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1 Introduction

MW6 Aztec ActiveX is a powerful ATL-based control for handling Aztec 2D barcode and can be used in any ActiveX-compliant environment such as Word, Access, Excel, VB.NET, C#.NET, Visual Basic, Visual C++, Visual FoxPro, Delphi or C++ Builder.

Aztec is designed to pack a lot of information in a very small space, it is capable of encoding 1914 bytes, 3067 alphanumeric characters, or 3832 numeric digits.

2 Installation

2.1 Trial Version

1. UnZip MW6Aztec.ZIP, run the setup.exe to install Aztec ActiveX.
2. The trial version Aztec ActiveX appends "MW6 Demo" to the string encoded with Aztec barcode.

2.2 Full Version

1. Uninstall the trial version Aztec ActiveX if applicable.
2. UnZip full version Aztec ActiveX .zip file and run the setup.exe to install the full version Aztec ActiveX.

3 How to Distribute It?

If you want to redistribute the Aztec ActiveX as part of your application, please follow the instructions below:

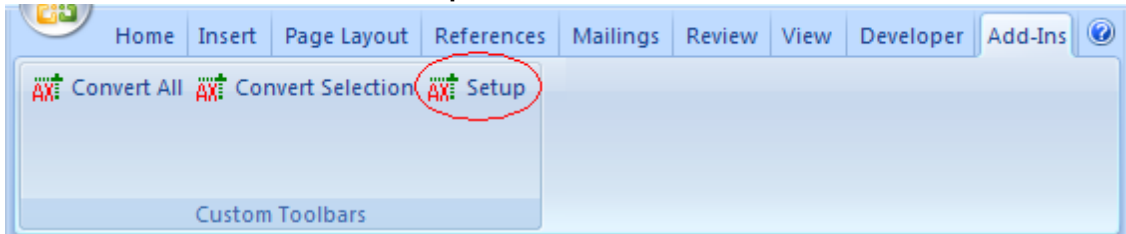
- 1) For 32-bit version Windows OS, put **Aztec.dll** into the windows 32-bit system folder (e.g. "c:\windows\system32" or "c:\winnt\system32") on the target machine and run "regsvr32 Aztec.dll" to register it.
- 2) For 64-bit version Windows OS, put **Aztec.dll** into the SysWOW64 folder (e.g. "c:\windows\SysWOW64") on the target machine, and run the following commands to register it:
 - cd c:\windows\SysWOW64
 - regsvr32 Aztec.dll
- 3) If you want to use Aztec ActiveX in 64-bit version Office Word, Excel or Access, put 64-bit version **Aztec_x64.dll** into "c:\windows\system32" folder, and run the following commands to register it:
 - cd c:\windows\system32
 - regsvr32 Aztec_x64.dll
- 4) For Windows Vista or above, you need to use an elevated Command Prompt to run *regsvr32.exe* command, click "Start" > "All Programs" > "Accessories", right-click "Command Prompt", and then click "Run as administrator".

4 Office 2007 & 2010

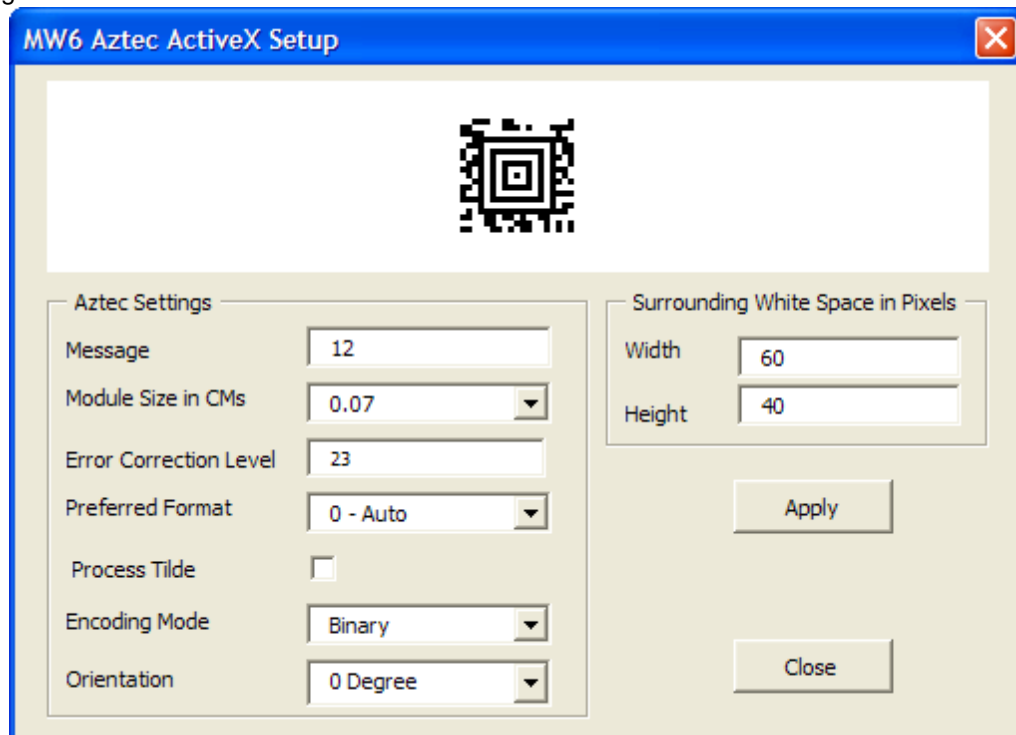
4.1 Word

4.1.1 Run Setup

1. Click on "**Add-Ins**", then click on "**Setup**".

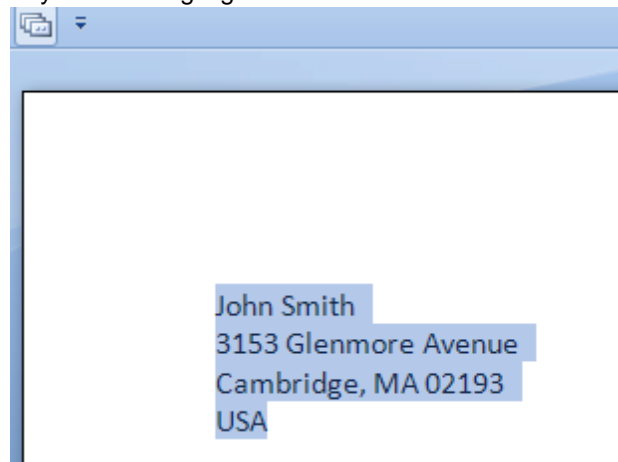


2. Choose a few appropriate values for Aztec configurations, click on "**Apply**" button to allow the changes to take effect.

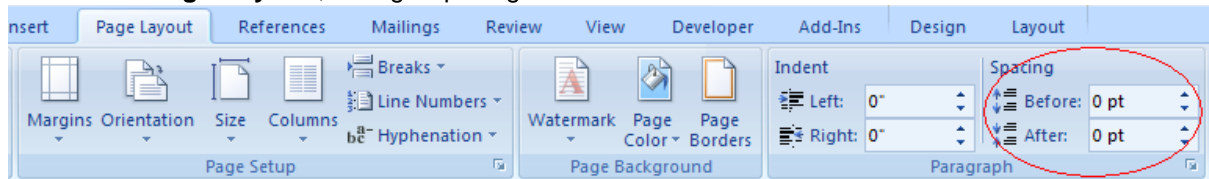


4.1.2 Create Single Barcode

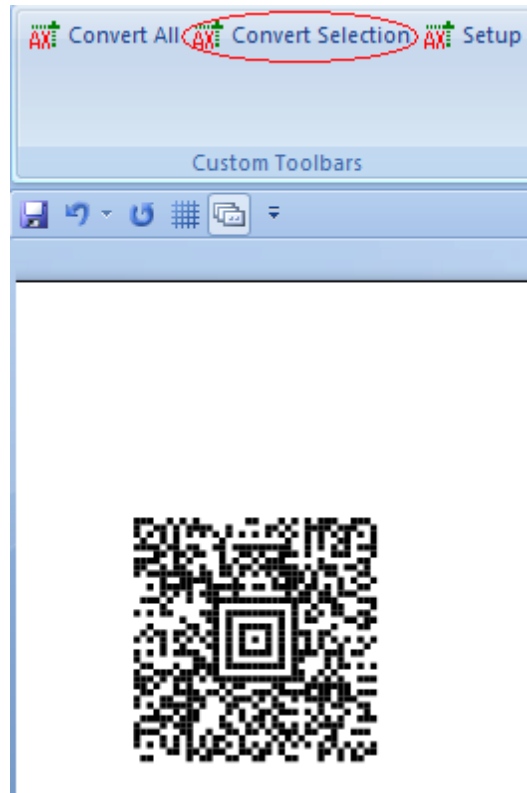
1. Enter a few strings line by line and highlight them.



2. Click on "**Page Layout**", change Spacing "**Before**" and "**After**" to 0.

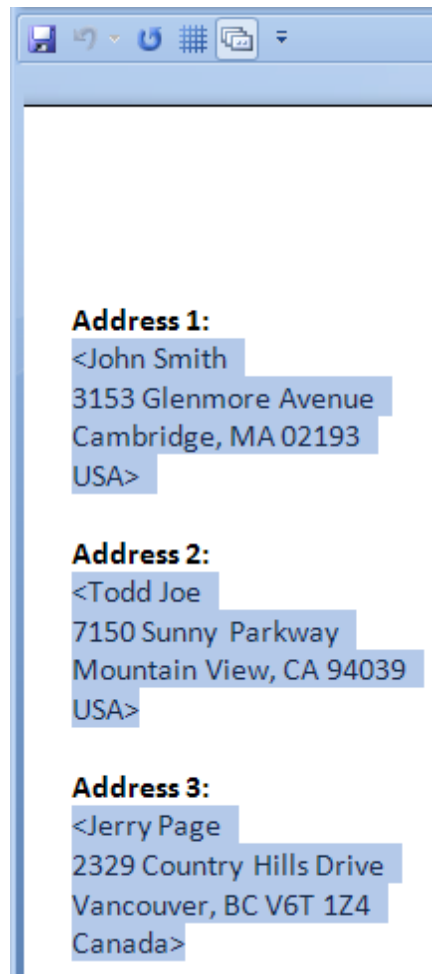


3. Click on "**Add-Ins**", then click on "**Convert Selection**" to create an Aztec barcode.

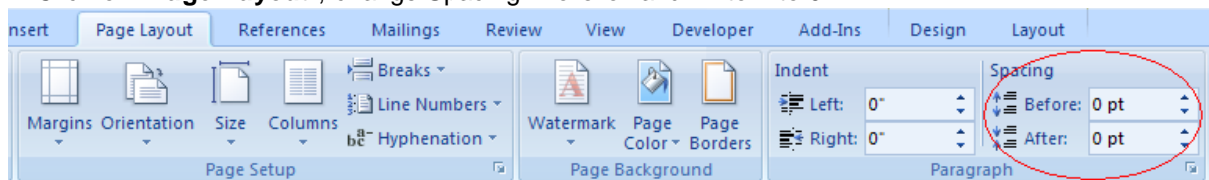


4.1.3 Create Multiple Barcodes

1. Enter a few string sections, surround those sections which will be converted to Aztec barcodes with the "<" and ">" characters.



