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Introduction

Overview

There are tremendous advantages to using bar codes. Bar codes add the convenience of fast, efficient, error-free data entry. Bar codes provide a link between the physical world of material objects, and the ethereal world of computer information. Bar codes are easy to use, inexpensive to implement, and despite what many believe, not all that mysterious.

This manual describes the **Bars & Stripes** ActiveX bar coding software product. As its name implies, it is based upon **ActiveX** technology. ActiveX was created (by Microsoft Corporation) as a vehicle for adding new features and enhancements to standard Microsoft products. Many independent software companies now offer add-in features using ActiveX.

Bars & Stripes ActiveX is an add-in that provides bar coding capability to standard Microsoft applications such as Access® and Excel®. It can also add bar coding capability to customer-written Visual Basic® applications, and even to web pages.

This document will show you how simple it is to create bar codes. You will learn how add bar codes, how to determine their appearance and how to use properties such as symbology, size, type, and orientation.

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

Who needs this control?

The **Bars & Stripes** ActiveX 2000 provides a solution for those who are looking for an elegant way to add bar coding capability to their Microsoft Access database, custom-written Visual Basic application, Excel spreadsheet, or website.

To use this program, it is assumed you have a basic working knowledge of Microsoft Access, Excel or Visual Basic or related internet technologies such as HTML, java, JavaScript, or Perl plus ActiveX Controls. Refer to the appropriate documentation for additional information.

Bar code control features

The **Bars & Stripes** bar code control is a feature-rich ActiveX product which provides an elegant method of adding bar coding capability to standard Microsoft products. The following bar code symbologies and parameters (properties) are supported.

Symbology	Properties
<ul style="list-style-type: none"> Codabar Code 128 Code 39 (3 of 9) Std. and ext. Code 93 EAN 8 EAN 13 Interleaved 25 (2 Of 5) MSI/Plessey Postal UPC-E UPC-A 	<ul style="list-style-type: none"> Orientation Text justification Text font Displayed text Height Width Start and Stop characters Check digits Resolution

The following table displays the characters each symbology allows. For more information about the requirements of each symbology, see the Appendix (**Symbologies** and **Properties**).

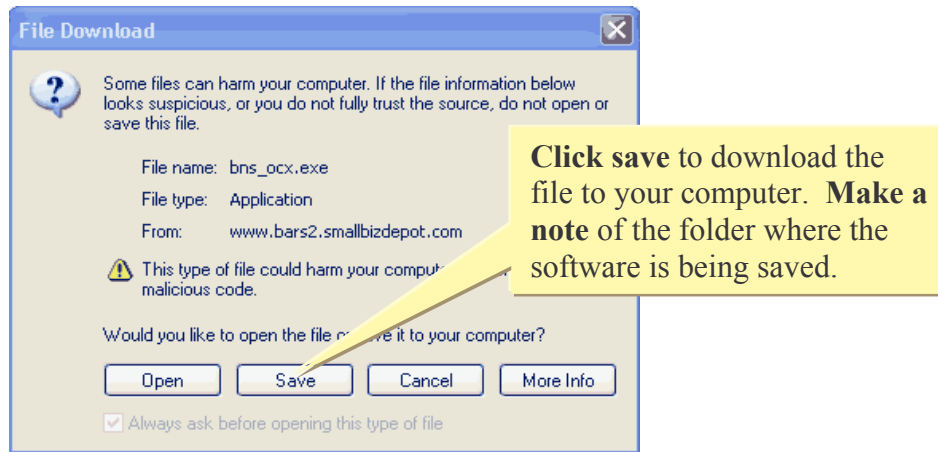
Symbology	Valid Characters
Codabar	First and last character must be A, B, C, or D. Valid characters are 0 - 9 or '+', '-', '\$', '/', ':', '.',
Code 128	full 7-bit ASCII character set
Code 39 (3 of 9)	A - Z, 0 - 9, space, '+', '.', '-', '/', '\$', '%'
Code 39 (full ASCII)	full 7-bit ASCII character set
Code 93	full 7-bit ASCII character set
EAN 8	fixed length, 7 digits, 0 - 9
EAN 13	fixed length, 12 digits, 0 - 9
Interleaved 2 of 5	any length, digits, 0 - 9
MSI	any length, digits, 0 - 9
Postal / Postnet	fixed length, 5, 9, 11 digits, 0 - 9
UPC-A	fixed length, 11 digits, 0 - 9
UPC-E	fixed length, 6 digits, 0 - 9

Installation

There are several ways to acquire the **Bars & Stripes** ActiveX 2000 **Bars & Stripes** control (**Bars & Stripes** Bar Code Control). The software may be purchased online at the **Bars & Stripes** website (www.barsnstripes.com) and downloaded to your computer, or it may be purchased from an authorized reseller or distributor and provided on a CD-ROM. In either case, the installation is essentially the same.

Install from download

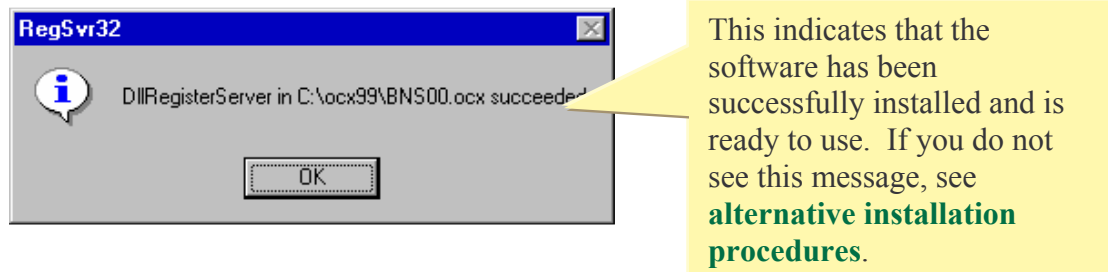
After you purchase the software, you will receive an email from **Bars & Stripes**. This email will provide download instructions and a hyperlink you click to begin the download. When you click this link you will see the following dialog box:



After the software has been downloaded, find the folder on your computer where you saved the file. Double click the filename (BNS_OCX.exe) to begin installation. The download file is a self-extracting zip file.

Install from the CD-ROM

If you purchased the software on a CD-ROM, insert the CD-ROM in your computer. Find the file on the CD-ROM (BNS_OCX.exe) and double click it to begin installation. The CD-ROM file is a self-extracting zip file.



Alternate Installation Procedures

Installing **Bars & Stripes** is most often automatic. However, if you don't see the successful registration dialog box pictured above, there are several alternative methods.

Installing (Registering) the software manually

- ➔ Double click the download/CD-ROM file to extract all its files to a folder on your computer.
- ➔ locate, and double click on the bns00.ocx file in the save folder

You will see the successful registration box as pictured above

Installing (Registering) the software using Microsoft Access

If the installations procedures described in the previous sections are not successful, you can use Microsoft Access to register the software.

