



FREE eBook

LEARNING VBA

Free unaffiliated eBook created from
Stack Overflow contributors.

#vba

Table of Contents

About.....	1
Chapter 1: Getting started with VBA.....	2
Remarks.....	2
Versions.....	2
Examples.....	2
Accessing the Visual Basic Editor in Microsoft Office.....	2
First Module and Hello World.....	4
Debugging.....	5
Run code step by step.....	5
Watches window.....	5
Immediate Window.....	5
Debugging best practices.....	6
Chapter 2: API Calls.....	7
Introduction.....	7
Remarks.....	7
Examples.....	8
API declaration and usage.....	8
Windows API - Dedicated Module (1 of 2).....	11
Windows API - Dedicated Module (2 of 2).....	15
Mac APIs.....	19
Get total monitors and screen resolution.....	20
FTP and Regional APIs.....	21
Chapter 3: Arrays.....	25
Examples.....	25
Declaring an Array in VBA.....	25
Accessing Elements.....	25
Array Indexing.....	25
Specific Index.....	25
Dynamic Declaration.....	25
Use of Split to create an array from a string.....	26

Iterating elements of an array	27
For...Next	27
For Each...Next	28
Dynamic Arrays (Array Resizing and Dynamic Handling)	29
Dynamic Arrays	29
Adding Values Dynamically	29
Removing Values Dynamically	29
Resetting an Array and Reusing Dynamically	30
Jagged Arrays (Arrays of Arrays)	30
Jagged Arrays NOT Multidimensional Arrays	30
Creating a Jagged Array	31
Dynamically Creating and Reading Jagged Arrays	31
Multidimensional Arrays	33
Multidimensional Arrays	33
Two-Dimension Array	34
Three-Dimension Array	36
Chapter 4: Assigning strings with repeated characters	40
Remarks	40
Examples	40
Use the String function to assign a string with n repeated characters	40
Use the String and Space functions to assign an n-character string	40
Chapter 5: Attributes	41
Syntax	41
Examples	41
VB_Name	41
VB_GlobalNameSpace	41
VB_Createable	41
VB_PredeclaredId	42
Declaration	42
Call	42
VB_Exposed	42
VB_Description	43

VB_[Var]UserMemId.....	43
Specifying the default member of a class.....	43
Making a class iterable with a For Each loop construct.....	44
Chapter 6: Automation or Using other applications Libraries.....	46
Introduction.....	46
Syntax.....	46
Remarks.....	46
Examples.....	46
VBScript Regular Expressions.....	46
Code.....	47
Scripting File System Object.....	48
Scripting Dictionary object.....	48
Internet Explorer Object.....	49
Internet Explorer Objec Basic Members.....	49
Web Scraping.....	49
Click.....	51
Microsoft HTML Object Library or IE Best friend.....	51
IE Main issues.....	52
Chapter 7: Collections.....	53
Remarks.....	53
Feature Comparison with Arrays and Dictionaries.....	53
Examples.....	53
Adding Items to a Collection.....	53
Removing Items From a Collection.....	55
Getting the Item Count of a Collection.....	56
Retrieving Items From a Collection.....	56
Determining if a Key or Item Exists in a Collection.....	58
Keys.....	58
Items.....	58
Clearing All Items From a Collection.....	59
Chapter 8: Comments.....	61

Remarks.....	61
Examples.....	61
Apostrophe Comments.....	61
REM Comments.....	62
Chapter 9: Concatenating strings.....	63
Remarks.....	63
Examples.....	63
Concatenate strings using the & operator.....	63
Concatenate an array of strings using the Join function.....	63
Chapter 10: Conditional Compilation.....	64
Examples.....	64
Changing code behavior at compile time.....	64
Using Declare Imports that work on all versions of Office.....	65
Chapter 11: Converting other types to strings.....	67
Remarks.....	67
Examples.....	67
Use CStr to convert a numeric type to a string.....	67
Use Format to convert and format a numeric type as a string.....	67
Use StrConv to convert a byte-array of single-byte characters to a string.....	67
Implicitly convert a byte array of multi-byte-characters to a string.....	67
Chapter 12: Copying, returning and passing arrays.....	69
Examples.....	69
Copying Arrays.....	69
Copying Arrays of Objects.....	70
Variants Containing an Array.....	70
Returning Arrays from Functions.....	70
Outputting an Array via an output argument.....	71
Outputting to a fixed array.....	71
Outputting an Array from a Class method.....	72
Passing Arrays to Procedures.....	72
Chapter 13: CreateObject vs. GetObject.....	74

[Click here to download full PDF material](#)