

# Access VBA Programming

## A Two Day Training Course

### Course Aims

This intensive course is designed to introduce new MS Access 97 programmers to features and facilities of the VBA programming language; to encourage confidence, control and creative use of MS Access by taking a structured look at MS Access VBA; to help developers plan their applications systematically, efficiently and economically; to promote good design and development techniques.

### Course Outline

#### The VBA Programming Environment

- When to Use VBA Instead of Macros
- VBA's Development Environment
- The Programming Environment
- The Object Browser
- Creating Procedures

#### Programming in the VBA Language

- Coding in Visual Basic for Applications
  - Using Variables and Expressions
  - Branching and Looping Commands
  - Indenting Code
  - Branching Commands
  - Using Arrays and Collections
  - Typing in Code
  - Optional and Named Arguments
  - Passing Arrays as Arguments
  - Code Compilation
  - Finding Bugs
  - Types of Error
  - Debugging Code
- #### Error Handling in VBA
- Ignoring Errors
  - Trapping Errors
  - Writing Useful Error Handlers
  - Logging Errors

#### Manipulating Data with DAO and SQL

- Data Access Objects (DAO); DAO Hierarchy
  - Working with Objects and Collections
  - Opening Databases Programmatically
  - Database and Recordset Objects
  - Dynasets; Snapshots
  - Manipulating Data with VBA Methods
  - Finding Records in a Recordset
  - Editing Data in a Recordset
  - Transaction Processing Commands
  - Using Recordsets to Manipulate Imported Data
  - Creating, Using, and Deleting Queries from VBA
  - Changing Database Definitions through VBA
  - Using SQL to Manipulate Databases
  - SQL Data Modification Statements
  - Methods of Running SQL from VBA Code
- #### Class Modules and Form-Event Procedures
- Class Modules
  - Using a Class's Properties and Methods
  - The PDM Example: Time Managing Multiple Projects
  - Using Form Events
  - Access 97 Form Events and Properties
  - Code Behind Forms; Changing Form Properties
  - Soft Validation; Creating Validation Event Procedures
  - Value Derivation; Creating New Form Instances
  - Tying Forms/Reports Together
  - Using Form Class Modules

### Target Audience

New, recent or intending Access 97 programmers who need a good understanding of the features available the MS Access VBA language.

### Assumed Knowledge

A good working knowledge of Windows 95/98/NT, the MS Access interface, table creation, basic query and report writing functions, macro development and relational database concepts gained from practical experience or by prior attendance on an "Access Advanced User" course is essential.

