

## **Easybar32/DLL (v2.0) for Windows 95**

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## Distribution Files

When developing applications using Easybar/DLL, you need the following files:

EZBAR32.DLL  
EZBAR32.LIB  
EASYBAR.H

To distribute an application using Easybar/DLL, simply include the following file with your application:

EZBAR32.DLL

## Examples

The following example shows the simplest way to use Easybar/DLL. To see a more complex example, please refer to the source code of the Easybar/DLL Demonstration program.

```
HBARCODE    hBarcode;
/* ...      */
hBarcode = BarCreate(BCT_3OF9, 0);
BarSetData(hBarcode, "12345678", 8, NULL, 0);
SetRect(&rect, 100, 100, 300, 200);
BarDraw(hBarcode, hdc, NULL, &rect, 0, 0);
BarDestroy(hBarcode);
/* ...      */
```

The following example shows you how to retrieve the position and width of each bar in a barcode; you might use the information to draw your own barcode for example:

```
HBARCODE    hBarcode;
int x, cx;
/* ...      */
hBarcode = BarCreate(BCT_3OF9, 0);
BarSetData(hBarcode, "12345678", 8, NULL, 0);
BarEnumBarStart(hBarcode, 2); /* 2 = scale factor */
while (BarEnumBarNext(hBarcode, &x, &cx, &ulBarStyle))
{
    /* this bar starts at x and is of width cx      */
    /* and its style is indicated by ulBarStyle:    */
    /* - if its a long bar (EAN, UPC, POSTNET)      */
    /* - part of main barcode/add-on barcode       */
    /* you may write code to draw the bar here     */
    /* using PatBlt for example                    */
}
BarDestroy(hBarcode);
```

## Functions

### Basic Functions

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## EnumBarcodeTypes

```
int EnumBarcodeTypes(iPos, lpiType, lplpName)
int          iPos;
LPINT       lpiType;
LPSTR FAR   *lplpName;
```

This function allows to enumerate the supported barcode types.

<b>Parameter</b>	<b>Description</b>
<i>iPos</i>	Specifies the current enumeration position. When starting enumeration, use 0 for this parameter; in subsequent calls, use the return value of the previous call until 0 is returned (end of enumeration).
<i>lpiType</i>	Points to an integer that gets filled with the barcode type.
<i>lplpName</i>	Points to a string pointer that gets filled with the address of the barcode symbolic name string.

### Returns

The return value indicates the current enumeration position. it is 0 when end of enumeration is reached.

### See Also

[Supported Barcode Types](#), [BarCreate](#)

## BarCreate

HBCRCODE BarCreate(iBarcodeType, uStyle)

int iBarcodeType; /\* barcode type \*/

UINT uStyle; /\* barcode style \*/

The **BarCreate** function creates a barcode object for the specified barcode type and style.

### Parameter

### Description

*iBarcodeType*

Specifies the barcode type to create. Can be one of the following values:

#### Value

#### Barcode Name

*BCT\_2OF5*

2 of 5

*BCT\_INTERLEAVED2OF5*

Interleaved 2 of 5

*BCT\_3OF9*

Code 39

*BCT\_CODE93*

Code 93

*BCT\_CODABAR*

Codabar

*BCT\_EAN13*

EAN-13

*BCT\_EAN13\_2*

EAN-13 + 2

*BCT\_EAN13\_5*

EAN-13 + 5

*BCT\_EAN8*

EAN-8

*BCT\_EAN8\_2*

EAN-8 + 2

*BCT\_EAN8\_5*

EAN-8 + 5

*BCT\_UPCA*

UPC-A

*BCT\_UPCA\_2*

UPC-A + 2

*BCT\_UPCA\_5*

UPC-A + 5

*BCT\_UPCE*

UPC-E

*BCT\_UPCE\_2*

UPC-E + 2

*BCT\_UPCE\_5*

UPC-E + 5

*BCT\_EAN128A*

EAN-128 A

*BCT\_EAN128B*

EAN-128 B

*BCT\_EAN128C*

EAN-128 C

*BCT\_POSTNET (1.20)*

POSTNET

*uStyle*

Specifies the barcode style. Must be 0 currently.

### Returns

The function returns the barcode handle when successful; 0 otherwise

### Comments

The barcode created must be destroyed using the [BarDestroy](#) function.