2. Click on "**Page Layout**", change Spacing "**Before**" and "**After**" to 0.

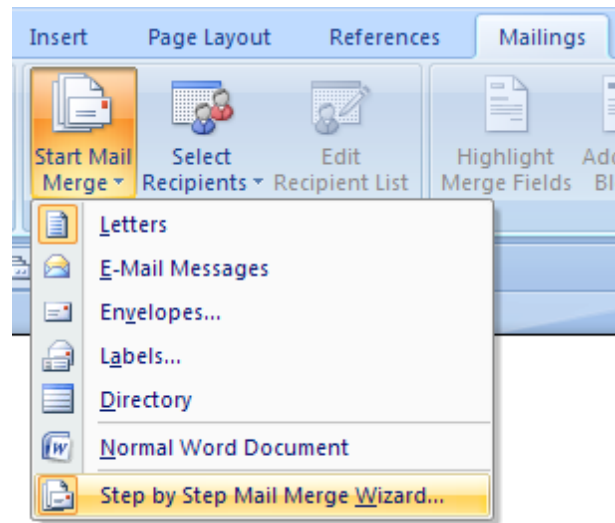


3. Click on "**Add-Ins**", then click on "**Convert All**" to create Aztec barcodes for the string sections surrounded with the "<" and ">" characters.

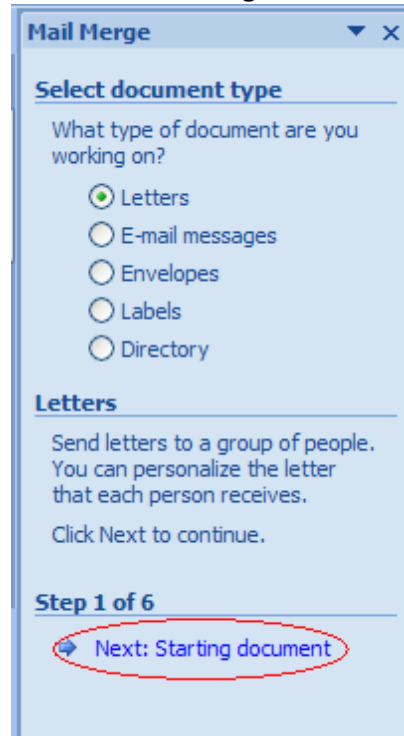


4.1.4 Mail Merge

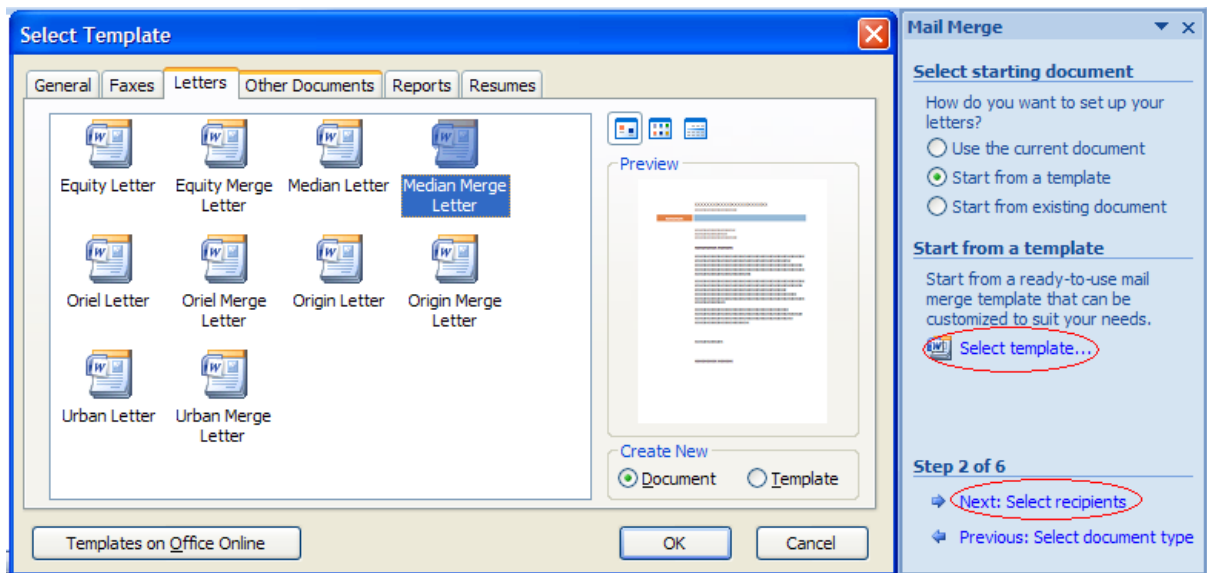
1. Click on "**Mailings**", then click on "**Start Mail Merge**". A drop-down list appears as shown below, select the last option "**Step by Step Mail Merge Wizard**".
-



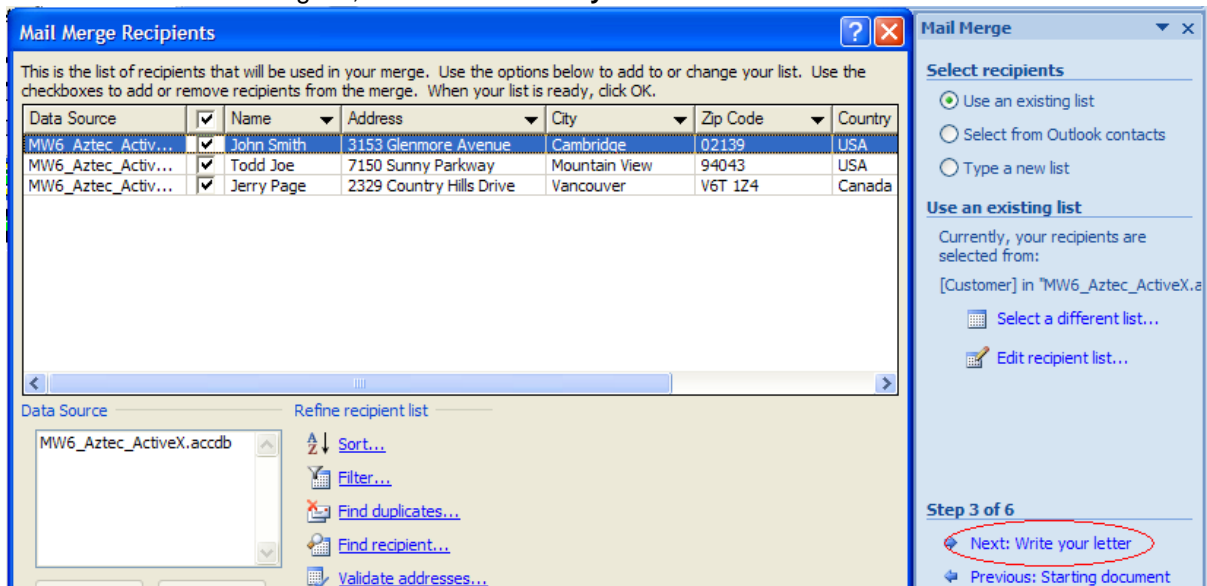
2. Select a document type and click on "**Next: Starting document**".



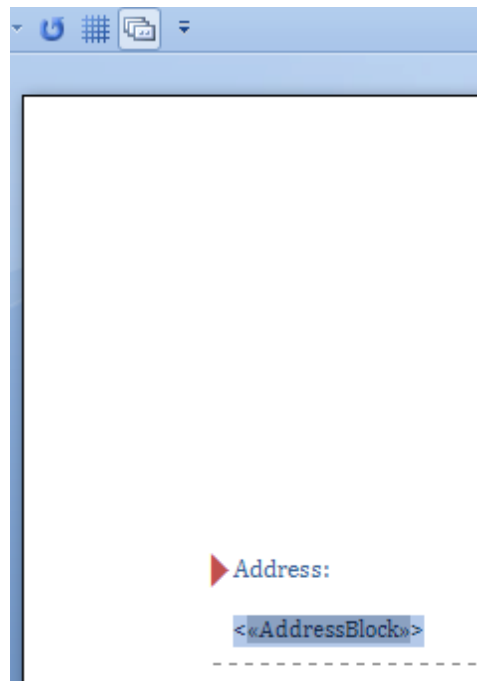
3. Click on "**Start from a template**", then click on the link "**Select template**", choose a template, click on "**Next: Select recipients**".



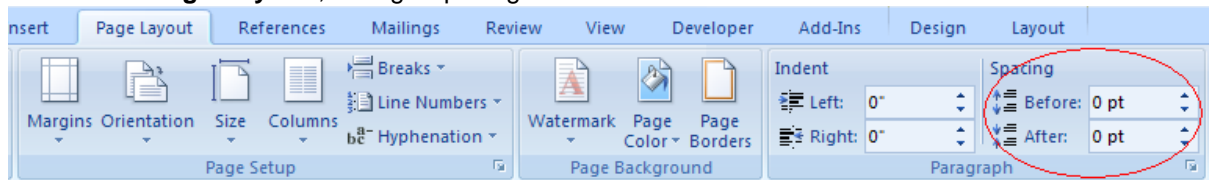
4. Select "Use an existing list" and click on "Browser" link, choose "MW6_Aztec_ActiveX.accdb" database as an existing list, click "Next: Write your letter".



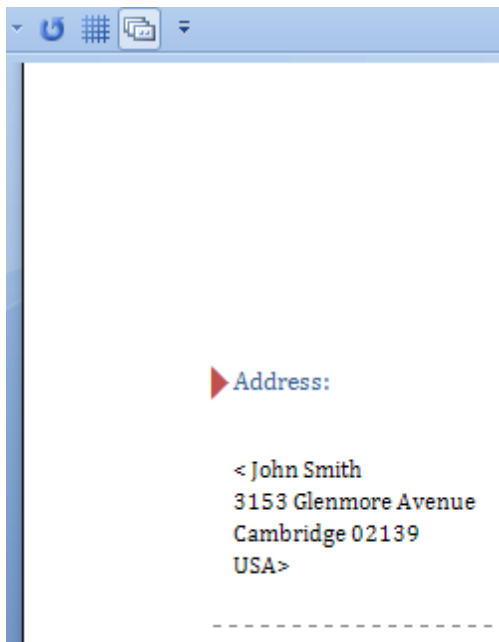
5. Surround the section which will be converted to Aztec barcode with the "<" and ">" characters and highlight it.



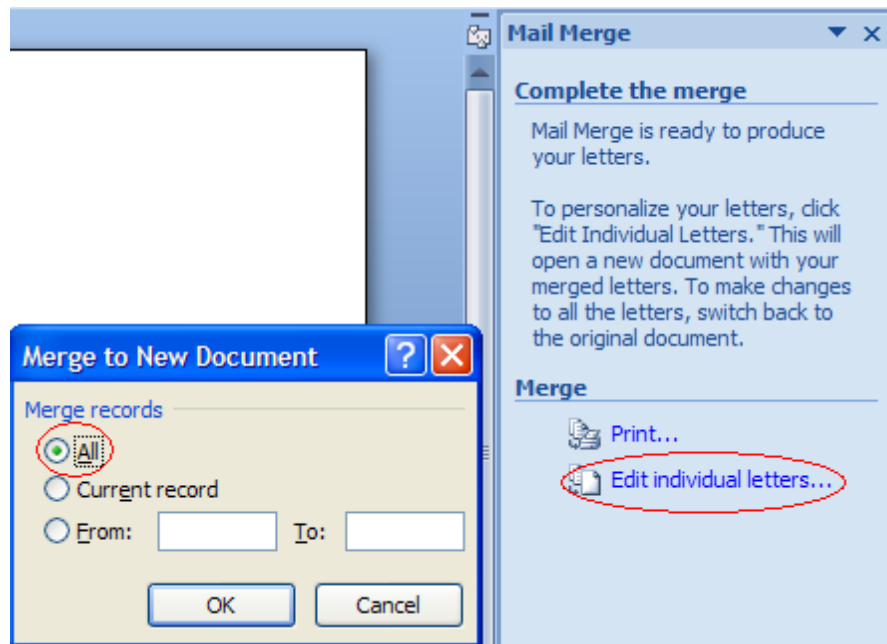
6. Click on "**Page Layout**", change Spacing "**Before**" and "**After**" to 0.



