

Introduction to Excel VBA (2 days)



Prerequisites

Knowledge of Excel up to Advanced level. No prior knowledge of Excel macros or Visual Basic for Applications (VBA) is required. If delegates already have such knowledge then the course could be suitably tailored to meet requirements, by concentrating on more advanced topics.

Note:

This course is designed to concentrate on the programming aspects of Excel, notably macros and Visual Basic for Applications (VBA).

Exercises

This course is instructor led, involving the utilisation of examples and exercises in a workshop environment.

Recorded Macros

- Setting Macro Security Levels
- Recording and Running a Simple Macro
- Relative Cell References
- Running a Macro With Relative References
- Viewing and Modifying in a Macro Module

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
- 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

- 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
- Running Procedures from the Editor
- Setting Breakpoints in the Editor
- Stepping through a Procedure

Procedures

- Creating a Command Procedure
- Making Sense of IntelliSense
- Using the Edit Toolbar
- Commenting Statements
- Indenting Code
- Bookmarking In Procedures

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Using Variables

- Creating & 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

- User-Defined Functions Theory
- Creating Simple User-Defined Functions
- Using User-Defined Functions
- Using Multiple Arguments
- Modifying a Function
- Creating a Function Library

Using Excel Objects

- Application Methods & Properties
- Workbook Methods & Properties
- Viewing Excel & the Editor Together
- Using Workbook Objects
- Worksheet Methods & Properties
- Using Worksheet Objects
- Range Methods & Properties
- Using Range Objects
- Project - 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 FOR NEXT Statement
- Looping Known/Specified Iterations
- The DO LOOP Statement
- Looping With Unknown Iterations

Creating 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 Custom Forms

- 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

Automatic Startup

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