# MZ-T00 S 8.0

#### **Top 10 advanced features of MZ-Tools**

https://www.mztools.com

**Carlos Quintero** 

**AEUG. February 2024** 

# About me

- Developer in VB "Classic", VB.NET and C# since 1995
- Former Microsoft MVP (Most Valuable Professional) 14 times (2004-2018)
- Developer of MZ-Tools for VBA, VB6 and Visual Studio
- Currently DevOps architect (CI/CD pipelines, etc.)

#### Contact:

- mztools@mztools.com
- https://www.linkedin.com/in/carlosquinterovivar/



# **About MZ-Tools**

- Add-in / plug-in to provide productivity tools to IDEs
- https://www.mztools.com
- Perpetual license (no annual fee)
- Unlimited support included (no support fee)
- All your IDEs: VBA, Visual Studio, VB6
- Licensed per person, all your computers (home, work, VM, cloud...)
- Microsoft Office 64-bit & 32-bit
- 30-day trial, 100% money back guarantee
- Regular price Single license: \$79.95
- Pack3, Pack5, Pack10, Site, etc.
- 50% discount coupon (until Apr 30 2024): AEUG2024

Home MZ-Tools 8.0 Featu	MZ-TOOIS res Download Buy Documentation Changelog Support About							
· ·	<b>MZ-Tools 8.0</b> for VBA (64-bit & 32-bit), Visual Studio (.NET) and VB6							
One perpetua	al license. All your IDEs. All your computers.							
第100mのProduction to Applete (An App Decision) Ready Appl (Appl Appl Appl Appl Appl Appl App	Supported IDEs							
	<ul> <li>B VBA Editor of Microsoft Office (64-bit &amp; 32-bit) (Office 365, 2021, 2019, 2016, 2013, 2010, 2007, 2003, 2002, 2000)</li> <li>W VBA Editor of 3rd party applications (Autodesk Inventor, AutoCAD, SolidWorks, CATIA, CoreIDRAW, etc.)</li> <li>Microsoft Visual Studio 2022</li> <li>Microsoft Visual Studio 2019</li> <li>Microsoft Visual Studio 2017</li> <li>Microsoft Visual Studio 2015</li> <li>Microsoft Visual Studio 2013</li> <li>Microsoft Visual Studio 2012</li> <li>Microsoft Visual Studio 2012</li> <li>Microsoft Visual Studio 2011</li> <li>Microsoft Visual Studio 2012</li> <li>Microsoft Visual Studio 2010</li> <li>Microsoft Visual Basic 6.0</li> <li>Supported Languages</li> </ul>							
Image: State Stat	₩ Visual Basic for Applications (VBA)							

# **About the MZ-Tools name**

- In the year 2000 the original domain qtools.com (Quintero's Tools) was already taken
- Mazinger-Z: very powerful robot of a very popular Japanese cartoon at Spain in late 1970's
- Domain mztools.com (Mazinger-Z's Tools) was available...



# **Top 10 advanced features**

- 1. Portable edition
- 2. Customizing MZ-Tools buttons on built-in toolbars and new toolbars
- 3. Keyword expansion for code templates
- 4. Development Environment Settings Review
- 5. Generate custom HTML documentation from XML documentation with XSLT
- 6. Find / Replace with regular expressions
- 7. Custom code element sorting
- 8. Nomenclature Rules Review
- 9. Programming Rules Review
- 10. Automating MZ-Tools features with VBScript / PowerShell

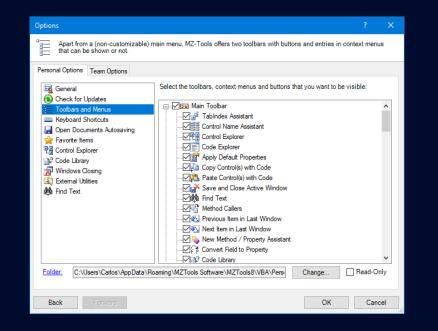
#### **1. Portable Edition**

- The setup-based edition doesn't not require admin rights
- The portable edition is a last resort when you are not even allowed to run setups that don't require admin rights
- Runnable from external drive
- Small utility to create the minimal entries in the Windows Registry



