
GIS Ecology Foundation Level Training Course

Introduction:

Our unique ecology-focused GIS training course is based on our experience of using GIS in a specialist ecological consultancy. The course aims to provide participants with a firm understanding of MapInfo so that they can confidently apply their new skills in the workplace. This course will use real ecological examples to complement MapInfo teaching. Included in the course fee is a MapInfo and Ecology reference book which will include topics covered in the course and also additional information.

Five Reasons to Choose RSK Carter Ecological Courses:

- 1) Small groups (maximum of 4 persons per session)
- 2) Applied Ecological case-studies
- 3) MapInfo and Ecology reference guide
- 4) 30 days free follow-up telephone support
- 5) Discounts for charities and multiple bookings

GIS in RSK Carter Ecological:

Our GIS team provides ecology-focused GIS training to ecological consultants, botanists, project managers, water company environmental teams and students. RSK Carter Ecological regularly provides Ecology GIS solutions to a range of clients including Natural England, the Environment Agency, Local Councils and large multi-disciplinary consultancies. Our projects range in size and scope including small building surveys for bats, to large, regional transport infrastructure projects for commercial and non-commercial clients.

Your Head Trainer:

Darren is GIS team manager at RSK Carter Ecological, ensuring that RSK Carter Ecological is at the forefront of the development of GIS in ecological work. This includes creating a standardised means of mapping Phase 1 Habitats within MapInfo that has been endorsed by the JNCC (<http://www.jncc.gov.uk/page-4258>). Darren has a full understanding of Pitney Bowes MapInfo Professional and ESRI Products. This includes the use of Structured Query Language (SQL) to manage large amounts data, converting and using different file types (TAB, Shp, DWG etc) and the digitisation and manipulation of spatial information.

Course Outline

- **Introduction to GIS Ecology and MapInfo**
- **Opening a workspace:**
 - Setting map options
 - Navigating in the map and layout window
- **Opening tables:**
 - MapInfo tables, linking data to object
 - Opening Excel and Access databases
- **Working with raster and vector formats:**
 - Raster and vector file formats, opening in MapInfo
 - Editing display of raster images
 - Viewing tables and editing features of vector images
 - Co-ordinate systems
 - Registering raster images
- **Layer control:**
 - Ordering layers
 - Functions of the cosmetic layer
 - Transferring data between layers
 - Use of style override
 - Labelling

EXAMPLE- Designated Sites and Protected Species

- **Creating tables:**
 - Formatting table for attribute data required
 - Column types

EXAMPLE – Table Creation for Phase 1 Habitat Mapping

- **Digitising:**
 - Use of snap and trace tool
 - Selecting multiple objects
 - Editing nodes, combining and splitting polygons
 - Use of check regions function to locate self intersections, overlaps and gaps

EXAMPLE–Digitising Phase 1 Habitat Mapping

- **Populating tables:**
 - Adding attribute data to features
 - Populating tables with geographical data
 - Packing and renaming a table

- **Editing Tables:**
 - Editing table structures
 - Appending tables
 - Updating columns

- **Structured Query Language (SQL):**
 - Use of SQL to select data based on an attribute
 - Saving and loading common queries
 - Creating and using buffers to spatially query out data within or intersecting a search area

- **Workspace creation and layout design:**
 - Data saved to the workspace
 - Layout templates
 - Setting scale in layout
 - Saving workspace window to a picture file

EXAMPLE—Creation of Final Phase 1 Habitat Mapping

- **Basic Thematic mapping:**
 - Creating thematic maps to highlight attributes of different features
 - Updating a thematic though MapInfo tables

EXAMPLE—Ecology Result Thematic Mapping (e.g. GCN Pond Status)

- **Working with data from applications other than MapInfo:**
 - Using Universal Translator
 - Linking MapInfo to Google Earth
 - Working with GPS
 - Importing NBN Data

- **Useful sources of GIS data**