- ➔ Extract all the files from the download file (or the CD-ROM file) to a folder on your computer. This is usually done by double-clicking the file and specifying a save folder.
- ➔ Start Microsoft Access
- ➔ From the Access Tools menu, click ActiveX Controls



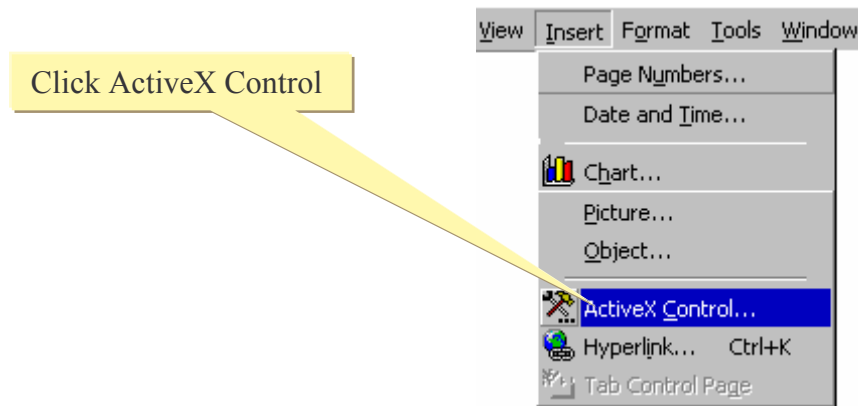
Operation In MS Access

Inserting the control

To add a bar code to your Access Form or Report, do the following:

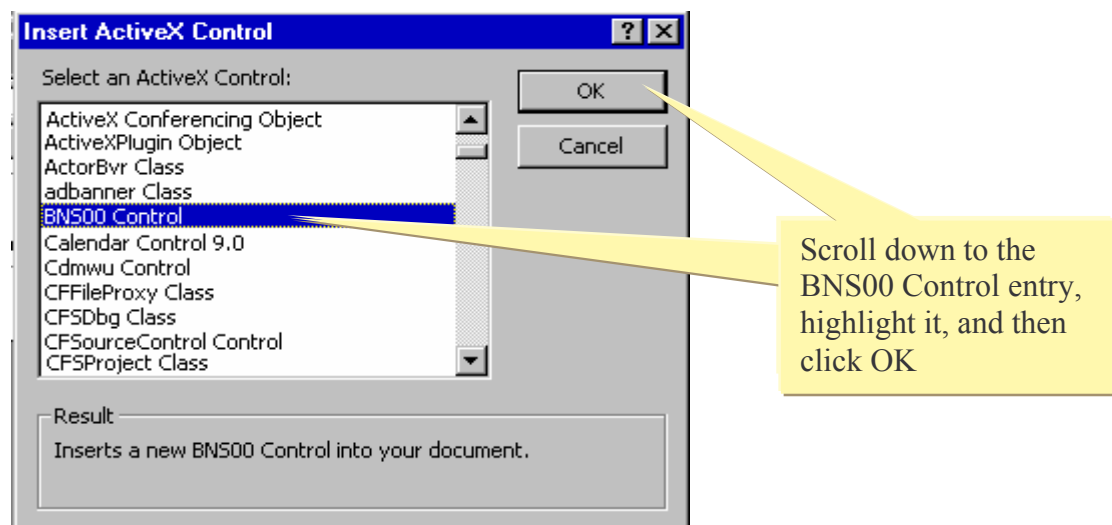
- In Access, select either **Form** or **Report** objects.
- Then open a new or existing Form or Report in **Design** view.
- On the Access main toolbar, click **Insert**.

The pop-up menu below will appear.

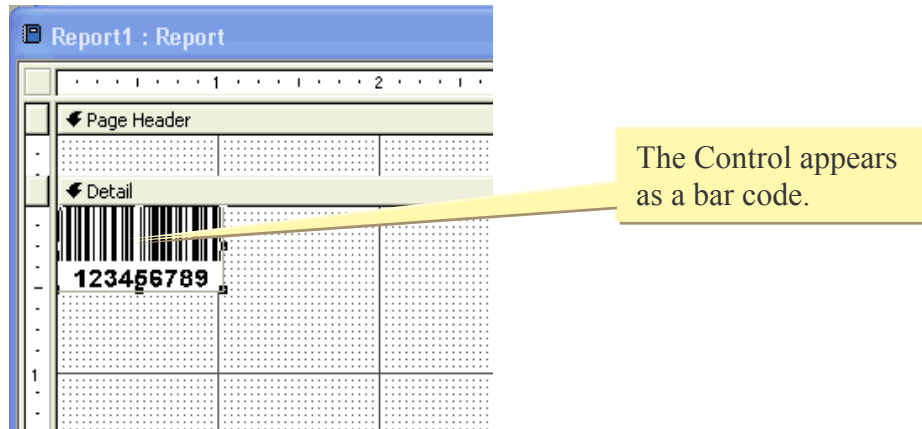


Selecting the Bars & Stripes Bar Code ActiveX Control

Clicking the ActiveX Control selection on the popup menu pictured above will display the following dialog box.



After choosing the BNS00 Control from the Insert ActiveX Control menu, the control will appear on your Report or Form Design window.



Moving and Sizing the Control

You can locate the control anywhere in your design window by simply selecting it with the mouse pointer, holding down the left mouse button, and dragging it to the desired location.

Sizing it is just as simple. To size the control, move the mouse pointer to one of the perimeter handles (small black squares) on the left, right, top or bottom edge or corner of the box. When the pointer changes to a double-headed arrow, depress and hold down the left mouse button. Drag the edge or corner of the box to change its width.

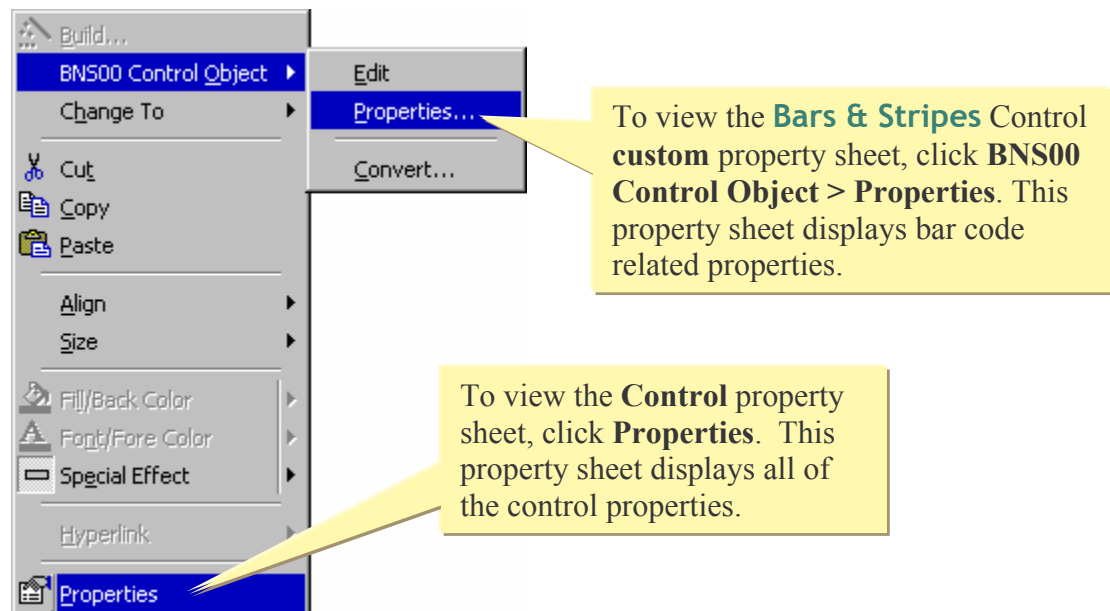
The image shows the report design window with the 'ActiveX Control: BNS001' property sheet open. The property sheet has tabs for 'Format', 'Data', 'Event', 'Other', and 'All'. The 'Format' tab is selected, showing properties like Name (BNS001), Control Source, OLE Class (BNS00 Control), Verb (0), Class (BNS00.BNS00Ctrl.1), Visible (Yes), Left (0.5"), Top (0.25"), Width (1.625"), Height (0.75"), and Special Effect (Flat). Three yellow callout boxes provide instructions:

- To Move the control,** click it, hold down the **left** mouse button, and drag it to the desired position.
- To Size the control,** click a perimeter handle, hold down the **left** mouse button, and stretch it to the desired size.
- You can also change the **location** and **size** of the control by changing the **left, top, height, and width** settings in its **property sheet**.

Accessing the Control property sheets

To view the property sheets, click on the bar code control with the RIGHT mouse button.

Near the top of the resulting menu, you will see the **BNS00 Control Object** menu selection. This menu selection will let you choose properties specific to the **Bars & Stripes** bar code control. To change **Bars & Stripes** properties, such as bar code symbology, orientation, height and width, click on this menu selection.

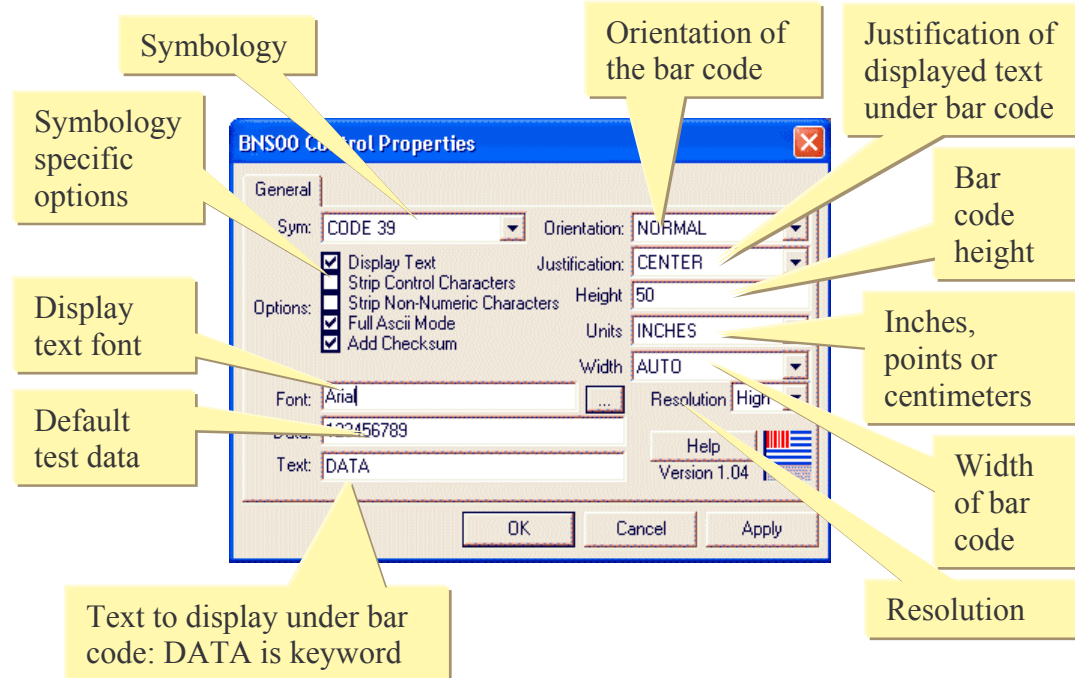


Near the bottom of the menu, you will see the **Properties** menu selection. This menu selection will let you change any of the control’s properties, including the bar code related properties. To learn what each property setting does, see **Append: Properties**.

BNS00 Control Object	Properties	
Bar code Symbology	Control Source	RepFactor
Bar code width	Top	Display Font
Bar code height	Left	Visible
Bar code orientation	Control height	Special Effect
Bar code text justification	Control Width	Bar code custom properties
Bar code check characters	Border Color	
Bar code measurement units	Border Style	
Bar code text font	Border Width	

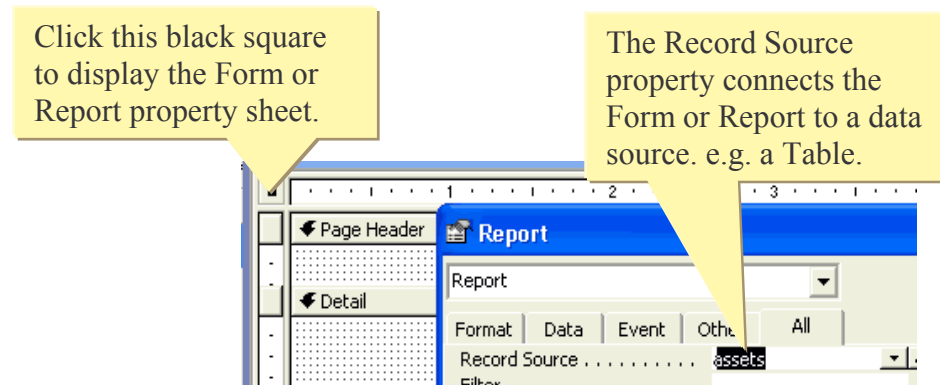
Custom Property Sheet

The custom property sheet displays properties related to bar coding. These properties can also be accessed via the full control property sheet.



Accessing the Report/Form property sheet

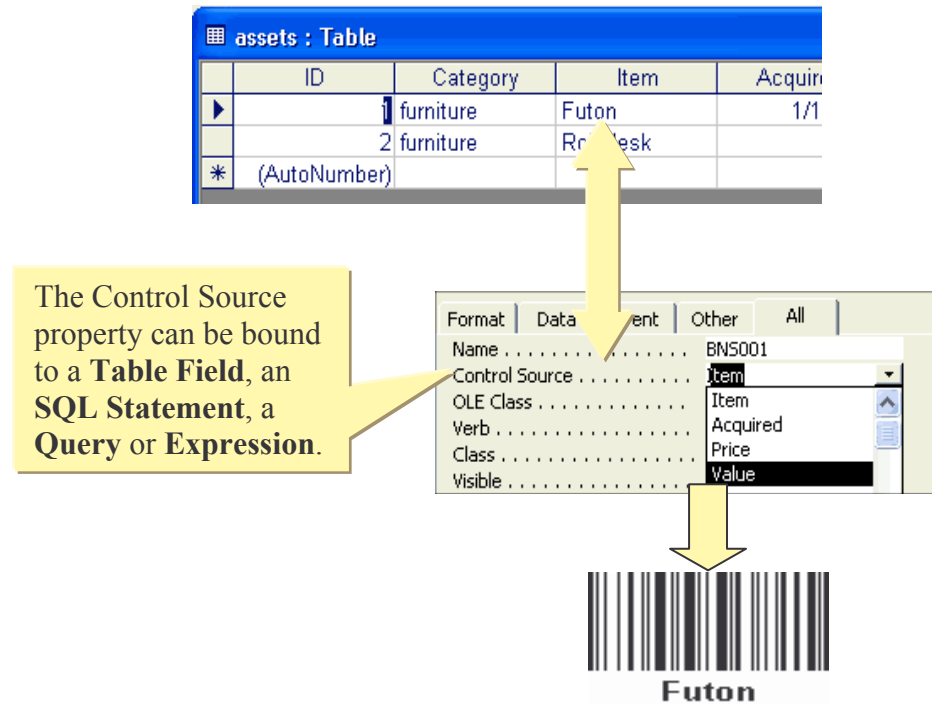
To view the property sheet which controls the settings for the Form or Report, click of the small black square at the top left hand corner of the design window.