### See Also

[Supported Barcode Types](#), [BarDestroy](#)

## BarDestroy

```
void BarDestroy(hBarcode)  
HBARCODE hBarcode; /* barcode handle */
```

The BarDestroy function destroys a barcode object that was created by the [BarCreate](#) function.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode object to destroy.

### See Also

[BarCreate](#)

## BarSetData

```
BOOL BarSetData(hBarcode, lpData, cbData, lpMsg, cbMsg)
HBARCODE  hBarcode;      /* handle of barcode */
LPSTR     lpData;        /* address of data */
int       cbData;        /* number of bytes in data */
LPSTR     lpMsg;         /* address of message */
int       cbMsg;         /* number of bytes in message */
```

This function sets/changes the data and the display message of a barcode.

Parameter	Description
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>lpData</i>	Address of the data (excluding check character if any) to set to the barcode.
<i>cbData</i>	Count of bytes in <i>lpData</i> .
<i>lpMsg</i>	Address of the message to be displayed; may be NULL.
<i>cbMsg</i>	Count of bytes in <i>lpMsg</i> .

### Returns

The return value is TRUE when the data is valid, FALSE otherwise.

### Comments

The data of a barcode is used to generate the barcode graphic pattern. By default, it is also the text displayed with the barcode. If you wish to display a different text, use the *lpMsg* parameter.

When the barcode has an add-on part, *lpData* is intended only for the main part (left side); use [BarSetAddOnData](#) function for the add-on.

### See Also

[BarSetAddOnData](#)



## BarSetAddOnData

BOOL BarSetAddOnData(hBarcode, lpData, cbData, lpMsg, cbMsg)

HBARCODE hBarcode;  
LPSTR lpData;  
int cbData;  
LPSTR lpMsg;  
int cbMsg;

This function sets/changes the data and the display message of the add-on part of a barcode.

Parameter	Description
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>lpData</i>	Address of the data to set to the add-on part of the barcode.
<i>cbData</i>	Count of bytes in lpData.
<i>lpMsg</i>	Address of the message to be displayed with the add-on; may be NULL.
<i>cbMsg</i>	Count of bytes in lpMsg.

### Returns

The return value is TRUE when the data is valid, FALSE otherwise.

### Comments

The data of a barcode is used to generate the barcode graphic pattern. By default, it is also the text displayed with the barcode. If you wish to display a different text, use the lpMsg parameter.

### See Also

[BarSetData](#)

## BarGetData

```
BOOL BarGetData(hBarcode, lpzData, cbMaxData, lpzMsg, cbMaxMsg)
HBARCODE hBarcode;
LPSTR lpzData;
int cbMaxData;
LPSTR lpzMsg;
int cbMaxMsg;
```

This function retrieves the data and the display message of a barcode.

Parameter	Description
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>lpData</i>	Address of buffer to receive the barcode data.
<i>cbMaxData</i>	Number of bytes available in lpData.
<i>lpMsg</i>	Address of buffer to receive the display message.
<i>cbMaxMsg</i>	Number of bytes available in lpMsg.

### Returns

The return value is TRUE when successful, FALSE otherwise.

### See Also

[BarSetData](#)

## BarGetAddOnData

```
BOOL BarGetAddOnData(hBarcode, lpzData, cbMaxData, lpzMsg, cbMaxMsg)
HBARCODE hBarcode;
LPSTR lpzData;
int cbMaxData;
LPSTR lpzMsg;
int cbMaxMsg;
```

This function retrieves the data and the display message of the add-on part of a barcode.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>lpData</i>	Address of buffer to receive the add-on data.
<i>cbMaxData</i>	Number of bytes available in lpData.
<i>lpMsg</i>	Address of buffer to receive the add-on display message.
<i>cbMaxMsg</i>	Number of bytes available in lpMsg.

### Returns

The return value is TRUE when successful, FALSE otherwise.

### See Also

[BarSetAddOnData](#)

## BarDraw

BOOL BarDraw(hBarcode, hdcDraw, hicTarget, lpRect, iOrient, dwFlags)

HBARCODE hBarcode;  
HDC hdcDraw;  
HDC hicTarget;  
LPRECT lpRect;  
int iOrient;  
DWORD dwFlags;

This function actually renders the barcode on a device context.

