

DISCOVER 3D SHORT COURSE PROPOSAL

Course Title

Using Discover 3D

Course Description

This one day course is geared for clients who want to get the most out of their Discover 3D software application. The course will cover many of the Discover Drillhole and Surfaces module options, preparing data for viewing in 3D through advanced 3D options such as Fly-Through Animation and working with Voxel Models. Encom Discover 3D for MapInfo Professional is the first fully integrated 3D GIS solution for the resource sector. Built on top of the functionality and power of the MapInfo Professional/Encom Discover combination, Discover 3D turns a 2D environment into a full 3D GIS system. The course consists of a series of lectures and hands-on exercises using geological data to build 3D models and visualize data.

Specific Objectives

Participants will learn how to:

- View Discover 3D Data from MapInfo/Discover
- Understand and use the Discover 3D interface
- Display 3D georeferenced bitmap images
- Display cross sections as georeferenced 3D bitmap images
- Build and display 3D surfaces
- Create and view 3D line and point data
- Generate and display Drillhole data in 3D, add sections, drillhole logs to the 3D display
- Load 3D vector objects into Discover 3D, modify their appearance, display additional vector objects.
- Create Fly-Through animations, select playback options, flight path and output format.
- Display a Voxel 3D object, change the appearance, set threshold limits, view the Voxel modal as an isosurface, and view the Voxel model with other objects
- Create a 3D solid object and calculate volume from individual drillhole section or plan boundaries.

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 who wishes to learn how to utilize the powerful 3D visualization and modeling tools of Encom Discover 3D.

Estimated # of Pages of Course Notes

150 pages

Course Duration

1 day

Agenda

<i>Day One - Morning</i>	<i>Day One – Afternoon</i>
View Discover 3D data from MapInfo/Discover	Adding Drillhole Sections to 3D Displays
Discover 3D Interface	Adding Drillhole Logs
Display 3D Georeferenced Bitmap Images	Display 3D Vector Objects
Multi Section Creator	Creating Fly-Through Animation
Display 3D Surface	Display a Voxel 3D Object
Display 3D Line and Point Data	3D Solid Generator
Display Vectors Over a Surface	
3D Drillhole Traces	

Prerequisites:

Windows familiarity is required as is previous experience with MapInfo/Discover , specifically the Drillhole and Surfaces modules. Each attendee is required to provide their own laptop with the current version of MapInfo/Discover installed. An evaluation license of Discover 3D will be provided for the duration of the course.

Special Features

The course provides each attendee with a workbook, documentation, data sets and an evaluation license for Discover 3D. 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

View Discover 3D Data from MapInfo/Discover

- Open 3D Window
- Open and Save 3D Workspace

Discover 3D Interface

Display 3D Georeferenced Bitmap Images

- Add a Georeferenced Bitmap Image from MapInfo/Discover:
 - Discover 3D > View Map
- Draping a Map over an Alternative Surface:
 - Discover 3D > 3D Display Wizard
- Add a Georeferenced Bitmap Image from Discover 3D
 - Display Image: Discover 3D > Utilities > Image in Grid Creator

Multi Section Creator

- Georeferenced Image File Creation Wizard

Display 3D Surface

Display 3D Line Data

- Discover 3d > Create Lines
- Controlling Line Appearance
- Adding Points to Lines
- Offsetting Data Points & Lines

Display 3D Point Data

- Discover 3d > Create Points
- Controlling Point Appearance
- Offsetting Data Points

Display Vectors Over a Surface

- Discover 3D > View Map (image)

3D Drillhole Traces

- Create Drillhole Project
- Display Drillhole Traces in 3D
- Selecting Drillholes to Display in Discover 3D
- Modifying Drillhole Appearance

Modulating the Drillhole Diameter
Modulating Drillhole Appearance with Data

Adding Drillhole Sections to 3D Displays

Setup Drillhole Project & Sections
Prepare the Sections
Display the Sections in Discover 3D
Displayed Section Appearance

Adding Downhole Logs

Setup Drillhole Project
Display Drillhole Traces in 3D
Display Logs in 3D
Modifying the Appearance of Logs

Display 3D Vector Objects

3D Vector Files
Loading DXF into MapInfo
Loading a DXF into Discover 3D
Modifying the Appearance of a DXF
Display Additional DXF Objects

Creating a Fly-Through Animation

Select Input Type
Input Parameters – Current 3D View
General Playback Options
Flight Path – Rotate Around
Output Formats

Display a Voxel 3D Object

Loading the Voxel Model into Discover 3D
Changing the Appearance of the Voxel Model
Clip the Voxel Model
Threshold the Voxel Model
View the Voxel Model as an IsoSurface
View the Voxel Model with Other Objects

3D Solid Generator

Create Boundaries
Discover > Discover 3D > View Section Boundary
Create 3D Solid
Discover 3D > Utilities > 3D Solid Generator