CONFIG_ICS_KOREA	13	Korea
SDK_CONFIG_ICS_SLOVENIA_CROATIA	14	Slovenia/Croatia
SDK_CONFIG_ICS_CHINA	15	China

3-20 Code Pages

• These constants are used to set the Code Page.

Code	Value	Description	
SDK_CONFIG_CODEPAGE_CP437	0	CP437	U.S.A
SDK_CONFIG_CODEPAGE_CP850	1	CP850	Latin1
SDK_CONFIG_CODEPAGE_CP852	2	CP 852	Latin2
SDK_CONFIG_CODEPAGE_CP860	3	CP 860	Portuguese
SDK_CONFIG_CODEPAGE_CP863	4	CP 863	Canadian French
SDK_CONFIG_CODEPAGE_CP865	5	CP 865	Nordic
SDK_CONFIG_CODEPAGE_CP1252	6	WCP 1252	Latin I
SDK_CONFIG_CODEPAGE_CP865_WCP1252	7	CP 865 + WCP 1252	European Combined
SDK_CONFIG_CODEPAGE_CP857	8	CP 857	Turkish
SDK_CONFIG_CODEPAGE_CP737	9	CP 737	Greek
SDK_CONFIG_CODEPAGE_WCP1250	10	WCP 1250	Latin 2
SDK_CONFIG_CODEPAGE_WCP1253	11	WCP 1253	Greek
SDK_CONFIG_CODEPAGE_WCP1254	12	WCP 1254	Turkish
SDK_CONFIG_CODEPAGE_CP855	13	CP 855	Cyrillic
SDK_CONFIG_CODEPAGE_CP862	14	CP 862	Hebrew
SDK_CONFIG_CODEPAGE_CP866	15	CP 866	Cyrillic
SDK_CONFIG_CODEPAGE_WCP1251	16	WCP 1251	Cyrillic
SDK_CONFIG_CODEPAGE_WCP1255	17	WCP 1255	Hebrew
SDK_CONFIG_CODEPAGE_CP928	18	CP 928	Greek
SDK_CONFIG_CODEPAGE_CP864	19	CP 864	Arabic
SDK_CONFIG_CODEPAGE_CP775	20	CP 775	Baltic
SDK_CONFIG_CODEPAGE_WCP1257	21	WCP1257	Baltic
SDK_CONFIG_CODEPAGE_CP858	22	CP858	Latin 1 + Euro

3-21 Media Type

• These constants are used to set the print media type.

Code	Value	Description
SDK_MEDIA_TYPE_GAP	‘G’	Gap
SDK_MEDIA_TYPE_CONTINUOUS	‘C’	Continuous
SDK_MEDIA_TYPE_BLACK_MARK	‘B’	Black mark

3-22 Speed Value

• These constants are used to set the print speed.

Code	Value	Description
SDK_SPEED_VALUE_1_0_IPS	1	1.0 Inch print per second
SDK_SPEED_VALUE_2_0_IPS	2	2.0 Inch print per second
SDK_SPEED_VALUE_3_0_IPS	3	3.0 Inch print per second
SDK_SPEED_VALUE_4_0_IPS	4	4.0 Inch print per second
SDK_SPEED_VALUE_5_0_IPS	5	5.0 Inch print per second

3-23 Orientation

• These constants are used to set the printing direction.

Code	Value	Description
SDK_ORIENTATION_TOP_BOTTOM	0	Print from top to bottom
SDK_ORIENTATION_BOTTOM_TOP	1	Print from bottom to top

3-24 Printer Status

• These constants are used to check the printer error status.