Parameter	Description
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>hdcDraw</i>	Specifies the device context handle to which the barcode is to be rendered.
<i>hicTarget</i>	Specifies the information context handle of the target device; may be NULL. This parameter is used to force WYSIWYG drawing on hdcDraw.
<i>lpRect</i>	Address of the rectangle to which the barcode is to be drawn. The rectangle is in the current logical coordinates of hdcDraw.
<i>iOrient</i>	Specifies the orientation of the barcode: 0, 90, 180 or 270 degrees (counter-clockwise rotation angle).
<i>dwFlags</i>	Drawing flags; may be a combination (ORd) of one or more of the following values:

  

Value	Meaning
<i>BDF_LEFT</i>	Drawing left-aligned (default).
<i>BDF_RIGHT</i>	Drawing right-aligned.
<i>BDF_CENTER</i>	Drawing centered.
<i>BDF_TOP</i>	Drawing top-aligned (default).
<i>BDF_BOTTOM</i>	Drawing bottom-aligned.
<i>BDF_VCENTER</i>	Drawing centered vertically.
<i>BDF_UNIBARHEIGHT</i>	Uses one unique bar height (instead of two which is the default for some EAN and UPC barcode types)
<i>BDF_HIDEMAINTEXT</i>	Hides the main text.
<i>BDF_HIDEADDONTEXT</i>	Hides the add-on text.
<i>BDF_ADDONTEXTATTOP</i>	Displays add-on text at the top of drawing.
<i>BDF_ADDONTEXTATBOTTOM</i>	Displays add-on text at the bottom of drawing.
<i>BDF_MAINTEXTATTOP</i>	Displays main text at the top of drawing.
<i>BDF_MAINTEXTATBOTTOM</i>	Displays main text at the bottom of drawing.
<i>BDF_NOUPCSMALLFONT</i>	Displays the first and last characters of the UPC-A barcode text using the normal font instead of a smaller one.
<i>BDF_RETAINASPECTRATIO</i>	Changes the height and width of the barcode proportionally should the barcode size be adjusted.
<i>BDF_CALCSIZEONLY</i>	No actual drawing should take place. The function is called only for calculating the actual size of the drawing (which can then be retrieved through the functions: <a href="#">BarGetRect</a> , <a href="#">BarGetMainRect</a> , <a href="#">BarGetAddOnRect</a> ).
<i>BDF_NOPIXELALIGN</i>	By default, the barcode size is adjusted so that the narrowest bar width is an integral number of pixels. When this flag is set, the barcode size will not be adjusted. When the hicTarget parameter is not NULL, this flag is

<i>BDF_NOSTETCHTEXT</i>	automatically set internally. By default, the barcode text is displayed stretched to occupy the whole width of the barcode. When this flag is set, the barcode text will not be stretched.
<i>BDF_SHOWCODE39STARTSTOP</i> (1.21)	By default, the Code 39 barcode's display text does not show the start and stop characters ("*"); but if you set this flag, they will be shown.
<i>BDF_WYSIWYGEXCLCOLOR</i> (1.21)	When you are drawing WYSIWYG, the color on the screen also mirrors that of the printer; if you set this flag, the color mirroring will be excluded.

## Returns

TRUE when successful, FALSE otherwise.

## Comments

When the `hicTarget` parameter is not NULL, you must make sure that `hdcDraw` and `hicTarget` have the same logical coordinates, i.e., any point (x,y) in one should correspond to (x,y) (same value) in the other. In this case, the drawing is WYSIWYG: the barcode will be drawn on `hdcDraw` the same as it would appear on `hicTarget`, in terms of size, as well as font and fore/background colors.

The `lpRect` specifies the rectangle onto which the barcode should be drawn. In most cases, the actual size of the barcode will be smaller than this rectangle. This is because, by default, the narrowest bar width of the barcode is chosen to be a multiple of pixels (pixel alignment), unless the `BDF_NOPIXELALIGN` flag is set or the `hicTarget` parameter is provided. In the latter case, the `BDF_NOPIXELALIGN` flag is automatically set and the size of the barcode reflects closely that on the target device context (most likely the printer) represented by `hicTarget`.

Usually you should not set the `BDF_NOPIXELALIGN` flag when outputting to the printer; otherwise the barcode may not be readable, unless your printer resolution is high enough and/or the barcode is big enough to make the bar width distortion negligible.

You can know the minimum width of the barcode by calling the function [BarGetModuleCount](#). In fact, the minimum width in pixels of the barcode is equal to the the number of modules it has. And the other possible widths of the barcode are multiples of this minimum width, unless you set the `BDF_NOPIXELALIGN` flag or provide the parameter `hicTarget`.

