

*for*  
Microsoft<sup>TM</sup> Word



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## Introduction

Welcome to **Bars & Stripes** for *Microsoft Word*. This software enables you to use *Microsoft Word* and your printer to create your own bar codes for business and personal use.

This manual, plus the on-line help facility, will show you how to create bar codes in all types of *Microsoft Word* documents, including letters, labels, and envelopes. You will learn how to determine the appearance of the bar code by setting parameters such as size, type, orientation and other features. Once you have selected these parameters, you can - easily generate bar codes using skills you've already learned using *Word for Windows*.

You will learn how to use **Bars & Stripes** to create quantities of bar code labels for a variety of purposes including inventory, mailing list, etc.

To use this program, you must have a basic working knowledge of *Microsoft Word*. Refer to your Word documentation for additional information.

## About Bars & Stripes

**Bars & Stripes** for *Microsoft Word* Copyright © 1993, all rights reserved.

Email: [support@smallbizdepot.com](mailto:support@smallbizdepot.com)

URL: <http://www.barsnstripes.com>

Microsoft, Word, Word for Windows, Windows, and Office are all marks of Microsoft Corporation.

## Installation

### Overview

**Bars & Stripes (B&S)** may be purchased on-line and downloaded to your computer, or installed from a CD.

### Before you install

- ➔ Start Microsoft Word.

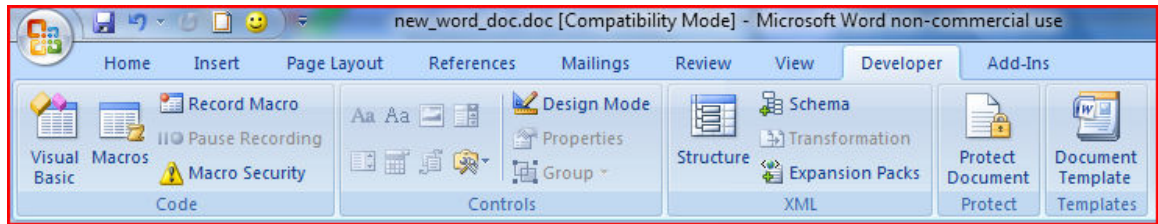
Note: If you are installing Bars & Stripes into MS Word *OfficeXP* or Office 2000, do the following.

- ➔ From Word's **HELP** menu, Disable the *Office Assistant* feature  
(You do this by right-clicking on the *Office Assistant*, clicking *Options*, and un-checking the *Use the Office Assistant* checkbox.)
- ➔ From the **TOOLS** menu, select **MACRO > SECURITY** and set the security to *LOW*. (You can reset this after you've completed the installation.)
- ➔ From the **TOOLS** menu, select **OPTIONS > FILE LOCATIONS**. Verify that the *PATH* for *Startup* is valid and that the named folder actually exists on your computer.
- ➔ From the **TOOLS** menu, select **OPTIONS > VIEW** Verify that the *Picture Placeholders* and the *Field Codes* boxes are unchecked..

**See specific installation instructions for Microsoft Word 2007 and for Office in Windows Vista on the next page.**

**Continue installation instructions on next page.**

**Note:** If you are installing Bars & Stripes into MS Word for **Office 2007**, do the following.



- ➔ From the **DEVELOPER** menu, select **Macro Security** and set the security to *LOW*. (You can reset this after you've completed the installation.)

Note: If you don't see a **DEVELOPER** selection on the toolbar, do the following.

- ➔ Click the round **Office button**, **Word Options** (at the bottom) and then check the **Show Developer tab** check box..
- ➔ Click the round **Office button**, **Word Options** (at the bottom). Click **Advanced**, scroll to the bottom and click **File Locations**. Verify that the *PATH* for *Startup* is valid and that the named folder actually exists on your computer.
- ➔ Click the round **Office button**, **Word Options** (at the bottom). Click **Advanced**, scroll to the **Show Document Content** section. Verify that the *Picture Placeholders* and the *Field Codes* boxes are unchecked
- ➔ Close all Word documents and Exit the Word application.

### Microsoft Vista

Note: If your computer operating system is Windows Vista, following the additional instructions.

- ➔ Bars & Stripes needs to install files in the Microsoft Office folder.
- ➔ For Office 2007, it's located here: **C:\Program Files\Microsoft Office\Office12**
- ➔ If you cannot locate this folder, do a search for "WINWORD.EXE"
- ➔ Once you've located the folder, right-click on the folder.
- ➔ Click Properties and then Security.
- ➔ Make sure you have permission to both read and write files.
- ➔ Make the appropriate edits to the security settings depending on how you logged in to this computer.

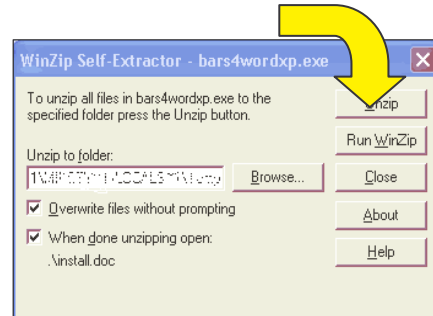
**Continue installation instructions on next page.**

## Installing the software

- ➔ Double-click on the downloaded file (or the file on the CD-ROM) to begin the installation.

*After the welcome message, the win-zip self extractor will display the following dialog box:*

- ➔ Click *Unzip*  
(Also make note of the *Unzip to folder* for later reference)
- ➔ Microsoft Word will start automatically and load a document named *Install.doc*



(If Microsoft Word does not start, locate the *install.doc* file in the *Unzip to folder* referenced above and open it in Word.)

- ➔ Word now displays a document with a large button (shown here)
- ➔ Double Click the large button.
- ➔ Verify the *FROM* and *TO* paths
- ➔ Answer the Prompts as they occur.