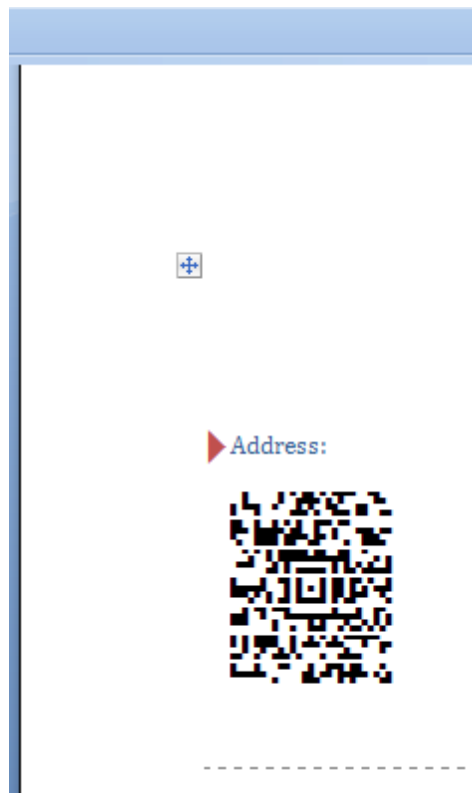
7. Click on "**Next: Preview your letters**", then click on "**Next: Complete the merge**".



8. Click on **"Edit individual letters"**, this opens **"Merge to New Document"** dialog, click on **"All"** and then click on **"OK"** button.



9. Click on **"Add-Ins"**, then click on **"Convert All"** to create Aztec barcodes.

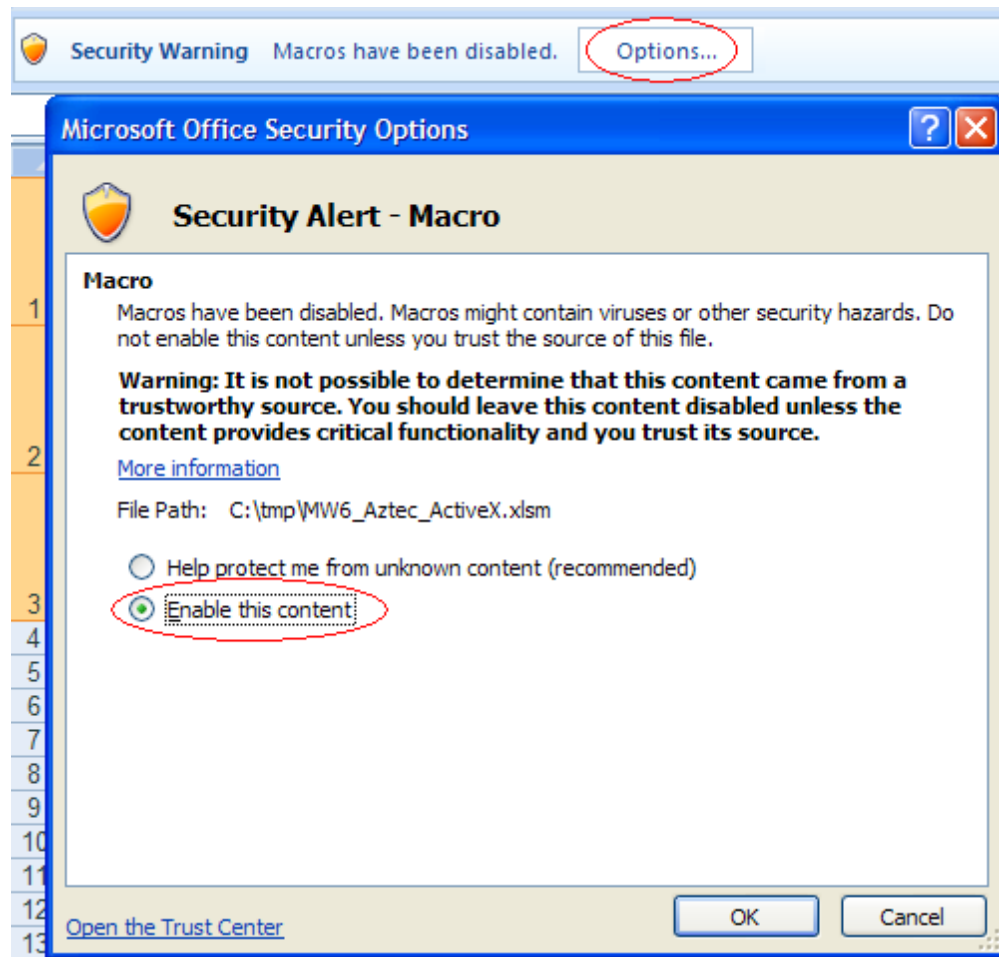


10.

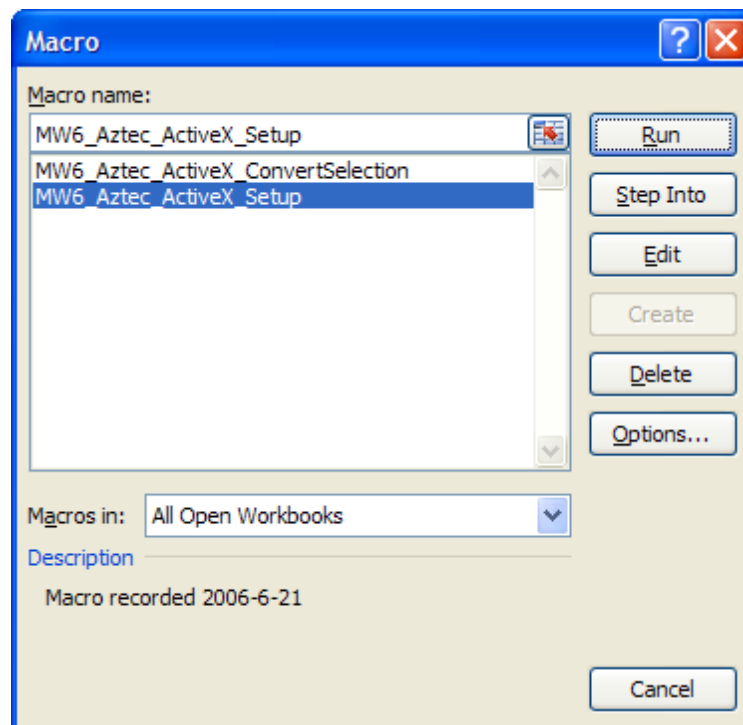
4.2 Excel

4.2.1 Change Settings

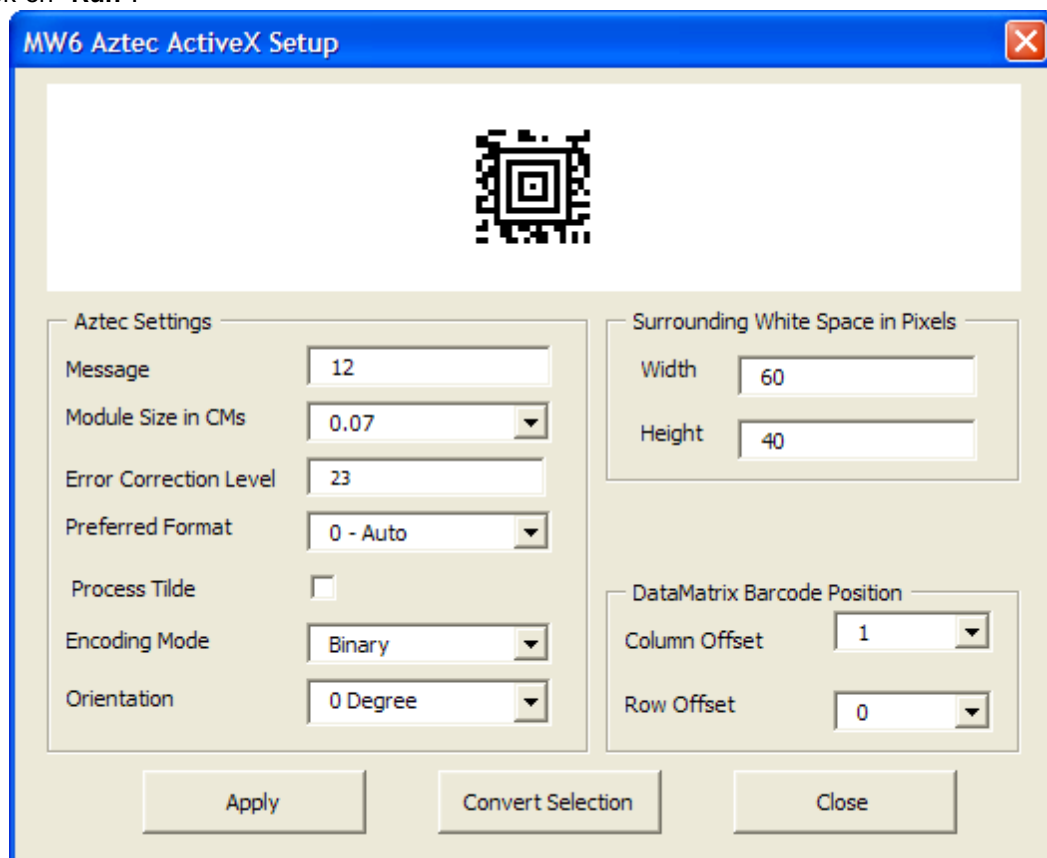
1. In Excel, open MW6_Aztec_ActiveX.xlsm.
2. If you see "**Security Warning, Macros have been disabled**", click on "**Options**" to open "**Microsoft Office Security Options**" dialog, toggle on "**Enable this content**" check box.



3. Click on "Developers" > "Macros", select "MW6_Aztec_ActiveX_Setup".



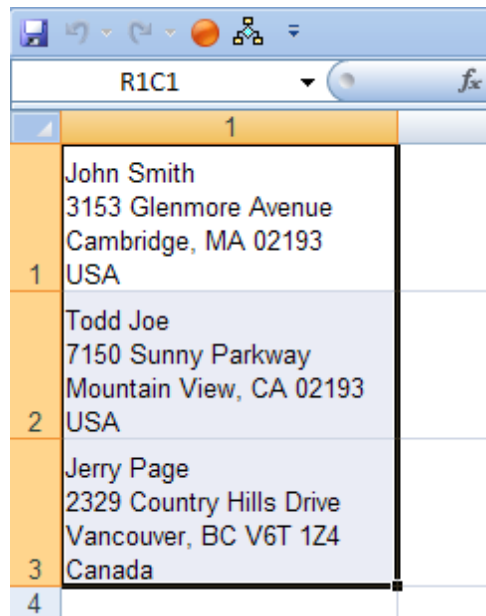
4. Click on "Run".