The `BarDraw` function uses the following attributes currently selected into the information context `hicTarget` or the device context `hdcDraw` if `hicTarget` is NULL:

- Font, used to draw text
- Text Color, used to draw both the text and the barcode's bars
- Back Color, used to draw the barcode background when the Back Mode is OPAQUE
- Back Mode

## See Also

[Caveats](#), [BarGetRect](#), [BarGetMainRect](#), [BarGetAddOnRect](#), [BarGetModuleCount](#)

## BarGetRect

```
BOOL BarGetRect(hBarcode, lpRect)
HBARCODE hBarcode;
LPRECT lpRect;
```

This function retrieves the actual bounding rectangle of the entire barcode. Use this function only after the BarDraw function was called successfully.

Parameter	Description
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>lpRect</i>	Address of rectangle to receive the bounding rectangle.

### Returns

The return value is TRUE when successful, FALSE otherwise.

### See Also

[BarGetMainRect](#), [BarGetAddOnRect](#), [BarDraw](#)

## BarGetMainRect

```
BOOL BarGetMainRect(hBarcode, lpRect)
HBARCODE    hBarcode;
LPRECT      lpRect;
```

This function retrieves the actual bounding rectangle of the main part of the barcode (cf. add-on) excluding the display text. Use this function only after the BarDraw function was called successfully.

Parameter	Description
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>lpRect</i>	Address of rectangle to receive the bounding rectangle.

### Returns

The return value is TRUE when successful, FALSE otherwise.

### See Also

[BarGetRect](#), [BarGetAddOnRect](#), [BarDraw](#)

## BarGetAddOnRect

```
BOOL BarGetAddOnRect(hBarcode, lpRect)
HBARCODE hBarcode;
LPRECT lpRect;
```

This function retrieves the actual bounding rectangle of the add-on part of the barcode excluding the display text. Use this function only after the BarDraw function was called successfully.

Parameter	Description
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>lpRect</i>	Address of rectangle to receive the bounding rectangle.

### Returns

The return value is TRUE when successful, FALSE otherwise.

### See Also

[BarGetRect](#), [BarGetMainRect](#), [BarDraw](#)



## BarGetModuleCount

```
int BarGetModuleCount(hBarcode)  
HBARCODE hBarcode;
```

This function retrieves the number of modules comprising the barcode. A module is the basic width unit in terms of which all the bar/space widths are expressed: they always correspond to an integral number of modules.

Parameter	Description
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<i>hBarcode</i>	Specifies the handle of the barcode.
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### Returns

The function returns the number of modules comprising the barcode.

### Comments

By default, the BarDraw function adjusts the barcode size so that a module is an integral number of pixels, except when the BDF\_NOPIXELALIGN flag is set or the hicTarget parameter is provided. So, unless one or both of these two conditions are met, your minimum barcode width in pixels is equal to the number of modules of the barcode.

### See Also

[BarDraw](#)

## BarGetClearArea

```
int BarGetClearArea(hBarcode, iClearAreaID)
HBCODE    hBarcode;
int       iClearAreaID;
```

This function retrieves the width (or height) of one of the barcode clear areas: left margin, right margin, top margin, bottom margin and the gap between the main part and add-on part. The value is in units of the narrowest bar width of the barcode.

Parameter	Description
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>iClearAreaID</i>	Specifies the clear area ID. Can be one of the following:
Value	Meaning
<i>BGCA_LEFT</i>	Left margin.
<i>BGCA_RIGHT</i>	Right margin.
<i>BGCA_TOP</i>	Top margin.
<i>BGCA_BOTTOM</i>	Bottom margin.
<i>BGCA_MIDDLE</i>	Gap between main part and add-on.

### Returns

The return value is the width (or height) of the clear area, in units of the narrowest bar width of the barcode.

### See Also

[BarSetClearArea](#)

## BarSetClearArea

```
int BarSetClearArea(hBarcode, iClearAreaID, iNumNarrowBars)
HBCODE    hBarcode;
int       iClearAreaID;
int       iNumNarrowBars;
```

This function modifies the width (or height) of one of the barcode clear areas: left margin, right margin, top margin, bottom margin and the gap between the main part and add-on part.