**Bars & Stripes** will be installed and a new toolbar Icon  will appear on the Microsoft Word Standard toolbar.

## Unlocking the software

When you first install **Bars & Stripes**, the software is *not fully enabled*. It is initially installed in *Demo* (or *locked*) mode. In *locked* mode, the software will *randomly alter* characters in bar codes you create. To fully enable **Bars & Stripes**, the user must purchase and enter an *unlock code*.

- ➔ Click the **Bars & Stripes** icon to display the main menu.
- ➔ Click *Change Setup* to display the settings menu.
- ➔ Enter your 10-digit *Unlock code* into the text box on the lower left of this menu.

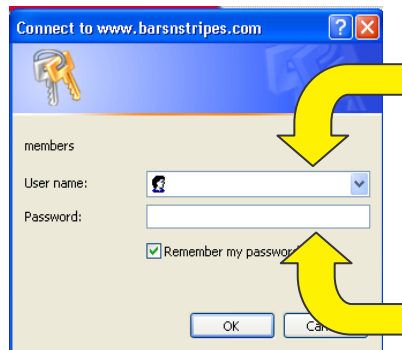
## Acquiring an Unlock Code

If you purchased a **Bars & Stripes** unlock code on-line, it will be emailed to the email address you specified. If you do not receive your unlock code within a few hours of purchase, contact [technical support](#).

If you purchased a **Bars & Stripes** CD, you can get your unlock code from the members log-in screen.

- ➔ Go to the **Bars & Stripes** website and click on the **member's** link.
- ➔ You will be prompted for a *username* and *password*.

Find the **Members** link on the **Barsnstripes.com** website



Enter your email address (or other username if provided) into the **User Name** box.

Enter your **password** into the Password box.

**Continue.**



In the resulting form, enter the following:

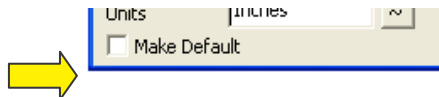
- ➔ Your **Install Key**  
(see above)
- ➔ Your **email address**
- ➔ Your **name**
- ➔ Your **password**

Then Click **Submit**.

Install Key: <input type="text"/>	Locate this number on the lower right corner of the Change Setup screen
Old Unlock Code: <input type="text"/>	If your old unlock code no longer works and you need a new one, enter your old code here.
Your Email: <input type="text"/>	This is the email address you used when you initially purchased the software unlock code.
Your Name: <input type="text"/>	Your name as it appears on the credit card used to initially purchase the software unlock code.
Your password: <input type="text"/>	Your members area login password
Application: Other <input type="text"/>	Your application

To verify that Bars & Stripes is unlocked

- ➔ Click the **Bars & Stripes** toolbar Icon.
- ➔ Select *Change Setup*
- ➔ On the *Change Setup* Screen, check for the presence of the unlock code text box. If it is no longer displayed, your software has been successfully unlocked.



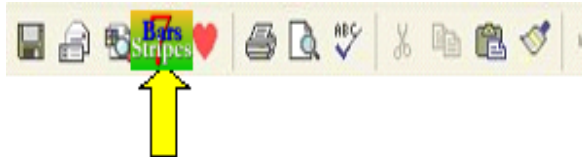
Once you have installed and unlocked **Bars & Stripes**, you are ready to make bar codes

**NOTE:** **Bars & Stripes** gets information from the Windows Registry or ini file regarding where the *Microsoft Word* (winword.exe) is located. This information is required for the program to install and execute correctly. **Bars & Stripes** also adds information to the System Registry.

**NOTE:** **Word 7 users (Office 95)** may need additional Microsoft DLL's. If you receive the message "Can't find specified DLL's" when running the software, unzip the included file Msdll.zip into your windows/system or windows/system32 folder unless you have newer versions of the files.

## The toolbar icon

To make the bar coding easier, the **Bars & Stripes** installation process installs a new icon onto Word's "Standard" toolbar. Through this one toolbar button, all of **Bars & Stripes'** features can be accessed.



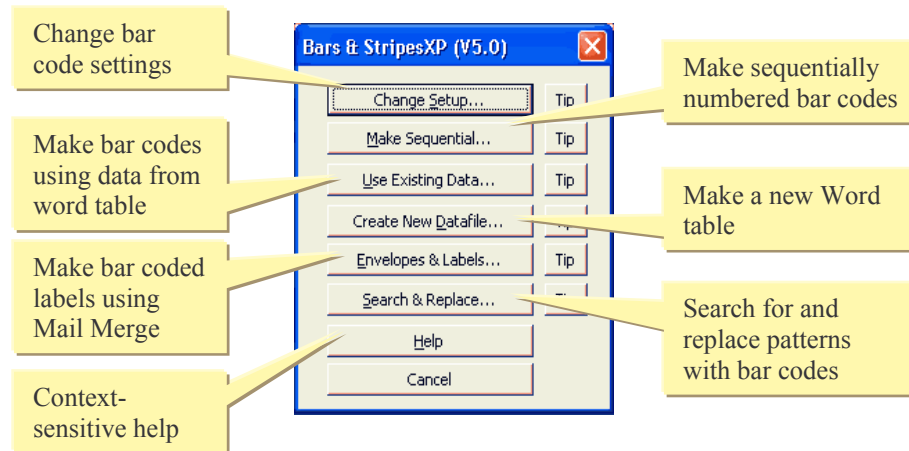
The **Bars & Stripes** toolbar icon is context-sensitive. Its operation changes to meet the current situation. The following table shows the *result* of clicking on the toolbar icon under certain *conditions*.

