BizCode Barcode Generator for ASP.NET
User Manual

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Contents

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[BizCode ASP.NET Barcode Generator](#) is a professional barcoding component dll which allows you to easily create over 20 linear & 2D barcode types into ASP.NET web applications, Visual C# and VB.NET class libraries, etc. This user manual will guide you step-by-step with samples to stream barcodes in ASP.NET.

Here are the **three methods** available to create barcodes in ASP.NET web applications:

Method 1: Control Drag-and-Drop: You can drag the barcoding control from VS toolbox and drop to an ASP.NET web site / web form to create a barcode, and change barcode properties through Visual C#/ VB.NET programming;

Method 2: ASP.NET Class: You can add the barcode generator control to Visual Studio reference, and create barcodes in Visual C#/ VB.NET class libraries with coding;

Method 3: Microsoft IIS: You can create dynamic barcodes online through Microsoft Internet Information Service (IIS), and adjust barcode properties through URL.

Method 1: How to Generate Barcodes in ASP.NET through Control Drag and Drop

1. Open your Microsoft Visual Studio and create an empty C# ASP.NET web site;

2. Unzip the evaluation package and copy all the 12 files ending with **.aspx** and **.aspx.cs** to your ASP.NET web site where you're generating barcodes.

3. Add the **BusinessRefinery.Barcode.Web.dll** to your **Toolbox**:

   - Right click Visual Studio Toolbox, select "**Choose Items...** ";
   - In "Choose Toolbox Items" form, click button "**Browse...**", and select "**BusinessRefinery.Barcode.Web.dll**";
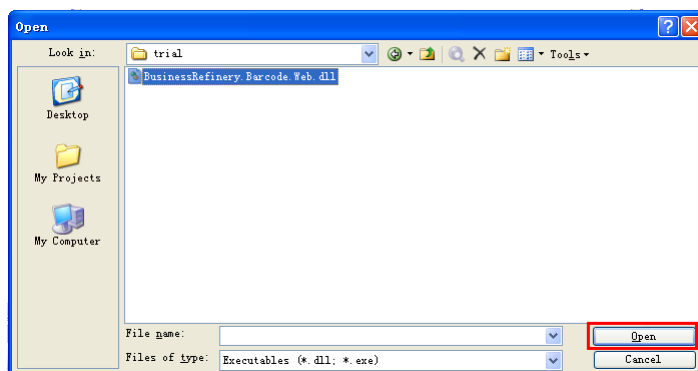
   - After selection, you will find six items under "Components" section: WebLinear, WebDataMatrix, WebPDF417, WebMicroPDF417, WebQRCode and WebMicroQRCode;
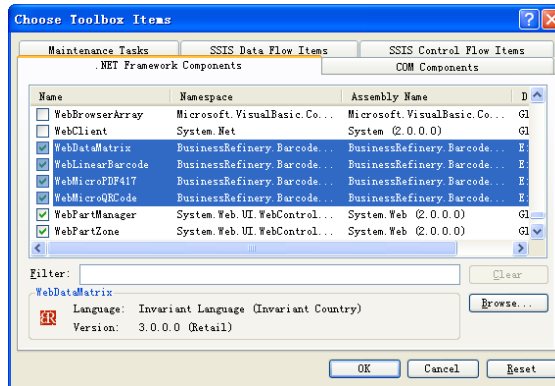
- Click "OK" and the six components are added to your Visual Studio Toolbox;
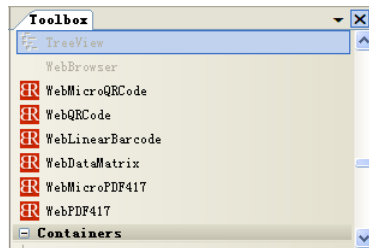
4. Now drag the **WebLinearBarcode** to your Default.aspx web page.
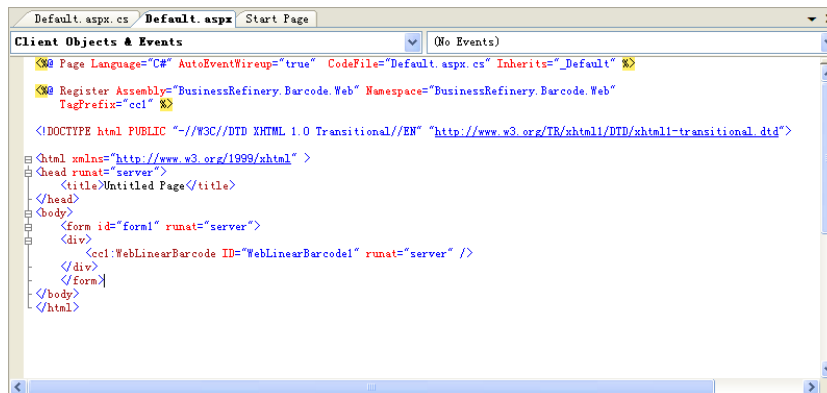
5. Debug and you will see the generated Code 128 at default value!