Parameter	Description												
<i>hBarcode</i>	Specifies the handle of the barcode.												
<i>iClearAreaID</i>	Specifies the clear area ID. Can be one of the following: <table><thead><tr><th>Value</th><th>Meaning</th></tr></thead><tbody><tr><td><i>BGCA_LEFT</i></td><td>Left margin.</td></tr><tr><td><i>BGCA_RIGHT</i></td><td>Right margin.</td></tr><tr><td><i>BGCA_TOP</i></td><td>Top margin.</td></tr><tr><td><i>BGCA_BOTTOM</i></td><td>Bottom margin.</td></tr><tr><td><i>BGCA_MIDDLE</i></td><td>Gap between main part and add-on.</td></tr></tbody></table>	Value	Meaning	<i>BGCA_LEFT</i>	Left margin.	<i>BGCA_RIGHT</i>	Right margin.	<i>BGCA_TOP</i>	Top margin.	<i>BGCA_BOTTOM</i>	Bottom margin.	<i>BGCA_MIDDLE</i>	Gap between main part and add-on.
Value	Meaning												
<i>BGCA_LEFT</i>	Left margin.												
<i>BGCA_RIGHT</i>	Right margin.												
<i>BGCA_TOP</i>	Top margin.												
<i>BGCA_BOTTOM</i>	Bottom margin.												
<i>BGCA_MIDDLE</i>	Gap between main part and add-on.												
<i>iNumNarrowBars</i>	Specifies the new width (height) of the clear area in units of the narrowest bar width.												

### Returns

The return value is the previous width (or height) of the clear area in units of the narrowest bar width.

### See Also

[BarGetClearArea](#)

## BarGetNumBarExts

```
int BarGetNumBarExts(hBarcode)  
HBARCODE hBarcode;
```

This function retrieves the number of bar width types of the barcode.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode.

### Returns

The return value is the number of bar width types of the barcode.

### See Also

[BarGetModuleCount](#), [BarGetBarExt](#), [BarSetBarExt](#)

## BarGetBarExt

```
int BarGetBarExt(HBARCODE hBarcode, int iBarIndex)
HBARCODE  hBarcode;
int       iBarIndex;
```

This function retrieves the relative bar width corresponding to a bar width type. The bar width is in units of modules, thus a value relative to the other bar or space widths.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>iBarIndex</i>	Specifies the index of the bar width type. The narrowest bar type has the index of 0 and the widest has the biggest index which is the number of bar width types of the barcode minus 1.

### Returns

The return value is the bar width in units of modules.

### See Also

[BarGetModuleCount](#), [BarGetNumBarExts](#), [BarSetBarExt](#)

## BarSetBarExt

```
int BarSetBarExt(hBarcode, iBarIndex, iNumModules)
HBARCODE    hBarcode;
int          iBarIndex;
int          iNumModules;
```

This function modifies the relative bar width corresponding to a bar width type. The bar width is in units of modules, thus a value relative to the other bar or space widths.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>iBarIndex</i>	Specifies the index of the bar width type. The narrowest bar type has the index of 0 and the widest has the biggest index which is the number of bar width types of the barcode minus 1.
<i>iNumModules</i>	Specifies the bar width value in units of modules.

### Returns

The return value is the previous bar width in units of modules.

### See Also

[BarGetModuleCount](#), [BarGetNumBarExts](#), [BarGetBarExt](#)

## BarGetNumSpaceExts

```
int BarGetNumSpaceExts(hBarcode)  
HBARCODE hBarcode;
```

This function retrieves the number of space width types of the barcode.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode.

### Returns

The return value is the number of space width types of the barcode.

### See Also

[BarGetModuleCount](#), [BarGetSpaceExt](#), [BarSetSpaceExt](#)

## BarGetSpaceExt

```
int BarGetSpaceExt(hBarcode, iSpaceIndex)
HBARCODE  hBarcode;
int       iSpaceIndex;
```

This function retrieves the relative space width corresponding to a space width type. The space width is in units of modules, thus a value relative to the other space or bar widths.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>iSpace</i>	Specifies the index of the space width type. The narrowest space type has the index of 0 and the widest has the biggest index which is the number of space width types of the barcode minus 1.

### Returns

The return value is the space width in units of modules.

### See Also

[BarGetModuleCount](#), [BarGetNumSpaceExts](#), [BarSetSpaceExt](#)



## BarSetSpaceExt

```
int BarSetSpaceExt(hBarcode, iSpaceIndex, iNumModules)
HBARCODE    hBarcode;
int         iSpaceIndex;
int         iNumModules;
```

This function modifies the relative space width corresponding to a space width type. The space width is in units of modules, thus a value relative to the other space or bar widths.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>iSpace</i>	Specifies the index of the space width type. The narrowest space type has the index of 0 and the widest has the biggest index which is the number of space width types of the barcode minus 1.
<i>iNumModules</i>	Specifies the space width value in units of modules.