### Clicking the toolbar icon

does this ...	if the context is this ...
Opens main menu	No text is selected (highlighted)
Makes a bar code	Valid text is selected
Opens Change Setup menu	Invalid text is selected
Creates a new document and opens main menu	No document is selected
Creates a new document and opens main menu	A macro document is selected
Starts column bar code process	Table column is selected
Updates bar code with current setup parameters	A bar code is selected

## The Main Menu

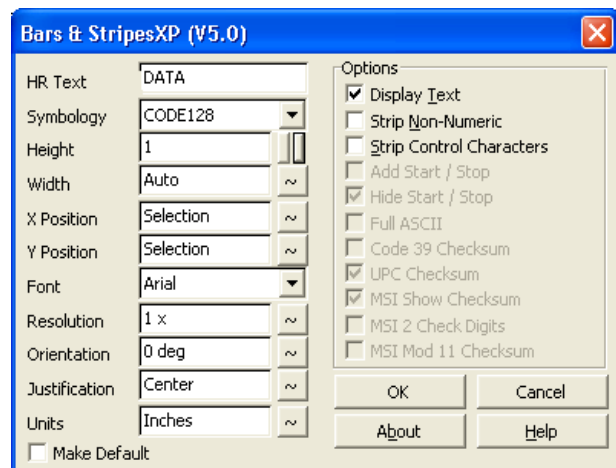
To display the **Bars & Stripes Main** menu, click anywhere inside your *Word* document, making sure that no text is highlighted, and then click on the toolbar Icon.



## Bar code setup

The first step to making bar codes is to decide what kind of bar codes you want to make. To read more about the various types (called symbologies) of bar codes and what they're used for see *Appendix:Symbology*.

- ➔ Make a new WORD document
- ➔ Click the **B&S** Toolbar ICON
- ➔ Click *Change Setup* on **B&S** main menu
- ➔ Choose Symbology. (If you're using **B&S** for 1st time and just learning, choose Code 128)
- ➔ Verify these settings, then Click *OK*



## Parameters

You can access the Parameter Setup Menu by clicking on the *Change Setup* button on the main Menu.

You can change the following parameters in the parameter setup menu. See *Appendix:Parameters* for a description of each parameter:

- ➔ Symbology
- ➔ Symbology specific options
- ➔ Height and Width
- ➔ Horizontal & Vertical Position
- ➔ Human readable text
- ➔ Human readable text font
- ➔ Text justification
- ➔ Bar code orientation
- ➔ Text resolution
- ➔ Units (inches, centimeters, points)



**Note:** Bar code parameters are set for the active Word document and stored as Document Variables within that document. This means that you can have different bar code parameters for different documents

## Default settings-- the .INI file

**Bars & Stripes** keeps information in the file, BNS.INI. This file contains the current default parameters. New documents are initialized with these default settings. That is, the new document's variables are preset using the BNS.INI files parameter values. To change the default parameters, open the Change Setup menu, select the desired parameter values, and select the "Make Default" checkbox at the bottom of the menu. This will cause **Bars & Stripes** to update the BNS.INI file with the changed settings.

## Document variables

**Bars & Stripes** allows you to change specific variables that affect the type and appearance of bar codes you create. These variables are contained within and stored with the document (They are hidden from view.) **Bars & Stripes** will use these document variables when it creates a bar code in that document. The user can have multiple documents open, each with its own set of document variables. For example, a user may be creating UPC-A bar codes in one document, and Postal bar codes in another. When a document is given focus (selected by clicking in it) that document's variables govern the type and appearance of bar codes created within it.

**Bars & Stripes** presets new documents with default values (see Default settings-- the .INI file.)

## **Bars & Stripes Help**

**Bars & Stripes** provides a context-sensitive help facility. Clicking the help button from any **Bars & Stripes** dialog box provides help content for that specific function.

**Note:** The **Bars & Stripes** help facility will sometimes provide an alternate methodology for using some of the features in the software. This is due to the differing functionality in various versions of Word for Windows.

If you need additional help, your questions can be sent to:  
**The Small Business Depot Technical Support** via any of the methods listed below.

**EMAIL:** support@smallbizdepot.com

or **Mail** your questions to:

<p><b>The Small Business Depot</b> <b>836 Washington St. E.</b> <b>Kalispell, MT 59901</b></p>
--

See the **Bars & Stripes** web page for the latest announcements and links to other informative sites.

<http://www.barsnstripes.com>

## How do I...

### Make a bar code

To make a bar code, do the following:

**Step 1.** Using the cursor, highlight a string of characters in the Word document. These characters will be used to create your bar code. Make sure that the characters you select are valid for the symbology you have selected.

**Step 2.** Then Click the toolbar icon.  It's that simple.

The characters you've highlighted will be replaced by a bar code.



**Hint:** click the middle of the string of characters you've entered until Word highlights the whole string but not the CR character at the end.

**Correctly highlighted** ➔ 1234567890

**Incorrectly highlighted** ➔ 1234567890

This extra black space indicates you've highlighted too much

**NOTE:** Special characters can be inserted by using *Insert Symbol* from Word's toolbar or by using the caret (^) character followed by the three-digit ASCII code.

**NOTE:** If you have included an invalid character (a character not allowed for a particular symbology), **Bars & Stripes** will display the *Change Setup* menu rather than producing a bar code

## Make a sheet of bar code labels

Microsoft Word provides a useful feature (*Envelopes and Labels*) which allows you to create sheets of labels for mailings and other applications. This feature includes templates for adhesive-backed label paper from companies such as Avery Dennison. In *Office 2000* and earlier, this feature is found under the **Tools** Menu. In *OfficeXP*, it is found under the **Tools > Letters and Mailings** menu.

In *Office 2007* the **Mailings** feature is located on the main toolbar.

By combining **Bars & Stripes** with the *Envelopes and Labels* feature in Word, the user can make sheets of bar coded labels for a variety of applications.

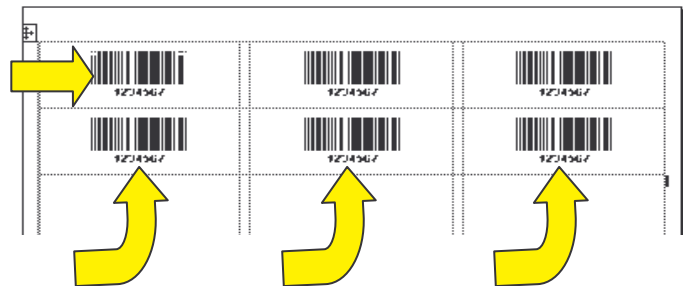
### To make a sheet of duplicate bar coded labels...

