

Barcode 1D Encode&Decode SDK v2.5

USER MANUAL

AIPSYS Software Laboratory

<http://www.aipsys.com>

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1. 1D Barcode introduction

1.1. 1D Barcode types

- 2 of 5 family (including IATA 2 of 5, Matrix 2 of 5 and China Postal)
- Australia Post
- Codabar
- Codablock F
- Code 128 and EAN/UCC-128
- Code 39
- Code 49
- Code 93
- DataBar (formerly RSS)
- Deutschen Post
- DUN-14
- EAN/UCC (EAN-13, EAN-8)
- ISBN
- ITF (including ITF-6, ITF-14 and Interleaved 2 of 5)
- Japan Post
- Korean Postal Authority
- MSI
- OneCode
- Plessey
- PostNet
- RM4SCC and 4-State
- GS1-DataBar
- SSCC (Serial Shipping Container Code)
- SISAC
- Telepen
- UPC (including UPC-A and UPC-E)

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1.3. About trial version

With 2D barcode encoder and decoder SDK, some of the input element will be replaced with char '*' before encoding, and some of the output element will be replaced with '*' after decoding.

With 1D linear barcode encoder and decoder, some of the input element will be replaced with char '0' before encoding, and some of the output element will be replaced with '0' after decoding.

The Trial version have 30 days' evaluation time, you must remove it from your computer and your application after expiration.

We will mail the licensed version or register serial no to you after you order it.

2. Encoder SDK

2.1. Static link library

2.1.1 Data structure and constant for barcode type

The following data structure define the properties of the 1D barcode, it can be transfer into function as parameter.

```

typedef struct
{
    int    symbology;        //[IN]barcode id
    int    height;          //[OUT] barcode height
    int    whiteSpaceWidth; //[IN] size of white space
    int    borderWidth;    //[IN] size of border width
    int    outputOptions;   //[IN]
    int    rotateAngle;     //[IN]angle of rotatin
    int    rows;            //[OUT]
    int    width;           //[OUT]
    int    charSize;        //[IN]char size when print string to barcode
    int    textAlign;       //[IN]alignment mode printing string to barcode
    char *charSet;          //[IN] set the char set
    char *prefix;           //[IN] set the prefix of the string printed
    char *surfix;           //[IN] set the surfix of the string printed
    COLORREF foreColor;    //[IN]barcode color
    COLORREF backColor;    //[IN]background color
    char text[100];         //[IN]data to be encoded
    char encodedData[8][1000]; //[OUT]matrix outputed
    char errtxt[100];      //[OUT] error message
} _SYMBOL;

```

Constants for barcode type

BARCODE_CODE11	1
BARCODE_C25MATRIX	2
BARCODE_C25INTER	3
BARCODE_C25IATA	4
BARCODE_C25LOGIC	6
BARCODE_C25IND	7
BARCODE_CODE39	8
BARCODE_EXCODE39	9
BARCODE_EANX	13
BARCODE_EAN128	16
BARCODE_CODABAR	18
BARCODE_CODE128	20
BARCODE_DPLEIT	21
BARCODE_DPIDENT	22
BARCODE_CODE16K	23
BARCODE_CODE93	25
BARCODE_FLAT	28
BARCODE_TELEPEN	32
BARCODE_UPCA	34
BARCODE_UPCE	37
BARCODE_POSTNET	40

BARCODE_MSI_PLESSEY	47
BARCODE_FIM	49
BARCODE_LOGMARS	50
BARCODE_PHARMA	51
BARCODE_PZN	52
BARCODE_PHARMA_TWO	53
BARCODE_CODE128B	60
BARCODE_AUSPOST	63
BARCODE_AUSREPLY	66
BARCODE_AUSROUTE	67
BARCODE_AUSREDIRECT	68
BARCODE_ISBNX	69
BARCODE_RM4SCC	70
BARCODE_ITF14	72
BARCODE_NVE18	75
BARCODE_KOREAPOST	77
BARCODE_PLANET	82
BARCODE_ONECODE	85
BARCODE_PLESSEY	86
BARCODE_TELEPEN_NUM	100
BARCODE_MSI_10	101
BARCODE_MSI_10_10	102
BARCODE_MSI_11	103
BARCODE_MSI_11_10	104
BARCODE_CODE39_43	105
BARCODE_EXCODE39_43	106

2.1.2. Function or procedure

2.1.2.1. _InitBarcodeContext

The _InitBarcodeContext function initialize the environment of 1d Barcode encoding with default value.

```
void __stdcall __InitBarcodeContext(_SYMBOL *pSymbol);
```

Parameters

pSymbol [in] define the 1D Barcode attributes for encoding, refer structure type
_SYMBOL

Return values

None

2.1.2.2. **_1DBarEncode2File**

The `_1DBarEncode2File` function encode the data inputed with the defined attributes and save the barcode to an image file

```
BOOL __stdcall _1DBarEncode2File (_SYMBOL *pSymbol, LPCTSTR  
pImageFile);
```

Parameters

`pSymbol`

[in] define the 1D Barcode attributes for encoding, refer structure type
`_SYMBOL`

`pImageFile`

[in] define the image file outputted, currently bitmap image supported

Return values

If the function succeeds, the return value is `TRUE`, otherwise , return `FALSE`.

