

BarcodeX ActiveX control reference

by Fath Software

[License](#)

[Support](#)

[Tutorial](#)

[Redistribute BarcodeX with your applications](#)

[Reference](#)

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You can send E-mail to technical support via the Internet. Messages should be addressed to support@fathsoft.com.

World Wide Web

The Fath Software web site is located at <http://www.fathsoft.com>. You can access our web site for up-to-date information about our product.

Quick start tutorial

Supported barcode types

Code 128	Full ASCII-Character set with Code128 ABC autoselection
Code 128A	Char Set A: Capital letters and special characters
Code 128B	Char Set B: Letters in upper and lower case
Code 128C	Char Set C: Optimized for numbers
EAN 128	Special form of the Code 128 also known as UCC/EAN 128
EAN 13	European-Article-Number with 13 digits
EAN 8	European-Article-Number with only 8 digits
EAN 5	Add on price code for ISBN
EAN 2	Add on found on newspapers
ISBN	International Standard Book Number
ISSN	International Standard Serial Number
UPC A	Universal Product Code with 12 digits
UPC E	Universal Product Code with 6 digits
Code 39	Also known as Code 3 of 9. Digits, uppercase letters and _ . *\$/+%
Code 39	Extended Full ASCII-Character set. Also known as Code 3 of 9 Extended.
Codebar	Numeric code. Often used on medical equipment.
Code 2 of 5	Numeric only code.
Interleaved2 of 5	Numeric only code. Compact.
POSTNet	Numeric only code. Used by post offices.
Post 2/5	Numeric only code. Flavor of Interleave 2 of 5. Also known as Identcode or Leitcode.
Code93	Full ASCII-Character set.
Plessey	Digits and letters A to F.

MSI Plessey	Digits only.
PDF417	2D barcode. Text up to 1Kb in length.
Code11	Digits and '-'. .
PLANET	Variant of PostNet
4State	Postal barcode
ITF-14	Digits-only
EAN-14	Digits only. Fixed to length of 13.

ASP and VBScript usage

BarcodeX control has COM interface "CbarcodeX" and it has these methods;

CreateBMP(Filename, BarcodeType, BarcodeCaption, ShowText, Width, Height, StretchMode, FontName, FontSize)

CreatePNG(Filename, BarcodeType, BarcodeCaption, ShowText, Width, Height, StretchMode, FontName, FontSize)

GetPNGStream (BarcodeType, Caption, ShowText, Width, Height, StretchMode, FontName, FontSize)

Here's VBScript example:

```
Dim bc
Set bc=CreateObject("BarcodeX.CBarcodeX.1")
bc.CreateBMP "c:\bcx.bmp",0,"1234567890",1,200,100,1,"Arial",12
bc.CreatePNG "c:\bcx.png",0,"1234567890",1,200,100,1,"Arial",12
```

or, for out-of-memory streaming

```
<%
dim bc
set bc=Server.CreateObject("BarcodeX.CBarcodeX.1")
Response.ContentType="image/png"
Response.BinaryWrite bc.GetPNGStream(0,"123123123",1,320,240,0,"Arial",20)
set bc = Nothing
%>
```

How to use BarcodeX with MS Word?

Choose 'Insert object' command from the 'insert' menu in MS Word. Click on BarcodeX object and click OK. BarcodeX object appears in your document. Double-click on it. It shows properties dialog box in which you can set barcode type, caption, font, colors, etc. Check out a MS Word demo you get with BarcodeX trial. Notice: By default Word creates all graphics with 'over the text' option. To position a barcode inside the table or the label you have to disable this option.

Sample MS Word macro to insert barcode:

```
Sub bcxTest()
Dim objbcx As Object
```

```
Set objbcx = Selection.InlineShapes.AddOLEObject(  
ClassType:="BARCODEX.BarcodeXCtrl.1", _  
FileName:="", LinkToFile:=False, DisplayAsIcon:=False)  
  
Dim bcx As BARCODEXLib.BarcodeX  
Set bcx = objbcx.OLEFormat.Object  
bcx.BarcodeType = bcxCODE39  
bcx.Caption = "code"  
End Sub
```

How to use BarcodeX with MS Visual Basic?

To insert BarcodeX into your VB project, right-click on controls toolbar and choose 'Components...'. Check BarcodeX control. An icon showing barcode is added to your control toolbar. Now you can insert it into your form as any other control. Visual Basic developers will find very useable a **Picture** property of BarcodeX. It returns a bitmap representation of barcode. Size of bitmap in pixels is same as size of BarcodeX control on your form. To improve readability of barcode, you should try to make BarcodeX control bigger.

