Advanced MapInfo Professional

COURSE OUTLINE

This course builds on the delegate’s existing knowledge of the underlying principles and methods of Geographical Information Systems (GIS). It comprises a series of presentations and computer-based practical sessions using MapInfo Professional software with example data sets taken from a variety of fields. The basic functionality of MapInfo Professional is expanded upon. Topics covered include: introduction to GIS customization with MapBasic; expressions and functions; advanced queries; data capture and QA; spatial analysis; advanced use of workspaces; using remote data; advanced data display and output; and resources and utilities.

This course is intended for those who have completed our Introduction to MapInfo Professional course or have equivalent knowledge and experience.

ANTICIPATED COURSE OUTCOMES / ACHIEVEMENTS

Aims and objectives

- To develop delegates’ understanding of the fundamental concepts of GIS including its strengths and limitations.
- To widen delegate’s experience beyond the core functionality of the MapInfo Professional software package.
- To expand on the skills needed to obtain, import, manipulate, analyse, interpret, manage and output spatial data in order to investigate topics in the delegate’s area of interest.
- To demonstrate more advanced real-world uses of GIS.

Learning outcomes - by the end of the course, delegates will have a knowledge and understanding of:

- MapBasic syntax
- Expression building and use
- Basic MapInfo automation using MapBasic window and workspace
- Using remote spatial data sources (spatial databases & internet data sources)
- Bundled and third party tools
- Advanced geoprocessing
- Advanced SQL
- Advanced data display and output

By attending training with GeoData you can accrue CPD points towards the Chartered Geographer accreditation. This course has been validated under the Association for Geographic Information CPD Scheme and it has been assessed for Royal Geography Society with IBG (RGS-IBG) Chartered Geographer (CGeog) accreditation (10 hours of CPD points).
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## Day 1

1. **Introduction to MapBasic**
   - MapBasic window
   - Documentation

## Day 2

6. **Using Remote Data**
   - ODBC Sources
   - Spatial databases
   - Internet data sources
   - *Exercise 6: Using Databases*

2. **Expressions & functions**
   - String expressions
   - Numeric expressions
   - Spatial expressions
   - Functions
   - Applications of expressions
   - *Exercise 2: Using expressions*

3. **Advanced Queries**
   - Textual joins
   - Spatial joins
   - Sub selects
   - Optimising queries
   - *Exercise 3: Advanced Queries*

4. **Spatial Analysis**
   - Overlay
   - Reclassification
   - Spatial Statistics
   - Redistricting
   - *Exercise 4: Spatial Analysis*

5. **Workspaces**
   - Editing Workspaces
   - Using workspaces as scripts
   - *Exercise 5: Batch Processing*

7. **Advanced Data Display & Output**
   - Advanced thematic mapping
   - Hotlinking
   - HTML Image maps
   - Layered PDF export
   - *Exercise 7: Display techniques*

8. **Coordinate Systems**
   - Implementation in MapInfo
   - Bounds clauses
   - Custom coordinate systems
   - Converting
   - Reprojecting rasters
   - *Exercise 8: Working with coordinate systems*

9. **Resources and Utilities**
   - Configuring MapInfo

10. **Group Exercise**
    - *Exercise 10: Mini GIS project*