2.1.2.3. **_1DBarEncode2Bitmap**

The `_1DBarEncode2Bitmap` function encode the data inputed with the defined attributes and return the bitmap handle of the 1D barcode image

```
HBITMAP __stdcall _1DBarEncode2Bitmap (_SYMBOL *pSymbol);
```

Parameters

`pSymbol`

[in] define the 1D Barcode attributes for encoding, refer structure type
`_SYMBOL`

Return values

If the function succeeds, the return value is `HBITMAP` handle of 1D Barcode, otherwise , return `NULL`.

2.1.2.4. **_FreeBarcodeContext**

The `_FreePDF417Context` function free environment of the 1D encoding

```
BOOL __stdcall _FreeBarcodeContext ();
```

Return values

If the function succeeds, the return TRUE, otherwise , return FALSE.

2.1.3. Example for Microsoft visual C++

Example1

```
#include "1DBarcodeLib.h"

.....

_SYMBOL symbol;

_InitBarcodeContext(&symbol);
symbol.symbology = 20;
symbol.borderWidth=10;
// symbol.outputOptions;
symbol.rotateAngle = 0;
// symbol.textAlign = CT_L;
symbol.charSet = "arial";
symbol.prefix = NULL;
symbol.suffix = NULL;
symbol.foreColor = RGB(255,0,0);
symbol.backColor = RGB(255,255,255);
_1DBarcode2File(&symbol,"c:\\1d.bmp");
_FreeBarcodeContext();
....
```

Link library

```
1DBarcodeLib.lib
```

2.2. Dynamic link library

2.2.1. Data structure and constant for barcode type

```
typedef struct tagSYMBOL
{
```

```

int  symbology;    //[IN]barcode id
int  height;      //[OUT] barcode height
int  whiteSpaceWidth; //[IN] size of white space
int  borderWidth;  //[IN] size of border width
int  outputOptions;  //[IN]
int  rotateAngle;  //[IN]angle of rotatin
int  rows;         //[OUT]
int  width;        //[OUT]
int  charSize;     //[IN]char size when print string to barcode
int  textAlign;   //[IN]alignment mode printing string to barcode
char *charSet;    //[IN] set the char set
char *prefix;     //[IN] set the prefix of the string printed
char *surfix;     //[IN] set the surfix of the string printed
COLORREF foreColor;  //[IN]barcode color
COLORREF backColor;  //[IN]background color
char text[100];    //[IN]data to be encoded
char encodedData[8][1000]; //[OUT]matrix outputed
char errtxt[100];  //[OUT] error message
}SYMBOL;

```

Constants for barcode

BARCODE_CODE11	1
BARCODE_C25MATRIX	2
BARCODE_C25INTER	3
BARCODE_C25IATA	4
BARCODE_C25LOGIC	6
BARCODE_C25IND	7
BARCODE_CODE39	8
BARCODE_EXCODE39	9
BARCODE_EANX	13
BARCODE_EAN128	16
BARCODE_CODABAR	18
BARCODE_CODE128	20
BARCODE_DPLEIT	21
BARCODE_DPIDENT	22
BARCODE_CODE16K	23
BARCODE_CODE93	25
BARCODE_FLAT	28
BARCODE_TELEPEN	32
BARCODE_UPCA	34
BARCODE_UPCE	37
BARCODE_POSTNET	40
BARCODE_MSI_PLESSEY	47
BARCODE_FIM	49

BARCODE_LOGMARS	50
BARCODE_PHARMA	51
BARCODE_PZN	52
BARCODE_PHARMA_TWO	53
BARCODE_CODE128B	60
BARCODE_AUSPOST	63
BARCODE_AUSREPLY	66
BARCODE_AUSROUTE	67
BARCODE_AUSREDIRECT	68
BARCODE_ISBNX	69
BARCODE_RM4SCC	70
BARCODE_ITF14	72
BARCODE_NVE18	75
BARCODE_KOREAPOST	77
BARCODE_PLANET	82
BARCODE_ONECODE	85
BARCODE_PLESSEY	86
BARCODE_TELEPEN_NUM	100
BARCODE_MSI_10	101
BARCODE_MSI_10_10	102
BARCODE_MSI_11	103
BARCODE_MSI_11_10	104
BARCODE_CODE39_43	105
BARCODE_EXCODE39_43	106

2.2.2. Function or procedure

2.2.2.1. InitWorkSpace

The InitWorkSpace function initialize the environment of 1D barcode encoding with default value.

```
void __stdcall InitWorkSpace(SYMBOL *pSymbol);
```