E.g.;

```
SavePicture Barcode1.Picture, 'c:\barcode.bmp'
```

To print barcodes from Visual Basic use **PaintAt** method:

```
Printer.Print ""           'initialize printer  
BarcodeX1.PaintAt Printer.hDC, 300, 300, 2800, 2300  
Printer.EndDoc
```

How to use BarcodeX with MS Access?

Use BarcodeX in your forms and reports. It is data bindable so you can set 'Control Source' property to a field in your table. Check out a MS Access 97 demo you get with BarcodeX trial.

Simply select "Insert ActiveX-Control". From the list select the BarcodeX control. Now click with the right mouse button on the control and select the "Property" menu. In the "Control Source" cell open the combo box. You can now see all data fields that can be bound to the control. Select the desired data fieldname and that is it. To test the result, select form-view and scroll through the records: You can see that the control changes every time the recordset changes.

Redistributing BarcodeX

BarcodeX control is royalty-free.

Licensed developers can redistribute it with their applications for free.

There is only one file that needs to be included in your application setup: barcodex.ocx .

This file is in BarcodeX program folder. It can be copied to Windows system folder on client PC.

After installing barcodex.ocx on user system, it must be registered as any other ActiveX control with regsvr32.exe .

If PDF417 barcode generation is required, PDF417ENC.DLL file must be re-distributed also.

Note that making copies of BARCODEX.LIC file is **strictly prohibited**. This license file is only for usage on developer PC.

CBarcodeX COM object reference

Properties:

[Orientation](#) Returns/sets barcode orientation in tenths of degrees.

Methods:

[CreateBMP](#) Creates a Windows bitmap (.BMP) graphics file of barcode on a disk.

[CreatePNG](#) Creates PNG barcode image file

[GetPNGStream](#) Returns PNG barcode image as memory stream. Usefull for sending image from ASP page directly to client browser without creating a file on a web server.

BarcodeX ActiveX control reference

Properties:

[BackColor](#) Returns/sets the background color of the control.

[BarcodeAlign](#) Returns/sets barcode alignment.

[BarcodeType](#) Specify barcode type to use

[Caption](#) Returns/sets the barcode text.

[Font](#) Returns/sets the font used to display the barcode text.

[ForeColor](#) Returns/sets the foreground color of the barcode's bars.

[GetCheckDigit](#) Returns barcode check digit for some barcodes

[ShowText](#) Returns/sets whether a control displays a barcode text label.

[IsSizeOK](#) Returns TRUE if barcode can be fit into current size

[Orientation](#) Returns/sets barcode orientation in tenths of degrees.

[PDF417Cols](#) Returns/sets the number of columns in PDF417 barcode.

[PDF417ECLevel](#) Returns/sets the error correction level to be incoded in PDF417 barcode.

[PDF417Rows](#) Returns/sets the number of rows in PDF417 barcode.

[Picture](#) Returns barcode image as Picture object

[Flags](#) Returns/sets optional features

[Title](#) Specify title text

Methods:

[AboutBox](#) Displays version information about the control.

[Copy](#) Copy a barcode picture to the clipboard in metafile format.

[CreateBMP](#) Creates a windows bitmap (.BMP) graphics file of barcode on a disk.

[CreateEMF](#) Creates an enhanced windows metafile (.EMF) graphics file of barcode on a disk.

[CreatePNG](#) Creates PNG barcode image file

[GetMinWidth](#) Returns minimal width of the barcode in pixels

[PaintAt](#) Draw a barcode to a device context.

[Refresh](#) Redraw barcode
[ShowProperties](#) Shows BarcodeX property pages

BarcodeX.bcxAAlignEnum reference

Values:

<u>Name</u>	<u>Value</u>	<u>Description</u>
bcxAlignLeft	0	
bcxAlignCenter	1	
bcxAlignRight	2	

BarcodeX.bcxTypeEnum reference

Values:

<u>Name</u>	<u>Value</u>	<u>Description</u>
bcxEAN13	0	
bcxEAN8	1	
bcxEAN5	2	
bcxEAN2	3	
bcxUPCA	4	
bcxUPCE	5	
bcxCode39	6	
bcxCode39Ext	7	
bcxCode128	8	
bcxCode128A	9	
bcxCode128B	10	
bcxCode128C	11	
bcxEAN128	12	
bcxISSN	13	
bcxISBN	14	
bcxCodebar	15	
bcxCustom	16	
bcxInteleave25	17	
bcxCode25	18	
bcxPOSTNet	19	
bcxPost25	20	
bcxCode93	21	
bcxPlessey	22	
bcxMSI	23	
bcxPDF417	24	
bcxCode11	25	
bcxPLANET	26	
bcx4State	27	
bcxITF14	28	

BackColor property

Returns/sets the background color of the control.

Syntax

```
Property BackColor As Long
```

Type

Long

Remarks

The BackColor property defaults to white.

