*VBA for Modelers*, 2e

Albright

Note: Entries in red are new to the second edition.

**Part I: VBA Fundamentals**

1. Introduction to VBA Development in Excel
   1. Introduction
   2. Example Applications
   3. Decision Support Systems
   4. Required Background
   5. Visual Basic Versus VBA
   6. Summary
2. The Excel Object Model
   1. Introduction
   2. Objects, Properties, and Methods
   3. Collections as Objects
   4. The Hierarchy of Objects
   5. Object Models in General
   6. Summary
3. The Visual Basic Editor
   1. Introduction
   2. Important Features of the VBE
   3. The Object Browser
   4. The Immediate and Watch Windows
   5. A First Program
   6. Intellisense
   7. Color Coding and Case
   8. Summary
4. Recording Macros
   1. Introduction
   2. How to Record a Macro
   3. Recorded Macro Examples
   4. Summary
5. Getting Started with VBA
   1. Introduction
   2. Subroutines
   3. Declaring Variables and Constants
   4. Input Boxes and Message Boxes
   5. Using Excel Functions in VBA
   6. Comments
   7. Strings
   8. Specifying Objects, Properties, and Methods
   9. With Construction
   10. Other Useful VBA Tips
   11. Good Programming Practices
   12. Debugging
   13. Summary
6. Working with Ranges
   1. Introduction
   2. Exercise
   3. Important Properties and Methods of Ranges
   4. Specifying Ranges with VBA
   5. Examples of Ranges with VBA
   6. Summary
7. Control Logic and Loops
   1. Introduction
   2. Exercise
   3. If Constructions
   4. Case Constructions
   5. For Loops
   6. For Each Loops
   7. Do Loops
   8. Summary
8. Working with Other Excel Objects
   1. Introduction
   2. Exercise
   3. Collections and Members of Collections
   4. Examples of Workbooks in VBA
   5. Examples of Worksheets in VBA
   6. Examples of Charts in VBA
   7. Summary
9. Arrays
   1. Introduction
   2. Exercise
   3. The Need for Arrays
   4. Rules for Working with Arrays
   5. Examples of Arrays in VBA
   6. Array Functions
   7. Summary
10. More on Variables and Subroutines
    1. Introduction
    2. Exercise
    3. Scope of Variables and Subroutines
    4. Modularizing Programs
    5. Passing Arguments
    6. Function Subroutines
    7. The Workbook\_Open Event Handler
    8. Summary
11. User Forms
    1. Introduction
    2. Exercise
    3. Designing User Forms
    4. Setting Properties of Controls
    5. Creating a User Form Template
    6. Writing Event Handlers
    7. Displaying a User Form
    8. Looping Through the Controls on a User Form
    9. Working with List Boxes
    10. Working with the Forms and Control Toolbox Toolbars
    11. Summary
12. Error Handling
    1. Introduction
    2. Error Handling with On Error Statement
    3. Handling Inappropriate User Inputs
    4. Summary
13. Working with Files and Folders
    1. Introduction
    2. Exercise
    3. Dialog Boxes for File Operations
    4. The FileSearch Object
    5. A File Renumbering Example
    6. Working with Text Files
    7. Summary
14. Importing Data into Excel from a Database
    1. Introduction
    2. Exercise
    3. A Brief Introduction to Relational Databases
    4. A Brief Introduction to SQL
    5. The Technology: DAO and ADO
    6. Discussion of the SalesOrders Exercise
    7. Summary
15. Working with Pivot Tables
    1. Introduction
    2. Working with Pivot Tables Manually
    3. Working with Pivot Tables Using VBA
    4. An Example
    5. Summary
16. Working with Menus and Toolbars
    1. Introduction
    2. Using Excel’s GUI
    3. Relevant Objects for Menus and Toolbars
    4. Modifying Menu Bars and Toolbars
    5. Summary
17. Automating Solver and Other Add-Ins
    1. Introduction
    2. Exercise
    3. Invoking Solver in VBA
    4. Possible Solver Problems
    5. Programming with Palisade Add-Ins
    6. Summary