- ➔ From Word's *Envelopes and Labels* menu
  - Click the *label* tab
  - Select *Make page of the same label*
  - Click *Option* and select the label template you want to use
  - Click *New Document*

### A new blank label template document will be displayed.

- ➔ From the *Tools > Options* menu
  - Select the *View* menu by clicking the *View* tab
  - Under print and web layout options, check the *text boundaries* checkbox

- ➔ Starting in the *top left box*, enter the content (text and graphics) for your label. Include the string of characters you will convert to a bar code



- ➔ Highlight the characters for your bar code and click the toolbar icon.
- ➔ Use Word's formatting features to make the label look like you want.
- ➔ When your design is complete, copy and paste it into the remaining boxes.

**Note:** You may have to change your bar code height parameter to fit your bar code on the chosen label template.

**Note:** If the bar code you make is too long for the chosen label template, it may be *truncated* and *un-readable* by your scanner. Choose a larger label, a more compact symbology, or fewer characters.

## Make sequentially numbered bar codes

**Bars & Stripes** can generate sequentially numbered bar codes quickly and easily. These sequential bar codes can be used to create bar code labels using Word's mail merge feature, described in the next section.

### To make sequentially numbered bar codes ...

- ➔ Select the *Make Sequential* button in **Bars & Stripes'** Main Menu.
- ➔ Enter data into the appropriate fields as defined below.
- ➔ Save the bar codes. Enter the name of the file, or Browse to desired file.  
The resulting bar code document contains a Word table with one column.
- ➔ You can merge this column onto any other Word Table with same number of Rows. Select *Merge* to perform this operation.

### Starting Value

This entry represents the value that will be used for the first bar code, plus the addition of any prefix and postfix characters (see below). Leading zeros are retained and added to each subsequent bar code (i.e. "0001, 0002, 0003 etc.).

The length of the string will remain the same as long as the new value can be represented by the same number of digits (i.e. "0008, 0009, 0010, 0011, etc.) and ("9998", 9999, 10000, 10001, etc.)

### Increment Value

This entry represents the value that will be added to the preceding value to create each subsequent bar code value. For example, an increment value of 3 would produce the sequence 010003, 010006, 010009, etc.

**Hint:** An increment of zero (0) would produce duplicate bar code values.

### Quantity

This entry represents the total number of different bar code values to produce, not counting duplicates (see below).

### Duplicates

This entry represents the number of duplicates of each bar code to produce. For example, an increment of 3 and a duplicate of 1 would produce the following sequence: 01001, 01001, 01004, 01004, 01007, 01007, etc. *The default value is 0.*

### Prefix and Postfix

The characters to be appended to the "front" and "end" of each sequential value. For example, a Prefix value of "AA" and a Postfix value of "BB" would produce the following sequence: AA0001BB, AA0002BB, AA0003BB, etc.




## Make bar codes using table data

Frequently, the bar code labels you need are not all the same. By using **Bars & Stripes** and Word's Mail Merge capability, you can generate copious quantities of bar code labels using data from a Word table.

### Creating a Word Table

There are several methods you can use to create a Word table:

- ➡ The Toolbar table icon 
- ➡ The *Create new Datafile* option on **Bars & Stripes** Main Menu
- ➡ The *Convert Text to table* option under Word's **Table > Convert** menu





Whichever method you choose, you can generate bar codes using Word table data by simply highlighting a table column and clicking the **Bars & Stripes** Icon.

Part Number	SKU	Price	Description
K17-003	12345678912	3.95	Blue widget holder
97-1521	43523467543	12.49	Large thingamabob
K21-400	87678456723	2.89	Thingy with a hole
776-1210	17659345612	1.97	whatchamacalit

First row contains column names

Make sure the column contains only characters allowed by the symbology requirements. **No empty cells are allowed.**

Highlight the column you wish to bar code. Click the **B&S** toolbar icon

Barcodes	
1	 2345678912
4	 43523467543
8	 87678456723
1	 17659345612

Part Number	SKU	Price	Description
K17-003	12345678912	3.95	Blue widget holder
97-1521	43523467543	12.49	Large thingamabob
K21-400	87678456723	2.89	Thingy with a hole
776-1210	17659345612	1.97	whatchamacalit

**Bars & Stripes** will generate a column of bar codes matching the highlighted table column.

By selecting the *Merge* option you can combine the bar code single column table with the original source data table. Save this new merged table before proceeding.

## Making bar code labels with Mail Merge

You can use Microsoft Word’s mail merge feature to make bar code labels by creating a table with bar codes as shown in the previous section.





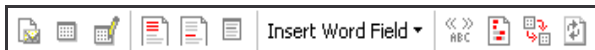
Barcodes	Part Number	SKU	Price	Description
1 	K17-003	23456789012	3.95	Blue widget holder
6 	97-1521	67894566753	12.49	Large thingamabob
3 	K21-400	56734745784	2.89	Thingy with a hole
8 	776-1210	67856785645	1.97	whatchamacalit








Figure 1 Merged source and bar code tables

**NOTE:** The mail merge feature in Microsoft Word differs in each version of Word. Most Word versions employ a *Mail Merge Wizard* to assist you. The following is one method of accomplishing a successful mail merge. Consult your Word documentation and help facility to learn more about Mail Merge.