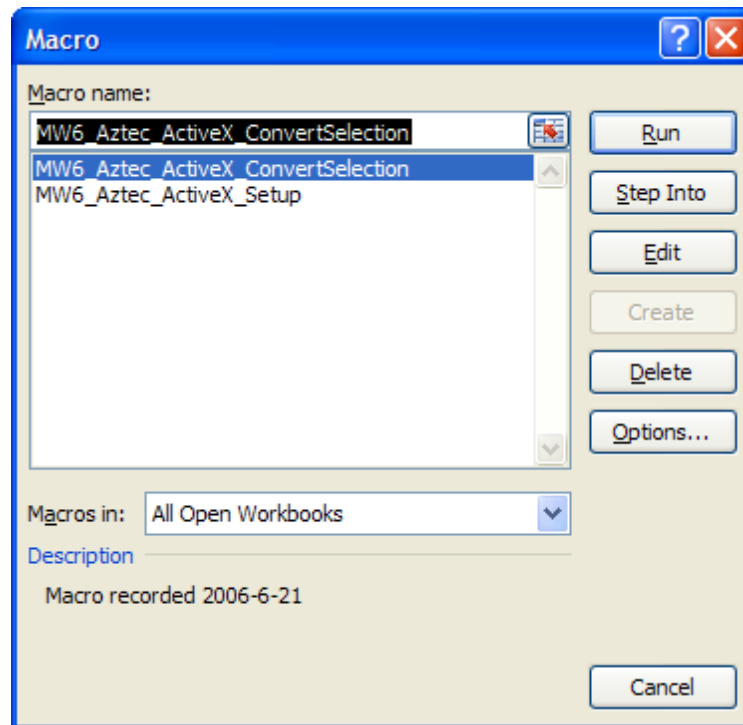
5. Choose a few appropriate values for Aztec configurations, click on "**Apply**" button to allow the changes to take effect, "Column Offset" and "Row Offset" are used to specify Aztec barcode position relative to the position of the cell which contains the regular string.

4.2.2 Create Multiple Barcodes



1. Select a few cells.



2. Click on "**Developers**" > "**Macros**", select "**MW6_Aztec_ActiveX_ConvertSelection**".
-

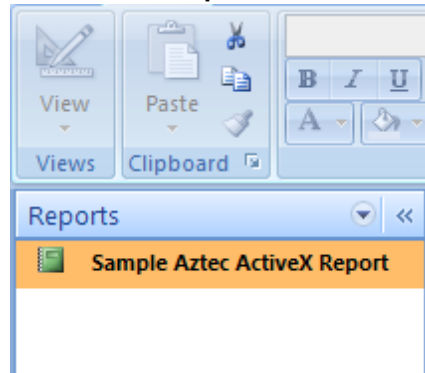


3. Click on "Run" to create Aztec barcodes for the selected cells.

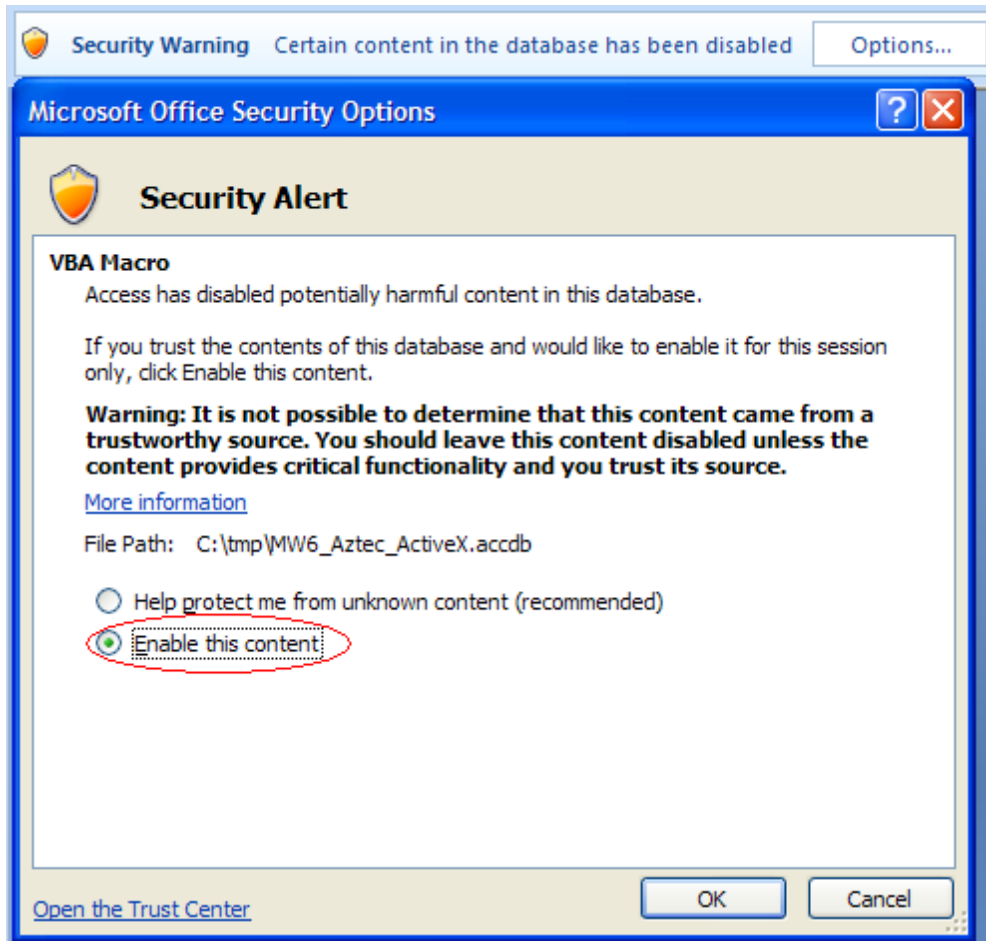
	1	2
1	John Smith 3153 Glenmore Avenue Cambridge, MA 02193 USA	
2	Todd Joe 7150 Sunny Parkway Mountain View, CA 02193 USA	
3	Jerry Page 2329 Country Hills Drive Vancouver, BC V6T 1Z4 Canada	

4.3 Access

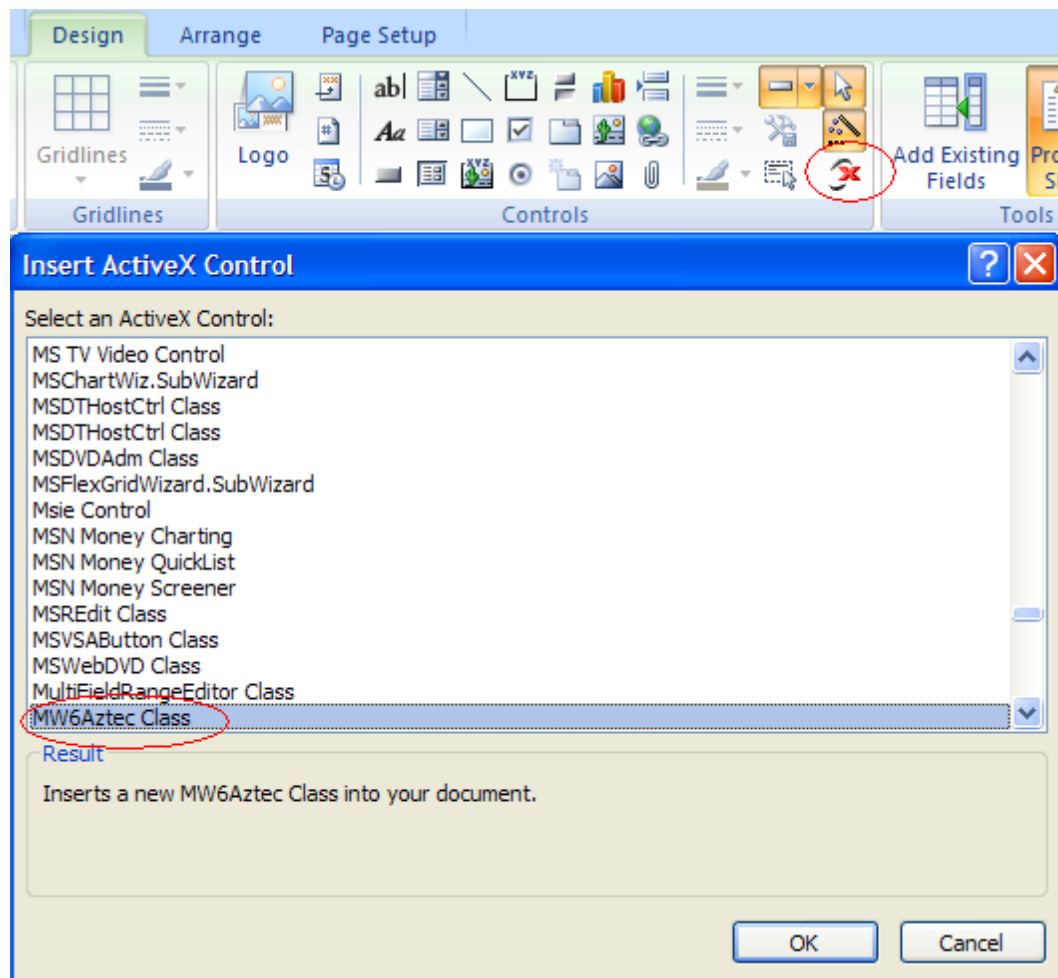
1. Open MW6_Aztec_ActiveX.accdb, select "**Sample Aztec ActiveX Report**".



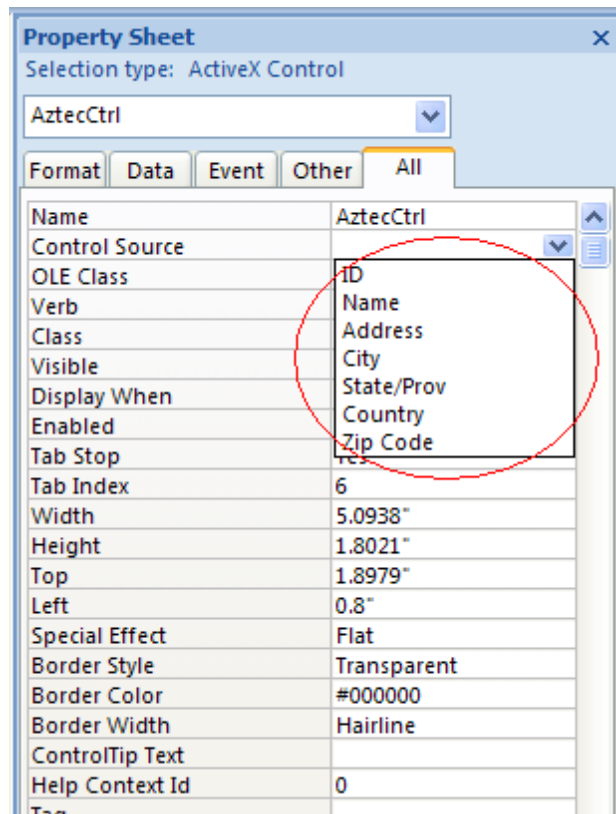
2. If you see "**Security Warning, Certain content in the database has been disabled**", click on "**Options**" to open "**Microsoft Office Security Options**" dialog, toggle on "**Enable this content**" check box.



