

GreenDot Course Outline

Microsoft Excel 2007
Introduction to VBA

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GreenDot
Consulting

Description:

The skills and knowledge acquired in this course are sufficient to be able to create VBA applications within Excel.

Learning Outcomes:

At the completion of Programming in VBA Microsoft Excel 2007 you should be able to:

- create recorded macros in Excel
- use the macro recorder to create a variety of macros
- understand the Excel object model and VBA concepts
- work with the three main components of the VBA Editor window
- create command procedures
- create and use variables
- create and work with user-defined functions
- write code to manipulate Excel objects
- use a range of common programming techniques
- create a custom form complete with controls and event procedures
- create code to drive a user form
- create procedures that start automatically
- write a variety of error handling routines

Target Audience:

Programming in VBA Microsoft Excel 2007 is designed for users who wish to learn how to use the inbuilt programming language in Excel to enhance their worksheets and automate processes.

Prerequisites:

This publication assumes the student has some prior knowledge of working with Excel and it would be beneficial to have a general understanding of personal computers and the Windows operating system environment.

Duration:

1-2 Days

Course Outline:

Recorded Macros

- Understanding Excel Macros
- Setting Macro Security
- Saving A Document As Macro Enabled
- Recording A Simple Macro
- Running A Recorded Macro
- Relative Cell References
- Running A Macro With Relative References
- Viewing A Macro
- Editing A Macro
- Assigning A Macro To The Toolbar
- Running A Macro From The Toolbar
- Assigning A Keyboard Shortcut To A Macro
- Deleting A Macro
- Copying A Macro
- Tips For Developing Macros

Recorder Workshop

- Preparing Data For An Application
- Recording A Summation Macro
- Recording Consolidations
- Recording Divisional Macros
- Testing Macros
- Creating Objects To Run Macros
- Assigning A Macro To An Object

Understanding VBA

- VBA Terminology
- About Objects
- Accessing 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

Using The VBA Editor

- The VBA Editor
- Opening And Closing The Editor
- Working With The Project Explorer
- Working With The Properties Window
- Working With The Work Area
- Working With A Code Module
- Setting Breakpoints In The Editor
- Stepping Through A Procedure

Procedures

- About Procedures
- Creating A Command Procedure
- Making Sense of IntelliSense
- Using The Edit Toolbar
- Commenting Statements
- Indenting Code
- Bookmarking In Procedures

Using Variables

- Understanding Variables
- Creating And Using Variables
- Implicit And Explicit Declarations
- The Scope Of Variables
- Procedure Level Scoping
- Module Level Scoping
- Passing Variables By Reference
- Passing Variables By Value
- Data Types
- Declaring Data Types
- Using Arrays

User Defined Functions

- About Functions
- Creating Simple User-Defined Functions
- Using User-Defined Functions
- Using Multiple Arguments
- Modifying A Function
- Creating A Function Library

Using Excel Objects

- Application Methods And Properties
- Workbook Methods And Properties
- Viewing Excel And The Editor Together
- Using Workbook Objects
- Worksheets Methods And Properties
- Using Worksheet Objects
- Range Methods And Properties
- Using Range Objects
- Using Objects In A Procedure

Programming Techniques

- The MsgBox Function
- Sending Messages To The User
- 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 Known Or Specified Iterations
- The Do...Loop Statement
- Looping With Unknown Iterations

Creating Custom Forms

- About Custom 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
- Project Transferring Data From A Form
- Running Form Procedures
- Creating Error Checking Procedures
- Running A Form From A Procedure
- Creating Quick Access Toolbar Buttons

Automatic Startup

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

Error Handling

- Error Types
- The On Error Statement
- Creating A Simple Error Handler
- Using The Resume Statement
- Using Decision Structures In Error Handlers
- Using The Err Object
- Error Handling In Event Procedures
- Defining Custom Errors

Concluding Remarks