# Windows BarCode Generator

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## PROGRAM DESCRIPTION

Wbar is a program which generates bar codes (ie: 3 of 9, UPC, Postnet, etc) that can be copied to the Windows Clipboard. Once in the Clipboard, you can then paste the barcode into other programs such as Windows Write, MicroSoft Word for Windows, Paintbrush, as well as other Windows programs that can accept bitmaps or metafiles from the Windows Clipboard.

# HARDWARE REQUIREMENTS

IBM Personal Computer or Compatible MicroSoft Windows 3.0 Mouse

## **PROGRAM FILES**

The Wbar system comes in four files:

WBAR.EXE executable program module

WBAR.DOC this document in Word for Windows format

WBAR.PRN this document in ASCII format

WBARHELP.HLP WBAR help system

## **GENERAL PROGRAM OVERVIEW**

Upon execution, Wbar produces a typical Windows program window. The menu consists of *File, Edit, Action, Type, Special* and *Help*. When first loaded, the About Wbar Dialog Box appears if you have an unregistered copy of Wbar, otherwise you are presented by blank window. The cursor takes on the shape of a barcode while in the workspace of the Wbar window. To make a barcode, you simply position the cursor in the window where you want to place the barcode and click the left button on your mouse. A dialog box will appear allowing you to toggle various options, select what type of barcode to produce and to input the barcode data. After all this is done, clicking on OK will produce the desired barcode on the display. If you have the AutoMeta mode ON then a metafile of the barcode is copied to the clipboard. If you wish to copy a bitmap representation of the barcode to the clipboard, you then choose *ACTION* from the main menu. Clicking on *SELECT* from the *ACTION* submenu will toggle the cursor to become a cross. You then press the left mouse button and drag a box around the barcode. After releasing the left mouse button, clicking on *COPY* from the *EDIT* menu copies the selected box area to be pasted in Bitmap form to the Windows Clipboard.

## **MENU FUNCTIONS**

## FILE

NEW basically clears the Wbar window of any barcodes

EXIT exits the Wbar program and closes the window

## **EDIT**

COPY copies a selected area to the Clipboard

PASTE pastes from the Clipboard to the upper left area of the Wbar window

CLEAR another way to clear the Wbar window

## **ACTION**

BARCODE toggles the cursor to barcode mode

SELECT toggles the cursor to the area select mode

## **TYPE**

COLOR when checked, any copies to the clipboard will be in color bitmap format

*MONOCHROME* when checked, any copies to the clipboard will be in monochrome bitmap format.

AUTOMETA when checked, any barcodes produced on the display will be automatically copied to the clipboard in the Windows MetaFile format. Very useful to produce barcodes of exact size. Also the best way to paste barcodes into Corel Draw 2.0 and procduce POSTNET barcodes suitable for printing on envelopes.

Note: Metafiles pasted into other applications may not look correct on the display, but should print correctly.

#### **SPECIAL**

## Default Barcodes

When producing a barcode with this option checked, the default barcode dialog box will be used to input various options. With this dialog box you can choose amoung the following barcodes.

UPC-A
UPC-E // currently not supported
3 of 9
Interleaved 2 of 5
PostNet
EAN 13
EAN 8
Codabar
Code 128

## Bookland

When producing a barcode with this option checked, the Bookland EAN barcode dialog box will be used to input various options such as ISBN number and book price. Bookland EAN barcodes are typically found on or in most books sold today.

# FIM

Facing Identification Mark patterns are typically used on reply mail envelopes and cards to further help the Postal Service in sorting mail. Currently there are four different patterns made up of a 9-position bar/no-bar pattern. There are position requirements for FIM patterns. Obtain Postal publication #25 for details.

FIMA -	Courtesy Reply Mail with POSTNET	
FIM B	- or Franked Mail without POSTN	Business Reply, Penalty NET
FIM C	- or Franked Mail with POSTNET	Business Reply, Penalty
FIM D	- without POSTNET	OCR Readable Mail
	WILLIOUT FOSTNET	(usually used on

courtesy reply window envelopes)

HELP invokes the WBAR help online help system

ABOUT displays a dialog box containing information about the Wbar Program

# **Barcode Types currently supported in Wbar:**

## **UPC-A**

Universal Product Code. Commonly used in the supermarket industry since 1973. UPC is a coding system as well as a symbology, used to identify a product and its manufacturer. UPC-A is a fixed length numeric barcode which encodes 12 digits.

