

# **PrecisionID ASP.NET Barcode Generator User Manual**

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### ***Limitations of the Demo Version:***

*The demo version of this product contains a static barcode that may be used for evaluation purposes only. The static barcode cannot be changed because this would reveal the complete source code, which is only available in the purchased version. The purchased version is provided with a money back satisfaction guarantee. If it is necessary to test dynamic barcodes with this product, the purchased version is required.*

## **ASP.NET Barcode Generator Overview**

This product is a royalty-free, streaming, server-side barcode generator that is contained in a single, pure ASPX file. Once it is copied to an ASP.NET enabled webserver, barcodes may be easily created in any web browser, without any temp files created on the server. Each ASPX file provided is in pure ASPX source code form, so it may be used natively and modified or integrated as necessary. Each symbology is contained in a single file, which provides extremely fast barcode generation with very little overhead.

The default images generated are simple 1 bit depth black and white BMP images that are very small in size compared to the JPEG or GIF images generated by competitor's products. The average size of the generated barcode is usually less than 2KB. Because a bit mapped image is streamed to the browser as an image, this product is compatible with many development environments and applications.

## **Feature Summary**

- Developer licenses are royalty free with full source code provided.
- Extremely fast and efficient design.
- Generates BMP, PNG and JPEG images compatible with all web browsers.
- Because images are streamed to the browser, no temp files are created on the server.
- Orientations of 0, 90, 180 and 270 are supported.
- Supports human-readable text interpretations below the barcode for UPC-A, EAN-13, ITF, Code-128 and Code-39.
- Supports GS1 symbologies including GS1-128, GS1-DataMatrix and GS1-QRCode.
- All parameters are optional, with defaults set to the most popular use.
- The X dimension, height, N dimension and overall size are easily adjustable.

## Installation Tutorial

1. After the files are extracted from the ZIP file, simply copy them to a webserver where ASP.NET is enabled.
2. Open the file in a browser window and verify that a default barcode appears. If it does not, ensure the files are installed in the proper folder on the server and that ASP.NET is enabled. For example:  
<http://www.yourdomain.com/precisionid-code128.aspx>
3. Refer to the Parameters Section to modify the data being encoded and include any necessary parameter changes. For example:  
<http://www.yourdomain.com/precisionid-code128.aspx?D=ASPX-BARCODE&H=30>
4. Integrate the resulting URL into your web application as a dynamic IMG tag, replacing the D= parameter with the data being encoded.

## Integration Examples

### HTML Example:

```

```

### ASPX Example:

```
<P>Pure ASPX Barcode Generation Example: </P>  
<% @ LANGUAGE = VBScript %>  
<% Data = "pure-aspix-barcode" %>  
"  
</P></body>  
</HTML>
```

### JavaScript Example:

```
<SCRIPT LANGUAGE="JavaScript">  
function display() {  
    DispWin = window.open('NewWin!', 'menubar=yes, status=no, width=650, height=780')  
    message = "<HTML><HEAD><TITLE>ASP.NET Barcode Generator Tutorial</TITLE></HEAD><BODY>"  
    message += "<img src='http://www.yourdomain.com/precisionid-code128.aspx?D=""  
    message += document.form1.DataField.value;  
    message += "'><BR></p></BODY></HTML>"  
    DispWin.document.write(message);  
    DispWin.document.close();  
}  
</SCRIPT>
```

## Parameters

The parameters listed in the table below may be used to modify the data encoded and change properties. After specifying the ASPX file, the question mark '?' is used before the first parameter and the ampersand '&' is used for additional parameters. For example, the following sets several parameters for Code-39:

precisionid-code39.aspx?D=ASPX-BARCODE&C=F&N=3&X=2&O=270&H=65

<b>PrecisionID recommends only changing parameters when the default setting is not sufficient.</b>			
<b>Purpose</b>	<b>Param</b>	<b>Default</b>	<b>Description</b>
Apply Tilde	PT	T	When True in Code 128 with the Auto character set, ~202 encodes the FNC1 and ~??? encodes an ASCII character where ??? is the three digit ASCII code.
Bar Height	BH	40	The barcode height in pixels. The default value of 40 generates a symbol that is about 0.4" tall.
Check Character	CC	T*	Automatically adds the check digit to the barcode when equal to "T". <i>The default in Code-39 is F.</i>
Check Character in Text	CT	T	Automatically adds the check digit that is encoded in the barcode to the human readable text that is displayed when equal to "T".
Data Encoded	D	na	The data that is to be encoded in the barcode.
Font Size	FS	12	The font size used for human readable text. <i>Only values of 10 and 12 are applicable. Any other values must be implemented manually by displaying a text field near the barcode.</i>
Image Type	I	BMP	The image type streamed. Valid values are BMP, PNG, JPG and JPEG. The BMP image type has a 1 bit depth and is usually smaller in size than PNG or JPEG images.
Narrow to Wide Ratio	N	2	The narrow-to-wide ratio of symbologies that only contain narrow and wide bars such as Code 39, Interleaved 2 of 5 and MSI. Valid values are 2 and 3 only.
Orientation	O	0	The orientation of the barcode. Valid values are 0, 90, 180 and 270.
Quiet Zone	Q	1	The margin around the symbol.
ShowText	ST	T	If set to F, the human-readable text interpretation will not be displayed with the barcode.
XDimension in pixels	X	1	The number of pixels to define the overall barcode size. <i>Default = 1 which is 1/96 of an inch and about 12 MILS or .03CM. Valid values are 1-8.</i>
<b>DataBar</b>	<b>Param</b>	<b>Default</b>	<b>Property Description</b>
Segments	SG	6	Common values are 4, 6, 8 and 22. The setting of 22 disables the stacked capability.
<b>Data Matrix</b>	<b>Param</b>	<b>Default</b>	<b>Property Description</b>
Process Tilde	PT	T	When set to "F", the tilde "~" functionality will not be processed. When enabled, ~1 encodes the FNC1 and ~d??? encodes an ASCII character where ??? is the three digit ASCII code.
Encoding Mode	MODE	0	The Encoding Mode for data being encoded. Valid parameters are 0=BASE256, 1=C40, 2=TEXT and 3=ASCII. To encode GS1-DataMatrix, ensure MODE is set to "3", the default.

Preferred Format	PFMT	0	Sets the preferred format; valid values are from 1 (10X10) to 24 (144X144) and from 25 (8X18) to 30 (16X48); the default value of '0' is used for automatic formatting. If the component needs more space to create the symbol, this property will be ignored.
<b>PDF417</b>	<b>Param</b>	<b>Default</b>	<b>Property Description</b>
Apply Tilde	PT	T	When true, the format ~??? may be used to specify the ASCII code of the character to be encoded.
Columns	COL	0	The number of data columns in the symbol. 0 = automatic.
Error Correction Level	ECL	0	The amount of error correction in the symbol. The default setting of 0 performs automatic selection.
Mode	MODE	B	The mode of compaction used to encode data in the symbol. Valid values are "B" for Binary or "T" for TEXT.
Truncation	TRN	F	A truncated PDF417 symbol is more area efficient.
X to Y Ratio	XYR	3	The X multiple height of individual cells.
<b>QR-Code</b>	<b>Param</b>	<b>Default</b>	<b>Description</b>
Process Tilde	PT	T	When set to "F", the tilde "~" functionality will not be processed. When enabled, ~1 encodes the FNC1 and ~d??? encodes an ASCII character where ??? is the three digit ASCII code..
Error Correction Level	ECL	M	The level of error correction. Valid values are L, M, Q & H.
Encoding Mode	MODE	B	The Encoding Mode. Valid values are B (binary), A (alphanumeric) and N (numeric).
Process Mask	PM	T	When set to F the mask is not optimized, which will improve processing time when generating many barcodes at the same time.
Version	V	1	The version of the symbol. Setting this value to -3 can generate a Micro QR Code symbol.

## Creating GS1-128 Barcodes

In GS1-128 barcodes, an Application Identifier (AI) defines data fields that exist in a Code 128 barcode type. The AI has parentheses around it in the text interpretation; however, the parentheses are not encoded in the barcode. GS1-128 must start with an AI, and may include more than one AI. The AI is encoded in Code 128 Auto, (file [precisionid-code128.aspx](#)) by enabling ApplyTilde (set A=T) and adding in the ~202 character. For example, (8100) 712345 (21) 12345678 is encoded with the following URL:  
[precisionid-code128.aspx?D=~20281007123457123~2022112345678&A=T](#)

More information about the formatting and placement of GS1-128 barcodes may be found at [www.gs1.org](http://www.gs1.org).

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