Data sources

The **Bars & Stripes** Control allows you to view database information as a bar code. This is accomplished by using the Control's **Control Source** property.

You can use the Control Source property to specify what data appears in a control. You can display and edit data bound to a field in a table, query, or SQL statement. You can also display the result of an expression. The control displays the data as a bar code.



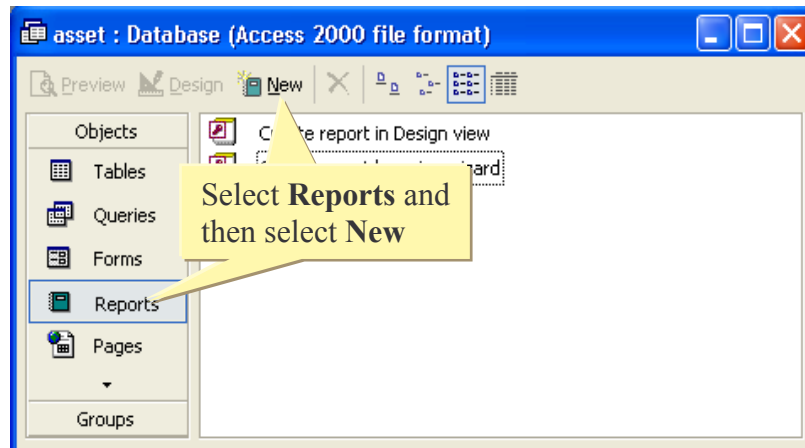
If the **Record Source** property has been set, (Bound to a **Table** for example) you will be able to select which table field to use as your bar code data source. The drop box will display a list of all the bound table fields.

Making labels

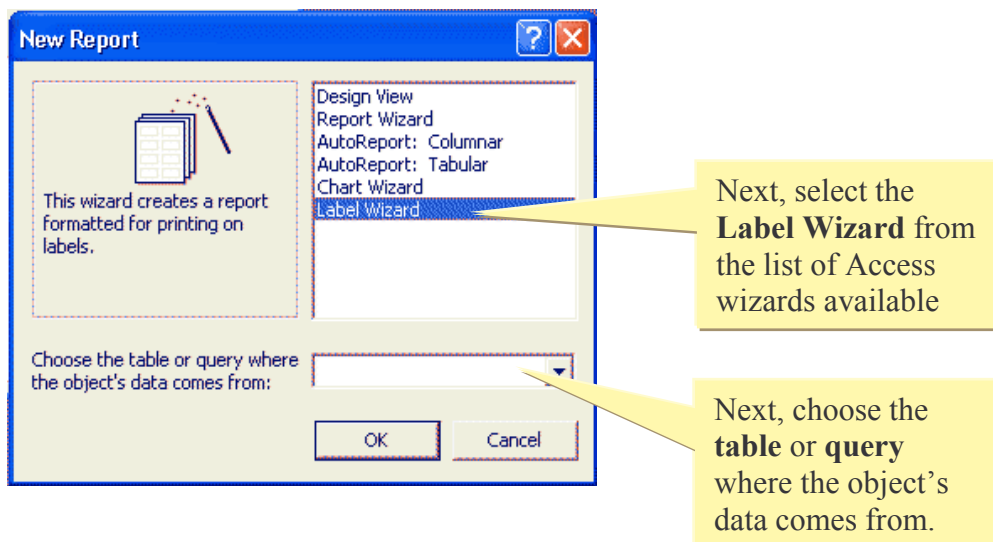
You can use the Microsoft Access Report facility to make bar coded labels using your Access database. This is accomplished by creating a report using the Label Wizard. The label wizard creates a Report formatted for printing labels.

You can then add a bar code to your label by simply inserting the bar code control to the label reports design.

Begin by selecting the **Report** option and clicking the **New** button.



The resulting **New Report** dialog box gives you a number of Report wizards to choose from. Select the **Label** wizard.



The label wizard offers templates that match a wide variety of stock label paper. You can obtain label paper from your local office supply store. The templates preset the Report height, width, margins, the number of rows and columns and other layout parameters.

The screenshot shows the 'Label Wizard' dialog box. On the left is a scrollable list of label templates. The main area contains the following information:

This wizard creates standard labels or custom labels.

What label size would you like?

Product number:	Dimensions:	Number across:
5097	1 1/2" x 4"	2
5159	1 1/2" x 4"	2
5160	1" x 2 5/8"	3
5161	1" x 4"	2
5162	1 1/3" x 4"	2

Unit of Measure: English Metric

Label Type: Sheet feed Continuous

Filter by manufacturer: Avery

Buttons: Cancel, < Back, Next >, Finish

Annotations:

- Callout 1: Select the label template from the scroll box. Match this number to the paper supplier.
- Callout 2: Choose a specific label paper manufacturer.
- Callout 3: Or design a custom label specification.
- Callout 4: Next to continue.

Next, decide what information you want on your label. Remember that the bar code will require quite a lot of label space so plan ahead. If your bar codes will represent data values of variable lengths, leave room for the longest bar code.

The screenshot shows the 'Label Wizard' dialog box at the second step. It contains the following information:

What would you like on your mailing label?

Construct your label on the right by choosing fields from the left. You may also type text that you would like to see on every label right onto the prototype.

Available fields:

- Condition
- Owner
- Insured
- Serial Number
- Optional description

Prototype label:

```
{Item}
{Category}
{Price}
{Serial Number}
```

Buttons: Cancel, < Back, Next >, Finish

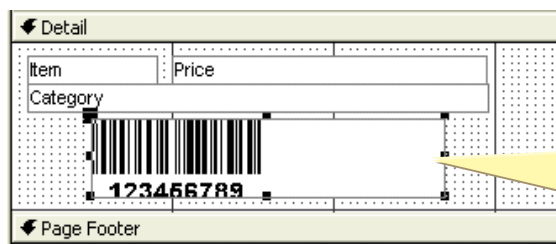
Annotation:

- Callout: Select fields from the list and add them to the label design by clicking >

Designing your labels

The Label wizard facility in Microsoft Access will create labels based upon its stored design templates and your data. You can modify the label design produced by the label wizard by displaying the label in design view.

