



Programming in VBA

Using Microsoft Excel 2013



ms803-ver2013-sg

Instructor Resources SiderisTraining

2 Days

❖ General Description

The skills and knowledge acquired in this course are sufficient to be able to create real life working **VBA** applications within **Excel**. The learner will be able to work with **VBA** within the **Excel** environment to program and automate worksheet operations.

❖ Learning Outcomes

At the completion of this course you should be able to:

- understand the **Excel** object model and **VBA** concepts
- work effectively with the main features of the **VBA Editor** window
- create procedures in **VBA**
- create and use variables
- create and work with user-defined functions in **VBA**
- write code to manipulate **Excel** objects
- use a range of common programming techniques
- create a custom form complete with an assortment of controls
- create code to drive a user form
- create procedures that start automatically
- write a variety of error handling routines

❖ Prerequisites

This publication assumes the learner has a good knowledge of working with **Excel**. The learner should be able to create and edit workbooks, enter formulas, copy, paste, and format data. The learner must also have a general understanding of personal computers and the Windows operating system environment and be able to use File Explorer to locate and copy files.

❖ Topic Sheets

124 topics

❖ Pages

136

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Understanding Excel VBA

Programming in Microsoft Excel
VBA Terminology
Displaying the DEVELOPER Tab
The VBA Editor Screen
Opening and Closing the Editor
Understanding Objects
Viewing the Excel Object Model
Using the Immediate Window
Working With Object Collections
Setting Property Values
Working With Worksheets
Using the Object Browser

Programming With the Object
Browser
Accessing Help
Code Glossary

Starting With Excel VBA

Using the Project Explorer
Working With the Properties
Window
Using the Work Area
Viewing Other Panes
Working With Toolbars
Working With a Code Module
Running Code From the Editor

Setting Breakpoints in Code
Stepping Through Code

Procedures

Understanding Procedures
Where to Write Procedures
Creating a New Sub Routine
Using IntelliSense
Using the Edit Toolbar
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Bookmarking in Procedures
Code Glossary



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Using Variables

- Understanding Variables
- Creating and Using Variables
- Explicit Declarations
- The Scope of Variables
- Procedure Level Scoping
- Module Level Scoping
- Understanding Passing Variables
- Passing Variables by Reference
- Passing Variables by Value
- Understanding Data Types for Variables
- Declaring Data Types
- Using Arrays
- Code Glossary

Functions in VBA

- Understanding Functions
- Creating User-Defined Functions
- Using a User-Defined Function in a Worksheet
- Setting Function Data Types
- Using Multiple Arguments
- Modifying a User-Defined Function
- Creating a Function Library
- Referencing a Function Library
- Importing a VBA Module
- Using a Function in VBA Code
- Code Glossary

Using Excel Objects

- The Application Object
- The Workbook Objects
- Program Testing With the Editor
- Using Workbook Objects
- The Worksheets Object
- Using the Worksheets Object
- The Range Object
- Using Range Objects
- Using Objects in a Procedure
- Code Glossary

Programming Techniques

- The MsgBox Function
- Using MsgBox
- InputBox Techniques
- Using the InputBox Function
- Using the InputBox Method
- The IF Statement
- Using IF for Single Conditions
- Using IF for Multiple Conditions
- The Select Case Statement

- Using the Select Case Statement
- For Loops
- Looping With Specified Iterations
- The Do Loop Statement
- Looping With Unknown Iterations
- Code Glossary

Creating Custom Forms

- Understanding VBA Forms
- Creating a Custom Form
- Adding Text Boxes to a Form
- Changing Text Box Control Properties
- Adding Label Controls to a Form
- Adding a Combo Box Control
- Adding Option Buttons
- Adding Command Buttons
- Running a Custom Form

Programming UserForms

- Handling Form Events
- Initialising a Form
- Closing a Form
- Transferring Data From a Form
- Running Form Procedures
- Creating Error Checking Procedures
- Running a Form From a Procedure
- Running a Form From the Toolbar
- Code Glossary

Automatic Startup

- Programming Automatic Procedures
- Running Automatic Procedures
- Automatically Starting a Workbook

Error Handling

- Understanding Error Types
- The on Error Statement
- Simple Error Trapping
- Using the Resume Statement
- Using Decision Structures in Error Handlers
- Working With Err Object
- Error Handling in Forms
- Coding Error Handling in Forms
- Defining Custom Errors
- Code Glossary

Product Information

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