Parameters

pSymbol

[in] define the 1D barcode attributes for encoding, refer structure type SYMBOL

Return values

None

2.2.2.2. Bar1DEncode2File

The PDF417Encode2File function encode the data inputed with the defined attributes and save the barcode to an image file

```
BOOL __stdcall Bar1DEncode2File (SYMBOL *pSymbol,  
                                LPCTSTR lpImageFile);
```

Parameters

pSymbol

[in] define the 1D barcode attributes for encoding, refer structure type
SYMBOL

lpImageFile

[in] define the image file outputted, currently bitmap image supported

Return values

If the function succeeds, the return value is TRUE, otherwise , return FALSE.

2.2.2.3. Bar1DEncode2Bitmap

The Bar1DEncode2Bitmap function encode the data inputed with the defined attributes and return the bitmap handle of the 1D barcode barcode image

```
HBITMAP __stdcall Bar1DEncode2Bitmap (SYMBOL *pSymbol);
```

Parameters

pSymbol

[in] define the 1D Barcode attributes for encoding, refer structure type
SYMBOL

Return values

If the function succeeds, the return value is BITMAP handle of PDF417 Barcode, otherwise , return NULL.

2.2.2.4. FreeWorkSpace

The FreeWorkSpace function free environment of the 1D barcode encoding

```
BOOL __stdcall FreeWorkSpace();
```

Return values

If the function succeeds, the return TRUE, otherwise , return FALSE.

2.2.3. Example for Microsoft visual C++

Example1

Example1

```
#include "1DBarcodeDll.h"

.....

SYMBOL symbol;

InitWorkSpace(&symbol);
symbol.symbology = 20;
symbol.borderWidth=10;
symbol.rotateAngle = 0;
symbol.charSet = "arial";
symbol.prefix = NULL;
symbol.suffix = NULL;
symbol.foreColor = RGB(255,0,0);
symbol.backColor = RGB(255,255,255);
1DBarcode2File(&symbol,"c:\\1d.bmp");
FreeWorkSpace();

....

Link library
    1DBarcodeDll.lib
Runtime Library
    1DBarcodeDll.DLL
```

2.2.5. Example for Microsoft visual Basic

2.2.5.1. Redclaration of the data type and function

Constants declaration

```
Public Const BARCODE_CODE11 = 1
Public Const BARCODE_C25MATRIX = 2
```

Public Const BARCODE_C25INTER = 3
Public Const BARCODE_C25IATA = 4
Public Const BARCODE_C25LOGIC = 6
Public Const BARCODE_C25IND = 7
Public Const BARCODE_CODE39 = 8
Public Const BARCODE_EXCODE39 = 9
Public Const BARCODE_EANX = 13
Public Const BARCODE_EAN128 = 16
Public Const BARCODE_CODABAR = 18
Public Const BARCODE_CODE128 = 20
Public Const BARCODE_DPLEIT = 21
Public Const BARCODE_DPIDENT = 22
Public Const BARCODE_CODE16K = 23
Public Const BARCODE_CODE93 = 25
Public Const BARCODE_FLAT = 28
Public Const BARCODE_TELEPEN = 32
Public Const BARCODE_UPCA = 34
Public Const BARCODE_UPCE = 37
Public Const BARCODE_POSTNET = 40
Public Const BARCODE_MSI_PLESSEY = 47
Public Const BARCODE_FIM = 49
Public Const BARCODE_LOGMARS = 50
Public Const BARCODE_PHARMA = 51
Public Const BARCODE_PZN = 52
Public Const BARCODE_PHARMA_TWO = 53
Public Const BARCODE_CODE128B = 60
Public Const BARCODE_AUSPOST = 63
Public Const BARCODE_AUSREPLY = 66
Public Const BARCODE_AUSRROUTE = 67
Public Const BARCODE_AUSREDIRECT = 68
Public Const BARCODE_ISBNX = 69
Public Const BARCODE_RM4SCC = 70
Public Const BARCODE_ITF14 = 72
Public Const BARCODE_NVE18 = 75
Public Const BARCODE_KOREAPOST = 77
Public Const BARCODE_PLANET = 82
Public Const BARCODE_ONECODE = 85
Public Const BARCODE_PLESSEY = 86
Public Const BARCODE_TELEPEN_NUM = 100
Public Const BARCODE_MSI_10 = 101
Public Const BARCODE_MSI_10_10 = 102
Public Const BARCODE_MSI_11 = 103
Public Const BARCODE_MSI_11_10 = 104
Public Const BARCODE_CODE39_43 = 105

```
Public Const BARCODE_EXCODE39_43 = 106
```

