

# Microsurvey CAD Certified Training

## Coordinate Geometry

### Session Outline

|  |           |
|--|-----------|
| 1.0 Introduction of COGO in Microsurvey  | 0.5 Hour  |
| 1.1 Introduction of instructor and experience  |           |
| 1.1.1 Set up files on computer   |           |
| 1.2 Differences between MSCad, Embedded CAD, InCAD                                   |           |
| 1.3 Access to commands and their efficiencies  |           |
| 1.4 Questions  |           |
| 2.0 Manipulation of data – Coordinate Geometry                                       | 1.0 Hour  |
| 2.1 Cogo commands - using <a href="#">Cogo Exercise.dwg</a>                          |           |
| 2.1.1 General principals of coordinate geometry (B&D, intersections)                 |           |
| 2.1.2 Creating (B&D) and reporting (inverse)   |           |
| 2.2 Assemble cogo exercise.dwg   |           |
| 2.3 CAD Line dialogue box  |           |
| 2.3.1 Demonstration of CAD line commands   |           |
| 2.4 CAD Curve dialogue box   |           |
| 2.4.1 Demonstration of Curve line commands   |           |
| 2.5 Key in Cogo Demo Exercise (PDF demo & class)                                     |           |
| 2.6 Batch Cogo review  |           |
| 2.6.1 Review of built cogo-exercise.bch (page 127)                                   |           |
| 2.6.2 Build simple batch   |           |
| 2.7 Rotating, scaling, shifting  |           |
| 3.0 Point operations   | 0.25 Hour |
| 3.1 Coordinate conversions – Geodetic and ACE  |           |
| 4.0 Plan checking  | 0.5 Hour  |
| 4.1 Lot closures and area calculations   |           |
| 5.0 Real-world example   | 1.5 Hours |
| 5.1 Typical legal example right through from initial work to final plan calculations |           |
| 6.0 Real-world example 1   |           |
| 6.1 Easement design right through from initial work to final plan calculations       | 2.0 Hours |
| 7.0 Real-world example 2   |           |
| 7.1 Lot Subdivision right through from initial work to final plan calculations       | 2.0 Hours |
| 8.0 Wrap up summary and questions  | 0.25 hour |