6. If you want to change the default barcode value in the aspx page, please right click on the your ID, in the above example, "**WebLinearBarcode1**", and select "**View Code**"

7. Add BusinessRefinery.Barcode.Web.dll to your Visual Studio Reference:

Click Website and select "**Add Reference...**", in the popup window, browse and select the dll in the unzipped evaluation package.

8. Here is a Visual C# sample code to change default barcode value

```csharp
using System;
using System.Data;
using System.Configuration;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;
using BusinessRefinery.Barcode;
using System.Drawing.Imaging;

public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        this.WebLinearBarcode1.Code = "123456";
        this.WebLinearBarcode1.Symbology = Symbology.CODE128;
        this.WebLinearBarcode1.Resolution = 104;
        this.WebLinearBarcode1.Rotate = Rotate.Rotate90;
        this.WebLinearBarcode1.Format = ImageFormat.Gif;
        this.WebLinearBarcode1.BarWidth = 2;
        this.WebLinearBarcode1.BarHeight = 60;
        this.WebLinearBarcode1.BarcodeUnit = BarcodeUnit.PIXEL;
        this.WebLinearBarcode1.Resolution = 72;
        this.WebLinearBarcode1.BottomMargin = 5;
        this.WebLinearBarcode1.TopMargin  = 5;
        this.WebLinearBarcode1.LeftMargin = 5;
        this.WebLinearBarcode1.RightMargin = 5;
        this.WebLinearBarcode1.Format = ImageFormat.Gif;

    }
}
```
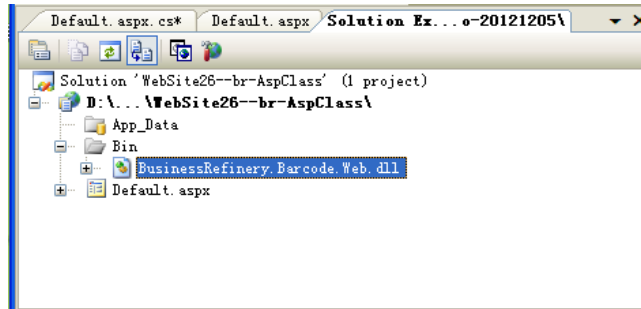
Debug and here is the generated barcode image with adjusted value from the sample code above!