To add a bar code to your label design, follow the instructions in the earlier section “**Inserting the Control**”. Drag the control to the desired location in the design window. Reposition other controls (text boxes) to make room for the bar code control. Size the bar code control window large enough to accommodate the longest bar code.



This example shows the label in design view. The Bar code control has been inserted under other field data inserted by the label wizard.

Finally, using the **control property sheet** as described in earlier sections set the **Control Source** property (**Data Sources**), the **Size** and **location (Moving and Sizing the Control)**. You can preview the label design by switching to **Layout Preview**.

Label Design Considerations

When laying out your label, ensure that you consider the following design parameters.

Control window width

Size the Control windows such that it can contain the longest bar code your data will produce. If a bar code is longer than the window, it will be truncated and will not scan properly.

Quiet Zones

Bar codes require white space to the left and right of the bar code for successful scanning. Do not place text or graphics too close to the bar code. Do not enclose your bar code in a box by turning on borders in the property sheet.

Label Color

To scan successfully, high contrast is required between the bar code bars and the background. Choose your colors to ensure successful scans.

Bar Codes in MS Excel

Overview

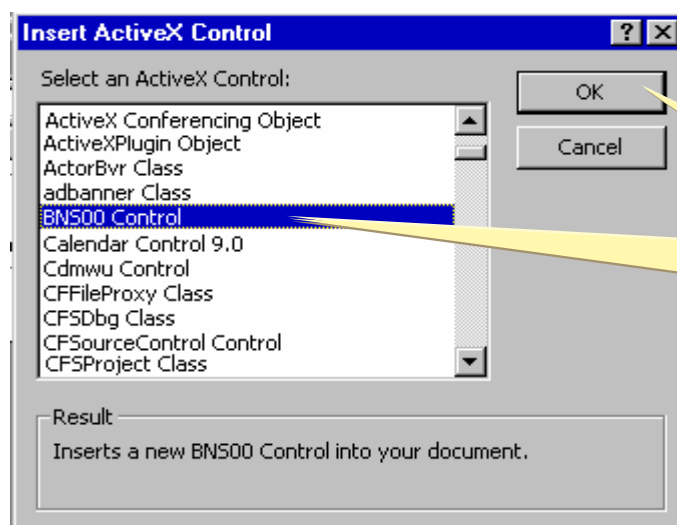
The Bars & Stripes ActiveX 2000 control can be used to add bar codes to Excel spreadsheets. The control can be linked to an Excel spreadsheet cell so that the bar code will represent the value contained in that cell.

Note that bar code parameters such as bar code height, width and symbology are specified in the same way as they are in MS Access - (see page 11).

Inserting the control

To add a bar code to your Excel spreadsheet, do the following:

- In Excel, select the location on the spreadsheet where you want to display the bar code.
- From the **Tools** menu, select **Insert** then **Object**.
- Select the BNS00 Control from the list.

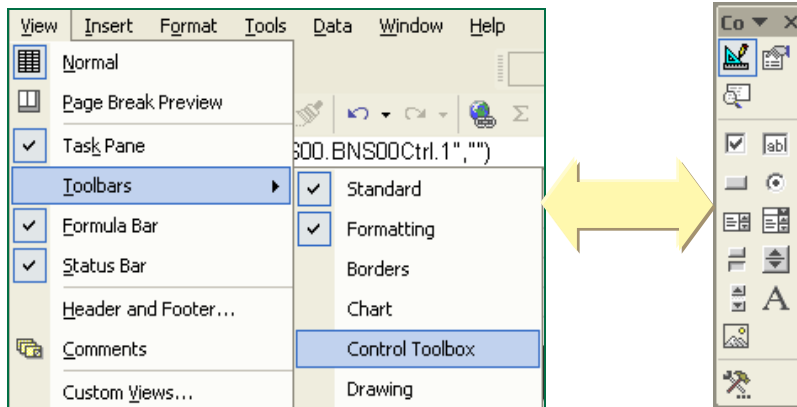


Scroll down to the BNS00 Control entry, highlight it, and then click OK

Displaying the Control Toolbox


From the Excel menu bar:

- Select View, then Toolbars then Control Toolbox.



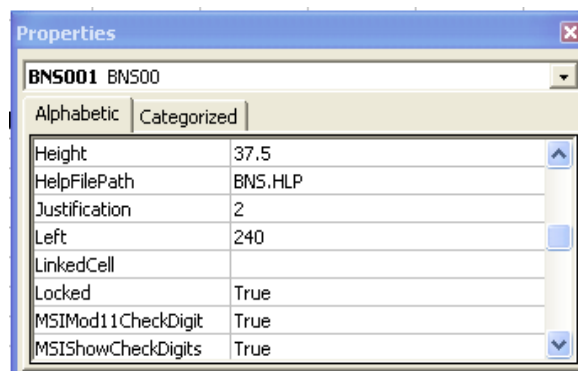
Displaying the Property Sheet

On the Control Toolbox:

- Select the Design Icon 
- Next, click the bar code to select it. If it cannot be selected, click the Design icon and try again.



- On the Control Toolbox, click the property sheet icon 



- On the property sheet, find the **LinkedCell** property. Enter the spreadsheet cell number which contains the source data value for the bar code.

Bar codes in MS FrontPage

Overview

The Bars & Stripes ActiveX 2000 control can be used to add bar codes to webpages designed in MS FrontPage.

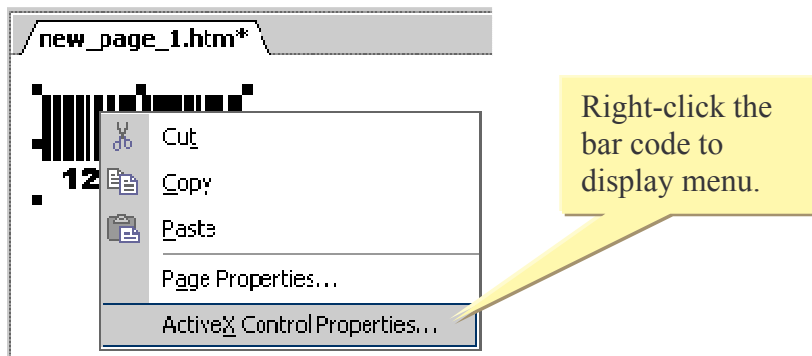
Note that bar code parameters such as bar code height, width and symbology are specified in the same way as they are in MS Access - (see page 11).

Inserting the control

To add a bar code to your FrontPage design, do the following:

- In FrontPage, select the Insert menu select **Web Components** then **Advanced Controls**.
- Select **ActiveX Controls**, then click next.
- Select the **BNS00 Control** from the list, then click finish.

Set properties using Bars & Stripes Control panel.



