

# GPS INTEGRATION SHORT COURSE PROPOSAL

## ***Course Title***

Integrating GPS Data with MapInfo

## ***Course Description***

This one-day course will familiarize geologists with the ability to capture, analyze, and display GPS information in MapInfo as well as upload MapInfo data to the GPS unit. The course consists of instructor-led lecture, "hands-on" software experience, and data collection exercises in the field.

## ***Specific Objectives***

Participants will:

- Review the basics of Global Positioning Systems
- Review of current types of GPS receivers, focusing on professional handhelds and data collection devices
- Learn how to connect the GPS unit to the computer (serial port, USB, Bluetooth), DGPS, datums.
- Examine the different software utilities that integrate the GPS data with MapInfo
- Review current resources available
- Connect GPS unit to computer and utility programs
- Collect both point and line data in the field
- Download data collected to different utility programs and import into MapInfo.
- Evaluate data collected.
- Transfer data points and lines to GPS receiver.
- Use the GPS unit to navigate to loaded data.
- Evaluate data

## ***Course Audience – Who Should Attend?***

The course is recommended for any professional who wishes to learn how to exchange data between MapInfo and a GPS receiver.

## ***Estimated # of Pages of Course Notes***

125 pages

## ***Course Duration***

1 day

## **Agenda**

<b><i>Day One - Morning</i></b>	<b><i>Day One – Afternoon</i></b>
Introduction	Data Download to Laptop
GPS Units	Data Evaluation
Connect GPS to Computer	Upload Data to GPS Unit
Software Utilities	Outside Data Collection
Resources	Data Evaluation
Outside Data Collection	

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### ***Prerequisites:***

Windows familiarity is required as is previous experience with MapInfo and the users' specific GPS unit. Each attendee is required to provide their own laptop with the current version of MapInfo installed. Each attendee is required to provide their own GPS receiver. Connection between GPS receiver and laptop must be verified prior to the course.

### ***Special Features***

The course provides each attendee with a workbook, documentation, and data sets. 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 integrate their GPS data with the MapInfo platform.

## ***Course Outline***

### ***Introduction***

**GPS Basics**

### ***GPS Units***

**Types of GPS Receivers -  
(focusing on professional  
handhelds and data  
collection software)**

**Accuracy**

**Differential Correction -  
do we need it or not?**

### ***Connecting the GPS unit to the computer***

### ***Software Utilities that work with MapInfo***

**GeoTracker**

**Discover Mobile**

**GPS Utility**

**Century Systems**

**Other useful utilities**

### ***Resources***

#### ***Outside Data Collection***

**Point feature collection**

**Line feature collection**

#### ***Download data collected***

#### ***Evaluation of data***

#### ***Upload data to GPS units***

#### ***Outside Data Collection***

#### ***Data Evaluation***