## **2. Customizing MZ-Tools buttons**

• The Toolbars and Menus option page allows to make toolbars / buttons visible or invisible:



• But you can also put buttons on built-in toolbars or create custom toolbars:



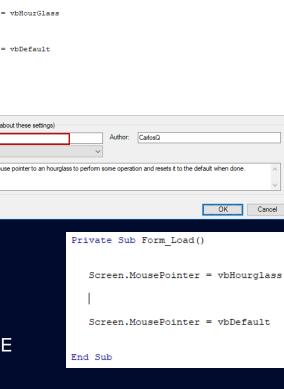
## **3. Keyword expansion for code templates**

Keyword that, with a keyboard shortcut (associated to the Expand Keyword command) expands into a • code template.

Code Template

board Shortcut Image: Control of Co				Enter the descrip	tion and the text of the code
Select the feature and its keyboard shortcut.   Feature   Image: Feature (VEA):   Image: Feature (VEA):   Image: Christian Shortcut:	eyboard Shortcut		? ×		
Feature				Description:	ScreenMousePointer
Peature	Select the feature and	its keyboard shortcut.		Template Text:	
<pre>(@ Feature (MZ-Tools):</pre>	Feature			Screen.Mouse	ePointer = vbHour
O Feature (VBA):       Screen . MousePointer = vbDefa         Keyboard Shortcut:       OK         OK       Cancel         OK       Cancel         OK       Comment:         Sets the mouse pointer to         Sets the mouse pointer to         Sets the mouse pointer to         End Sub	Feature (MZ-Tools):	Expand Keyword	~	\$P[I]	
Keyboard Shortcut:       Otf + Shift + E         OK       Cancel         OK       Cancel         Sets the mouse pointer to         Frivate Sub Form_Load()         scm         End Sub	0.5			Screen.Mouse	ePointer = vbDefa
OK       Cancel         OK       Cancel         Expansion Keyword:       cm         Keyboard Shortcut:       Cartel         Verticate Sub Form_Load()       scm         End Sub       Sub	Feature (VBA):		<u> </u>		
OK       Cancel         OK       Cancel         Expansion Keyword:       om         Keyboard Shortcut:       thr#Ak+M         Comment:       Sets the mouse pointer to         Scm       End Sub					
OK       Cancel         Expansion Keyword:       som         Keyboard Shortcut:       Cht+Alt+M         Comment:       Sets the mouse pointer to         Private Sub Form_Load()       scm         End Sub       End Sub	Keyboard Shortcut:	Ctrl+Shift+E	$\sim$		
Keyboard Shortcut:     Chi+Ak+M       Comment:     Sets the mouse pointer to       Private Sub Form_Load()     scm       End Sub     Sub				Optional (click the Help b	utton to learn about these se
Comment: Sets the mouse pointer to Private Sub Form_Load() scm End Sub		ОК	Cancel	Expansion Keyword:	scm
Private Sub Form_Load() scm End Sub				Keyboard Shortcut:	Ctrl+Alt+M
scm End Sub				Comment:	Sets the mouse pointer to
scm End Sub					
scm End Sub					
scm End Sub					
scm End Sub					
scm End Sub		Parisson Sich Pares La	10		
End Sub		Private Sub Form_Loa	ad ()		
End Sub		scm			
Ctrl + Shift + E		End Sub			
				Ctrl + Sh	ift _ E

Keyb



Insert >

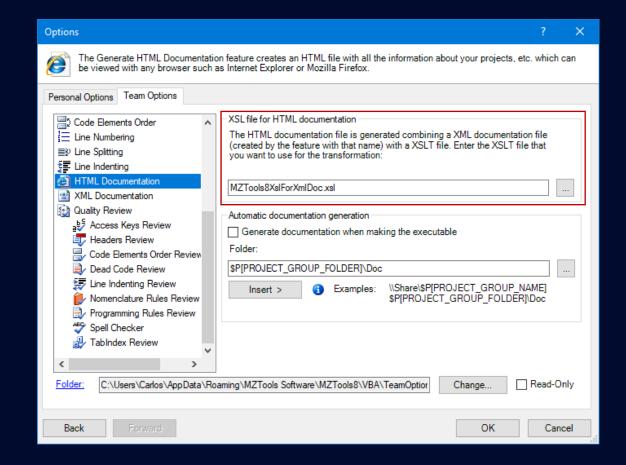
#### **4. Development Environment Settings Review**