**HINT:** The **Bars & Stripes** help facility provides a different method.

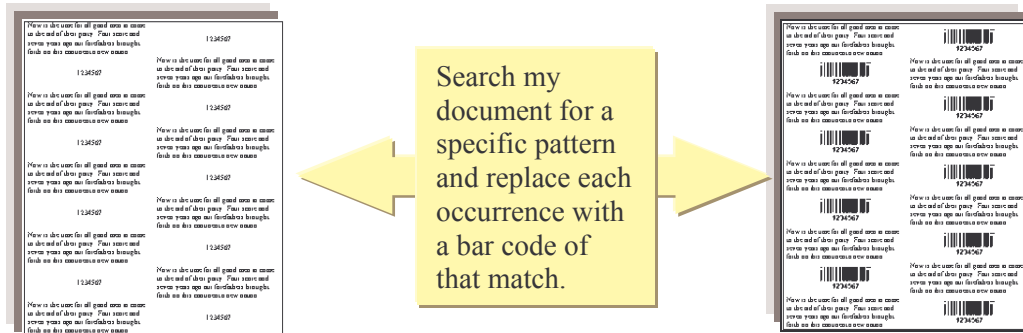
- ➔ From **View** menu, choose **Toolbars > Mail Merge**



-  ➔ Create a new blank document
-  ➔ Click the *Main Document Setup* toolbar icon
- ➔ Click *Labels*, then OK
- ➔ Select a label template from the scroll box, then OK
- ➔ From the **Tools > Options** menu, choose the **View** tab
- ➔ Check the  *Text Boundaries* checkbox
-  ➔ Click the *Open Data Source* toolbar icon
- ➔ Select the file with the merged table created in the previous section
-  ➔ Use the *Insert Merge Field* icon to add table data to your label design
-  ➔ Select the View Merged Data icon to check your labels appearance.
-  ➔ *Propagate Label copies* the finished design to the rest of the template
-  ➔ Click *Merge to New document* to produce finished labels

## Replace patterns with bar codes

**Bars & Stripes** provides a *Search & Replace* feature which searches your Word document for strings of characters which match a specified pattern and replaces that text with its bar code. You can search for text, numbers, and even special characters like tab and enter.



This features works similarly to the traditional search and replace of most word processing software applications with one very big exception. The text that matches the search is replaced not with replacement text, but with a bar code. The bar code value is the matching text.

- ➔ To **Start**, click the *Search & Replace* option in **Bars & Stripes Main Men**
- ➔ On the Search & Replace dialog box enter the search criteria into the *Find What* box
- ➔ Use the Special Codes drop box to add special characters to your search criteria
- ➔ For example, the following search criteria would find every character string in your document beginning with the letter A followed by 3 letters (A-Z) followed by 3 digits (0-9) followed by the letter Z.

A^\$^\$^\$^#^#^#Z

These search criteria would bar code matching character strings within your document. For example:



The screenshot shows the 'Bars & StripesXP (v5.0)' dialog box. Callouts point to various fields and options:

- Find What:** A text field for entering the search text.
- Search:** Radio buttons for 'Down', 'Up', and 'All' directions.
- Strip First/Last Character:** Radio buttons for 'No' and 'Yes'.
- Special Codes:** A dropdown menu currently set to 'Paragraph mark'.
- Match Case:** A checkbox.
- Find Whole Words Only:** A checkbox.
- Use Pattern Matching:** A checkbox.
- Sounds Like:** A checkbox.
- Buttons:** 'Search & Replace', 'Replace With', 'Cancel', and 'Help'.

**Other Options**

- Match case* – match only if Case is the same.
- Find whole words only* – do not match partial words
- Use Pattern Matching* – See table below

**Additional Callout:** Finding text to bar code is easier if you add unique start and stop characters to your document text. **Bars & Stripes** will strip these extra characters before bar coding.

### Special Codes (pattern matching option)

<b>Match any character</b>	?	For example, typing do? Finds "dot," "doodle," and "seldom."
<b>Question (?)</b>	^?	For example, typing Where ^? Finds "Where?"
<b>White space</b>	^W	Any number and combination of spaces; non-breaking spaces; tab, end-of-line, and end-of-cell characters; and paragraph, section, and manually inserted page break marks
<b>Tab character</b>	^t	Must be lowercase.
<b>Paragraph mark</b>	^p	Must be lowercase.
<b>End-of-line character</b>	^n	Must be lowercase.
<b>Page break</b>	^d	Finds page breaks inserted by pressing CTRL + ENTER. (Lower case).
<b>Section break</b>	^d	Must be lowercase.
<b>Duplicates search text</b>	^m	Not allowed in this application.
<b>Clipboard contents</b>	^c	Not allowed in this application.
<b>Non-breaking space</b>	^s	Must be lowercase.
<b>Optional hyphen</b>	^-	If you specify search text without optional hyphens, Word finds all matching text, including text containing optional hyphens. However, if you specify optional hyphens in the search text, Word finds only words having optional hyphens in the same position. For example, typing type^-writer finds only "type-writer"
<b>Non-breaking hyphen ()</b>	^~	
<b>Caret character (^)</b>	^^	
<b>ASCII character</b>	^nnn	Number is a decimal and replaces it with the ASCII character.

## Appendices

### Symbologies

There are many bar code symbologies. Some common ones are the postal bar code used for mail routing, the Universal Product Codes used in the retail trades, MSI bar codes used in grocery stores, and the Code 3-of-9 symbology often used for data tracking and inventory. From the Parameter Setup Menu, click on the down arrow next to the Symbology List Box and highlight the desired selection.

#### Codabar

The Codabar symbology is the oldest symbology, and is used for shipping/receiving (Federal Express), publication control and distribution (libraries), as well as for controlling government supplies.

This symbology allows the encoding of strings of up to 16 digits, 10 numeric digits (0 through 9) and 6 special non alpha characters ("+" (plus), "-" (minus), "\$" (dollar sign), "/" (slash), ":" (colon), and "." (Point)). There are also 4 start/stop code choices possible when using the Codabar symbology. These characters (A, B, C, or D) must be included at the beginning or ending of a string. Using start/stop characters gives Codabar additional coding ability due to the variable character combinations possible. **Bars & Stripes** will optionally supply these start/stop characters for you.