Method 2: How to Generate Barcodes in ASP.NET Class

1. Open your Visual Studio and create a new C# ASP.NET **web site**

2. Add BusinessRefinery.Barcode.Web.dll to **reference**:

- Right click in Solution Explorer, click "Add Reference..."
- "Browse" to select "BusinessRefinery.Barcode.Web.dll"

3. Now you can start generating barcodes and adjusting properties with the **sample codes** below:

```csharp
using System;
using System.Data;
using System.Configuration;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;
using BusinessRefinery.Barcode;

public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        Linear barcode = new Linear();
        barcode.Symbology = Symbology.CODE128;
        barcode.Code = "Code12800000";
        barcode.BarWidth = 2;
        barcode.BarHeight = 60;
        barcode.AddChecksum = true;
        barcode.BarcodeUnit = BarcodeUnit.PIXEL;
        barcode.Resolution = 72;
        barcode.Rotate = Rotate.Rotate0;
        barcode.LeftMargin = 5;
        barcode.RightMargin = 5;
        barcode.TopMargin = 5;
        barcode.BottomMargin = 5;
        barcode.drawBarcode2ImageFile("c:/code128-2.gif");

    }
}
```

Please note that this method can only be applied to create and adjust barcode image locally.

Below is the barcode image generated in the hard drive C with the sample code above.

Code12800000

4. Here is some more Visual C# barcoding methods for you:

```csharp
//Draw barcode image into ASP.NET Graphics, Stream & Bitmap objects.

public void drawBarcode2ImageFile(string filename);
public void drawBarcode2Stream(Stream fileStream);
public byte[] drawBarcodeAsBytes();
public Bitmap drawBarcodeOnBitmap();
public void drawBarcodeOnGraphics(Graphics graphics);
```

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Method 3: How to Generate Barcodes with Microsoft IIS through URL

1. Unzip the evaluation package, and copy the "barcode" folder (including its contents) to your IIS localhost

2. Create a new IIS virtual directory in your IIS:
   - Name the new virtual directory "barcode"

   - "Browse" for the Directory to locate the "barcode" folder in your IIS localhost
   - Click "Next" and then "Finish".

3. **Restart your IIS, and navigate to http://YourDomain:Port/barcode/linear_generator.aspx?code=123**

Generate QR Code or Micro QR Code, please navigate to:
http://YourDomain:Port/barcode/qrcode_generator.aspx?code=123
http://YourDomain:Port/barcode/micro_qrcode_generator.aspx?code=123

Generate Data Matrix, please navigate to:
http://YourDomain:Port/barcode/datamatrix_generator.aspx?code=123

Generate PDF-417 or Micro PDF-417, please navigate to:
http://YourDomain:Port/barcode/pdf417_generator.aspx?code=123
http://YourDomain:Port/barcode/micro_pdf417_generator.aspx?code=123

4. To change default barcode value, just add properties in the URL, for example:
   http://YourDomain:Port/barcode/linear_generator.aspx?code=555&symbology=7&bar-width=2&bar-height=60&resolution=72&rotate=0

   * Please look up barcode symbology number for IIS in **Annex 1 – Linear Barcode Symbology Number for IIS**

   * To adjust more barcode parameters in HTTP, please refer to **Annex 2 – Linear Barcode Parameters for IIS**
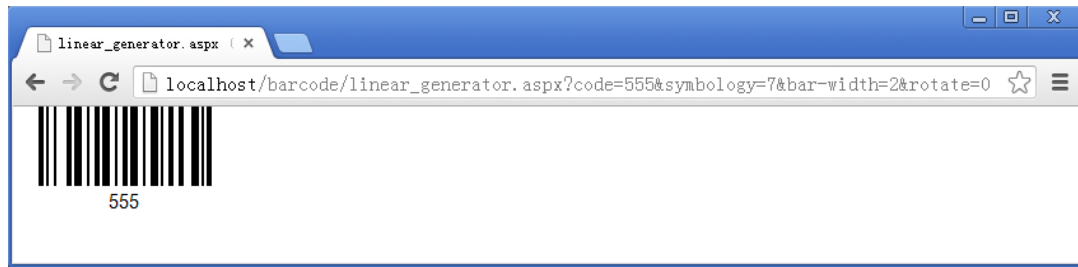
Some More Information Here:

- Online Introduction for ASP.NET Barcode Generator
- Online Guide for ASP.NET Barcode Generator
- Online **Visual C# Samples** for ASP.NET Barcode Generation
- Online **VB.NET Samples** for ASP.NET Barcode Generation
- Online **Purchase** ASP.NET Barcode Generator

If you have any more questions, feel free to contact support@businessrefinery.com!