• Enforce environment configuration on a team (or multiple computers of a single person)

MZ-Tools 8.0	?	×
MZ-Tools checks at startup the development environment settings reviews that your team lead ensure that your programming environment is correct.	ler has se	t to
The following reviews have failed:		
For VBA 7.1, the Tab Width must be 3 For VBA 7.1, Require Variable Declaration is mandatory		
How to fix - Go to the "Tools" > "Options" window - Select the "Editor" tab - Enter the value in the "Tab Width" textbox		
	Clos	e

#### **5. Generate custom HTML documentation**

• Customize the XSLT file used to transform XML Documentation into HTML Documentation



#### 6. Find / Replace with regular expressions

- More powerful than wildcards
- Captured groups and backreferences
- Positive / Negative Lookahead: find text only if some other text appears (or not) after that text
- Positive / Negative Lookbehind: find text only if some other text appears (or not) before that text

#### https://www.regular-expressions.info/lookaround.html

Find Text		×	Insert Regular Expression			?	×
Find text:		▼ Find	Select a regular expression from the list.				
Insert > Multilin Scope Current method Current file Current project (VBAProject) Project group Selected Text Open files Selected files: Selected projects:	Search Options          Match case         Match whole word         Exclude comments         Exclude literals         Wildcards         Regular expressions         Output Options         Use new result tab         Show code elements	Close Options Help	Description         Match any character one time         Match any character one or more times         Match any single character in the set 'abc'         Match any single character NOT in the set 'abc'         Match any single character NOT in the set 'abc'         Match any word character         Match any word character         Match any word character         Match any word character         Match any whitespace character         Match any whitespace character         Match at beginning or end of word         Match at beginning of line         Match at loginning of line         Match at of fine         Capture and implicitly number the subexpression 'apple orange'         Backreference the first captured subexpression         Capture subexpression 'apple orange' and name it 'fruit'	Value .+ [abc] ["abc] [a-f]  w \d [s^\r^n] \b ^ \r?\n \r?\n \r?\$ (apple[orange) \1 (? <fruit>apple[orange) \k<fruit></fruit></fruit>			
					ОК	Can	cel

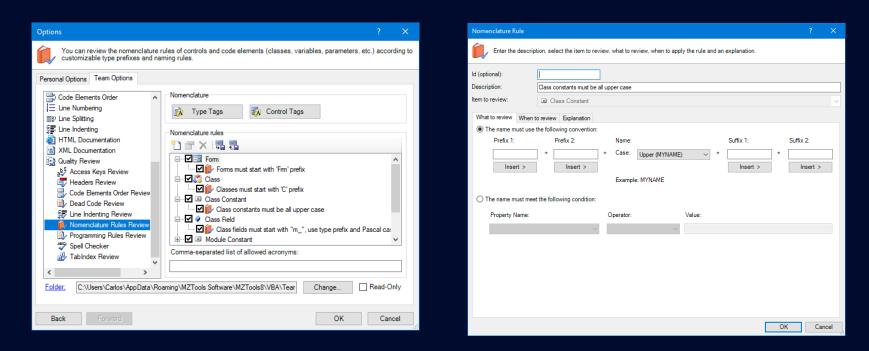
#### 7. Custom code element sorting

- Sort methods of a file (class/module/interface) with 1-click using a custom criteria
- Allows automatic review of methods with incorrect order