#### Code 128

Code 128, so called because it can encode all 128 ASCII characters, is the preferred symbology for many bar code applications. It also is considered the most easily read bar code with the highest message integrity. **Bars & Stripes** produces type B Code 128 bar codes. Function codes 1, 2, 3 and 4 are created by inserting character codes (ASCII) 129, 130, 131, and 132.

HINT: Use "Insert Symbol" on Word's toolbar.

#### Code 3 of 9

One of the most widely used symbologies, Code 39, can encode messages using capitalized alpha characters, numbers 0 through 9, and seven special characters. It has a flexible, variable-length format. Code 39 is used by the Department of Defense and by the automotive industry, among others. Its main drawback is that it takes up a lot of label space, sometimes causing problems when there is a lot of data to be encoded.

##### Code 3 of 9 Extended

This mode extends the symbology such that it can encode the full 128 code ASCII character set.

#### Code 93

Code 93, like Code 128, uses the full set of ASCII characters and is used in data collection processes.

### **EAN-13**

International Article Numbering Association (EAN International) Code is the international version of the UPC. It contains two digits more than the UPC, requiring a total of 13 printed characters.

### **EAN-8**

This symbology is a shortened version of EAN-13. It consists of seven characters and an automatically inserted check digit.

### **Interleaved 2 of 5**

Interleaved 2 of 5 is an all numeric symbology. This symbology creates highly compressed strings of digits and for this reason is ideal for applications with narrow space available for bar code placement such as on shipping cartons or narrow labels. The encoded data must contain an even number of characters. Interleaved 2/5 has a coding weakness that sometimes causes it to create false short messages within a long message. To help prevent this, you should use it only as a fixed-length symbology in any one application, so that label length can be checked for accuracy.

### **MSI**

An old, infrequently used symbology, MSI is still used widely in the retail foods industry. This symbology encodes numeric data only, in strings of between 2 and 13 digits. One or two check digits are supplied by calculating either Mod 10 or Mod 11 values from the digits.

### **Postal**

Postal, or Postnet, is used for postal service processing. This symbology encodes strings of numbers (zip codes) 5, 9 or 11 digits long in the symbology recognized by Postal-code readers. This bar code is usually placed on the bottom right of letters and mailing labels. (See Delivery Point Bar codes)

### **UPC-A**

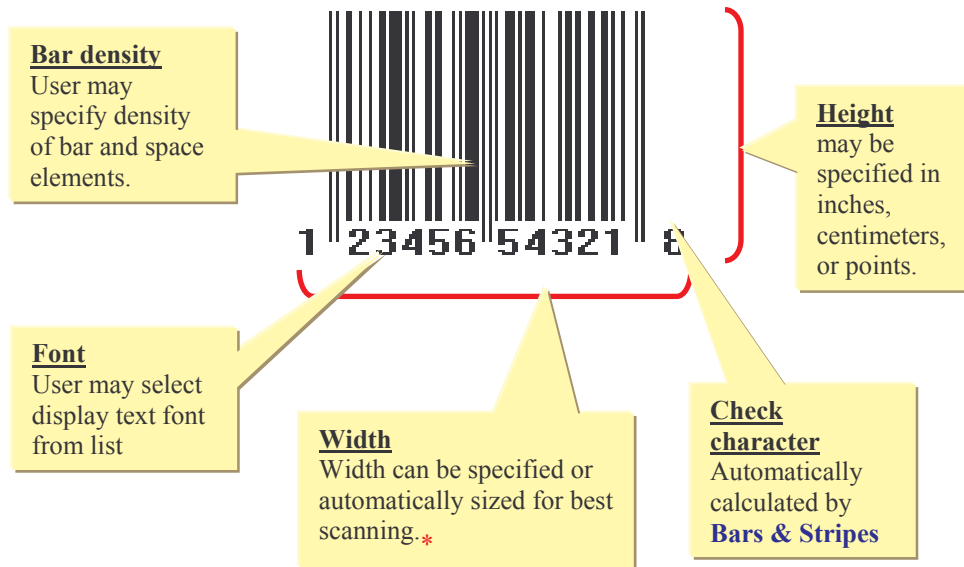
UPC stands for Universal Product Code. This code is typically used to record point of sale transactions for consumer goods throughout the grocery industry. UPC-A format requires an 11 digit string. The first digit is the classifications number and the following 10 digits are product identifiers. Typically, the first 5 (five) digits are assigned by request by the Uniform Code Council. The remaining 6 (six) digits are assigned by the user.

### **UPC-E**

This symbology is a shortened version of UPC. With only six numeric characters, it is used mainly for retail items so small that regular UPC labels cannot fit. The sixth digit must be between 5 and 9 inclusive. The check digit is calculated automatically and encoded in a scheme referred to as "Variable Parity". The Check digit is displayed in human readable form as the seventh digit. A leading zero digit is affixed to the right of the bar code, outside the guard bars.

## Parameters

**Bars & Stripes** lets you control the appearance of your bar code. These controls are found on the *Change Setup* dialog box. To access the *Change Setup* dialog box, click the **Bars & Stripes** toolbar icon. Then Click the *Change Setup* menu option.



## Height

The bar code height should simply be large enough for the scanner to read it easily. To change the height from the default value (1"), click the Down or Up buttons to the right of the height box, or type a value directly into the Height Box.

If you select the Postal symbology, **Bars & Stripes** will automatically size the bar codes according to Postal Service regulations, ignoring any settings in this field.

**TIP:** Height includes any text displayed beneath the bar code

## Width

**Bars & Stripes** will automatically compute the length based upon the amount of data you are encoding, or you can specify the absolute width of the entire bar code (in inches, centimeters or points), or you can specify the individual element width (each bar or space is one to four elements wide).

**CAUTION:** It is highly recommended that you always use the **Auto** setting. This will result in easier to scan bar codes.