### Returns

The return value is the previous space width in units of modules.

### See Also

[BarGetModuleCount](#), [BarGetNumSpaceExts](#) [BarGetSpaceExt](#)

## BarGetInterCharExt

```
int BarGetInterCharExt(hBarcode)  
HBARCODE hBarcode;
```

This function retrieves the width of the inter-character gaps of a non-continuous (discrete) barcode. The width value is in units of modules, thus a value relative to the other space or bar widths.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode.

### Returns

The return value is the inter-character gap width in units of modules.

### See Also

[BarGetModuleCount](#), [BarSetInterCharExt](#).

## BarSetInterCharExt

```
int BarSetInterCharExt(HBARCODE hBarcode, int iNumModules)
HBCODE hBarcode;
int iNumModules;
```

This function modifies the width of the inter-character gaps of a non-continuous (discrete) barcode. The width is in units of modules, thus a value relative to the other space or bar widths.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>iNumModules</i>	Specifies the inter-character gap width in units of modules.

### Returns

The return value is the previous inter-character gap width in units of modules.

### See Also

[BarGetModuleCount](#), [BarGetInterCharExt](#).

## GetBarcodeDefDrawFlags (1.21)

DWORD GetBarcodeDefDrawFlags(int iBarcodeType)  
int hBarcodeType;

This function is similar to [BarGetDefDrawFlags](#). The only difference is that it doesn't take a barcode handle but the barcode type instead.

<b>Parameter</b>	<b>Description</b>
------------------	--------------------

<i>iBarcodeType</i>	Specifies a barcode type. Refer to <a href="#">BarCreate</a> for the list of values.
---------------------	--

### Returns

The return value is a combination of the default drawing flags (see [BarDraw](#)) corresponding to the barcode type.

### See Also

[BarCreate](#), [BarGetDefDrawFlags](#), [BarDraw](#).

## GetBarcodeDrawFlagsMask (1.21)

DWORD GetBarcodeDrawFlagsMask(int iBarcodeType)  
int iBarcodeType;

This function allows you to know what drawing flags are applicable to the given barcode type. It is the same as [BarGetDefDrawFlags](#) except that it takes as parameter directly the barcode type instead of a barcode handle.

### Parameter

### Description

---

*iBarcodeType*

Specifies a barcode type. Refer to [BarCreate](#) for the list of values.

### Returns

The return value is a combination of drawing flags (OR'd) that are applicable to the barcode.

### Comments

The return value may also include the value 0x80000000 (i.e., highest bit on) to indicate that the barcode type has an add-on, though it is not a drawing flag.

### See Also

[BarGetDefDrawFlags](#), [BarCreate](#).

## BarGetDrawFlagsMask (1.21)

DWORD BarGetDrawFlagsMask(HBARCODE hBarcode)  
HBARCODE hBarcode;

This function allows you to know what drawing flags are applicable to the barcode type that the given barcode belong to. It can be useful in user interface design: when the user has selected a particular barcode type, you should disable (gray them on the UI) the drawing flag options that are not applicable to the barcode type.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode.

### Returns

The return value is a combination of drawing flags (OR'd) that are applicable to the barcode.

### Comments

The return value may also include the value 0x80000000 (i.e., highest bit on) to indicate that the barcode type has an add-on, though it is not a drawing flag.

### See Also

[GetBarcodeDrawFlagsMask](#), [BarDraw](#).

## BarGetDefDrawFlags (1.21)

DWORD BarGetDefDrawFlags(HBARCODE hBarcode)  
HBARCODE hBarcode;

This function returns the default drawing flags for the barcode type that the barcode belongs to. Typically, you may pass on the return value to the [BarDraw](#) function.

Parameter	Description
<i>hBarcode</i>	Specifies the handle of the barcode.

### Returns

The return value is a combination of the default drawing flags (see [BarDraw](#)) corresponding to the barcode type.

### See Also

[BarCreate](#), [GetBarcodeDefDrawFlags](#), [BarDraw](#).

## BarEnumBarStart (1.22)

```
void BarEnumBarStart(HBARCODE hBarcode, int iModuleWidth)
HBARCODE  hBarcode;
int       iModuleWidth;
```

This function initializes the enumeration of bars, so that subsequent calls to [BarEnumBarNext](#) can be made.