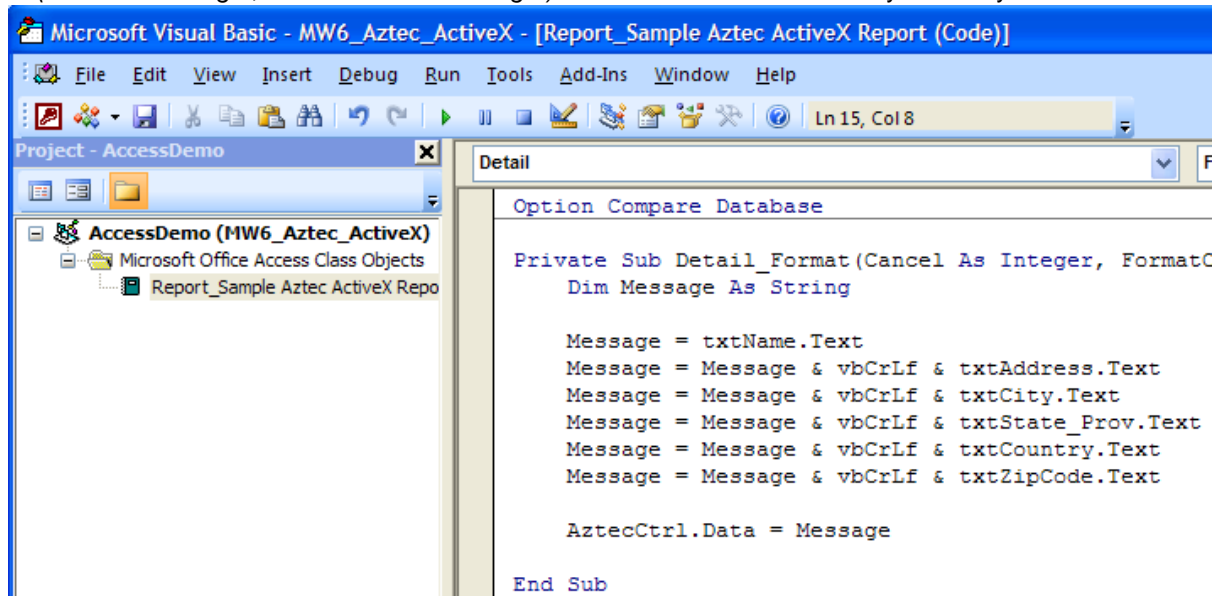
3. Click on "**Design View**", click on "**Insert ActiveX Control**", choose "**MW6Actec Class**" to insert it into the report.



4. Change its properties to meet your application requirements, our Aztec ActiveX supports the data binding so you can bind a field in a database to the control and generate Aztec barcodes for each data record automatically, there's an arrow on the right side of the "**Control Source**" property, click on the arrow, a list opens with all the fields, select the field you want for the control.




5. If you do not want to use the data binding feature, you can customize "*Private Sub Detail_Format (Cancel As Integer, FormatCount As Integer)*" to create Aztec barcodes dynamically.



6. Click on "**Preview**" to view Aztec barcodes.

<i>Customer</i>	
<i>Name</i>	John Smith
<i>Address</i>	3153 Glenmore Avenue
<i>City</i>	Cambridge
<i>State/Prov</i>	MA
<i>Country</i>	USA
<i>Zip Code</i>	02139

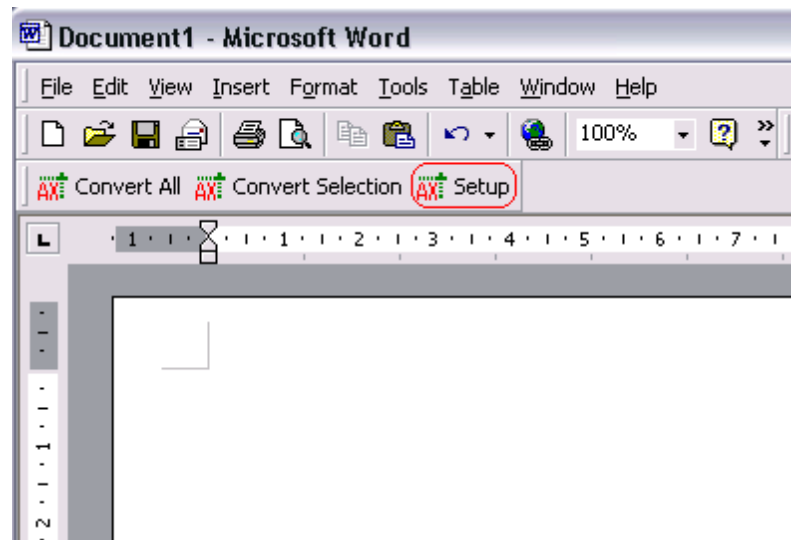


5 Office 2000 & 2003

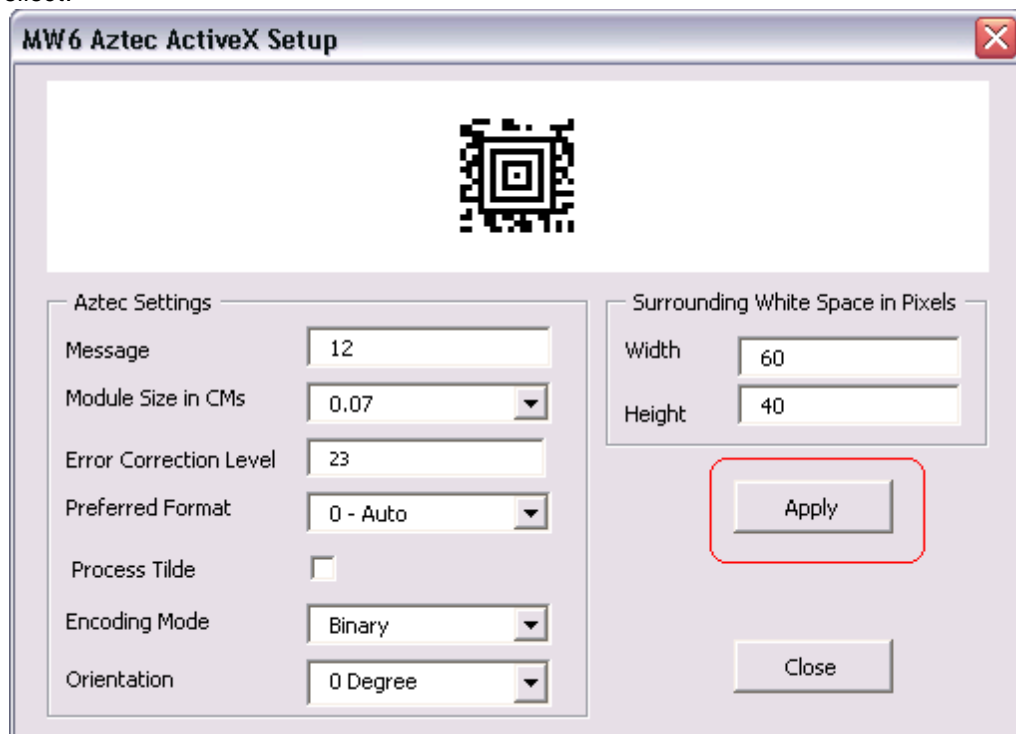
5.1 Word

5.1.1 Run Setup

1. Open up Word, click on "**Setup**". If you keep getting the error message "**The macro cannot be found or has been disabled because of**", download Office 2000 or 2003 Service Pack 3 from Microsoft website and install it to fix this issue. Or simply click "**Tools**" > "**Macro**" > "**Macros**", select "**MW6_Aztec_ActiveX_Setup**" and run it.

