

Excel 2003: VBA Programming

1 Day

Description

This class is designed to help students who are interested in Excel customization. It is an excellent follow up to the Power User course. In-class exercises will involve the topics such as the visual basic editor, the basics of programming, control structures, custom dialog boxes, as well as debugging and error handling.

Prerequisites

- Excel Basic
- Excel Intermediate
- Excel Advanced
- Or equivalent experience

Objectives

- ✓ Use Visual Basic for Applications (VBA) terminology and start Visual Basic Editor (VBE)
- ✓ Change object properties by using the Properties window and by using code
- ✓ Use a method
- ✓ Associate VBA code with an event and execute VBA code by using a button
- ✓ Open the Object Browser and use the search feature of the Object Browser
- ✓ Understand the different data types in VBA
- ✓ Declare variables implicitly and explicitly
- ✓ Use expressions and the Cells object
- ✓ Use the MsgBox and InputBox interaction functions
- ✓ Understand and use the different scope of variables
- ✓ Understand and use the different scope of procedures
- ✓ Create and call a Sub procedure
- ✓ Create and call a Function procedure
- ✓ Use the If...Then, If...Then...Else, and If...Then...Elseif control structures
- ✓ Use the Select Case statement
- ✓ Use the For...Next and For Each...Next loops
- ✓ Using the Do While...loop
- ✓ Add a user form to a project and add controls to that user form
- ✓ Attach an event handler to controls and validate data by using event handlers
- ✓ Understand the different types of errors
- ✓ Understand the different debugging tools available in VBA
- ✓ Set a breakpoint
- ✓ Add a watch expression
- ✓ Step through code
- ✓ Delete a watch expression
- ✓ Use the Immediate window and the Locals window
- ✓ Handle errors by using the On Error GoTo and On Error Resume Next statements

Excel 2003: VBA Programming, continued

Visual Basic Editor

Visual Basic for Applications

- Discussing VBA
- Examining the VBE window

Object Programming

- Examining the Properties window
- Changing the object properties
- Using code to change object properties
- Using a method
- Associating VBA code with an event
- Executing VBA code by using a button

The Object Browser

- Examining the Object Browser
- Searching in the Object Browser

Programming basics

Data

- Discussing data types and variables
- Discussing and declaring variables
- Using operators
- Using the interaction functions

Scope of variables

- Understanding procedure and module-level scope
- Understanding public scope

Scope of procedures

- Creating a Sub procedure
- Calling a Sub procedure
- Creating a Function procedure
- Calling a Function procedure

Control structures

Decision structures

- Using the If...Then statement
- Using the If...Then...Else statement
- Using the If...Then...Elseif statement
- Using the Select Case statement

Loop structures

- Using the For...Next loop
- Using the For Each...Next loop
- Using the Do While...Loop

Custom dialog boxes

User forms

- Adding a user form
- Adding controls to a user form

Events

- Attaching an event handler to a control
- Validating data by using event handlers

Debugging and error-handling

Errors

- Discussing types of errors

Debugging

- Discussing debugging tools
- Setting a breakpoint
- Adding a watch expression
- Using Step Into
- Deleting a watch expression
- Working with the Immediate window
- Working with the Locals window

Error-handling

- Using the On Error GoTo statement
- Using the On Error Resume Next statement