

GIS / CAD Project Workflow – 4.0 Hours

Workshop Description

Summary

The goal of this seminar will be to demonstrate a successful workflow through a typical project utilizing both AutoCAD® and ArcGIS® technologies.

The seminar focuses on realistic applications of GIS solutions most surveyors and engineers already own, or are readily available at nominal cost. The seminar topics will include project scoping, base mapping, field data acquisition, field data QA/QC, spatial analysis, cartographic display, and delivery to the client.

Topics and Schedule

Project Scoping

- Defining Project Scope and Parameters
- Analyzing Technical Requirements
- Creating ArcGIS ArcMap® Exhibits from Templates

Base Mapping

- Importing GIS Shapefiles into AutoCAD Basemaps
- Creating and Stylizing AutoCAD Basemap References
- Connecting and Querying AutoCAD Basemap Reference Layers to Create Field Basemaps

Field Data Acquisition QA/QC

- Creating a Field Data Acquisition Plan
- Importing and Exporting Field Data between AutoCAD, ArcGIS ArcMap, Microsoft® Excel®, and Microsoft Access® to Facilitate QA/QC, Spatial Analysis, Cartographic Display, and Final Deliverables

Spatial Analysis

- Spatial Analysis and Modeling Techniques
- Performing Map Overlays in ArcGIS ArcMap
- Querying and Displaying Data for Additional Analysis

Cartographic Display

- Creating ArcGIS ArcMap Documents (.mxd)
- Establishing Appropriate Cartographic Conventions
- Setting up the Maps for Printing and/or Exporting

Delivery to the Client

- Converting Shapefiles to an Esri® File Geodatabase
- Documenting Project Details in the Metadata
- Creating a Final Package for Delivery to the Client

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Learning Objectives

1. Participants will be able to create project scoping ArcGIS ArcMap exhibits and analyses using the sample project data used in the course.
2. Participants will be able to export various GIS data layers and import them into AutoCAD® Map basemaps for field work using the sample project data used in the course.
3. Participants will be able to consume, analyze, QA/QC, and display field data through AutoCAD Map, ArcGIS ArcMap, Microsoft Excel, and Microsoft Access using the sample data used in the course.
4. Participants will be able to deliver the project in the correct GIS format using the sample data used in the course.

GIS / CAD PROJECT WORKFLOW – HALF DAY	
Overall Course Length	4.0 Hours
Instructional Time	3.5 HOURS
PROFESSIONAL DEVELOPMENT HOURS (PDHs)	
New York State Land Surveyors	3.5 PDHs
New York State Professional Engineers	3.5 PDHs



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5300 Wellington Branch Drive • Suite 100 • Gainesville, VA 20155 • Phone 732.869.0592 • Fax 732.377.5454

john.cooke@civiltraining.com • www.civiltraining.com

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