Structure declaration

```
Type symbol
    symbology As Long
    height As Long
    whiteSpaceWidth As Long
    borderWidth As Long
    outputOptions As Long
    rotateAngle As Long
    rows As Long
    width As Long
    charSize As Long
    textAlign As Long
    charSet As String * 32
    prefix As String * 16
    surfix As String * 16
    foreColor As Long
    backColor As Long
    text(100) As Byte
    encodedData(8, 1000) As Byte
    errtxt(100) As Byte
End Type
```

Function declaration

```
Public Declare Function FreeWorkSpace Lib "1DBarEncoded11.dll" () As Boolean
Public Declare Function Bar1DEncode2File Lib "1DBarEncoded11.dll" (pSymbol As symbol,
    ByVal ImageFile As String) As Boolean
Public Declare Function Bar1DEncode2Bitmap Lib "1DBarEncoded11.dll" (pSymbol As symbol)
    As Long
Public Declare Sub InitWorkSpace Lib "1DBarEncoded11.dll" (pSymbol As symbol)
```

2.2.5.2. Example

Example1

```
.....
Private Sub Command1_Click()
    Dim sym As symbol
    Dim a As Boolean
    Dim i, symaddr As Long
```

```

Dim s As String

symaddr = VarPtr(sym)

Call InitWorkSpace(sym)

sym.symbology = BARCODE_CODE11
sym.borderWidth = 10
sym.whiteSpaceWidth = 10
sym.rotateAngle = 45
sym.foreColor = 0

For i = 0 To 9
    sym.text(i) = 48 + i
Next

a = Bar1DEncode2File(sym, "c:\1d.bmp")
If Not a Then
    MsgBox (sym.errtxt)
End If

a = FreeWorkSpace()
End Sub
.....

```

2.3. ActiveX

2.3.1. Barcode type id constants

SYMBOLID	Value	SYMBOLID	Value
BARCODE_CODE11	1	BARCODE_C25MATRIX	2
BARCODE_C25INTER	3	BARCODE_C25IATA	4
BARCODE_C25LOGIC	6	BARCODE_C25IND	7
BARCODE_CODE39	8	BARCODE_EXCODE39	9
BARCODE_EANX	13	BARCODE_EAN128	16
BARCODE_CODABAR	18	BARCODE_CODE128	20
BARCODE_DPLEIT	21	BARCODE_DPIDENT	22
BARCODE_CODE16K	23	BARCODE_CODE93	25
BARCODE_FLAT	28	BARCODE_TELEPEN	32
BARCODE_UPCA	34	BARCODE_UPCE	37

BARCODE_POSTNET	40	BARCODE_MSI_PLESSEY	47
BARCODE_FIM	49	BARCODE_LOGMARS	50
BARCODE_PHARMA	51	BARCODE_PZN	52
BARCODE_PHARMA_TWO	53	BARCODE_CODE128B	60
BARCODE_AUSPOST	63	BARCODE_AUSREPLY	66
BARCODE_AUSROUTE	67	BARCODE_AUSREDIRECT	68
BARCODE_ISBNX	69	BARCODE_RM4SCC	70
BARCODE_ITF14	72	BARCODE_NVE18	75
BARCODE_KOREAPOST	77	BARCODE_PLANET	82
BARCODE_ONECODE	85	BARCODE_PLESSEY	86
BARCODE_TELEPEN_NUM	100	BARCODE_MSI_10	101
BARCODE_MSI_10_10	102	BARCODE_MSI_11	103
BARCODE_MSI_11_10	104	BARCODE_CODE39_43	105
BARCODE_EXCODE39_43	106		

2.3.2. textAlign values

Value	Description
DT_BOTTOM 0x00000008	Justifies the text to the bottom of the rectangle. This value is used only with the DT_SINGLELINE value.
DT_CALCRECT 0x00000400	Determines the width and height of the rectangle. If there are multiple lines of text, DrawText uses the width of the rectangle pointed to by the <i>lpRect</i> parameter and extends the base of the rectangle to bound the last line of text. If the largest word is wider than the rectangle, the width is expanded. If the text is less than the width of the rectangle, the width is reduced. If there is only one line of text, DrawText modifies the right side of the rectangle so that it bounds the last character in the line. In either case, DrawText returns the height of the formatted text but does not draw the text.
DT_CENTER 0x00000001	Centers text horizontally in the rectangle.

