

Civil 3D 2011 Survey Fundamentals - Field to Finish



Duration | 3 Days

Description:

This hands on foundation level course is for surveyors and survey technicians that do not necessarily need all of the functionality that is covered in the AutoCAD Civil 3D Fundamentals.

It equips the surveyor with the basic knowledge needed to use Civil 3D efficiently in a typical daily workflow. Students will learn how to import the converted field equipment survey data into a standardized environment in Civil 3D, and use the automation tools to create an Existing Condition Plan. The course covers data collection, least square analysis, and traverses. Other topics that help in increasing efficiency include styles, proper AutoCAD drafting techniques, methodology needed to create linework effectively for variables used in defining symbology, and surfaces. Categorizing points and importing imagery on State Plane Coordinate Systems from Google Earth are also addressed.

Prerequisites:

Before starting this course, students should have a working knowledge of AutoCAD and surveying principles and processes.

It is also recommended that the student have a working knowledge of Microsoft Windows.

Objectives:

The primary objective of the course is to familiarize students with the concepts and applications of the survey functions of AutoCAD Civil 3D.

Upon completion of the course, the student will:

- Understand the AutoCAD Civil 3D Interface
- Understand Points Overview and Styles
- Import Points and Coordinate Transforms
- Understand Points and Style Transfer
- Drafting
- Create, Manage and Reporting Tools for Points
- Understand Point Security, Editing and AutoCAD Layers vs. Civil 3D Styles
- Introduction to Data Collection in the Field
- Introduction to Civil 3D Survey and Automated Linework
- Review Least Squares Analysis
- Adjust a Survey with Least Squares
- Import a Least Squares Adjustment
- Define a Traverse
- Surface Overview
- Create, Annotate, Edit and Analyze Existing Surfaces
- Share Data and Google Earth
- Create and label Site Boundaries and Subdivision Parcels.
- Create Reports (Meets & Bounds, Legal Descriptions, etc.)
- Create parcels and parcel tables.

Training Facilities

Virginia Beach, VA
Richmond, VA
Roanoke, VA

Inlet Technology

192 Ballard Court
Suite 306
Virginia Beach, VA
23462

Ph: 757.496.2323
Fax: 757.496.2424

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Course Outline:

Civil 3D Survey User Interface

- Product Overview
- AutoCAD Civil 3D Workspaces
- AutoCAD Civil 3D Menu Browser
- AutoCAD Civil 3D Toolspace
- AutoCAD Civil 3D Panorama
- Ease of Use Settings
- Civil 3D's Command Ribbon

Points Overview and Styles

- Points Overview
- Point Styles
- Point Label Style
- Description Key Sets
- Styles and Templates

Importing Points and Coordinate Transforms

- Importing and Exporting Points
- Transforming Points on Import or Export

Creating Points and Drafting

- Point Settings
- Creating Points
- Lines and Curves
- Transparent Commands
- Labeling in Civil 3D
- Line and Curve Label Styles

Point Groups, Grips and Reports

- Point Groups
- Point Reports

Point Security and Editing

- Locking/Unlocking Points
- Reviewing/Editing Points

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Course Outline Continued:

Introduction to Data Collection in the Field

- Survey Workflow Overview
- Figure Commands
- Coordinate Files to a Fieldbook
- Fieldbooks

Civil 3D Survey and Automated Linework

- Introduction to the Survey Toolspace
- Survey Figures
- Figure Styles
- Figure Prefix Database
- The Survey Toolspace
- Creating a Network
- Importing a Field Book
- Working with Figures
- Linework Code Sets
- Translating the Survey Database
- Coordinate Systems

Survey Networks

- Networks
- Reviewing Import Results

Survey Least Squares

- Least Squares
- Creating a Least Squares Input File
- Blunder Detection Analysis

Traverses and their Adjustment

- Traverse Basics
- Fixing Survey Errors
- Defining a Traverse
- Adjustment Reports

Traverse Loop and Closed Connected Loop Adjustments

- Multiple Network Surveys

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Course Outline Continued:

Surface Overview

- Surface Process
- Overview of Surface Styles
- Surface Properties
- Breaklines and Boundaries
- Contour Data
- Other Surface Data
- Surface Analysis Tools

Surface Editing

- Surface Editing
- Adjusting Surfaces through Surface Properties

Surface Labels and Analysis

- Surface Labels
- Surface Volume Calculations
- Surface Analysis Display
- Viewing Surfaces in 3D

Boundary & Parcel Layout

- Creating Site & Parcel Boundaries
- Managing Parcel Styles
- Labeling Parcel Segments
- Creating Parcel Tables
- Creating Parcel Reports

Sharing Data and Google Earth

- Sharing Data
- Optional Practices
- Google Earth

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Inlet Training Class Registration Form



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Customer Information

Company _____
Address _____
City _____ State _____ Zip _____
Primary Contact _____
Telephone _____ eMail _____

Training Class Information

Class Name _____
Class Start Date _____ Duration (# of days) _____
Student 1 _____ eMail _____
Student 2 _____ eMail _____
Student 3 _____ eMail _____
Student 4 _____ eMail _____
Student 5 _____ eMail _____
Student 6 _____ eMail _____
Student 7 _____ eMail _____
Student 8 _____ eMail _____
Student 9 _____ eMail _____
Student 10 _____ eMail _____

Payment Information

CREDIT CARD

Type (Circle One) Visa Mastercard American Express _____
Credit Card Number _____
Expiration Date _____ 3-4 digit Verification Code _____
Name on Card _____ Amount to be Charged \$ _____
Billing Address _____

CHECK

Check Number _____ Amount \$ _____

PURCHASE ORDER

PO Number _____ Amount \$ _____
Purchasing Contact _____ Telephone _____
e-Mail _____

NOTE: Please fax copy of PO with Registration Form

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