HP Indigo Labels and Packaging powered by EskoArtwork

BarX Plug-in

User Guide

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Introduction

Barcodes are just the visible part of often quite large systems frequently referred to as automated identification systems, which, increasingly, are proving to be some of the most cost-effective management tools, since they enable organizations to keep track of their goods and stocks in all kinds of situations in a fast, accurate and efficient way.

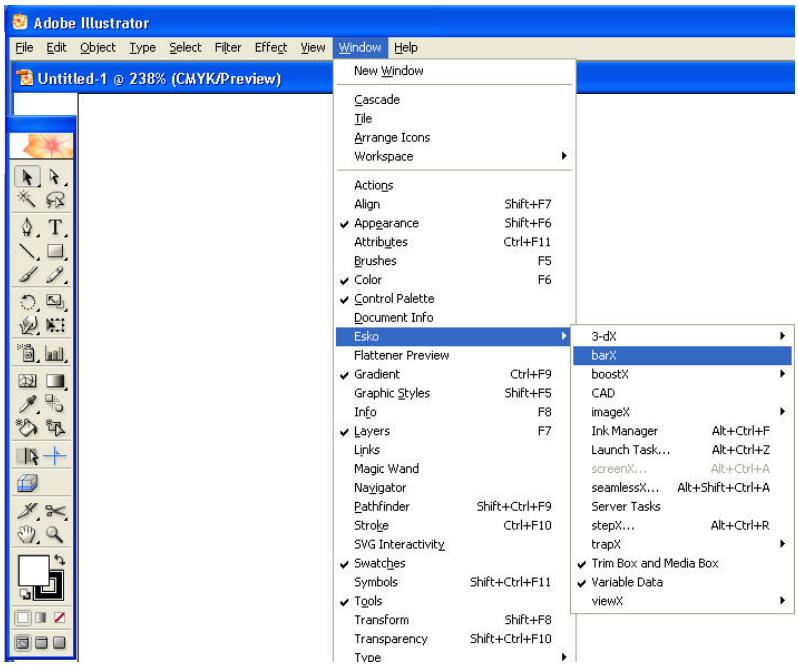
With barX, you can add a dynamic barcode to your Adobe Illustrator document without leaving your application. Dynamic means that your barcode settings can be changed later on, even after you saved, closed and reopened your document. Bar/X is part of the VDP Pack for HP indigo Labels and Packaging Server powered by EskoArtwork.

You select a barcode type from the dropdown list, select an orientation and you define the barcode in the dialog which changes according to the kind of barcode that you have chosen.

The Bar/X menu is accessed via Window, Esko, Bar/X. Mind that usage of this menu is for non-variable jobs only, where you type in the barcode manually. For variable data jobs, when you want to print every label with a different barcode, barcodes are made within the VDP plugin. Please refer to the VDP manuals:

VDP Pack User Guide

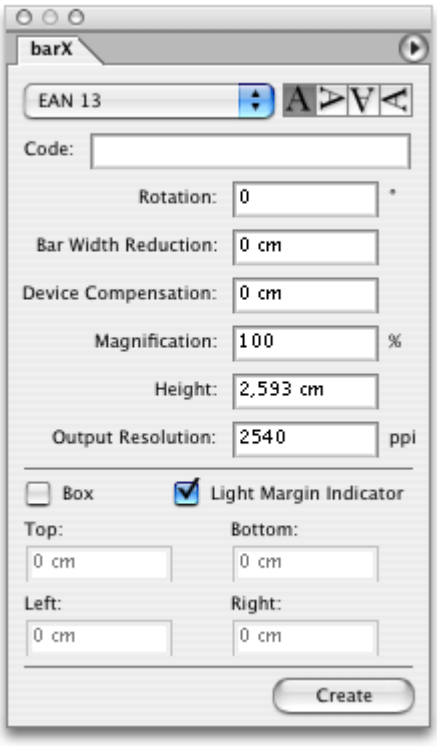
This manual ia then also useful as a technical reference manual for Barcode properties.



Supported Barcode types

- 2 of 5
- CLF-8
- CODABAR
- CODE 128
- CODE 128 (long)
- CODE 39
- DATAMATRIX
- EAN 128
- EAN 13
- EAN 8
- HIBC 128
- HIBC 39
- ITF - 14
- ITF - 16
- Int. 2 of 5
- Laetus Pharma Code
- M+S 7
- MSI
- Marks & Spencer
- PZN
- Paraf Italy
- UPC-A
- UPC-E

Barcode Settings



Code

To enter the digits of the barcode.

☑ *Note*

When entering a wrong number of digits or wrong begin or end digits, the system displays a warning message, informing you of the required number of digits or displaying the correct code.

Rotation

To rotate your barcode 90 or 180 degrees, you can use the rotation buttons next to the Type dropdown. For any other rotation angle use the Rotation input field.

Bar width reduction

To adapt the bar width of the barcode. This is necessary to adapt the barcode to printing processes where the ink tends to 'bleed'. To compensate for this ink bleeding, the bars have to be a little thinner. The exact value will be provided by your printer or customer. If the printer specifies for example that the line width will increase with 0.01mm, then specify a bar width reduction of 0.01 mm. By default, the value 0 is entered for all barcodes. This means that the bar width is not adapted. A negative value in this input box results in thicker bars, a positive value in thinner bars. See also Device Compensation below.