Annex 1 - Linear Barcode Symbology Number for IIS

Symbology	Number	Symbology	Number
CODABAR	0	ITF14	24
CODE11	1	IDENTCODE	25
CODE2OF5	2	LEITCODE	26
INTERLEAVED25	3	MSI	27
CODE39	4	MSI10	28
CODE39EX	5	MSI11	29
CODE93	6	MSI1010	30
CODE128	7	MSI1110	31
CODE128A	8	ONECODE	32
CODE128B	9	PLANET	33
CODE128C	10	POSTNET	34
EAN128	11	RM4SCC	35
EAN8	12	UPCA	36
EAN8_2	13	UPCA_2	37
EAN8_5	14	UPCA_5	38
EAN13	15	UPCE	39
EAN13_2	16	UPCE_2	40
EAN13_5	17	UPCE_5	41
ISBN	18	DATABAR	42
ISBN_2	19	DATABAR_STACKED	43
ISBN_5	20	DATABAR_STACKEDOMNI	44
ISSN	21	DATABAR_LIMITED	45
ISSN_2	22	DATABAR_EXPANDED	46
ISSN_5	23	DATABAR_EXPANDEDSTACKED	47

Note: This symbology number is used in Microsoft IIS for BizCode ASP.NET Barcode Generator. You can change the symbology number value to encode any linear barcode supported above.

For example, if you want to encode a Code 39, instead of the default Code 128, just input "symbology=4", eg.

http://YourDomain:Port/barcode/linear_generator.aspx?code=555&symbology=4&bar-width=2

Annex 2 - Linear Barcode Parameters for IIS

For HTTP	Default	Information
symbology	7 (CODE128)	Select your target linear barcode symbology
codabar-start-char	0	Select Codabar start character. 0: A 1: B 2: C 3: D
codabar-stop-char	0	Select Codabar stop character. 0: A 1: B 2: C 3: D
add-checksum	false	Automatic add checksum in the bar code image
supplement-code	""	Set supplement bar code data text
supplement-height	0.8f	Set supplement bar module height
supplement-space	15	Set space between primary and supplement bar code
barcode-unit	0	Unit of measure. 0: PIXEL 1: CM 2: INCH
bar-width	3	Set bar module width
bar-height	60	Set bar module height
bar-ratio	2.0f	Specify Codabar/Code 25/ITF-14/Identcode/Leitcode wide bar vs narrow bar ratio. Valid from 2.0 to 3.0
short-tall-ratio	0.4(float)	Specify PLANET/POSTNET short bar vs tall bar ratio.
Bearer-bar-style	2	Set ITF-14 bearer bar style. 1: Frame 2: Horizontal
bearer-bar-width	2.0	Set ITF-14 bearer bar size (width). Valid from 0-10
left-margin	0	Set left margin for the generated barcode image
right-margin	0	Set right margin for the generated barcode image
top-margin	0	Set top margin for the generated barcode image
bottom-margin	0	Set bottom margin for the generated barcode image
resolution	72 dpi	Control generated barcode image resolution in DPI.
Rotate	0	Set barcode image angle. 0: Rotate0 1: Rotate90 2: Rotate180 3: Rotate270
barcode-width	0	Adjust generated barcode image width
barcode-height	0	Adjust generated barcode image height
display-text	true	Display human-readable text below the generated barcode image
display-checksum-digit	true	Display the last checksum digit in the barcode data text if set true
display-start-stop-char	true	Display Code 39 start stop character (*)
text-font	new Font("Arial", Font.PLAIN, 11)	Customize the human-readable text below the barcode image
text-margin	6	Adjust margin between barcode image and the data text below