### \*Automatic width computation

To have **Bars & Stripes** choose the optimum width, click on the button to the right of the Width Box in the Parameter Setup Menu to display the keyword "AUTO".

**Absolute width selection**

To specify the absolute width of the bar code, erase the text that appears in the Width Box of the Parameter Setup Menu, and enter the width you desire.

**NOTE:** Make sure that the value agrees with the Units selection in the Units Box.

**Bar code density selection**

To size the width of the bar code by specifying the bar code density, click on the button to the right of the Width Box in the Parameter Setup Menu to display the keyword "Bars = ". Following the "=", enter a number which expresses the number of bar elements per Unit (inch, centimeter or point).

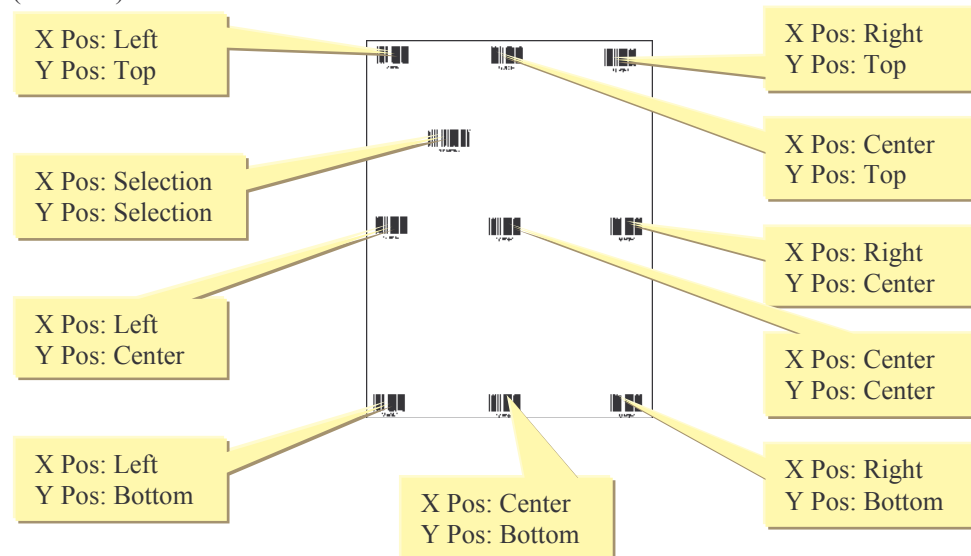
**NOTE,** each black bar or white space in the bar code can consist of between 1 to 4 bar elements.

**Examples**

Width	Units	Result
Bars = 70	Inches	70 bar elements per inch
Bars = 28	Centimeters	28 bar elements per centimeter
Bars = 0.5	Points	0.5 bar elements per point
If you choose to specify the individual element width, the total width of the bar code will depend on the amount of data encoded		

**Horizontal Position and Vertical Position**

The measurements for positioning the bar code are automatically calculated from the top and left of the document in the unit of measurement specified (Inches, Centimeters, or Points) or in the location specified by the "keyword" selected by clicking on the button to the right of the X Position (Horizontal) and Y Position (Vertical) boxes.





The keyword **Selection** means that the bar code will be positioned wherever the highlighted text was. You can also adjust the position of the bar code by combining a "Keyword" with a numeric value. For example, Selection + 1.5 would position the bar code 1.5 units from the selected text.

### **Human Readable Text**

This field, located in the bar code Parameter Setup Menu, allows you to determine what text will be displayed with your bar code (if you selected Display Text in the Options field). The default selection, DATA, will display the highlighted text (the characters you wish to be converted into a bar code).

**Bars & Stripes** will replace the key word DATA with the characters to be converted. You may erase the default selection and enter any other combination of characters, or you may combine the key word DATA with other text. For example, if you highlight the string "12345", and you've entered the string "abc DATA efg" in the text box, the resultant bar code text will be "abc 12345 efg"

### **Human Readable Text Font**

In the Parameter Setup Menu's Font Options Box, click on the down arrow to see a list of fonts in which text may be displayed. Highlight your selection. The font selected will not affect the appearance of the bar code above the text.

### **Justification**

The displayed text may be CENTERED beneath the bar code, aligned with the RIGHT edge of the bar code, or aligned with the LEFT edge of the bar code. Click on the button to the right of the Justification Box until your selection is displayed.

### **Orientation**

There are four possible orientations for your bar code. Click on the button to the right of the Orientation Box in the Parameter Setup Menu to view your selection.



## **Resolution**

The resolution parameter affects the appearance of the text displayed beneath the bar code. It does not affect how well a scanner can read the bar code. If you plan to enlarge the bar code, you should select a higher resolution. In the Parameter Setup Menu, click on the button to the right of the Resolution Box to view your selection.

**NOTE:** bar codes generated at a higher resolution use more of your computer's memory and take longer to print

**Bars & Stripes** determines your systems' resolution by interrogating the Windows™ operating system. On some systems, however, this can not be done. **Bars & Stripes** will use instead the value stored in the file BNS.INI. In this case, you may be able to affect the quality of text by editing the dpi setting in the BNS.INI file. Try a value in the range of 72 to 120.

## **Units**

You must specify whether your bar code will be measured in inches, points or centimeters . The default is inches. To change the units to centimeters, or points, click on the button to the right of the Units Box to view your selection.

**Note:** Make sure the values you have selected for bar code height, width, X Position and Y Position are expressed in the selected units.  
(See Units Conversion Formulae.)

## **Symbology Specific Options**

The Parameter Setup Menu allows you to select a number of options which affect the various bar code symbologies. Only those options appropriate for the bar code symbology currently selected will be available for selection.. You may select as many options from this field as you want. (See below for choices.)

Click on each option you want to select. If a feature is already selected, you may click on it to unselect it.