Device Compensation

This does the same as the Bar Width Reduction option. But some customers give a separate value for the device bleed compensation. Whereas the bleed tackled by the Bar Width Reduction is caused by the substrate your artwork is printed on, the device bleed is caused by the plate or film making process. If you only have one compensation value, use the Bar Width Reduction field, and leave this field on a value of 0. If you use both fields, the sum of their respective values will be used to compensate the thickness of the barcode lines. A negative value results in thicker bars, a positive value in thinner bars.

Magnification

Represents a reduction or enlargement percentage for proportional reduction or enlargement of the barcode. The value is an absolute factor which is automatically rounded depending on the type of barcode. As barcodes are magnified or reduced in size, the relationship between the bars remains constant The widths of individual bars and spaces however, are increased or reduced.

☑ *Note*

Since all the values in this dialog box are related proportionally, specifying a number in the Magnification input box will influence the other values in the dialog box.

Height

The height of the barcode. The height covers the height of the bars and the digits (if any). Although the height does not contain information, it has to be sufficient to allow for efficient reading of the code.

Warning

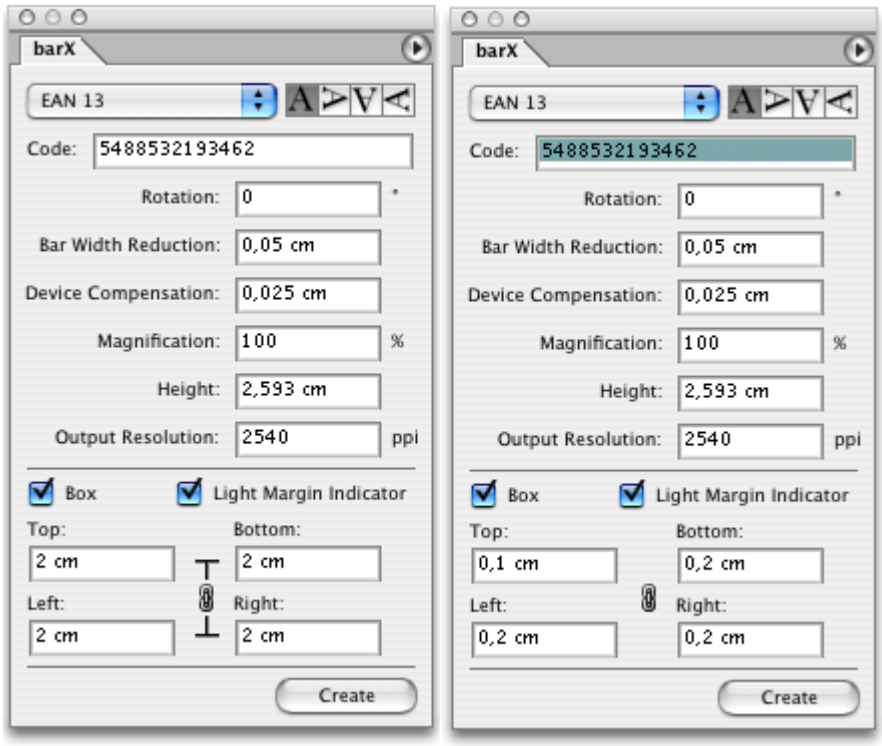
Do not change the height of the barcode before entering a Magnification value. The height will change again according to the Magnification factor that you define.

Output resolution

Defines the resolution for the exposure of the barcode. The unit is ppi.

Box

To automatically create a box behind the barcode. You can use the link button to link the 4 box margin values and get the same distance around the barcode.



Snap bars to Output Resolution

When entering a value of a parameter that have influence on the bar sizes like 'Magnification', 'Bar Width Reduction' or 'Device Compensation' input fields, barX will automatically correct the input value in accordance with the selected output resolution. This correction is performed to ensure the 'elementary cell size' of the selected barcode type maps to an integral number of output pixels in the selected output resolution. The correction is necessary to prevent (unevenly distributed) errors equal to one device pixel on the widths of (some of) the bars. For example: The EAN-13 specification imposes an elementary cell width of 0.33 mm. If the user enters a magnifaction value, it will be corrected so that the corrected value multiplied by 0.33 will result in an integral number of output pixels.