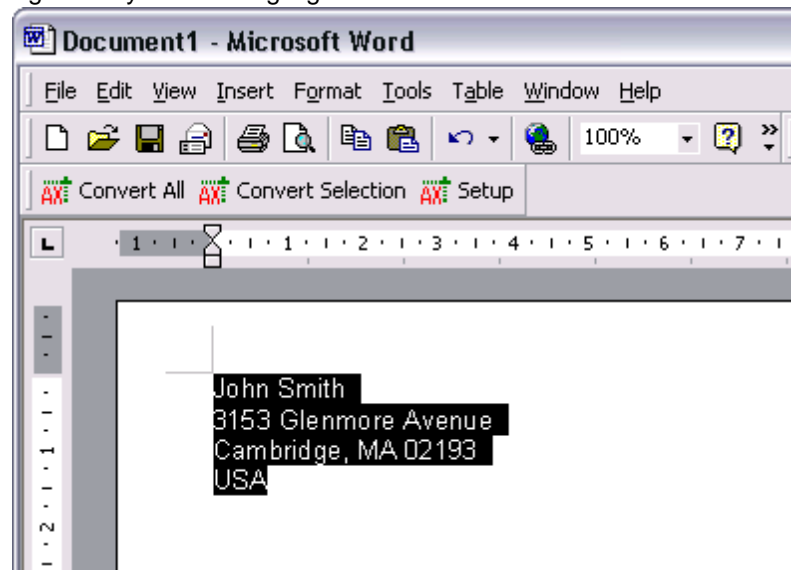


2. Choose appropriate values for Aztec configurations, click on "**Apply**" button to allow the changes to take effect.

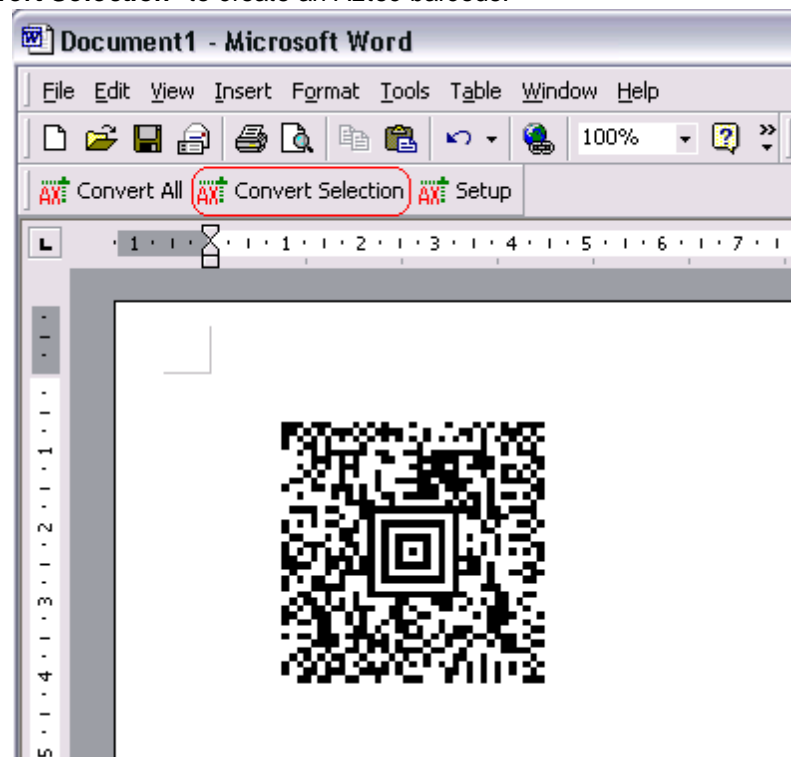


5.1.2 Create Single Barcode

1. Enter a few strings line by line and highlight them.

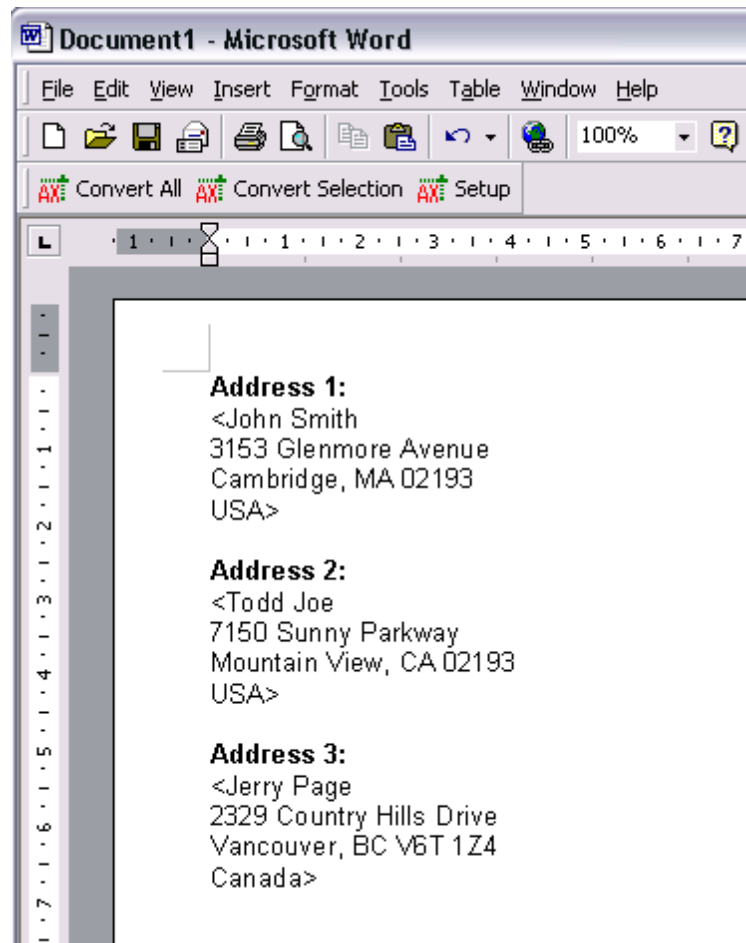


2. Click on "Convert Selection" to create an Aztec barcode.

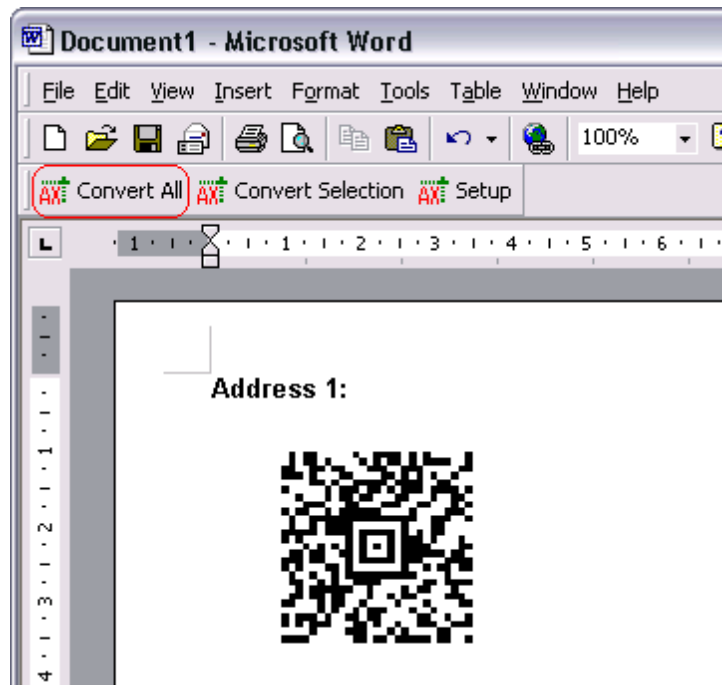


5.1.3 Create Multiple Barcodes

1. Enter a few string sections, surround those sections which will be converted to Aztec barcodes with the "<" and ">" characters.

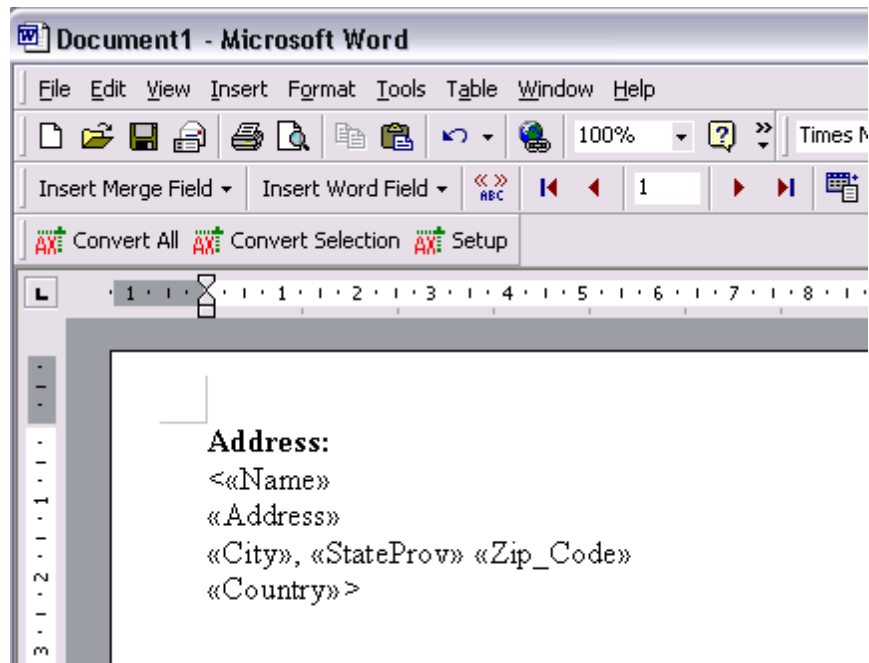


2. Click on "**Convert All**" to create Aztec barcodes for the string sections surrounded with "<" and ">" characters.



5.1.4 Mail Merge

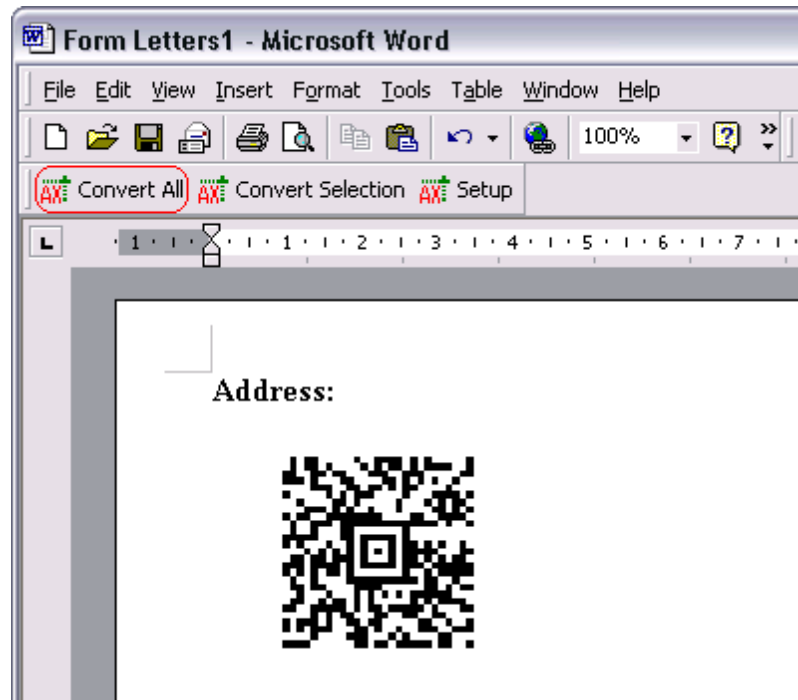
1. In Mail Merge, choose MW6_Aztec_ActiveX.mdb as the data source, surround the string sections which will be converted to Aztec barcode with the "<" and ">" characters.



2. Click on "Merge ..."



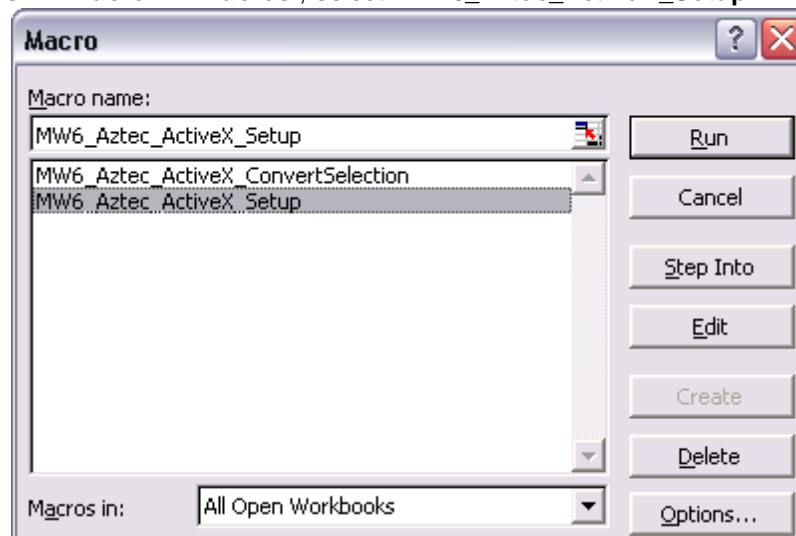
3. Click on "**Convert All**" to create Aztec barcodes for the string sections surrounded with the "<" and ">" characters.



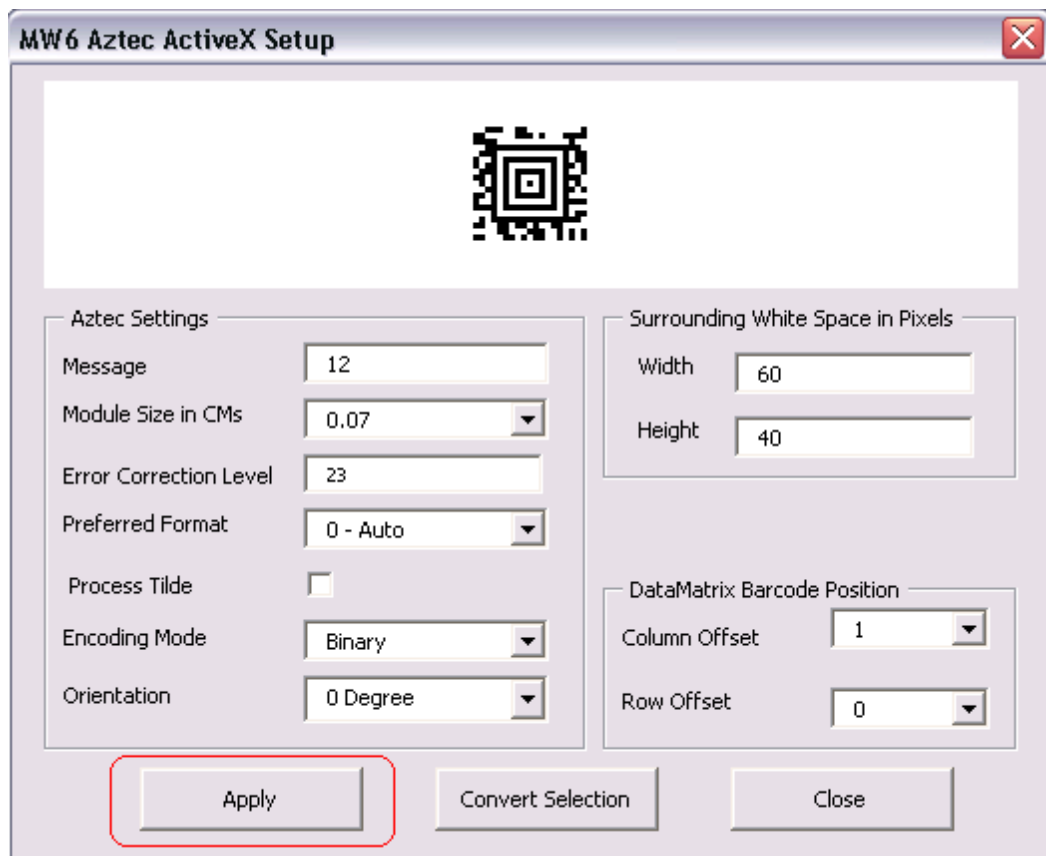
5.2 Excel

5.2.1 Change Settings

1. In Excel, open MW6_Aztec_ActiveX.XLS.
2. Click on "**Tools**" > "**Macro**" > "**Macros**", select "**MW6_Aztec_ActiveX_Setup**".