Example

(none)

BarcodeAlign property

Returns/sets barcode alignment.

Syntax

```
Property BarcodeAlign As bcxAlignEnum
```

Type

bcxAlignEnum

Remarks

Syntax

object.Orientation [= number]

The Orientation syntax has these parts:

Part Description

object An object expression that evaluates to a BarcodeX control.

number A number (long) expression as described in the Settings.

Settings

Valid settings for the BarcodeAlign property are:

Setting Description

0 (Default) Left

1 Center

2 Right

Data Type

Long integer

Example

(none)

BarcodeType property

Specify barcode type to use

Syntax

```
Property BarcodeType As bcxTypeEnum
```

Type

bcxTypeEnum

Remarks

Valid settings for the BarcodeType property are:

0 == EAN-13
1 == EAN-8
2 == EAN-5
3 == EAN-2
4 == UPC-A
5 == UPC-E
6 == Code 39
7 == Code 39 Extended
8 == Code 128
9 == Code 128A
10 == Code 128B
11 == Code 128C
12 == EAN-128
13 == ISSN
14 == ISBN
15 == Codebar
16 == Custom
17 == Interleaved 25
18 == Code 25
19 == POSTNet
20 == Post 2/5
21 == Code93
22 == Plessey
23 == MSI Plessey
24 == PDF417
25 == Code11
26 == PLANET
27 == 4-State
28 == ITF-14
29 == EAN-14

Example

(none)

Caption property

Returns/sets the barcode text.

Syntax

Property Caption As String

Type

String

Remarks

The entire string's characters must be in the current character sets base on the BarStyle property. If any characters are not in the currently barcode character sets, a default one (zero or space) will be used. For a list of supported character sets, go to the BarcodeType property. Remarks on different barcode types.

EAN/UPC Add EAN/UPC supplemental barcode after a hyphen. (e.g. Caption = "123456789012-56")

EAN-128/Code 128 FNC1 character (field delimiter) is represented by char(134).

EAN-128 If you want to display brackets in caption but don't want FNC1 character to be inserted before '(' sign, use square brackets []. It will be displayed as regular brackets , but without FNC1 character.

Custom Caption is a string created out of ones and zeroes (e.g. Caption='110110010111'). For each '1' a bar is drawn and for each '0' a space.

PDF417 Caption property text can contain several lines of code. Up to 1Kb in size.

Example

(none)

Font property

Returns/sets the font used to display the barcode text.

Syntax

```
Property Font As stdole.Font
```

Type

stdole.Font

Remarks

Only TrueType Font can be use for the Font property.

Example

(none)

ForeColor property

Returns/sets the foreground color of the barcode's bars.

Syntax

```
Property ForeColor As Long
```

Type

Long

Remarks

The ForeColor property defaults to black.

Example

(none)

GetCheckDigit property

Returns barcode check digit for some barcodes

Syntax

```
Property GetCheckDigit As String
```

Type

String

Remarks

For barcode types that doesn't require check digit this property will return an empty string.

Example

(none)

ShowText property

Returns/sets whether a control displays a barcode text label.

Syntax

Property ShowText As Long

Type

Long

Remarks

Valid settings for ShowText property are:

Setting	Description
True	(Default) The control displays barcode text label.
False	The control does not display label.

Example

(none)

IsSizeOK property

Returns TRUE if barcode can be fit into current size

Syntax

Property IsSizeOK As Long

Type

Long

Remarks

(none)

Example

(none)

Orientation property

Returns/sets barcode orientation in tenths of degrees.

Syntax

Property Orientation As Long

Type

Long

Remarks

Valid settings for the Orientation property are:

Setting	Description
0	(Default) The barcode is displayed horizontally.
900	Rotated 90 degrees.
1800	Rotated 180 degrees.
2700	Rotated 270 degrees.

The selected barcode caption font must be a TrueType.

Example

(none)

PDF417Cols property

Returns/sets the number of columns in PDF417 barcode.

Syntax

```
Property PDF417Cols As Long
```

Type

Long

Remarks

Values in range 3 - 89 .

Example

(none)

PDF417ECLevel property

Returns/sets the error correction level to be incoded in PDF417 barcode.

Syntax

Property PDF417ECLevel As Long

Type

Long

Remarks

Values in range 0 - 8 .

Example

(none)

PDF417Rows property

Returns/sets the number of rows in PDF417 barcode.

Syntax

Property PDF417Rows As Long

Type

Long

Remarks

Values in range 1 - 29

Example

(none)

Picture property

Returns barcode image as Picture object

Syntax

```
Property Picture As stdole.Picture
```

Type

stdole.Picture

Remarks

Returns barcode bitmap. Size of bitmap in pixels is equal to a size of BarcodeX control.