Light margin indicator

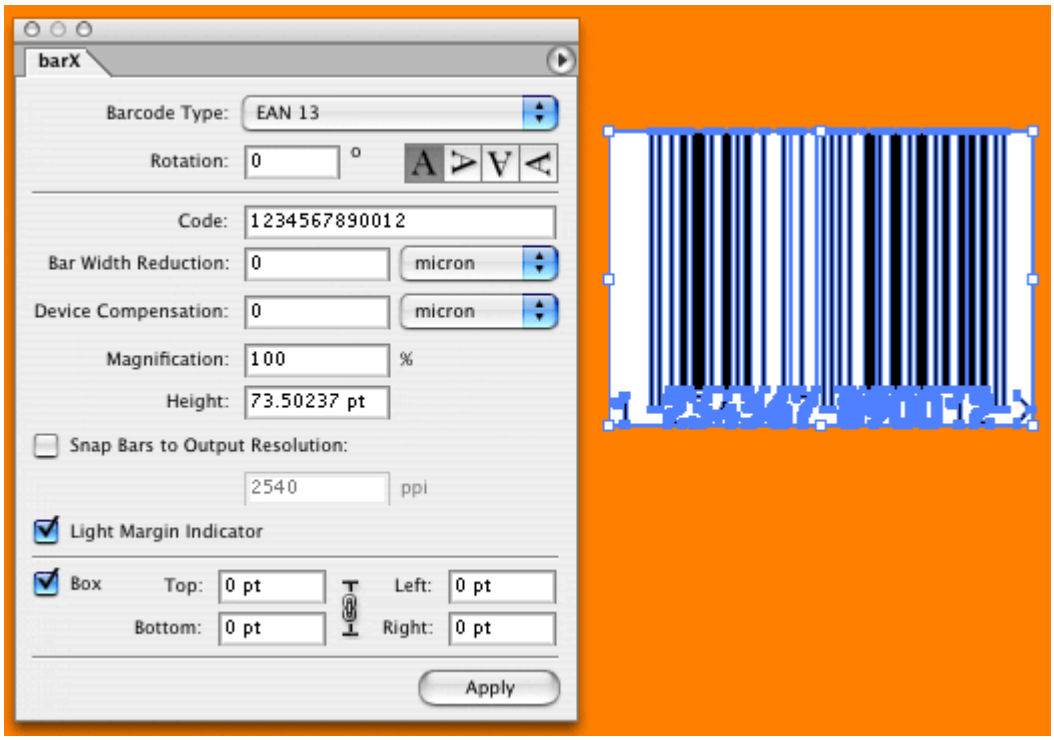
Enabling this option will create a bigger-than sign at the end of the barcode, indicating the minimal width of the barcode box for optimal reading.

☑ *Note*

When entering a value in the "Magnification", "Bar Width Reduction" or "Device Compensation" input fields, barX will automatically correct the input value in accordance with the selected output resolution. This correction is performed to ensure the "elementary cell size" of the selected barcode type maps to an integral number of output pixels in the selected output resolution. The correction is necessary to prevent (unevenly distributed) errors equal to one device pixel on the widths of (some of) the bars. For example: The EAN-13 specification imposes an elementary cell width of 0.33 mm. If the user enters a magnifaction value, it will be corrected so that the corrected value multiplied by 0.33 will result in an integral number of output pixels.

Extra functionality

Dynamic behaviour



barX barcodes are dynamic in the sense that they can always be changed afterwards without having to create a new barcode. The barX palette will show the parameters of a barX barcode when you select it in your document. The button in the barX palette to create a barcode will change in an Apply button, pressing this button will update the selected barcode.

☞ *Tip*

If your graphical respresentation of your barX barcode has been changed e.g. by moving some anchor points of the barcode lines manually with the Adobe Illustrator select tools, you can repair the barcode by selecting it, and clicking the Apply button of the barX palette. The barcode object thus will be recreated using the same properties at the same position.

Positioning of the barcode object

If you have boostX installed on your Adobe Illustrator application, creating a barcode will center the barcode object on the current boostX crosshair position.
If no boostX crosshair is found in the document, the barcode will be centered on the current viewport of your active document window.

Special Types of barcodes

DATAMATRIX

Datamatrix code is a so-called ‘two-dimensional’ barcode and allows encoding large amounts of data. Datamatrix codes are being used more and more in packaging/label applications .

Code:

The string to be encoded. The maximum length of the string to be encoded depends on symbol type (rows/columns) and the nature of the data (different encodings are possible, our implemention follows the guidelines to get the most compact encoding). The encoding of control characters or binary data currently is not supported.

Symbol Type:

Indicates the number of columns/rows in the matrix. Datamatrix codes exist in different sizes. And the larger the size, the more data can be embedded. The ‘Best Fit’ selection will select the smallest symbol type that can contain the specified code string.

Cell size:

This is the dimension of the basic (square) cell.

Height and Width:

The height and width of the total barcode. Mark that the symbol type, cell size and height/width are related. Changing any of these settings will automatically change the related fields. When ‘Best Fit’ is selected, the height and width are calculated by doing a ‘preflight’ on the specified code string.

barX Preferences

The barX preferences (Adobe Illustrator Preferences > Esko-Graphics > barX Preferences ...) allows you to define what kind of font the default font is:

- OCR-B Standard: typically used in the Western market, rounder font
- OCR-B Bitstream: typically used in the Asian market

Example

OCR-B Standard

OCR-B Bitstream

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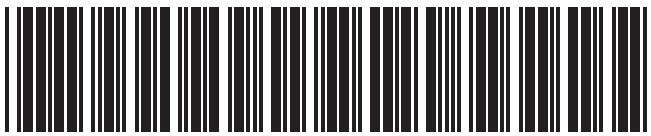

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