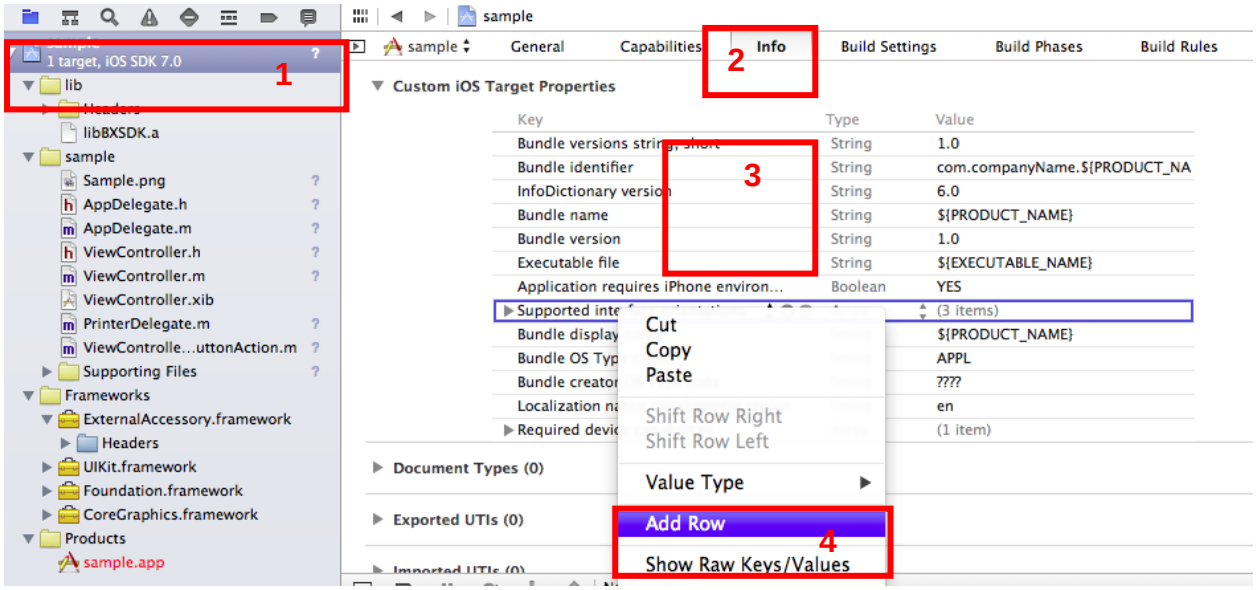
Code	Value	Description
SDK_STATUS_PRINTER_PAPEREMPTY	0x00000080	Paper empty
SDK_STATUS_PRINTER_COVEROPEN	0x00000040	Cover open
SDK_STATUS_PRINTER_MOTOR_OVERHEAT	0x00000020	Motor overheat
SDK_STATUS_PRINTER_TPH_OVERHEAT	0x00000010	Thermal head(TPH) overheat
SDK_STATUS_PRINTER_GAP_ERROR	0x00000008	Gap detection error(Auto-sensing failure)
SDK_STATUS_PRINTER_BOARD_OVERHEAT	0x00000004	Board overheat
SDK_STATUS_PRINTER_WAIT_TAKEN	0x00000002	Wait for paper to be taken
SDK_STATUS_PRINTER_BUILDING_LABEL	0x00008000	On building label to be printed in image buffer
SDK_STATUS_PRINTER_PRINTING_LABEL	0x00004000	On printing label in image buffer
SDK_STATUS_PRINTER_ISSUED_LABEL	0x00002000	Issued label is paused in peeler unit

4. Appendix

4-1 Setting SDK Project

• Registration with the Apple Developer Program is required to develop iOS applications. Refer to the Apple Developer's Website (http://developer.apple.com/devcenter/ios) for detail