DT_EDITCONTROL 0x00002000	Duplicates the text-displaying characteristics of a multiline edit control. Specifically, the average character width is calculated in the same manner as for an edit control, and the function does not display a partially visible last line.
DT_END_ELLIPSIS 0x00008000	For displayed text, if the end of a string does not fit in the rectangle, it is truncated and ellipses are added. If a word that is not at the end of the string goes beyond the limits of the rectangle, it is truncated without ellipses. The string is not modified unless the DT_MODIFYSTRING flag is specified. Compare with DT_PATH_ELLIPSIS and DT_WORD_ELLIPSIS.
DT_EXPANDTABS 0x00000040	Expands tab characters. The default number of characters per tab is eight. The DT_WORD_ELLIPSIS, DT_PATH_ELLIPSIS, and DT_END_ELLIPSIS values cannot be used with the DT_EXPANDTABS value.
DT_EXTERNALLEADING 0x00000200	Includes the font external leading in line height. Normally, external leading is not included in the height of a line of text.
DT_HIDEPREFIX 0x00100000	Windows 2000/XP: Ignores the ampersand (&) prefix character in the text. The letter that follows will not be underlined, but other mnemonic-prefix characters are still processed. For example: input string: "A&bc&&d" normal: "A <u>bc</u> &d" DT_HIDEPREFIX: "A <u>bc</u> &d" Compare with DT_NOPREFIX and DT_PREFIXONLY.
DT_INTERNAL 0x00001000	Uses the system font to calculate text metrics.
DT_LEFT 0x00000000	Aligns text to the left.

DT_MODIFYSTRING 0x00010000	Modifies the specified string to match the displayed text. This value has no effect unless DT_END_ELLIPSIS or DT_PATH_ELLIPSIS is specified.
DT_NOCLIP 0x00000100	Draws without clipping. DrawText is somewhat faster when DT_NOCLIP is used.
DT_NOFULLWIDTHCHARBREAK 0x00080000	Windows 98/Me, Windows 2000/XP: Prevents a line break at a DBCS (double-wide character string), so that the line breaking rule is equivalent to SBCS strings. For example, this can be used in Korean windows, for more readability of icon labels. This value has no effect unless DT_WORDBREAK is specified.
DT_NOPREFIX 0x00000800	Turns off processing of prefix characters. Normally, DrawText interprets the mnemonic-prefix character & as a directive to underscore the character that follows, and the mnemonic-prefix characters && as a directive to print a single &. By specifying DT_NOPREFIX, this processing is turned off. For example, input string: "A&bc&&d" normal: "A _b c&d" DT_NOPREFIX: "A&bc&&d" Compare with DT_HIDEPREFIX and DT_PREFIXONLY.
DT_PATH_ELLIPSIS 0x00004000	For displayed text, replaces characters in the middle of the string with ellipses so that the result fits in the specified rectangle. If the string contains backslash (\) characters, DT_PATH_ELLIPSIS preserves as much as possible of the text after the last backslash. The string is not modified unless the DT_MODIFYSTRING flag is specified. Compare with DT_END_ELLIPSIS and DT_WORD_ELLIPSIS.
DT_PREFIXONLY 0x00200000	Windows 2000/XP: Draws only an underline at the position of the character following the ampersand (&) prefix character. Does not draw any other characters in the string. For example,

	<p>input string: "A&bc&&d" normal: "A<u>b</u>c&d" DT_PREFIXONLY: " _ "</p> <p>Compare with DT_HIDEPREFIX and DT_NOPREFIX.</p>
DT_RIGHT 0x00000002	Aligns text to the right.
DT_RTLREADING 0x00020000	Layout in right-to-left reading order for bi-directional text when the font selected into the <i>hdc</i> is a Hebrew or Arabic font. The default reading order for all text is left-to-right.
DT_SINGLELINE 0x00000020	Displays text on a single line only. Carriage returns and line feeds do not break the line.
DT_TABSTOP 0x00000080	Sets tab stops. Bits 15-8 (high-order byte of the low-order word) of the <i>uFormat</i> parameter specify the number of characters for each tab. The default number of characters per tab is eight. The DT_CALCRECT, DT_EXTERNALLEADING, DT_INTERNAL, DT_NOCLIP, and DT_NOPREFIX values cannot be used with the DT_TABSTOP value.
DT_TOP 0x00000000	Justifies the text to the top of the rectangle.
DT_VCENTER 0x00000004	Centers text vertically. This value is used only with the DT_SINGLELINE value.
DT_WORDBREAK 0x00000010	<p>Breaks words. Lines are automatically broken between words if a word would extend past the edge of the rectangle specified by the <i>lpRect</i> parameter. A carriage return-line feed sequence also breaks the line.</p> <p>If this is not specified, output is on one line.</p>
DT_WORD_ELLIPSIS 0x00040000	<p>Truncates any word that does not fit in the rectangle and adds ellipses.</p> <p>Compare with DT_END_ELLIPSIS and DT_PATH_ELLIPSIS.</p>

2.3.3. Properties

2.3.3.1. charSet

FontName such as 'arial'

String charSet

2.3.3.2. outputOptions

BARCODE_BOX or BARCODE_BIND

short outputOptions

2.3.3.3. charSize

if not equal 0, then print encoded text on the barcode , the position is controled align attribute

short charSize

2.3.3.4. whiteSpaceWidth

size of white space

short whiteSpaceWidth

2.3.3.5. rotateAngle

angle of rotation

short rotateAngle

2.3.3.6. Margin

The property set the margin of PDF417 barcode

short Margin

2.3.3.7. EncodeData

data to be encoded

string EncodeData

2.3.3.10. foreColor

The property set the Foreground color of barcode

OLE_COLOR ForeColor

2.3.3.11. backColor

The property set the Background color of barcode

OLE_COLOR backColor

2.3.2. Methods

2.3.2.1. Encode2ImageFile

The method Encode2ImageFile encode the data inputed and save the barcode image to file.

boolean Encode2ImageFile(BSTR lpFile);

Parameters

lpFile

[in] specify the barcode image file to be saved

Return values

If the function succeeds, the return TRUE, otherwise , return FALSE.