Bar codes in PowerPoint

Overview

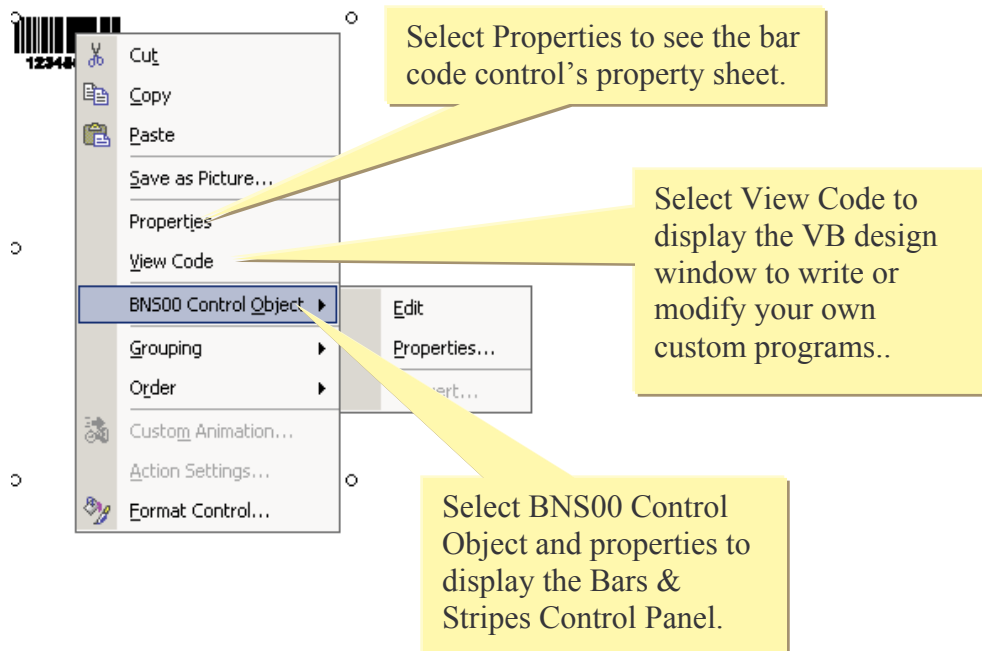
The Bars & Stripes ActiveX 2000 control can be used to add bar codes to PowerPoint presentations. You can also link Visual basic code to the bar codes you create.

Note that bar code parameters such as bar code height, width and symbology are specified in the same way as they are in MS Access - (see page 11).

Inserting the control

To add a bar code to your FrontPage design, do the following:

- In PowerPoint, select the **Insert** menu then select **Objects**.
- Select the **BNS00 Control** from the list, then click **OK**.
- Right-click the bar code to display the menu.



Bar codes in Web Pages

Overview

Although the Microsoft Internet Explorer supports a reasonable assortment of standard controls, the intrinsic control set is certainly limited. If you try to use the intrinsic controls to add special functionality to a web page, you'll find that the controls come up short. Fortunately, in addition to intrinsic controls, the Internet Explorer supports ActiveX controls through the new HTML `<OBJECT></OBJECT>` tags.

Object tags

You can add ActiveX controls to your Web pages by using the standard HTML `<OBJECT>` tag. The `<OBJECT>` tag includes a set of **Parameters** that you use to specify which data the control should use and to control the appearance and behavior of the control. There are also a set of **attributes** that may be contained within the Object tag.

Object Tag Attributes

ALIGN specifies where to place the object. The ALIGN tag recognizes the LEFT, CENTER, RIGHT, TEXTTOP, MIDDLE, TEXTMIDDLE, BASELINE, and TEXTBOTTOM arguments.

BORDER specifies the width of the border that is displayed around the visible area of the object when the object is part of a hypertext link.

CLASSID specifies a URL used to locate the object, or it specifies a class identifier for the object. For ActiveX controls, CLASSID is used to specify the class identifier. The class identifier is a unique alphanumeric code assigned to each ActiveX control and is stored in the system Registry of the client computer.

CODEBASE specifies a URL used to locate the object.

CODETYPE specifies the Internet Media Type of the code specified by the CLASSID attribute. Since this information can be accessed before the code is retrieved, it is possible to skip over unsupported media types.

DATA specifies a URL that references the object's data (for example, a gif file for an image object).

DECLARE is used to indicate that the object is not to be instantiated, only declared.

HEIGHT specifies the height of a box enclosing the visible area of the object. Use height instead of accessing the Height property.

HSPACE specifies the space to the left and right of the visible area of the object.

ID specifies the name of the object as it is referenced in code. The ID attribute is just like the Name property of an OCX control.

NAME provides a way to determine whether an object within a form block should be involved in the Submit process. If the object has its NAME attribute specified, its VALUE property will be included in any Submit action for a form.

SHAPES indicates that the object element contains shape-defined links on the visible area of the object.

STANDBY specifies a text string that can be displayed in the browser while the object and data are being loaded.

TYPE specifies the Internet Media Type of the data specified by the DATA attribute. Since this information can be accessed before the data is retrieved, it is possible to skip over unsupported media types.

USEMAP specifies a URL for a client-side image map in a format proposed by Spyglass, Inc.

VSPACE specifies the space to the top and bottom of the visible area of the object.

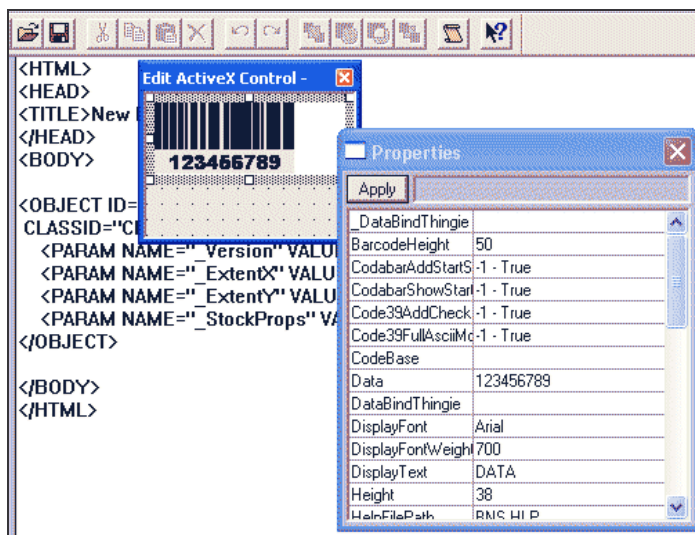
WIDTH specifies the width of a box enclosing the visible area of the object. Use width instead of accessing the Width property.

Param tags

The appearance of the control can also be affected by <Param> tags placed between the starting and ending <object> tags. These tags correspond to the Controls properties and can be set using scripting. See the [\(HTML/Control example\)](#).

ActiveX Control Pad

Microsoft provides a useful tool for inserting Controls in HTML pages. This tool, With the ActiveX Control Pad, you can create interactive, multimedia Web sites and applications that go beyond the capabilities of standard HTML. You can create Web pages that combine HTML code, ActiveX controls, HTML Layouts, and VBScript or JavaScript.



The ActiveX Control Pad, can be downloaded here:

www.barsnstripes.com/download/setupapp.exe

The ActiveX Control Pad uses an HTML file as the master container for each Web page you create. You can write and edit HTML directly using the HTML Source Editor.