<b>Parameter</b>	<b>Description</b>
<i>hBarcode</i>	Specifies the handle of the barcode.
<i>iModuleWidth</i>	Specifies the scale factor.

### See Also

[BarEnumBarNext](#).



## BarEnumBarNext (1.22)

```
BOOL BarEnumBarNext(HBARCODE hBarcode, LPINT lpx, LPINT lpWidth,  
                   DWORD FAR *lpdwBarStyle)  
HBCODE    hBarcode;  
LPINT     lpx;  
LPINT     lpWidth;  
DWORD FAR *lpdwBarStyle;
```

This function enumerates the bars in a barcode starting from the left-most bar. Each call to BarEnumBarNext will retrieve the specification of the next bar. The first call must be preceded by a call to [BarEnumBarStart](#).

Parameter	Description						
<i>hBarcode</i>	Specifies the handle of the barcode.						
<i>lpx</i>	Address of an integer that will be filled with the starting position of the bar measured from the left-most edge of the barcode.						
<i>lpWidth</i>	Address of an integer that will be filled with the width of the bar.						
<i>lpdwBarStyle</i>	Address of a long integer that will be filled with the style of the bar which may be a combination (ORd) of one or more of the following values:						
	<table><thead><tr><th>Value</th><th>Meaning</th></tr></thead><tbody><tr><td><i>BEBN_ADDONBARS</i></td><td>The current bar belongs to the add-on part of the barcode (significant when the barcode has an add-on).</td></tr><tr><td><i>BEBN_LONGBARS</i></td><td>The current bar is a long bar (significant only for EAN, UPC and POSTNET barcodes).</td></tr></tbody></table>	Value	Meaning	<i>BEBN_ADDONBARS</i>	The current bar belongs to the add-on part of the barcode (significant when the barcode has an add-on).	<i>BEBN_LONGBARS</i>	The current bar is a long bar (significant only for EAN, UPC and POSTNET barcodes).
Value	Meaning						
<i>BEBN_ADDONBARS</i>	The current bar belongs to the add-on part of the barcode (significant when the barcode has an add-on).						
<i>BEBN_LONGBARS</i>	The current bar is a long bar (significant only for EAN, UPC and POSTNET barcodes).						

### Returns

The return value is FALSE when the last bar of the barcode has already been reached; otherwise TRUE.

### Comment

The values of the width and position of a bar are relative (in units of modules); in particular, they are not related to the rectangle with which you might have called the BarDraw() function. Its your responsibility to map them to physical units when you actually render the bar.

### See Also

[BarEnumBarStart](#).

## Supported Barcode Types

### Basic Types

2 of 5

Code 93

EAN-13

EAN-128 A

POSTNET (1.20)

Interleaved 2 of 5

Codabar

UPC-A

EAN-128 B

Code 39

EAN-8

UPC-E

EAN-128 C

### Types with Add-ons

EAN-8 + 2

EAN-13 + 2

UPC-A + 2

UPC-E + 2

EAN-8 + 5

EAN-13 + 5

UPC-A + 5

UPC-E + 5

## 2 of 5



2 of 5 is a non-continuous barcode without check character. Its character set is '0' to '9'.

The following default values are used:

- wide/narrow bar ratio = 3
- space width = narrow bar width
- intercharacter gap = narrow bar

## Interleaved 2 of 5



371982465728

Interleaved 2 of 5 is a continuous barcode. Its character set is '0' to '9'. The number of characters should be even. The check character is optional and not implemented in Easybar/DLL. You can always integrate it into the data (last digit) should you need it.

The following default value is used:

- wide/narrow bar ratio = 3

## Code 39



Code 39 is a non-continuous barcode. Its character set is composed of '0' to '9', 'A' to 'Z', SPACE, '\*', '\$', '/', '+', '-', ':', '%'. The check character is optional and not implemented in Easybar/DLL; you may always integrate it into the data (last digit) should you need it.

The following default values are used:

- wide/narrow bar ratio = 3
- intercharacter gap = 2 \* narrow bar

The character '\*' being built in as both the start and stop characters of the barcode (they may be shown or hidden according to the flag in the BarDraw() call), you should not attempt to set them any more as part of the data.