Options				?	×	Child Code Element	? )
For each kind of code element (clas	s, etc.), define the order of its ch	ildren code elemer	ts.			Each child code element is defined b	by its kind (method, etc.) and optionally access and contex
Form Default Properties	Order of children code elements	Class Condition Access Any Any Any Any Any Any Any	Context Any Any Function Sub Any	Sorting crite Code eleme Code eleme Code eleme Code eleme Code eleme		Public Friend	ext Any These contexts:
Access Keys Review     Headers Review     Code Elemente Order Pouisu     Sector Elemente Order Pouisu     Folder: C:\Users\Carlos\AppData\Roar	ming\MZTools Software\MZTools	8\VBA\Tear	Change	>	Only	Public Function MethodA() End Function Public Function MethodB() End Function MethodC() End Function Public Function MethodD() End Function	As Double As String
Back Forward			ОК	Ca	ancel		OK Cance

#### 8. Nomenclature Rules Review

- Naming guidelines
- What To Review: Two options
  - Prefix 1 + Prefix 2 + name + Suffix 1+ Suffix 2
  - Name condition
- When To Review



### 9. Programming Rules Review

- Review anything about your code, files, references, etc.
- What To Review:
  - Individual item
  - Collections of items
- When To Review

Options ? X	Programming Rule ? ×	Programming Rule ? ×
You can review programming rules such as properties of projects or files, mandatory or forbidden references, properties of controls, etc.	Enter the description, select the item to review, what to review, when to apply the rule and an explanation.	Enter the description, select the item to review, what to review, when to apply the rule and an explanation.
Personal Options       Team Options         Code Elements Order       Image: Code Elements Order         Image: Line Numbering       Project         Image: Line Numbering       Projects must have compatible OLE server         Image: Line Numbering       Projects must have the Description field filled         Image: Line Numbering       Projects must have the Description field filled         Image: Line Numbering       Projects must have more than 1000 lines of code         Image: Line Numbering       Classes cannot have more than 1000 lines of code         Image: Line Numbering       Project Class Field         Image: Line Numericature Rules Review       Image: Line Numericature Ru	Id (optional): Description: Method variables cannot be a single letter Item to review: Method Variable What to review Explanation The 'Method Variable' object must meet the following condition: Property Name: Operator: Value: NameLength (Signed Integer 32-bit)	Id (optional): Description: The number of parameters of a method cannot be greater than 5 Item to review: What to review: What to review: What to review: Explanation The number of items of the "Parameters' collection must meet the following condition: The "Parameters' collection must contain one item that meets The "Parameters' collection must contain one item that meets Property Name △ Operator Value
Back Forward OK Cancel	OK Cancel	OK Cancel

#### **10. Automating MZ-Tools features with scripts**

- Execute script (VBScript, PowerShell, etc.) to automate MZ-Tools features with the command-line
- Example: before shipping:
  - Review Quality
  - Indent Lines
  - Add line numbers
  - Export Files (to add to source control)
  - Get Statistics (to store somewhere)
  - Generate XML/HTML Documentation (to publish somewhere)

Const officeProgId = "Access.Application" Const addinProgId = "MZTools8VBA" Const commandName = "MZTools8.AddLineNumbers"

Dim fso Dim app Dim addIn Dim addInObject Dim officeFile Dim logFile Dim commandLineArgs

' Set variables
officeFile = "C:\Users\Public\DatabaseAutomation.accdb"
logFile = "C:\Users\Public\MZTools8.log"
commandLineArgs = logFile

' Delete files if they exist Set fso = CreateObject("Scripting.FileSystemObject") If fso.FileExists(logFile) Then fso.DeleteFile(logFile) End If

' Open the Office document Set app = CreateObject(officeProgId) app.OpenCurrentDatabase(officeFile)

' Make Office and VBA editor visible app.Visible = True app.VBE.MainWindow.Visible = True

' Get the MZ-Tools add-in Set addIn = app.VBE.AddIns.Item(addinProgId)

' Ensure it is loaded addIn.Connect = True

' Get its inner object Set addInObject = addIn.Object

' Execute the command Call addInObject.ExecuteCommand(commandName, commandLineArgs)

' Exit the Office application app.Quit

WSCript.Echo "Done"