Annex 3 - Data Matrix Parameters for IIS

For HTTP	Default	Information
data-mode	0	Select Data Matrix data mode. 0: Auto 1: ASCII 2: C40 3: Text 4: X12 5:Edifact 6: Base256
format-mode		Select Data Matrix format mode. 0: 10x10 1: 12x12 2: 14x14 ... 23: 144x144 ... 29: 16x48
code	""	Input the encoding data for Data Matrix
barcode-unit	0	Unit of measure. 0: PIXEL 1: CM 2: INCH
module-size	3	Set Data Matrix bar module size
left-margin	0	Set left margin for the Data Matrix barcode image
right-margin	0	Set right margin for the Data Matrix barcode image
top-margin	0	Set top margin for the Data Matrix barcode image
bottom-margin	0	Set bottom margin for the Data Matrix barcode image
resolution	72 dpi	Control generated Data Matrix barcode image resolution in DPI.
Rotate	0	Set barcode angle. 0: Rotate0 1: Rotate90 2: Rotate180 3:Rotate270
barcode-width	0	Adjust generated barcode image width
barcode-height	0	Adjust generated barcode image height
fnc1-mode	0	Encode GS1 compatible Data Matrix barcode if it is in first position of FNC1 mode. 0: FNC1_NONE 1: FNC1_1ST_POS 2: FNC1_2ND_POS
ai	0	Set application identifier for Data Matrix

process-tilde	false	Encode special character for Data Matrix using "~" if set to true.
		
		* 1-byte character: ~0dd/~1dd/~2dd (character value from 000 ~ 255); ASCII character '~' is presented by ~126. Strings from "~256" to "~299" are unused
		
		* 2-byte character (Unicode): ~6ddddd (character value from 00000 ~ 65535) Strings from "~665536" to "~699999" are unused
		
		* For GS1 AI Code:
		   o ~ai2: AI with 2 digits ~ai3: AI with 3 digits
		   o ~ai4: AI with 4 digits ~ai5: AI with 5 digits
		   o ~ai6: AI with 6 digits ~ai7: AI with 7 digits
		
		* ECI: ~7dddddd (valid value of dddddd from 000000 to 999999)
		
		* ~rp: Reader Programming (for ASCII mode and Auto mode only) This should be located at the beginning of the encoding data, e.g. data ="~rpABCD1234".
		
		* ~m5: 05 Macro (for ASCII mode and Auto mode only) This should be located at the beginning of the encoding data, e.g. data = "~m5ABCD1234".
		
		* ~m6: 06 Macro (for ASCII mode and Auto mode only) This should be located at the beginning of the encoding data, e.g. data = "~m6ABCD1234".

structure-append	false	Set true to enable Data Matrix structure append
symbol-count	0	Set the number of total symbols which make the Data Matrix sequence
symbol-index	0	Specify the position of current symbol in the Data Matrix sequence
file-id	0	

