

AutoCAD Civil 3D Surface Modeling for Existing Conditions I – 1.0 Hours

Workshop Description

Summary

This class examines the creation of Surfaces, or Digital Terrain Models, used by AutoCAD Civil 3D as the basis for profiles, sections, volume and grading. As Surfaces are the simplest of all Civil 3D objects in terms of organization, the class serves as a further examination of Civil 3D fundamentals as related to Styles and Settings. This is the first of two detailed classes exploring existing conditions Surface creation, with Surface creation from Points and Breaklines covered in a subsequent class.

Existing conditions Surfaces provide the foundation on which all other aspects of the Engineering Model are based in Civil 3D. This class examines the preparation of accurate surfaces from several types of photogrammetric data, with suggestions for developing a working spec for Aerial data for use with the Civil product. The class further explores how Surfaces are managed and controlled in Civil 3D, and Surface editing and display.

Topics and Schedule

AutoCAD Civil 3D Surface Modeling Overview

- Introduction to the Civil 3D Surface Object
- Surface Object Styles
- Types of Data for Use in Digital Terrain Modeling

Using AutoCAD Civil 3D with Survey Data

- Civil and Civil 3D Surface Types
- Critical Surface Feature Settings
- Creating a Surface
- Controlling Surface Display
- Surface Editing
- Managing Civil 3D Surfaces and Data Security
- Photogrammetric Data Types for Use in Civil 3D

Learning Objectives

1. Participants will be able to describe how to create Surfaces in AutoCAD Civil 3D as illustrated using the sample survey project used in the course.
2. Participants will be able to describe how data types are used in Digital Terrain Modeling as illustrated using the sample survey project used in the course

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Learning Objectives (Continued)

- Participants will be able to describe techniques for the control and editing of Surfaces as illustrated using the sample survey project used in the course.
- Participants will be able to describe techniques for the management and control of Surfaces and data security in Civil 3D as illustrated using the sample survey project used in the course.

AUTOCAD CIVIL 3D SURFACE MODELING FOR EXISTING CONDITIONS I – ONE HOUR	
Overall Course Length	1.0 Hours
Instructional Time	1.0 HOURS
PROFESSIONAL DEVELOPMENT HOURS (PDHs)	
New York State Land Surveyors	1.0 PDHs
New York State Professional Engineers	1.0 PDHs



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