Example

```
Picture1.Picture=BarcodeX1.Picture  
SavePicture Picture1.Picture,'barcode.bmp'
```

Flags property

Returns/sets whether a control fills whole area or optimize pixel usage to improve readability.

Syntax

```
Property Flags As Long
```

Type

Long

Remarks

Can be a combination of following values:

bcxOptionStretch 1

bcxOptionShowCornerMarks 2

Title property

Specify title text

Syntax

```
Property Title As String
```

Type

String

Remarks

(none)

Example

(none)

AboutBox method

Displays version information about the control.

Syntax

```
Sub AboutBox
```

Return value

(none)

Remarks

Displays the About Box for the product. Use this method to display version information about the control.

Example

(none)

Copy method

Copy a barcode picture to the clipboard in metafile format.

Syntax

Function Copy As Long

Return value

Long

Remarks

Use this method to copy barcode to the clipboard and use Edit->Paste command in your application to paste barcode. Barcode is in vector format, so you can resize it without losing quality.

Example

(none)

CreateBMP method

Creates a windows bitmap (.BMP) graphics file of barcode on a disk.

Syntax

```
Function CreateBMP (Filename As String, Width As Long, Height As Long) As Long
```

Return value

Long

Remarks

Filename should have an .BMP extension.
Width and height parameters are in device pixels.

Example

(none)

CreateEMF method

Creates an enhanced windows metafile (.EMF) graphics file of barcode on a disk.

Syntax

```
Function CreateEMF (Filename As String) As Long
```

Return value

Long

Remarks

Filename should have an .EMF extension.

Example

(none)

CreatePNG method

Creates PNG barcode image file

Syntax

```
Function CreatePNG (Filename As String, Width As Long, Height As Long) As Long
```

Return value

Long

Remarks

(none)

Example

(none)

GetMinWidth method

Returns minimal width of the barcode in pixels

Syntax

```
Function GetMinWidth As Long
```

Return value

Long

Remarks

(none)

Example

(none)

PaintAt method

Draw a barcode to a device context.

Syntax

```
Function PaintAt (hDC As Long, x As Long, y As Long, w As Long, h As Long) As Long
```

Return value

Long

Remarks

The PaintAt syntax has these parts:

Part Description

hDc A numeric expression that determines the device context's handle where the barcode will be painted.

left A numeric expression that determines the left position.

top A numeric expression that determines the top position.

width A numeric expression that determines the width.

height A numeric expression that determines the height.

The left, top, width and height parameters are in pixels. You can use the Screen.TwipsPerPixelX and Screen.TwipsPerPixelY or Printer.TwipsPerPixelX to convert from Visual Basic's twips to device coordinates.

Example

Visual Basic code...

```
Printer.Print "" 'initialize printer  
BarcodeX1.PaintAt(Printer.hDC,500,500,3000,2000) 'paint barcode on printer  
Printer.EndDoc 'close printer document
```

... will print barcode on default printer.

Refresh method

Redraw barcode

Syntax

Sub Refresh

Return value

(none)

Remarks

(none)

Example

(none)

ShowProperties method

Shows BarcodeX property pages

Syntax

```
Function ShowProperties As Long
```

Return value

Long

Remarks

(none)

Example

(none)

Orientation property

Returns/sets barcode orientation in tenths of degrees.

Syntax

Property Orientation As Long

Type

Long

Remarks

Valid settings for the Orientation property are:

Setting	Description
0	(Default) The barcode is displayed horizontally.
900	Rotated 90 degrees.
1800	Rotated 180 degrees.
2700	Rotated 270 degrees.

The selected barcode caption font must be a TrueType.

Example

(none)

CreateBMP method

Creates a windows bitmap (.BMP) graphics file of barcode on a disk.

Syntax

```
Sub CreateBMP (Filename As String, Type As Long, Caption As String,  
ShowText As Long, Widht As Long, Height As Long, StretchMode As Long,  
FontName As String, FontSize As Long, BackColor As Long, ForeColor As Long)
```

Return value

(none)

Remarks

Filename should have an .BMP extension.
Width and height parameters are in device pixels.

Example

(none)

CreatePNG method

Creates PNG barcode image file

Syntax

```
Sub CreatePNG (Filename As String, Type As Long, Caption As String,  
ShowText As Long, Width As Long, Height As Long, StretchMode As Long,  
FontName As String, FontSize As Long)
```

Return value

(none)

Remarks

(none)

Example

(none)

GetPNGStream method

Returns PNG barcode image as memory stream. Usefull for sending image from ASP page directly to client browser without creating a file on a web server.

Syntax

```
Function GetPNGStream (Type As Long, Caption As String, ShowText As Long,  
Width As Long, Height As Long, StretchMode As Long, FontName As String,  
FontSize As Long)
```

Return value

(none)

Remarks

(none)

Example

(none)