You can add a single ActiveX control, such as a Textbox or a Scrollbar, onto an HTML page using the ActiveX Control Editor. The ActiveX Control Editor lets you set properties for the control, and then places an <OBJECT> tag into HTML at the insertion point.

The ActiveX Control Pad introduces the concept of the HTML Layout to Web design. An HTML Layout is a WYSIWYG drawing board to which you can add multiple controls. You can draw controls in the precise sizes and locations you want, group and align them, and even put one control on top of another.

The ActiveX Control Pad saves each HTML Layout in a file format with an .alx extension. You insert the HTML Layout into HTML, which incorporates the HTML Layout at run time. You can use multiple HTML Layouts on a single Web page.

Using the **Script Wizard**, you can assign events and actions to each of the controls you've added. You can also create custom scripts in **VBScript** or **JavaScript**. The Script Wizard then inserts the appropriate **<SCRIPT>** tag into HTML.

The result for each Web page is a single HTML file that, at run time, can display all of the elements described above.

HTML/Control Example

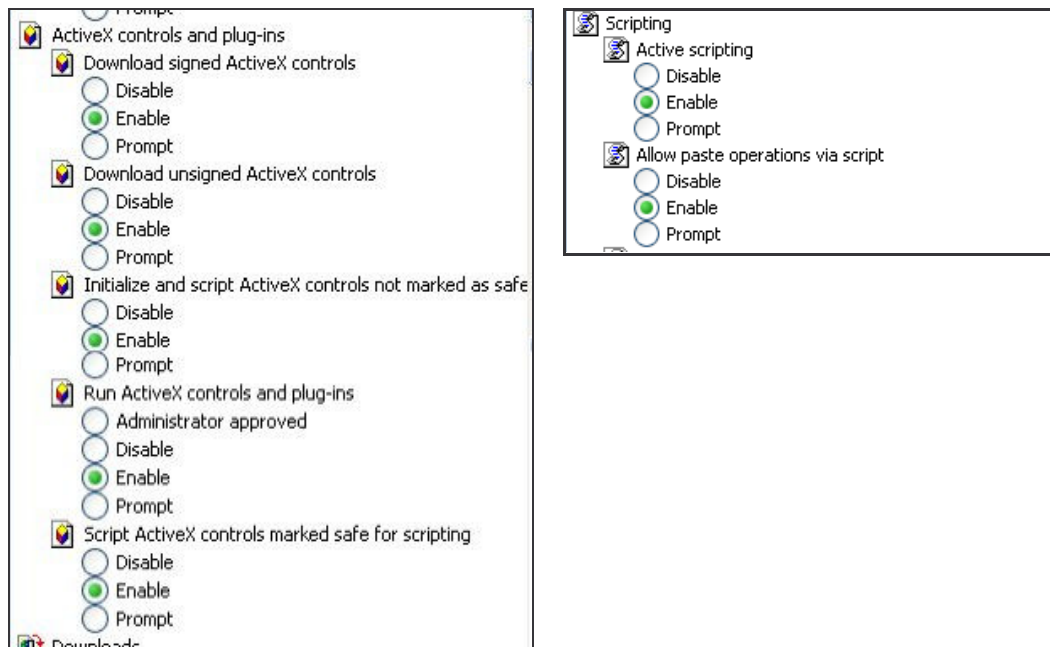
```
<object codebase="http://website/bns00.ocx" classid='clsid:341A1D06-1442-11D3-ACB7-FB89E9799B09' align='baseline' border='0' width='300' height='60'>
  <param name='Width' value='300'>
  <param name='Height' value='60'>
  <param name='BarcodeHeight' value='40'>
  <param name='Units' value='''>
  <param name='Border Style' value='Transparent'>
  <param name='Symbology' value='0'>
  <param name='Justification' value='''>
  <param name='Orientation' value='0'>
  <param name='Data' value='01234543210'>
  <param name='DisplayText' value='DATA'>
  <param name='WidthMode' value='0'>
  <param name='RepFactor' value='0'>
  <param name='ShowText' value='1'>
  <param name='SendToClipboard' value='Yes'>
  <param name='CodabarAddStartStop' value='''>
  <param name='CodabarShowStartStop' value='''>
  <param name='MSIUseTwoCheckDigits' value='''>
  <param name='MSIShowCheckDigits' value='''>
  <param name='MSIMod11CheckDigit' value='''>
  <param name='UPCShowChecksum' value='''>
  <param name='Code39AddChecksum' value='''>
  <param name='Code39FullAsciiMode' value='''>
</object>
```

Note: The codebase parameter specifies where on your web server from which to download the control.

ActiveX and Internet security

Internet Explorer provides security against malicious content. As part of that security, Internet Explorer can be configured to deny or enable the downloading of web pages containing ActiveX controls. To change your security settings to allow ActiveX, click **Tool > Internet Options** on your browser toolbar

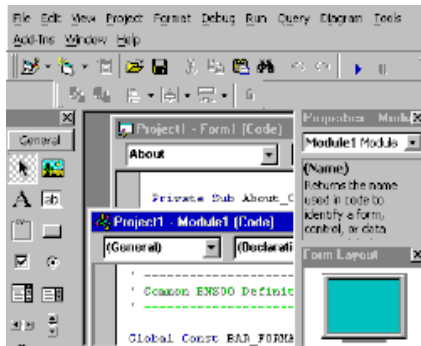
Mark as either **Enable** or **Prompt** the selections entitled **ActiveX Controls and plug-ins**, and **Active Scripting** as shown below.



Bar codes in Visual Basic

Overview

Using the bar code control in Visual Basic is very similar to using the control in Microsoft Access. Simply insert the control using the ActiveX insert menu on Visual Basic's toolbar. Setup the property sheet as appropriate and bind the data source to the control's **Control Source** property.



Included in the files packaged in the download or CD-ROM self-extracting zip file is a sample Visual Basic application using the bar code control. Included is a binary run time file and the source code.



Sample Visual Basic application screen

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

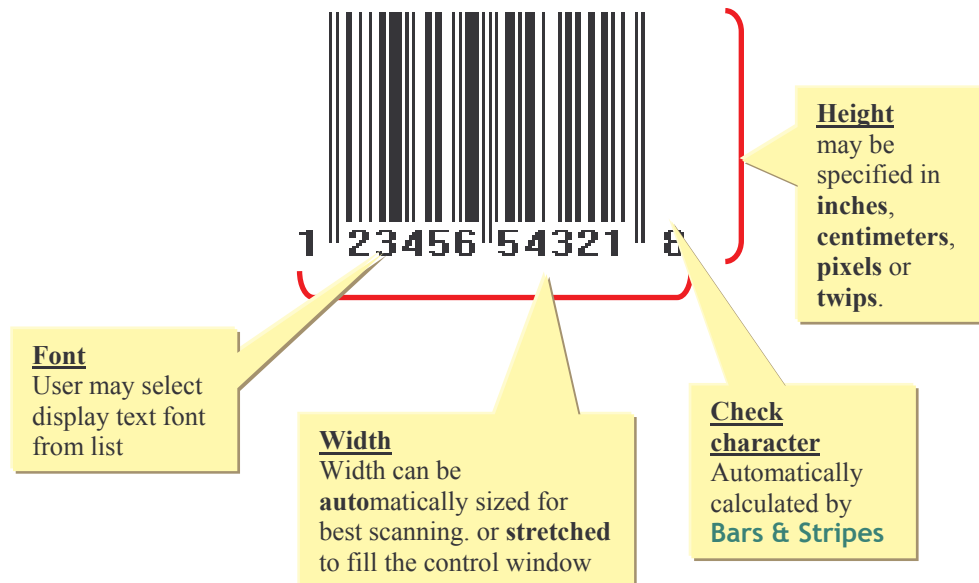
UPC stands for Universal Product Code. This code is typically used to record point of sale transactions for consumer goods throughout the grocery industry. UPC-A format requires an 11 digit string. The first digit is the classification number and the following 10 digits are product identifiers. Typically, 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.