## Code 93



Code 93 is a continuous barcode with character set composed of '0' to '9', 'A' to 'Z', '-', '.', SPACE, '\*', '\$', '/', '+', '%' (plus special characters). It has two check characters (not displayed as part of the display text in Easybar/DLL).

The following default value is used:  
- bar width = space width

## Codabar



A12345678B

Codabar is a non-continuous barcode without check character. Its character set is composed of '0' to '9', 'A', 'B', 'C', 'D', '\$', '-', ':', '/', '.', '+'. 'A' to 'D' are eligible only for start/stop characters; in order for them to be part of the barcode, you have to include them in the barcode data. Though the characters 'T', 'n', '\*', 'e' may be used instead of 'A', 'B', 'C', 'D', in Easybar/DLL, you cannot directly use them to set data. You may, of course, display them (as well as any other characters) through the lpMsg parameter in the [BarSetData](#) function.

The following default values are used:

- wide/narrow bar ratio = 3
- intercharacter gap = 2 \* narrow bar

## UPC-A



UPC-A has a fixed length of 11 characters plus the check character. Its character set is '0' to '9'.

### **See Also**

[UPC-A + 2](#), [UPC-A + 5](#)



## UPC-E



UPC-E has a fixed length of 7 characters plus the check character. Its character set is '0' to '9'.

### **See Also**

[UPC-E + 2](#), [UPC-E + 5](#)

## EAN-13



EAN-13 has a fixed length of 12 characters plus the check character. Its character set is '0' to '9'.

### **See Also**

[EAN-13 + 2](#), [EAN-13 + 5](#)

## EAN-8



EAN-8 has a fixed length of 7 characters plus the check character. Its character set is '0' to '9'.

### **See Also**

[EAN-8 + 2](#), [EAN-8 + 5](#)

## UPC-A + 2



## See Also

[UPC-A](#), [UPC-A + 5](#)

## UPC-A + 5



## See Also

[UPC-A](#), [UPC-A + 2](#)

## UPC-E + 2



### See Also

[UPC-E](#), [UPC-E + 5](#)

## UPC-E + 5



### See Also

[UPC-E](#), [UPC-E + 2](#)

## **EAN-13 + 2**



## **See Also**

[EAN-13](#), [EAN-13 + 5](#)



## **EAN-13 + 5**



### **See Also**

[EAN-13](#), [EAN-13 + 2](#)

## EAN-8 + 2



## See Also

[EAN-8](#), [EAN-8 + 5](#)

## EAN-8 + 5



## See Also

[EAN-8](#), [EAN-8 + 2](#)

## **EAN-128 A**



**EAN-128 A**

EAN-128 A is a continuous barcode. Its character set is ASCII 0 to 95 (plus special characters). It has one check character (not shown as part of the display text in Easybar/DLL).

## **EAN-128 B**



**ean-128 b**

EAN-128 B is a continuous barcode. Its character set is ASCII 32 to 127 (plus special characters). It has one check character (not shown as part of the display text in Easybar/DLL).

## EAN-128 C



EAN-128 C is a continuous barcode. Its character set is '0' to '9' (plus special characters), internally coded every two characters. It has one check character (not shown as part of the display text in Easybar/DLL). The number of single digit characters (excluding the check character) must be even.

## POSTNET (1.20)



POSTNET is the barcode that represents the U.S. zip code. It may have two fixed lengths: 5 or 9, plus the check character. Its character set is '0' to '9'. Though not part of the character set, the dash (-) can be used (optional), when working with a 9-digit ZIP code, to separate the first 5 and the last 4 digits in the `BarSetData()` function call.

## Caveats

When you use a rotation angle other than 0 in the BarDraw function call, the text of the barcode might not be positioned appropriately on the printer, depending on the printer that you are using. As a workaround, you may elect to hide the text by setting the BDF\_HIDEMAINTEXT and BDF\_HIDEADONTEXT bits in the BarDraw function call. And then you can also write your own code to print text, the actual size and position of the barcode being retrievable through the functions BarGetRect, BarGetMainRect, BarGetAddOnRect.



## Registration

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## Overview

Easybar/DLL is a DLL for creating and printing barcodes. It allows using various drawing attributes including rotation, text position, font, etc. It supports WYSIWYG drawing. The barcode parameters (bar/space widths, margins, etc.) are fine-tunable. Moreover, it allows you to render your own barcode by retrieving the position and width of each bar. 21 barcode types are supported, of which 13 are basic types and 8 with add-ons.

For more information on this and other products, please contact:

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