



Fundamentals Online Course Outline

The MicroSurvey Fundamentals course will prepare you to efficiently create scaled; basic plans and asbuilts using the survey calculation tools, “smart” entities and automatic drafting features of MicroSurvey CAD, embeddedCAD or inCad. The topic list below will give us a road map to follow but some items may be added or removed to best fit the requirements of the group.

Session 1:

Overview and Point Operations:

- Instructor/Student introductions and Goal Setting
- Introduction to MicroSurvey CAD / embeddedCAD / inCad
- Explanation of the file structure and file extensions
- Overview of Project Manager, major buttons, toolbars, ribbons and options on the screen. Menus and other methods of command entry, toolbar, mouse. Zoom and Pan options, mouse options
- IPN / IPD / Grips commands from MS IPN toolbar
- Movies, Help and Web site – How to get support
- Overview of MicroSurvey Survey default settings, how to save and recall them, reset to factory defaults
- Simple editing of points, Listing Points, Auto Add Points to Objects
- Look at MsPoints and MsCogo menu items, Inverse Dot to Dot, CAD Edit Line/Curve routines, etc.

Session 2:

Cadastral Operations, Data Collectors and Traverses

- Extensive look at all COGO options (including COGO exercise), including CAD Lines and CAD Curves
- Batch COGO, benefits, usage
- Download and Upload a data collector file- including overview of FG2008 import options
- Manual entry of Traverse information, 3 methods of input, ATE, Dialog, Command Line
- Discuss Editing, Closure Reports, Balancing, etc. of traverses, use Help file diagrams as appropriate

Session 3:

Point Operations, AutoMap and Survey Calculations

- ASCII In/Out via the menu and via Active Coordinate Editor
- In depth discussion of the Active Coordinate Editor and Single Point Editor
- In depth discussion of AutoMAP, symbols, layering, linework, Quick Posts and extended options
- Z-Coding (layering controlled via AutoMAP)
- Helmert's Similarity Transformation
- Point Comparisons and Point Clusters
- Rotate, Translate and Scale Commands
- Linear Regression Functions

Session 4:

Annotation and Plotting

- Lot Closures Manual Entry and Picking from Drawing
- Area Calculations – linework only, points only, sliding bearing, CAD method including perimeter calculation
- Labeling of a drawing with bearings and distances, Ties/Leaders
- Text - Create, Edit and using different fonts vs. Pre-set fonts from the Pre-Sized Text Styles submenu - Mtext usage
- MS Text Tool, Text sizing - Leroy vs. Plotted Inch/mm vs. Height
- Surveyors Rotated View – labeling defaults text rotation
- Layout Mode (Paper space) versus Model Space discussion
- Sheet and Title Block insertion vs. Custom in-house title blocks.
- Print/Plot command and all options on the dialog