2.3.3. Register activeX component

Regsvr32 Bar1DEncodeOcx.OCX

2.3.6. Example for Microsoft visual Basic

```
Private Sub Command1_Click()  
    Bar1DEncodeOcx1.CodedText = "1234567"  
  
    Bar1DEncodeOcx1.Symbology = 1  
    Bar1DEncodeOcx1.RotateAngle = 45  
  
    Bar1DEncodeOcx1.ForeColor = &HFF00FF  
    Bar1DEncodeOcx1.EncodeMode = 1  
    Bar1DEncodeOcx1.BorderWidth = 10  
    Bar1DEncodeOcx1.ConfigType = 1  
  
End Sub
```

2.4. ASP Control for server side

2.4.1. Barcode type id constants

Refer 2.3.1.

2.4.2. textAlign values

Refer 2.3.2

2.4.3. Properties

2.4.3.1. charSet

FontName such as 'arial'

String charSet

2.4.3.2. outputOptions

BARCODE_BOX or BARCODE_BIND

short outputOptions

2.4.3.3. **charSize**

if not equal 0, then print encoded text on the barcode , the position is controled align attribute

short charSize

2.4.3.4. **whiteSpaceWidth**

size of white space

short whiteSpaceWidth

2.4.3.5. **rotateAngle**

angle of rotation

short rotateAngle

2.4.3.6. **Margin**

The property set the margin of PDF417 barcode

short Margin

2.4.3.7. **EncodeData**

data to be encoded

string EncodeData

2.4.3.10. **foreColor**

The property set the Foreground color of barcode

OLE_COLOR ForeColor

2.4.3.11. backColor

The property set the Background color of barcode

OLE_COLOR backColor

2.4.2. Methods

2.4.2.1. InitWorkspace

The method InitWorkspace initialize the working environment

BOOL InitWorkspace().

Parameters

none

Return values

If the function succeeds, the return TRUE, otherwise , return FALSE.

2.4.2.2. FreeWorkspace

The method FreeWorkspace destroy the working environment

BOOL FreeWorkspace().

Parameters

none

Return values

If the function succeeds, the return TRUE, otherwise , return FALSE.

2.3.2.3. Encode2File

The method Encode2File encode the data inputed and save the barcode image to file.

boolean Encode2File(BSTR strImageFile);

Parameters

strImageFile

[in] specify the barcode image file to be saved

Return values

If the function succeeds, the return TRUE, otherwise , return FALSE.

2.4.3. Register the ASP server component

Regsvr32 Bar1DEncodeASP.DLL

2.4.4. Example for ASP

```
<%
    set symbol = Server.CreateObject("AztecEncodeCOM.EncodeService")

    symbol.InitWorkspace()

    symbol.Symbology = 2;

    symbol.BorderWidth=10;

    symbol.OutputOptions;

    symbol.RotateAngle = 0;

    symbol.CharSet = "arial";

    obj.CodedText= "Http://www.aipsys.com"

    obj.Encode2File("C:\1.gif")

    obj.FreeWorkspace()

    response.Write("<img src='1.gif'>")

    response.Write("<br>")

    response.Write("Trial Version randomly change ")

%>
```

3. Decoder SDK

3.1. Static link library

3.1.1. Result structure for decoding

```
typedef struct tagResult
{
    char sBarcodeType[32];    //barcode name
    BYTE *pData;             //barcode data decoded
    int nSize;                //barcode data size
    int xPos;                 //barcode topleft position on image
    int yPos;                 //barcode topleft position on image
}Result;
```

3.1.2. Function or procedure

3.1.2.1. Barcode1DDecodeImageFile

The Bar1DDecodeImageFile function read 1D barcode figure from image and decode it to text or binary data.

```
Result __stdcall _DataMatrixDecodeImageFile(char *lpImageFile, int *pCount);
```

Parameters

lpImageFile LPCTSTR

[in] the image file containing 1D barcode figure, it can be BMP,GIF,PNG,JPG or TIF formats.

pCount int

[out] the count of the barcode found. The pointer need be allocate memory before call function.

Return values

Result when decode success, the decoded data written in Result buffer, you can refer the pCount to get result one by one

NULL decode failure.