Bar code Control Properties

These properties affect the appearance of your bar code and can be accessed by right-clicking on the Control.



Properties fall within two categories: those common to all bar code symbologies, or those that are specific to a particular symbology.

Common bar code properties

These properties are common to all of the bar code symbologies supported by the bar code control (except where noted).

Display Text

If you select this feature the bar code data will be displayed in a line of text beneath the bar code. (Depending on orientation) (Not used with Postal, UPC-A, UPC-E, EAN-8 or EAN-13)

Human Readable Text Font

Click on the down arrow to the right of this field in the **Bars & Stripes** Property sheet 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.

Default Data String

The default data string is used by the control when in design view.

Human Readable Text

The text 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". (Not used with Postal, UPC-A, UPC-E, EAN-8 or EAN-13)

Bar Code Orientation

There are four possible orientations for your bar code: Click on the down arrow to the right of this field in the Parameter Setup Window to view the options and highlight your selection.



Text Justification

The displayed text may be centered beneath the bar code ("Center Text"), aligned with the right edge of the bar code ("Right Justify Text"), or aligned with the left edge of the bar code ("Left Justify Text"). Click on the down arrow to the right of this field in the **Bars & Stripes** Control Property sheet to view these options and highlight your selection. (Not used with Postal, UPC-A, UPC-E, EAN-8 or EAN-13)



Bar Code Height

You can enter the height value (y dimension) for a bar code in inches, centimeters, or twips. (see units below) on the BNS00 Control Object Property sheet. Make sure the control is large enough to hold the bar code dimensions you choose.

You do not need to consider the amount of data to be encoded when selecting the height of the bar code; it should simply be large enough for the scanner to read it easily. To change the height of the bar code from the default value, click on the down arrow to the right of this field in the **Bars & Stripes** Property sheet and highlight your choice.

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

Units

You must specify whether your bar code will be measured in inches, centimeters or twips. The default is inches. To change the units to centimeters or twips, click on the down arrow to the right of this field in the **Bars & Stripes** Property sheet and highlight the desired choice.

A twip is a unit of measurement that is equal to 1/20 of a point, or 1/1440 of an inch. There are 567 twips in a centimeter.

1 centimeter = 567 twips
1 point = 20 twips
1 inch = 1440 twips

Bar Code Width

The width of the bar code is a critical element in determining if the bar code will be successfully read and decoded by a bar code scanner.

The Width option drop box on the BNS Control Object property sheet has two options: **Auto** and **Stretch**.

Auto Option

This option will calculate the best bar code width based upon the resolution of the default printer. This is the default (and recommended) setting.

NOTE: The user must ensure that the width of the control is sufficient to hold the longest bar code that will be displayed. If the control is too short, the bar code will be truncated.

Stretch Option **NOTE: Use with caution**

The stretch option causes the bar code to fill the control. All bar codes displayed in the control will have the same width, regardless of the number of characters encoded. While this may seem an attractive selection, the resultant bar codes, when printed, may be difficult to read by a scanner. Stretch mode should only be used if all of the data to be bar coded is of the same length and would normally generated bar codes of the same length.

Bar Code 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, or rotate the barcode at an angle such that the bars in the barcode are not exactly vertical or horizontal, you should select a higher resolution. Click on the down arrow to the right of this field in the **Bars & Stripes** Property sheet and highlight your selection.

Symbology specific properties

The Options area on the custom property sheet allows you to select a number of features. In it you will see only those features available for the bar code symbology you selected. You may select as many features from this field as you want.

Strip Non-Numeric

If you select this feature, any non-numeric characters in the highlighted text will be ignored

Strip Control Characters

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

Add Start/Stop

If you select this feature, the required start and stop characters will be added to the beginning and end of the highlighted text to make a valid Codabar data string

Hide Start/Stop

If you select this feature, the start and stop characters of the Codabar string, will not be displayed in the text beneath the bar code. If text is not selected, this feature does nothing

Full ASCII Mode

If you select this feature, **Bars & Stripes** will use Code 39's alternate "Full ASCII" mode, allowing the full ASCII character set to be used

Code 39 Checksum

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

UPC Checksum

If you select this feature, 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

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

Mod 11 Check Digits

If you select this feature, the second check digit will be calculated using the modulo 11 method

Property Sheet Values

Symbolologies		Symbology Options	
UPC-A	0	UPC Show Checksum	Yes/No
Code128	1	Codabar Show Start/Stop	Yes/No
Codabar	2	Codabar Add Start/Stop	Yes/No
Interleaved 2 of 5	3	Code 39 Add Checksum	Yes/No
Code 93	4	Code 39 Full ASCII (Ext)	Yes/No
Postal	5	MSI Show Checkdigits	Yes/No
Code 3 of 9	6	MSI Mod11 Checkdigits	Yes/No
EAN 13	7	MSI use 2 Checkdigits	Yes/No
EAN 8	8	Strip Control Characters	Yes/No
UPC-E	9	Strip NonNumeric Characters	Yes/No
MSI/Plessey	10		
Text Options		RepFactor (Resolution)	
Display Text (ShowText)	Yes/No	Low	0
Text justify left	0	Med	1
Text Justify Right	1	High	2
Text Justify Center	2	VHigh	3
Text (DisplayText)	DATA		
Bar Code Orientation			
Normal	0		
Vertical 1	1		
Inverted	2		
Vertical 2	3		
Bar Code Width			
Auto	0		
Stretch	1		
Bar Code Units			
Pixels	0		
Inches	1		
Centimeters	2		
Twips	3		

How to get help

Send questions or comments to The Small Business Depot at:
info@smallbizdepot.com

ActiveX Controls - Microsoft Overview

To read Microsoft's overview of ActiveX Controls, visit their developer's website:

http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dnaxctrl/html/msdn_actxcont.asp

helpfilepath property

The helpfilepath property should be set to the path containing the bns.hlp file included with this software.

Application Guides

The Small Business Depot also offers several application guides designed for the beginner. These guides are downloadable PDF documents which cover a variety of bar coding applications. They can be purchased and downloaded from www.barsnstripes.com. Currently available are:

[Retail Bar Coding Basics - a Tutorial](#) and

[Point of Sale - A beginners guide to computerized POS software](#)

About this Manual

If you would like a PDF manual created for your product, contact The Small Business Depot at <http://www.smallbizdepot.com>