### **Display Text**

If you select this option the bar code data will be displayed in a line of text beneath the bar code. (Depending on orientation)

### **Strip Non-Numeric**

If you select this option, non-numeric characters in the text will be ignored

### **Strip Control Characters**

If you select this option, any control characters (such as carriage return or Tab) in the highlighted text will be ignored.

### **Add Start/Stop (Codabar Only)**

If you select this option, the required start and stop characters will be added to the beginning and end of the highlighted text.

### **Hide Start/Stop (Codabar Only)**

Selecting this option hides the start and stop characters of the Codabar string in the text beneath the bar code. If text is not selected, this feature does nothing.

### **Full ASCII Mode (Code 3 of 9 Only)**

If you select this option, **Bars & Stripes** will use Code 3 of 9's alternate Full ASCII mode, allowing the full ASCII character set to be used.

### **Code 3 of 9 Checksum (Code 3 of 9 Only)**

If you select this option, an optional checksum digit will be calculated and encoded in the Code 39 data string

### **UPC Checksum (Code UPC-A and UPC-E Only)**

If you select this option, the UPC check digit will be displayed to the right of the bar code. If display text is not selected, this feature does nothing.

### **2 Check Digits (MSI Only)**

If you select this option, two check digits will be display instead of one.

### **Mod 11 Check digit (MSI Only)**

If you select this option, the second check digit will be calculated using the modulo 11 method. The default is modulo 10.

## **Delivery Point Bar Codes**

The US Postal Service now requires that you append Delivery Point Bar codes (DPBC) digits to Zip + 4 postal bar codes to receive postage discounts. These digits are calculated by examining the primary street address. **Bars & Stripes** will now automatically calculate DPBC digits when you process your mailing list with Word 6 for Windows.

When you choose the “*Use Existing Datafile*” option from the main menu, and you have selected the Postal bar code symbology, **Bars & Stripes** will calculate the DPBC digits automatically. **Bars & Stripes** will prompt you for the name of your datafile field which contains the primary street address. This field is usually named something like “Address” or “Street”.

The primary street address consists of some combination of the following elements:

- Street name and number
- PO Box and number
- Rural Route and number
- APO, FPO

As **Bars & Stripes** processes the datafile, it will calculate DPBC digits based upon the information contained in the primary address field. These digits will be encoded as bar codes and appended to Zip + 4 zip bar codes. DPBC digits are not added to 5 digit zip codes.

A check digit is added to Zip + 4 + DPBC bar codes to complete the process.\

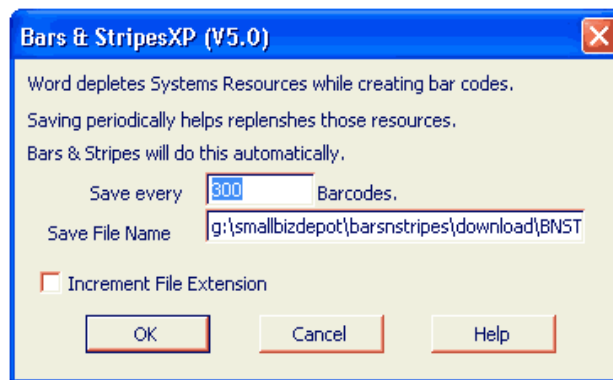
**NOTE: Bars & Stripes is not CASS certified**

## Managing Resources

*Microsoft Word* uses up its' resources as it performs various operations. Saving and closing your work periodically can restore these resources. **Bars & Stripes** can perform these operations for you, automatically. This will enable you to produce many more bar codes in one operation.

### Save Every

The Resource Management dialog box allows you to specify how often to save, close, and reopen the bar code document being created. The default is 300, meaning **Bars & Stripes** will save, close, and reopen the document every 300 bar codes. If the number entered is too large, Word may run out of resources and terminate the program. It is recommended that this number be no greater than 500.



### Increment Extension

**Bars & Stripes** can also increment the file extension each time the above process occurs. This allows you to break a single large job into many smaller bar code documents. For example: If you are creating 2000 bar codes, you can set the Save Every Box to 500, and check the Increment Extension Checkbox. This will produce 4 files of 500 bar codes each with the extensions .000, .001, .002, and .003.

## **Units Conversion**

The values you enter for height, width, X Position and Y Position must be expressed in the same units selected in the Units Box of the Parameter Setup Menu. The following formulae can be used to manually convert values expressed in different units.

- ➡ To convert inches to points, multiply by 72.
- ➡ To convert inches to centimeters, multiply by 2.54.
- ➡ To convert centimeters to inches, divide by 2.54.
- ➡ To convert centimeters to points, multiply by 28.35
- ➡ To convert points to inches, divide by 72.
- ➡ To convert points to centimeters, multiply by .00353

## Other Sources of Information

For other sources of information regarding Bars & Stripes, bar coding , or related topics, see the following:

### Websites

[www.axtel.com](http://www.axtel.com)

Software for barcode recognition in raster images.

[www.katzscan.com](http://www.katzscan.com)

Barcode Applications and Electronic Data Interchange (EDI) Consulting & Programming Services

[www.barcodetech.com](http://www.barcodetech.com)

Bar code scanners and POS equipment

[www.uc-council.org](http://www.uc-council.org)

Uniform Code Council

[www.businessproductsdepot.com](http://www.businessproductsdepot.com)

Bar Code Labels & Custom Personalized Labels for business or personal use

### Publications

#### [Retail Bar Coding Basics - a Tutorial](https://service.altserver.com/~bars2sm/retailbarcode.htm)

This Guide is intended for those who want to put UPC bar codes on their trade items. (<https://service.altserver.com/~bars2sm/retailbarcode.htm>)

#### [Point of Sale - A beginners guide to computerized POS software](https://service.altserver.com/~bars2sm/point_of_sale.htm)

If you're thinking of investing in a computerized point of sale system, this is the place to start. ([https://service.altserver.com/~bars2sm/point\\_of\\_sale.htm](https://service.altserver.com/~bars2sm/point_of_sale.htm))