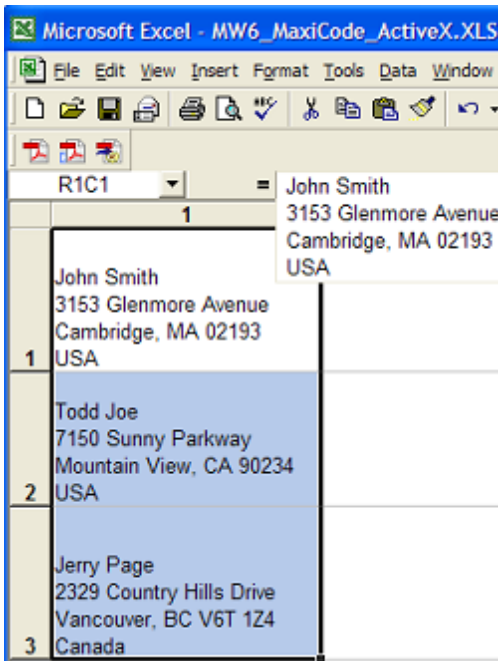
3. Click on "**Run**".



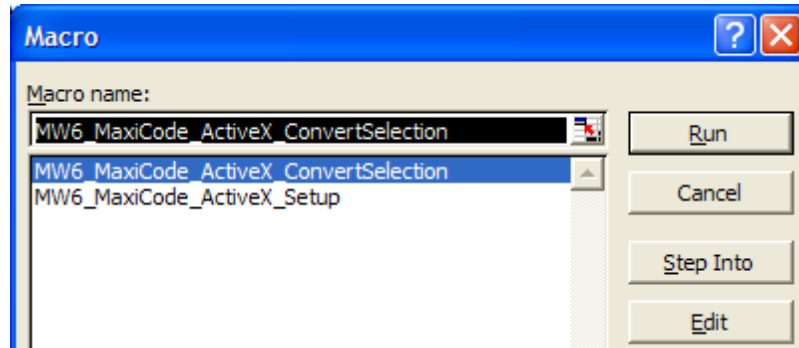
4. Choose appropriate values for Aztec configurations, click on "**Apply**" button to allow the changes to take effect, "Column Offset" and "Row Offset" are used to specify Aztec barcode position relative to the position of the cell which contains the regular string.

5.2.2 Create Multiple Barcodes

1. Select a few cells.



2. Click on "Tools" > "Macro" > "Macros", select "MW6_Aztec_ActiveX_ConvertSelection".






3. Click on "Run" to create Aztec barcodes for the selected cells.

Microsoft Excel - MW6_Aztec_ActiveX.XLS

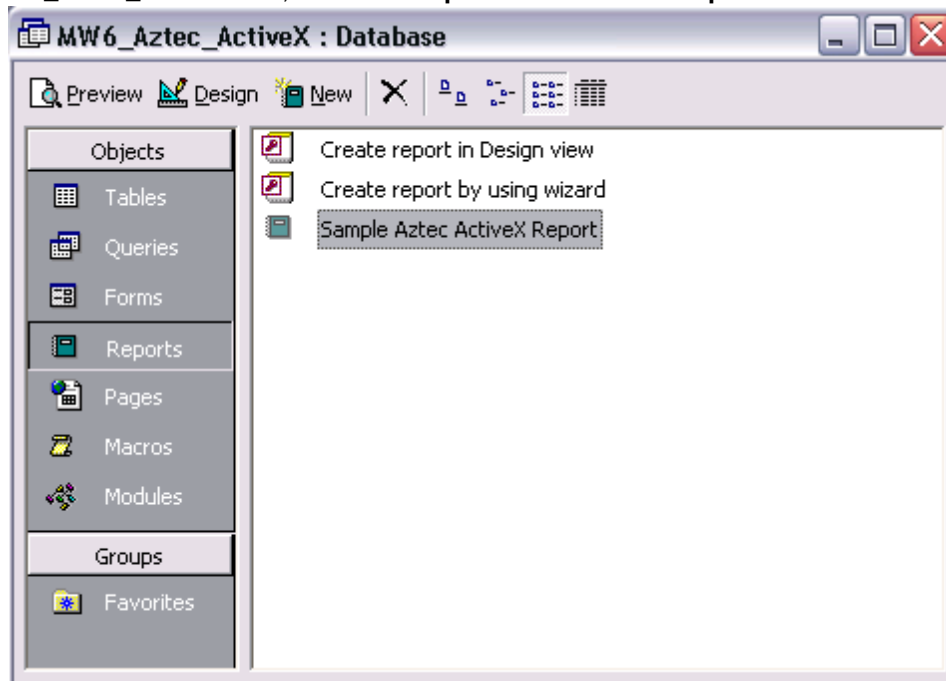
File Edit View Insert Format Tools Data Window Help

R2C4 = 100%

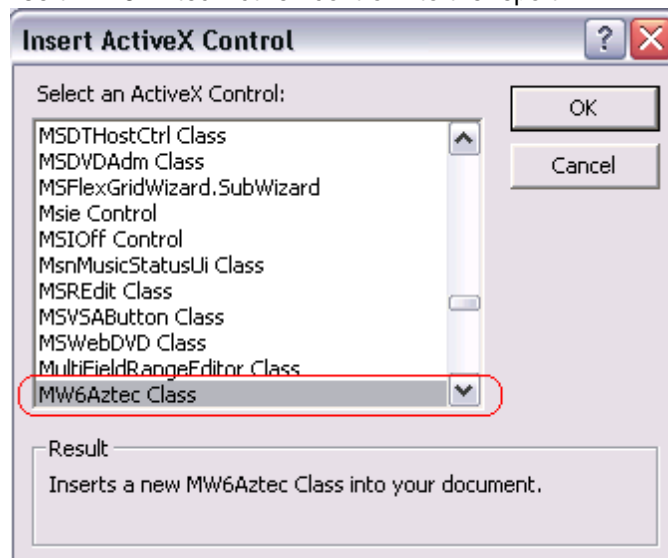
	1	2
1	John Smith 3153 Glenmore Avenue Cambridge, MA 02193 USA	
2	Todd Joe 7150 Sunny Parkway Mountain View, CA 02193 USA	
3	Jerry Page 2329 Country Hills Drive Vancouver, BC V6T 1Z4 Canada	
4		

5.3 Access

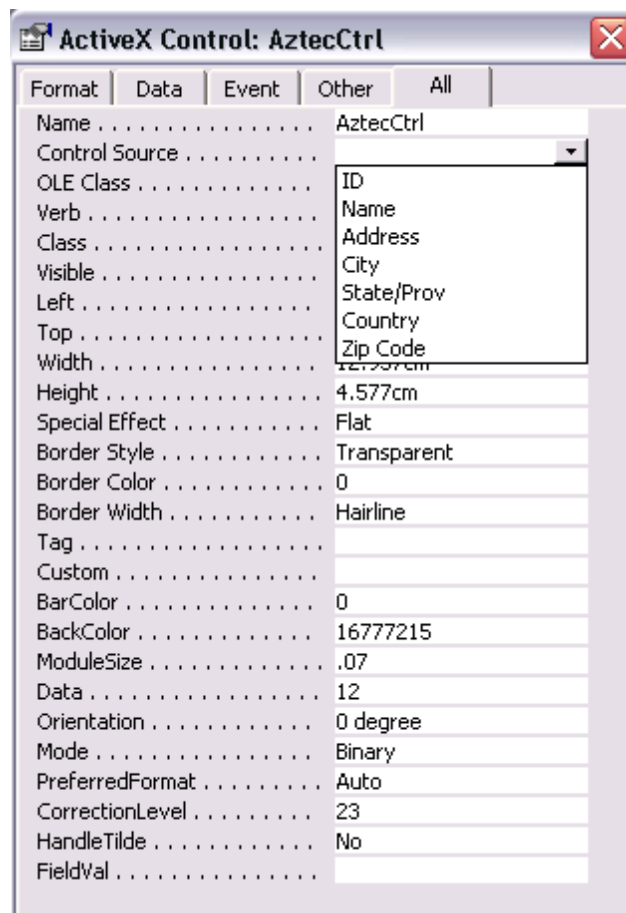
1. Open MW6_Aztec_ActiveX.mdb, select "**Sample Aztec ActiveX Report**".



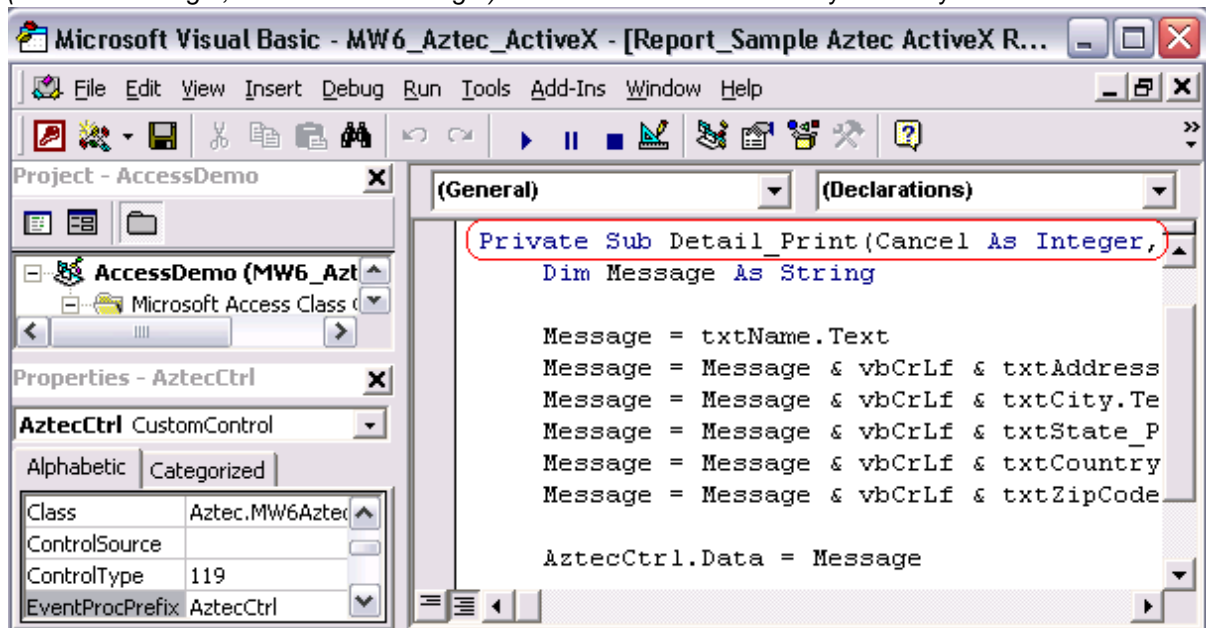
2. Click on "**Design**", insert MW6 Aztec ActiveX control into the report.