4-1-1 Adding Bluetooth Protocol

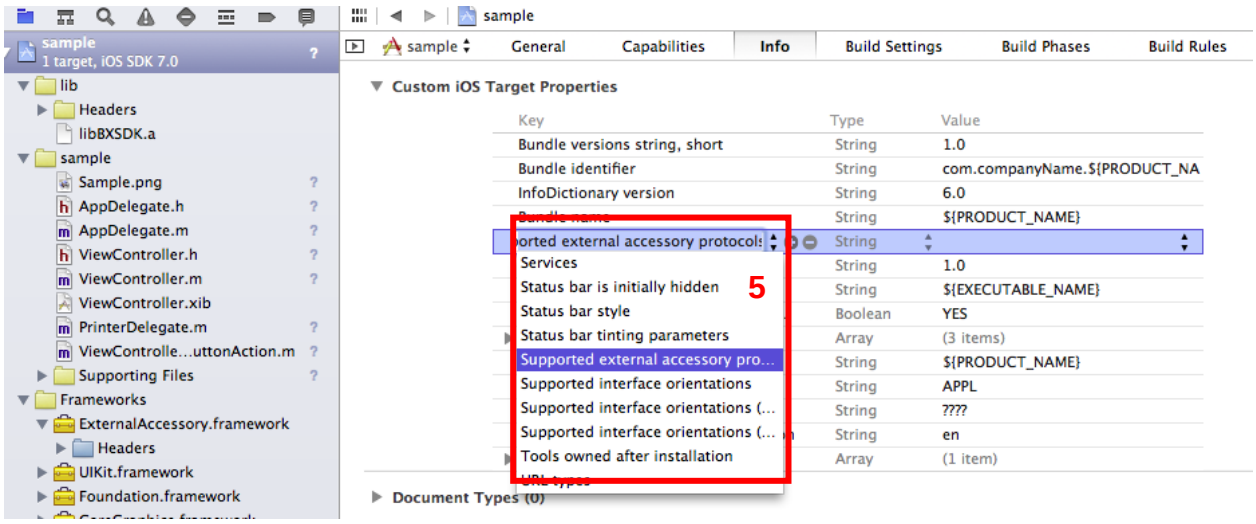


1) Select project file

2) Select [Info] tab

3) Ctrl-click in the Area 3

4) Select [Add Row] from the pop up menu

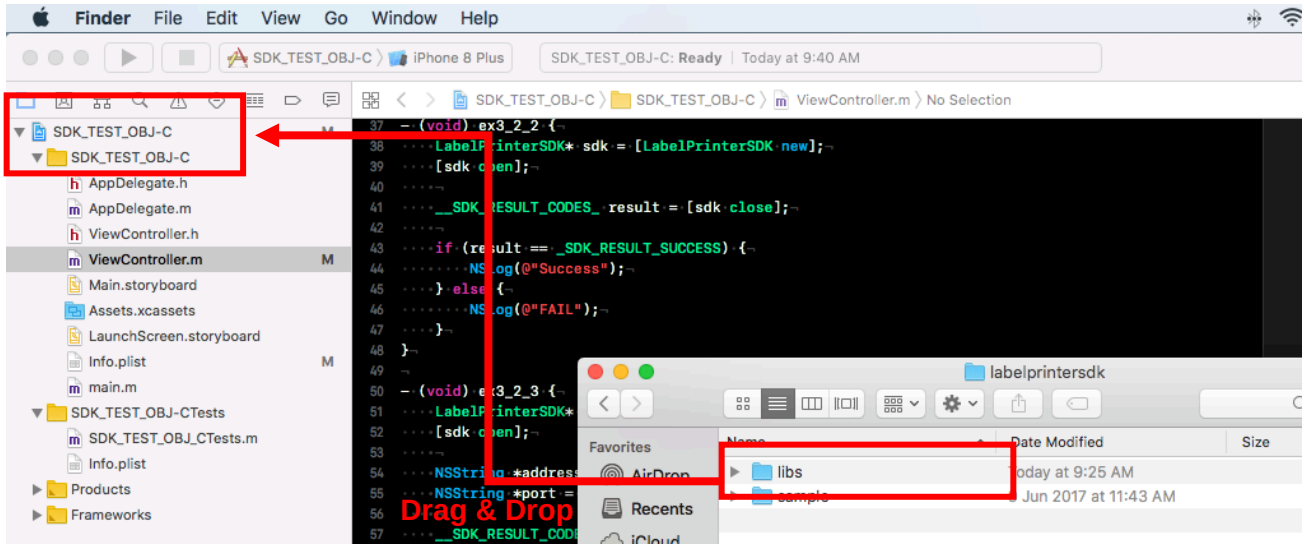


5) Enter “Supported external accessory protocols”

6) Enter “com.sato.protocol” in the items field.

4-1-2 Adding Library to Project

Drag the library folder and drop it to the project.



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In the following, product specifications and/or user manual content may be changed without prior notice.

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”.

Revision history

Rev.	Date	Page	Description
1.00	13.11.19	-	New
1.01	27.04.20	-	Added PV4