Annex 4 - QR Code Parameters for IIS

For HTTP	Default	Information
data-mode	0	Select QR Code data mode. 0: Auto 1: AlphaNumeric 2: Byte 3: Numeric 4: Kanji 5: Customer
version	1	Select QR Code barcode version. 1: V1 2: V2 … 40: V40
fnc1-mode	0	Encode GS1 compatible QR Code barcode if it is in first position of FNC1 mode. 0: FNC1_NONE 1: FNC1_1ST_POS 2: FNC1_2ND_POS
ai	0	Set application identifier for QR Code
code	""	Input the encoding data for QR Code
barcode-unit	0	Unit of measure. 0: PIXEL 1: CM 2: INCH
module-size	3	Set QR Code bar module size
left-margin	0.0f	Set left margin for the generated QR Code barcode image
right-margin	0.0f	Set right margin for the generated QR Code barcode image
top-margin	0.0f	Set top margin for the generated QR Code barcode image
bottom-margin	0.0f	Set bottom margin for the generated QR Code barcode image
resolution	72 dpi	Control generated QR Code barcode image resolution in DPI.
Rotate	0	Set barcode angle. 0: Rotate0 1: Rotate90 2: Rotate180 3:Rotate270
barcode-width	0	Adjust generated QR Code barcode image width
barcode-height	0	Adjust generated QR Code barcode image height
eci	3	Set QR Code Extended Channel Interpretation Valid values: 000000 - 999999
ecl	0	Select QR Code Error Correction Level. 0: L 1:M 2: Q 3: H
process-tilde	false	Encode special character for QR Code using "~" if set to true * 1-byte character: ~0dd/~1dd/~2dd (character value from 000 ~ 255); ASCII character '~' is presented by ~126. Strings from "~256" to "~299" are unused * 2-byte character (Unicode): ~6ddddd (character value from 00000 ~ 65535) Strings from "~665536" to "~699999" are unused * For GS1 AI Code: o ~ai2: AI with 2 digits ~ai3: AI with 3 digits o ~ai4: AI with 4 digits ~ai5: AI with 5 digits o ~ai6: AI with 6 digits ~ai7: AI with 7 digits o ECI: ~7dddddd (valid value of dddddd from 000000 to 999999) o SJIS: from ~9ddddd (Shift JIS 0x8140 ~ 0x9FFC and 0xE040 ~ 0xEBBF)
structure-append	false	Set true to enable QR Code structure append
symbol-count	0	Set the number of total symbols which make the QR Code sequence
symbol-index	0	Specify the position of current symbol in the QR Code sequence
parity	0	

Annex 5 - PDF-417 Parameters for IIS

For HTTP	Default	Information
row-count	3	Set number of rows in the PDF-417 barcode image. Valid from 3-90
column-count	5	Set number of columns in the PDF-417 barcode image. Valid from 1-30
truncated	false	Create truncated PDF-417 barcode (Compact PDF-417) if set to true
data-mode	0	Select PDF-417 data mode. 0: Auto 1: Text 2: Byte 3: Numeric 4: Customer
code	""	Input the encoding data for PDF-417
barcode-unit	0	Unit of measure. 0: PIXEL 1: CM 2: INCH
module-size	3	Set PDF-417 bar module size
left-margin	0	Set left margin for the generated PDF-417 barcode image
right-margin	0	Set right margin for the generated PDF-417 barcode image
top-margin	0	Set top margin for the generated PDF-417 barcode image
bottom-margin	0	Set bottom margin for the generated PDF-417 barcode image
resolution	72 dpi	Control generated barcode image resolution in DPI.
Rotate	0	Set barcode angle. 0: Rotate0 1: Rotate90 2: Rotate180 3: Rotate270
barcode-width	0	Adjust generated PDF-417 barcode image width
barcode-height	0	Adjust generated PDF-417 barcode image height
eci	3	Set QR Code Extended Channel Interpretation Valid values: 000000 – 999999
ecl	0	Select PDF-417 Error Correction Level. 0: level_0 1: level_1 ... 8: level_8
process-tilde	false	Encode special character for QR Code using "~" if set to true * 1-byte character: ~0dd/~1dd/~2dd (character value from 000 ~ 255); ASCII character '~' is presented by ~126. Strings from "~256" to "~299" are unused * 2-byte character (Unicode): ~6ddddd (character value from 00000 ~ 65535) Strings from "~665536" to "~699999" are unused * Programming for reader initialisation: ~rp. This should be located at the beginning of the encoding data, e.g. data = "~rpABCD1234". * ECI: ~7dddddd (valid value of dddddd from 000000 to 999999)
structure-append	false	Create Marco PDF-417 barcode if it set to true
macro-segment-index	0	Select the position of current symbol in the sequence (Start with 0)
macro-file-index	0	To be identified to the same file