3.1.2.2. **_Barcode1DDecodeBitmap**

The `_Barcode1DDecodeBitmap` function read 1D barcode figure from image and decode it to text or binary data.

```
Result __stdcall _Barcode1DDecodeBitmap (HBITMAP hImage, int *pCount);
```

Parameters

`hImage` (HBITMAP

[in] the bitmap handle of image containing 1D barcode figure,.

`pCount` int

[out] the count of the barcode found. The pointer need be allocate memory before call function.

Return values

Result when decode success, the decoded data written in Result buffer, you can refer the `pCount` to get result one by one

NULL decode failure.

3.1.2.3. **_Barcode1DFree**

The `_Barcode1DFree` function free the returned result buffer after you get data from it.

```
void __stdcall _Barcode1DFree(Result *pResult, int nCount);
```

Parameters

`pResult` Result

[in] the result buffer after decoding,.

`nCount` int

[in] the barcodes decoded

Return values

void

3.1.2.4. `_LoadImageEx`

The `_LoadImageEx` function load image such as JPG,GIF,BMP,PNG file and return image handle of the image.

```
HBITMAP __stdcall _LoadImageEx(char *lpImageFile);
```

Parameters

`lpImageFile` **char***

[in] the file name including path.

Return values

HBITMAP the image handle if success

NULL if failed

3.1.3. Examples

```
#include "stdafx.h"

#include "../barcode1ddeco lib.h"

int main(int argc, char* argv[])

{

    Result *p = NULL;

    int nSize;

    p = _Barcode1DDecodeImageFile("G: \\code39-1\\4.gif",&nSize);

    if (p)

    {

        char buf[8192];

        memset(buf,0,8192);

        memcpy(buf,p->pData,p->nSize);
```

```

        MessageBox(buf);

        _Barcode1DFree(p,nSize);

    }

    return 0;

}

```

Linked library

Bar1dDecodeLib.lib

3.2. Dynamic link library

3.2.1. Result structure for decoding

```

typedef struct tagResult
{
    char sBarcodeType[32];    //barcode name
    BYTE *pData;            //barcode data decoded
    int nSize;                //barcode data size
    int xPos;                //barcode topleft position on image
    int yPos;                //barcode topleft position on image
}Result;

```

3.2.2. Function or procedure

3.2.2.1. Barcode1DDecodeImageFile

The Bar1DDecodeImageFile function read 1D barcode figure from image and decode it to text or binary data.

```
Result __stdcall Bar1DDecodeImageFile(char *lpImageFile, int *pCount);
```

Parameters

lpImageFile LPCTSTR

[in] the image file containing 1D barcode figure, it can be BMP,GIF,PNG,JPG or TIF formats.

pCount int

[out] the count of the barcode found. The pointer need be allocate memory before call function.

Return values

Result when decode success, the decoded data written in Result buffer, you can refer the pCount to get result one by one

NULL decode failure.

3.2.2.2. Barcode1DDecodeBitmap

The Barcode1DDecodeBitmap function read 1D barcode figure from image and decode it to text or binary data.

```
Result __stdcall __Barcode1DDecodeBitmap (HBITMAP hImage, int *pCount);
```

Parameters

hImage HBITMAP

[in] the bitmap handle of image containing 1D barcode figure,.

pCount int

[out] the count of the barcode found. The pointer need be allocate memory before call function.

Return values

Result when decode success, the decoded data written in Result buffer, you can refer the pCount to get result one by one

NULL decode failure.

3.1.2.3. _Barcode1DFree

The Barcode1DFree function free the returned result buffer after you get data from it.

```
void __stdcall Barcode1DFree(Result *pResult, int nCount);
```

Parameters

pResult Result

[in] the result buffer after decoding,.

nCount int

[in] the barcodes decoded

Return values

void

3.1.2.4. LoadImageEx

The LoadImageEx function load image such as JPG,GIF,BMP,PNG file and return image handle of the image.

```
HBITMAP __stdcall LoadImageEx(char *lpImageFile);
```

Parameters

lpImageFile **char***

[in] the file name including path.

Return values

HBITMAP the image handle if success

NULL if failed

3.1.3. Examples

```
#include "stdafx.h"
```

```
#include "../barcode1ddecodedll.h"
```

```
int main(int argc, char* argv[])
```

```
{
```

```
    Result *p = NULL;
```

```
    int nSize;
```

```
    p =Barcode1DDecodeImageFile("G: \\code39-1\\4.gif",&nSize);
```

```
    if (p)
```

```
    {
```

```

char buf[8192];

memset(buf,0,8192);

memcpy(buf,p->pData,p->nSize);

MessageBox(buf);

_Barcode1DFree(p,nSize);

}

return 0;

}