# Part II: VBA Management Science Applications

1. Basic Ideas for Application Development with VBA
   1. Introduction
   2. Guidelines for Application Development
   3. A Car Loan Application
   4. Summary
2. A Blending Application
   1. Introduction
   2. Functionality of the Application
   3. Running the Application
   4. Setting Up the Excel Sheets
   5. Getting Started with the VBA
   6. The User Forms and Their Event Handlers
   7. The VBA Code in the Module
   8. Summary
3. A Product Mix Application
   1. Introduction
   2. Functionality of the Application
   3. Running the Application
   4. Setting Up the Excel Sheets
   5. Getting Started with the VBA
   6. The User Form and Its Event Handlers
   7. The VBA Code in the Module
   8. Summary
4. An Employee Scheduling Application
   1. Introduction
   2. Functionality of the Application
   3. Running the Application
   4. Setting Up the Excel Sheets
   5. Getting Started with the VBA
   6. The User Form and Its Event Handlers
   7. The VBA Code in the Module
   8. Summary
5. A Production Planning Application
   1. Introduction
   2. Functionality of the Application
   3. Running the Application
   4. Setting Up the Excel Sheets
   5. Getting Started with the VBA
   6. The User Forms and Their Event Handlers
   7. The VBA Code in the Module
   8. Summary
6. A Logistics Application
   1. Introduction
   2. Functionality of the Application
   3. Running the Application
   4. Setting Up the Access Database
   5. Setting Up the Excel Sheets
   6. Getting Started with the VBA
   7. The User Form and Its Event Handlers
   8. The VBA Code in the Module
   9. Summary
7. A Stock Trading Simulation Application
   1. Introduction
   2. Functionality of the Application
   3. Running the Application
   4. Setting Up the Excel Sheets
   5. Getting Started with the VBA
   6. The VBA Code in the Module
   7. Summary
8. A Capital Budgeting Application
   1. Introduction
   2. Functionality of the Application
   3. Running the Application
   4. Setting Up the Excel Sheets
   5. Getting Started with the VBA
   6. The User Form and Its Event Handlers
   7. The VBA Code in the Module
   8. Summary
9. A Regression Application
   1. Introduction
   2. Functionality of the Application
   3. Running the Application
   4. Setting Up the Excel Sheets
   5. Getting Started with the VBA
   6. The User Form and Its Event Handlers
   7. The VBA Code in the Module
   8. Summary
10. An Exponential Utility Application
    1. Introduction
    2. Functionality of the Application
    3. Running the Application
    4. Setting Up the Excel Sheets
    5. Getting Started with the VBA
    6. The User Form and Its Event Handlers
    7. The VBA Code in the Module
    8. Summary
11. A Queueing Simulation Application
    1. Introduction
    2. Functionality of the Application
    3. Running the Application
    4. Setting Up the Excel Sheets
    5. Getting Started with the VBA
    6. The Structure of a Queueing Simulation
    7. The VBA Code in the Module
    8. Summary
12. An Option Pricing Application
    1. Introduction
    2. Functionality of the Application
    3. Running the Application
    4. Setting Up the Excel Sheets
    5. Getting Started with the VBA
    6. The User Form and Its Event Handlers
    7. The VBA Code in the Module
    8. Summary
13. An Application for Finding Betas of Stocks
    1. Introduction
    2. Functionality of the Application
    3. Running the Application
    4. Setting Up the Excel Sheets
    5. Getting Started with the VBA
    6. The User Forms and Their Event Handlers
    7. The VBA Code in the Module
    8. Summary
14. A Portfolio Optimization Application
    1. Introduction
    2. Functionality of the Application
    3. Running the Application
    4. Web Queries in Excel
    5. Setting Up the Excel Sheets
    6. Getting Started with the VBA
    7. The User Forms and Their Event Handlers
    8. The VBA Code in the Module
    9. Summary
15. A DEA Application
    1. Introduction
    2. Functionality of the Application
    3. Running the Application
    4. Setting Up the Excel Sheets and the Text File
    5. Getting Started with the VBA
    6. The User Form and Its Event Handlers
    7. Getting Data from a Text File
    8. The VBA Code in the Module
    9. Summary
16. An AHP Application for Choosing a Job
    1. Introduction
    2. Functionality of the Application
    3. Running the Application
    4. Setting Up the Excel Sheets
    5. Getting Started with the VBA
    6. The User Forms and Their Event Handlers
    7. The VBA Code in the Module
    8. Summary
17. A Poker Simulation Application
    1. Introduction
    2. Functionality of the Application
    3. Running the Application
    4. Setting Up the Excel Sheets
    5. Getting Started with the VBA
    6. The VBA Code in the Module
    7. Summary

Visit the [Cengage](http://www.cengage.com/decisionsciences/albright) site for our books.

Send e-mail to [albright@indiana.edu](mailto:albright@indiana.edu)

Albright is retired from the [Kelley School of Business, Indiana University, Bloomington](http://www.kelley.indiana.edu/) and now works as a consultant for [Palisade Corp](http://www.palisade.com/).

Back to [home page](file:///C:\Users\chris\Dropbox\My%20Books\Web%20Site\default.htm)

Updated: 1/13/2015