#### 0 04560 17100 8

The first digit is the industry code. For example 0 is grocery and 3 is pharmaceutical. Digits 2 thru 6 specify the manufacturers product number. Digits 7 thru 11 contain the manufacturer ID number. The remaining 12th digit is a check digit calculated from the preceding digits.

#### Interleaved 2 of 5

A variable length, high density code containing the digits 0 thru 9. Because of the nature of coding Interleaved 2 of 5, data contained in the barcode must be an even amount of digits.

#### 3 of 9

An alphanumeric code consisting of the upper case letters "A" thru "Z", the digits "0" thru "9", and the characters "-", "+", ".", "\$", "/", "%" and the space character. It is of a variable length and can contain up to 100 charcters in this version of Wbar.

## **POSTNET**

The POSTNET bar code was developed by the Postal Service to provide a system of encoding Zip Code information on letter mail, which can be read reliably by relatively inexpensive bar code sorters. The code is made up of binary elements printed in the lower right corner of the mail peice as tall and short bars representing the Zip Code or Zip+4 code.

The location of the complete Zip+4 is very presice. The baseline of the code should be 1/4" (+/- 1/16") from the bottom edge of the mail piece. The start (left-most) bar should lie between 3 1/4" and 4" from the right edge of the mail piece.

### CODABAR

Codabar is commonly used in libraries, blood banks and air parcel express applications. It comprises 16 characters, the numbers "0" through "9" and the characters "\$", ":", "/", ".", "+", and "-". There are four different start/stop codes "A", "B", "C", "D". In this version of Wbar only the start/stop sequence "AsomedataB" will be recognised and displayed correctly.

Example:

## **EAN 13**

European Article Numbering barcode 13 digit. Simular to the UPC-A barcode in height, width and number of bars. It does however allow a 13th digit to be encoded into the barcode. The entire code comprises 12 user digits plus an EAN checkdigit. Keep in mind that EAN scanners can read EAN and UPC barcodes, but a UPC scanner might not be able to read an EAN barcode.

## EAN 8

European Article Numbering barcode 8 digit. Same characteristics as the UPC-A barcode, but is smaller and allows only 7 user digits and an EAN check digit.

## **Code 128**

Code 128 was introduced in 1981 as a very high density alphanumeric symbology. It is a variable length, continuous code employing multiple element widths. Code 128 has 3 different character sets. In this version of WBAR, only character set B is used. Character set B contains the full ASCII set of printable characters.

## FIM (Facing Identification Mark)

See explanation under Special/FIM above.

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# **Revision History**

Version 1.0 -	07-14-90	- Pastes UPC-A bar code to the clipboard
Version 1.1 -	08-05-90	- Added 3 of 9 barcode
Version 1.2 -	08-22-90	- Added Postnet barcode
Version 1.3 -		09-13-90 - Added monochrome bitmap capabilites to allow pastes into Corel Draw 1.21
Version 1.4 -	11-30-90	- Added Interleaved 2 of 5 barcode
Version 1.5 -	01-21-91	- Included documentation with file
Version 1.6 -		02-17-91 - Fixed Postnet, incorrectly calculated check digit when the sum of digits in the zipcode was zero Added Windows Metafile capabilites. This enables Wbar to produce exact size barcodes and sets up Wbar for future Dynamic Data Exchange with other programs.
Version 1.7 -	02-24-91	- Added Codabar, EAN13, EAN8, Codabar
Version 1.8 -		03-15-91 - Added Bookland EAN which is a variation of EAN13. Also better positioning of readable data in barcode.
Version 1.9 -	04-13-91	- Added Postal FIM patterns
Version 1.95	06-08-91	- Added WBAR Help system - Added Code 128