

## **MS Access 2000 VBA Programming**

### **A Two Day Training Course**

#### **Course Aims:**

This intensive course is designed to introduce new MS Access 2000 programmers to features and facilities of the VBA programming language. It will encourage confidence, control and creativity in the 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. New Access 2000 features covered include writing Class Modules.

#### **Course Outline:**

##### ***VBA or Macros:***

- When to use VBA instead of Macros
- Converting Macros to VBA Functions to Trap Errors; Converting Macros to VBA Functions
- Using the Control Wizard to generate VBA code

##### ***The VBA Programming Environment:***

- Organising Code Using Modules
- The Programming Environment
- Colour Coded Editor; Searching Modules
- Creating Procedures & Functions & Subroutines
- Procedures and Arguments
- AutoComplete and AutoList features
- New Browser features
- New compilation options

##### ***Programming in the VBA Language:***

- Coding in Visual Basic for Applications
- Commenting Code; Line Continuation Character
- Using Variables and Expressions
- Naming Conventions
- Defining Variables and Assigning Values
- Automatic or Explicit Declarations
- The Variant Data Type; Other Data Types
- Branching & Looping Commands
- Indenting Code; Branching; If...Then
- Select Case; Looping; For...Next; Do...Loop
- For Each...Next; Opt'nl & Named Arguments
- Named Arguments

##### ***Finding Bugs***

- Types of Error: Syntax, Run-Time, Logical

- Debugging Code; Stepping Options
- Watch Points & Conditional Breakpoints
- New Access 2000 Debugging features

##### ***Writing Class Modules and Form Event Procedures:***

- Attaching Code to Events; Using the Builders
- Form Modules; Changing Form Properties
- Form-based Class Modules
- Soft Validation-Validation through Forms
- Creating Validation Event Procedures
- Writing Class Modules

##### ***Error Handling:***

- Using VB. to Handle Errors; Trapping Errors
- Writing Useful Error Handlers
- Errors: Messages; Recovering from; Logging

##### ***Manipulating Data Access Objects:***

- Data Access Objects; 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
- Use Recordset Manipulation for Imported Data
- Creating, Using & Deleting Queries from VBA

##### ***Changing Database Definitions Through VBA***

- SQL DDL; DAO or DDL
- Using DAO to change Database Structure

#### **Target Audience:**

New, recent or intending Access 2000 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 or NT Workstation, 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.