3. Change its properties to meet your application requirements, our Aztec ActiveX supports the data binding so you can bind a field in a database to the control and generate Aztec barcodes for each data record automatically, there's an arrow on the right side of the "**Control Source**" property, click on the arrow, a list opens with all the fields, select the field you want for the control.



4. If you do not want to use the data binding feature, you can customize "Private Sub Detail_Print (Cancel As Integer, PrintCount As Integer)" to create Aztec barcodes dynamically.



4. Click on "Preview" to view Aztec barcodes.

6 Reference Guide

6.1 Properties

6.1.1 BackColor Property

Gets or sets the background color of the Aztec barcode.

Property Data Type

OLE_COLOR

Remarks

The default value is white color.

6.1.2 BarColor Property

Gets or sets the color of the Aztec barcode and text.

Property Data Type

OLE_COLOR

Remarks

The default value is black color.

6.1.3 BorderStyle Property

Gets or sets the style of the border rectangle.

Property Data Type

short

Remarks

The default value is 0, this property can be one of the following values:

Value	Description
0	No Border
1	Dash Border
2	Solid Border

6.1.4 CorrectionLevel Property

Gets or sets the percentage of errors which can be recovered.

Property Data Type

short

Remarks

The recommended value is 23 percent, the valid value should be between 5 percent and 95 percent.

6.1.5 Data Property

Gets or sets the message to encode with Aztec barcode ActiveX.

Property Data Type

BSTR

Remarks

The default value is "12".

6.1.6 HandleTilde Property

Gets or sets a boolean flag indicating whether to process the tilde character "~" or not.

Property Data Type

VARIANT_BOOL

Remarks

If this property is set to TRUE, non-printable characters can be passed to Aztec ActiveX by using the tilde character, "~**dNNN**" represents the ASCII character encoded by the 3 digits NNN, for example, "~d010" represents the character LF (line feed).

6.1.7 ImageData Property

Gets WMF format data stream of the Aztec barcode.

Property Data Type

IPictureDisp*

6.1.8 Mode Property

Gets or sets the encoding mode of the Aztec barcode.

Property Data Type

short

Remarks

This parameter can be one of the following values:

Value	Description
0	Auto mode for mainly encoding ASCII characters (0-127)
1	Binary mode for mainly encoding bytes of data

6.1.9 ModuleSize Property

Gets or sets the size (width/height) of the square-shaped module.

Property Data Type

float

Remarks

The default value is 0.07, internally our Aztec ActiveX control converts the module size from centimeters to pixels based on the device resolution, round up or round down float pixel value to the nearest integer.

The centimeter to pixel conversion formula is :

$$size_in_pixels = size_in_centimeters * device_resolution / 2.54$$

For example, if you render barcode on computer screen and the screen resolution is 96dpi.

(1) Set ModuleSize property to 0.04, $size_in_pixels = 0.04 * 96 / 2.54 = 1.5118$, round up 1.5118 to 2, so actual module size is 2 pixels.

(2) Set ModuleSize property to 0.06, $size_in_pixels = 0.06 * 96 / 2.54 = 2.2677$, round down 2.2677 to 2, so actual module size is 2 pixels.

(3) Set ModuleSize property to 0.07, $size_in_pixels = 0.07 * 96 / 2.54 = 2.6456$, round up 2.6456 to 3, so actual module size is 3 pixels.

Different ModuleSize property values might end up with same module size in pixels due to performing rounding operations.

6.1.10 Orientation Property

Gets or sets the orientation of the Aztec barcode.

Property Data Type

short

Remarks

The default value is 0, this property can be one of the following values:

Value	Description
0	0 degree
1	90 degrees
2	180 degrees
3	270 degrees

6.1.11 PreferredFormat Property

Gets or sets the format of the Aztec barcode.

Property Data Type

short

Remarks

The default value is 0, this property can be one of the following values.

Value	Description	Capacity (in digits)	Capacity (in alphanumeric characters)	Capacity (in bytes)
0	Auto format			
1	15 X 15 compact format	13	12	6
2	19 X 19	18	15	8
3	19 X 19 compact format	40	33	19
4	23 X 23	49	40	24
5	23 X 23 compact format	70	57	33
6	27 X 27	84	68	40
7	27 X 27 compact format	110	89	53
8	31 X 31	128	104	62
9	37 X 37	178	144	87
10	41 X 41	232	187	114
11	45 X 45	294	236	145
12	49 X 49	362	291	179
13	53 X 53	433	348	214
14	57 X 57	516	414	256
15	61 X 61	601	482	298
16	67 X 67	691	554	343
17	71 X 71	793	636	394
18	75 X 75	896	718	446
19	79 X 79	1008	808	502
20	83 X 83	1123	900	559
21	87 X 87	1246	998	621
22	91 X 91	1378	1104	687
23	95 X 95	1511	1210	753
24	101 X 101	1653	1324	824
25	105 X 105	1801	1442	898
26	109 X 109	1956	1566	976
27	113 X 113	2116	1694	1056
28	117 X 117	2281	1826	1138
29	121 X 121	2452	1963	1224
30	125 X 125	2632	2107	1314
31	131 X 131	2818	2256	1407
32	135 X 135	3007	2407	1501

33	139 X 139	3205	2565	1600
34	143 X 143	3409	2728	1702
35	147 X 147	3616	2894	1806
36	151 X 151	3832	3067	1914

If you set *PreferredFormat* to 0 (Auto format), our Aztec ActiveX control will automatically choose an appropriate format with enough data capacity to encode the string.

If you set *PreferredFormat* to other values and the data capacity of the selected format is not big enough to encode the string, our Aztec ActiveX control will also automatically choose an appropriate format with bigger data capacity to encode the string.

6.2 Methods

6.2.1 CopyToClipboard Method

Copies the Aztec barcode image into the system clipboard.

```
void CopyToClipboard();
```

Remarks

Before you call this method, use *GetActualSize()* method to obtain the actual size of the Aztec barcode and use *SetSize()* method to set image size by adding surrounding white space around the Aztec barcode.

See Also

[GetActualSize\(\) Method](#) | [SetSize\(\) Method](#)

6.2.2 GetActualRC Method

Gets the actual numbers of rows and columns for the Aztec barcode.

```
void GetActualRC(short *ActualRows, short *ActualCols);
```

Parameters

ActualRows

A pointer to the variable that receives the final number of rows for the Aztec barcode.

ActualCols

A pointer to the variable that receives the final number of columns for the Aztec barcode.

Remarks

If you set *PreferredFormat* to 0 (Auto format), Aztec ActiveX control will automatically choose an appropriate format with enough data capacity to encode the string, use this method to retrieve the information about the final numbers of rows and columns.

If you set PreferredFormat to other values and the data capacity of the selected format is not big enough to encode the string, Aztec ActiveX control will also automatically choose an appropriate format with bigger data capacity to encode the string, so the final numbers of rows and columns might not be equal to the numbers of rows and columns specified by the PreferredFormat property.

6.2.3 GetActualSize Method

Gets the actual size of the Aztec barcode which is rendered onto either computer screen or other devices such as printers.

```
void GetActualSize(VARIANT_BOOL ScreensTarget, long TargetHDC, long *ActualWidth, long *ActualHeight);
```

Parameters

ScreensTarget

Indicates whether barcode is rendered onto computer screen or not.

TargetHDC

Device context on which to render the Aztec barcode, if the parameter ScreensTarget is set to TRUE, set this parameter to NULL.

ActualWidth

A pointer to the variable that receives the width of the Aztec barcode (in pixels).

ActualHeight

A pointer to the variable that receives the height of the Aztec barcode (in pixels).

6.2.4 GetPatternData Method

Gets the Aztec barcode pattern matrix data.

```
void GetPatternData(short *Buffer,  
                   long *Size,  
                   short *Rows,  
                   short *Columns,  
                   VARIANT_BOOL *Result);
```

Parameters

Buffer

Pointer to a buffer that receives the character stream ('1's and '0's) storing the Aztec barcode pattern matrix data row by row from the top left matrix corner, '1' indicates the black module and '0' indicates the white module.

If the method fails and the variable pointed to by *Size* returns the required buffer size, in 16-bit integers.

Size

[in/out] On input, specifies the size, in 16-bit integers, of the *Buffer*. On output, receives the size, in 16-bit integers, of the Aztec barcode pattern matrix ('1's and '0's).

Rows

A pointer to the variable that receives the number of the rows for the pattern matrix.

Columns

A pointer to the variable that receives the number of the columns for the pattern matrix..

Result

If the method succeeds, the value of the variable pointed to by *Result* is `VARIANT_TRUE`, otherwise the value is `VARIANT_FALSE`.

Remarks

You can use this method to obtain the Aztec barcode pattern matrix data and render the Aztec barcode onto any device such as the printer, only *Data*, *HandleTilde*, *Mode* and *PreferredFormat* properties affect the pattern matrix data output.

Based on the *Orientation* property value, rotate the pattern matrix accordingly before you render the Aztec barcode onto a device.

6.2.5 Render Method

Renders the Aztec barcode onto the device such as computer screen or printers.

```
void Render(long hDC, int x, int y);
```

Parameters*hDC*

Device context on which to render the Aztec barcode.

x

The x coordinate, in pixels, of the top left corner of the Aztec barcode .

y

The y coordinate, in pixels, of the top left corner of the Aztec barcode.

6.2.6 SaveAsBMP Method

Saves the Aztec barcode image as a BMP file.

```
void SaveAsBMP(BSTR FileName);
```

Parameters*FileName*

A string that contains the name of the file to which to save BMP format barcode image.

Remarks

Before you call this method, use `GetActualSize()` method to obtain the actual size of the Aztec barcode and use `SetSize()` method to set image size by adding surrounding white space around the Aztec barcode.

See Also

`GetActualSize()` Method | `SetSize()` Method

6.2.7 SaveAsWMF Method

Saves the Aztec barcode image as a WMF file.

```
void SaveAsWMF(BSTR FileName);
```

Parameters

FileName

A string that contains the name of the file to which to save WMF format barcode image.

Remarks

Before you call this method, use `GetActualSize()` method to obtain the actual size of the Aztec barcode and use `SetSize()` method to set image size by adding surrounding white space around the Aztec barcode.

See Also

`GetActualSize()` Method | `SetSize()` Method

6.2.8 SetSize Method

Sets the size of the image which contains the Aztec barcode.

```
void SetSize(int Width, int Height);
```

Parameters

Width

The width, in pixels, of the image.

Height

The height, in pixels, of the image.

Remarks

First call `GetActualSize()` method to obtain the actual size of the Aztec barcode, then use this method

to set image size by adding surrounding white space around the Aztec barcode.

See Also

GetActualSize() Method

6.2.9 SetStructuredAppend Method

Specifies which symbol this is in a sequence and the total number of symbols in the sequence.

```
void SetStructuredAppend(VARIANT_BOOL AllowSA, short SymbolID, short SymbolCount);
```

Parameters

AllowSA

Indicates whether the structured append is allowed in the current Aztec barcode, if this is FALSE, the parameters *SymbolID* and *SymbolCount* are irrelevant.

SymbolID

Specifies which symbol this is in a sequence, the parameter must be between 1 and *SymbolCount*.

SymbolCount

Specifies the total number of symbols in the sequence, the maximum value is 26, which means that up to 26 symbols can be linked together using the structured append protocol.

Remarks

Don't call this method if you don't need the structured append feature.

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