INTERMEDIATE MAPINFO/DISCOVER
SHORT COURSE PROPOSAL

Course Title

Intermediate MapInfo Professional/Discover for Geologists

Course Description

The course is ideal for geologists who are already familiar with the basics of the most current version of MapInfo Professional and Discover mineral exploration extension for MapInfo. MapInfo Professional and Encom software are recognized as current industry standards. The software combination, designed especially for the geosciences, provides the tools to effectively compile, visualize, analyze and map spatial geosciences data. The course consists of a series of lectures and hands-on exercises for clients wanting to get the most out of their surface sampling and downhole exploration data. The course has been customized to allow participants to work with their own data sets and produce maps and data analysis which they can immediately implement.

Specific Objectives

Participants will learn how to:
- Use ODBC connections in MapInfo
- Build SQL Queries
- Analyze and visualize geochemical data.
- Generate graphs to gain insight to your data.
- Construct, manipulate and analyze gridded surfaces
- Compile drillhole data and create cross-sections, plans and logs.
- Animate a map window and create movies files.
- Share and modify workspaces.
- Add HotLinks to your maps to make them interactive, turn any map into a clickable web page
- Display MapInfo objects in Google Earth.

Course Audience – Who Should Attend?

The course is designed for geologists, cartographers, exploration managers, exploration technicians, students, and others involved with GIS and map making in mineral exploration. The course is recommended for any professional with a working knowledge of MapInfo Professional / Discover.

Estimated Number Of Pages Of Course Notes

150 pages

Course Duration

2 days

Agenda

Day One	Day Two
Opening an Access table via ODBC in MapInfo Professional	Drillhole Display
SQL Select command (Query menu)	Make Movie or Animation
Geochem Utility	Working with Workspaces
Graphing your Data	Internet Connectivity
Exercise - Graphing with MapInfo	
Grid Mapping	Using the Google Earth™ Link Utility
	Exercise - Adding Points to Google Earth

Prerequisites:

Windows familiarity is required and knowledge of MS Excel and Access is beneficial. A working knowledge MapInfo / Discover is necessary. Each attendee is required to provide their own laptop. An evaluation license for both MapInfo and Discover will be provided for the duration of the course. Attendees are encouraged to bring their own data sets.

Special Features

The course provides each attendee with a workbook, documentation, data sets and an evaluation license to the current versions of both MapInfo and Discover where required. See attached Course Outline for the Table of Contents from course workbook.

Course Instructor

Barbara Carroll

Barbara Carroll is a Principal Consultant and Founder of GeoGRAFX. Her firm provides professional and technical geological services and products to the resource exploration and mining industries worldwide. Ms. Carroll is a certified Professional Geologist by the American Institute of Professional Geologists with over 30 years of wide ranging international exploration experience in the mining industry. Immediately prior to forming GeoGRAFX, Ms. Carroll served as Project Manager for Phelps Dodge Mining Co.'s Jerome Project, a multi-million dollar preliminary evaluation of the remaining potential of the United Verde Mine in Arizona which resulted in completion of a new geologic model and preliminary resource estimate. Prior to working for Phelps Dodge, she was Systems Geologist at Battle Mountain Gold Co., and responsible for resource evaluation and selection and support of software/hardware for all US Exploration offices as well as remote computer communications. She has extensive experience in construction of geologic models and resource/reserve estimation, as well as creation and management of GIS databases.

Course History:

This course was developed in response to the requests of geologists and mining consultants who recognize the need to expand and update their skill set. In the highly competitive world of mining, the ability to quickly and easily map and analyze data has become increasingly important. MapInfo Professional and Encom Discover software are the industry data analysis tools of choice.

Course Outline

Lesson 1: Opening an Access table via ODBC in MapInfo Professional
 Managing Datasources with the ODBC Administrator
  What Is the ODBC Administrator?
  ODBC.INI and ODBCINST.INI (Registry Keys)
 Setting Up an MS Access Datasource
 To add a new MS Access DataSource
 In Microsoft Access:
 MapInfo DBMS Catalog Utility
  A. Create the Map Catalog:
  B. Make the DBMS Table Mappable.
  C. Opening the DBMS Table.

Lesson 2: SQL Select command (Query menu)
 Making Queries using the SQL Select Command
 Grouping and Ordering Your Data
  Calculating Derived Columns
 Finding Duplicate Records
 Joining map objects from one table to records in a second table
 Finding Points within a Region
 Selecting Alternate Records
 Aggregating Data

Lesson 3 – Geochem Utility
 Point Classification
 Data Leveling
 Summary Statistics
 Compute Correlation Matrix

Lesson 4: Graphing your Data
 Open the Soils map
 Graphing with MapInfo
 XY Scatter Plots in MapInfo
 Discover GraphMap
 Creating an XY Scatter Matrix Graph - New Interactive Graphing Tool
 Creating a XY Scatter Graph Old version
 Creating a Ternary Plot with GraphMap
 Creating a Stereogram using GraphMap
 Creating a Rose Diagram from GraphMap
 Respecifying Graph Properties

Exercise 4 (a different dataset)

Lesson 5 – Grid Mapping
 An Exercise in Surface Modeling and Analysis
 Configure Grid Handlers

 Generate a Surface Grid
 Contour Elevation Grid
 Altering Grid Colors, Sun-Shading and Transparency
 Create a Profile from a Grid
 Assign Values from Grid
 Grid Queries
 Step 8 - Using the Grid Calculator
 Clipping a Grid
 Volume Calculations
 Points to Regions (Voronoi Polygons)

Lesson 6- Drillhole Display
 An Exercise in Drillhole Display
 Data Sources
 Preparing Data Prior to Viewing Drillholes
 Merging of Sample Data and Assay Data
 Opening the remaining Access tables in MapInfo
 Create Objects for the Collars
 Generation of Contours from the Collar Elevations
 Creating Sections
 Setup Discover to create Sections
 Section Manager
 Step 2 – Validating your Database
 Step 3 – Produce a Drillhole Plan
 Step 4 – Select the Collars to include in the Section
 Step 5 – Section Manager
 Step 6 – Extracting Maximum and EOH values
 Step 7 – Editing Display Color Patterns for sections
 Step 8 – Annotate the Sections
 Step 8 (optional) – Using Previously Created Sections
 Step 11 – On-screen Interpretation
 Step 12 – Generating Sectional Resources
 Step 13 – Downhole Compositing of Attribute Data
 Step 14 – Printing a Drillhole Section

Lesson 7 - Make Movie or Animation

Lesson 8: Working with Workspaces
 Packaging Workspaces
  Workspace Packager (MapInfo Tools)
  Save Tables and Workspace (Discover)
 Editing Workspaces
  Workspace Resolver (MapInfo Tools)
  Open Workspace Advanced
  Workspace Editor (Discover)