```

Linked library

Bar1dDecodeDll.lib

Runtime Library

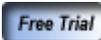
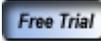
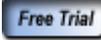
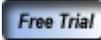
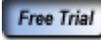
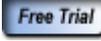
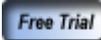
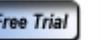
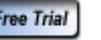
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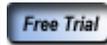
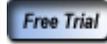
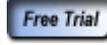
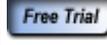
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Packages	Trial Dwonload	Single User	Small Company Developer	1 Developer	5 Developer	Unlimited Developer	Version
1D Barcode Encode SDK							
Static Library			 \$495	 \$990	 \$2,180	 \$3,099	1.2
Dynamic Library		 \$125	 \$179	 \$379	 \$1,090	 \$2,199	1.2
ActiveX		 \$125	 \$179	 \$379	 \$1,090	 \$2,199	1.2
ASP Component			 \$179	 \$379	 \$1,090	 \$2,199	1.2
QRCode Encode SDK							
Static Library			 \$495	 \$990	 \$2,180	 \$3,099	1.2
Dynamic Library		 \$125	 \$179	 \$379	 \$949	 \$2,199	1.2
ActiveX		 \$125	 \$179	 \$379	 \$949	 \$2,199	1.2
ASP Component			 \$179	 \$379	 \$949	 \$2,199	1.2
DataMatrix Encode SDK							
Static Library			 \$495	 \$990	 \$2,180	 \$3,099	1.2
Dynamic Library		 \$125	 \$179	 \$379	 \$949	 \$2,199	1.2
ActiveX		 \$125	 \$179	 \$379	 \$949	 \$2,199	1.2
ASP Component			 \$179	 \$379	 \$949	 \$2,199	1.2
PDF417 Encode SDK							
Static Library			 \$495	 \$990	 \$2,180	 \$3,099	1.2
Dynamic Library		 \$125	 \$179	 \$379	 \$949	 \$2,199	1.2
ActiveX		 \$125	 \$179	 \$379	 \$949	 \$2,199	1.2
ASP Component			 \$179	 \$379	 \$949	 \$2,199	1.2
Aztec Encode SDK							

Static Library			 \$495	 \$990	 \$2,180	 \$3,099	1.2
Dynamic Library		 \$125	 \$179	 \$379	 \$949	 \$2,199	1.2
ActiveX		 \$125	 \$179	 \$379	 \$949	 \$2,199	1.2
ASP Component			 \$179	 \$379	 \$949	 \$2,199	1.2

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PRODUCT ID TABLE						
Packages	Single User	Small Company Developer	1 Developer	5 Developer	Unlimited Developer	Version
1D Barcode Encode SDK						
Static Library		300222295	300222296	300222297	300222298	1.2
Dynamic Library	300222332	300222333	300222334	300222335	300222336	1.2
ActiveX	300222367	300222368	300222369	300222370	300222371	1.2
ASP Component		300222388	300222389	300222390	300222391	1.2
QRCode Encode SDK						
Static Library		300222413	300222284	300222285	300222286	1.2
Dynamic Library	300222309	300222312	300222314	300222317	300222320	1.2
ActiveX	300222343	300222344	300222347	300222350	300222355	1.2
ASP Component		300222376	300222377	300222377	300222379	1.2
DataMatrix Encode SDK						
Static Library		300222291	300222292	300222293	300222294	1.2
Dynamic Library	300222321	300222322	300222324	300222325	300222326	1.2
ActiveX	300222357	300222358	300222359	300222360	300222361	1.2
ASP Component		300222380	300222381	300222382	300222383	1.2
PDF417 Encode SDK						
Static Library		300222280	300222281	300222282	300222283	1.2
Dynamic Library	300222299	300222300	300222301	300222303	300222305	1.2
ActiveX	300222337	300222338	300222339	300222340	300222341	1.2
ASP Component		300222372	300222373	300222374	300222375	1.2
Aztec Encode SDK						
Static Library		300222288	300222414	300222289	300222290	1.2
Dynamic Library	300222323	300222327	300222329	300222330	300222331	1.2
ActiveX	300222362	300222363	300222364	300222365	300222366	1.2
ASP Component		300222384	300222385	300222386	300222387	1.2

6. Support Information

Sales information

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Barcode resources reference information

Introduction to [common barcode types](#)

[RSS barcodes renamed GS1-DataBar](#)

[Recommended sizes for barcodes](#)

Barcode specifications & Standards

- [American National Standards Institute](#)
- [Automatic Identification Manufacturer's Association](#)
- [Automotive Industry Action Group](#)
- [British Standards Institution](#) (BSI)
- [GS1](#) (formerly EAN International)
- [GS1 UK](#) (formerly the e-Centre)
- [GS1 US](#) (formerly UCC - Uniform Code Council)
- [Health Industry Barcode Standards](#)
- [ISO - International Standards Organisation](#)

7. Product Information Link

. [QRCode encoder SDK](#)

. [PDF417 encoder SDK](#)

. [DataMatrix encoder SDK](#)

- . [Aztec encoder SDK](#)
- . [Linear 1D barcode encoder SDK](#)