

EXCEL 2010/2013/2016

LEVEL 3 – VBA MACROS

2-day course

Course Code: S153V

WHO SHOULD ATTEND?

This course is intended for participants who are familiar with Microsoft Office Excel.

PREREQUISITES

Microsoft Office Excel Level 2 or equivalent knowledge.

COURSE OBJECTIVES

Upon completion of the course, participants will be able to accomplish the following:

- Understand key concepts that will be used to build custom solutions using Microsoft Excel VBA Macros
- Become familiar with basic macro techniques for recording, writing, running, and maintaining macros
- Understand how Visual Basic for Applications is incorporated, used, and modified in Microsoft Excel
- Learn how to design and lay out a user form and controls to create a customized dialog box to simplify data entry
- Understand how to prepare an Excel Workbook containing macros and toolbars for deployment to other users and machines
- Learn to customize macros with VBA source code to automate data entry tasks and enable source code protection
- Learn to enhance source code with variables, constants, and logical operators
- Learn to handle the three types of errors that can be generated when working with source code
- Learn to access external data by using ActiveX Data Objects
- Learn how to use Excel as an automation server to control Excel objects externally outside of the application

COURSE CONTENT

BUILDING SOLUTIONS

Course Overview; Solution Concepts; Data Entry Concepts; Macro Concepts; Programming Concepts

MACRO BASICS

Planning Macros; Recording Macros; Executing Macros; Maintaining Macros

VBA PROGRAMMING BASICS

Understanding Objects; Using the Visual Basic Editor; Understanding VBA Code; Executing VBA Code; VBA Help Reference

VBA USER FORM BASICS

Planning User Forms; Designing User Forms

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DEPLOYMENT BASICS

Preparing for Deployment; Code Security; Creating Custom Toolbars; Creating Custom Macro Buttons

CUSTOMIZING MACROS

Prompting for User Input; Automating Data Entry; Recording Absolute vs. Relative References; Protecting VBA Source Code

ENHANCING VBA CODE

Writing Source Code; Variables and Constants; Writing Tips; Logical Operators; Flow Control

HANDLING ERRORS

Handling Errors; Syntax Errors; Logical Errors; Run-Time Errors

SUPPLEMENTAL - ACCESSING EXTERNAL DATA

External References; ActiveX Data Objects Concepts; Connecting to a Database; Retrieving Records from a Database

SUPPLEMENTAL - EXCEL AUTOMATION

Automation Concepts; Working with Object Models; Excel's Object Model; Automating Excel with VBScript