



Training: *AutoCAD Map 3D* *Application Programming Interfaces (API)*

Course Description

This course teaches the fundamentals of the AutoCAD Map Geospatial Platform API and provides participants the knowledge and skills to develop applications on the AutoCAD Map software using the API. Examples and exercises are in C#.

Participants are provided with electronic tutorial materials which include sample code and hands-on labs.

Course Objectives

At the end of the course, participants will be able to:

- Ø Distinguish between the various AutoCAD Map APIs and the advantages that the Geospatial Platform API offers for application development
- Ø Connect to data sources and display data in AutoCAD Map
- Ø Perform geospatial queries and analyses
- Ø Create, update and delete data in data stores
- Ø Program important FDO API functionality

Who Should Attend

This course is designed for developers, distributors, resellers, and experienced users of AutoCAD Map software who want to understand the Geospatial Platform API and develop applications with it.

Prerequisites

The criteria necessary for attending this course include familiarity with AutoCAD Map functionality, and basic understanding of .NET programming.

Note: The suggested course duration is a guideline. Course topics and duration may be modified by the instructor based upon the knowledge and skill level of the course participants.

Course Code: EM0615_MapAPI
Course Duration: 2 days

File Name: TRN_AIT_MAP_API_280909_dg_v1
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Training: AutoCAD Map 3D APIContinued

Course Outline

AutoCAD Map Geospatial Platform API Overview

This module presents an overview of the AutoCAD Map Geospatial platform API and its components.

- Ø AutoCAD Map and its API
- Ø Introduction to the Geospatial Platform API
- Ø Geospatial Platform API Components
- Ø Benefits of the Geospatial Platform API

Working with Resources

This module covers *resources* as defined by the Geospatial Platform API.

- Ø Feature source
- Ø Layer definition
- Ø Creating resources
- Ø Layer creation
- Ø Managing resources
- Ø Resource service events

Introduction to FDO API

This provides you with basic concepts of the FDO API, on which the Geospatial Platform API is based.

- Ø FDO API Overview
- Ø FDO Connection
- Ø Commands
- Ø Schema management
- Ø Datastore management

Geometry Objects

This module discusses Geometry objects, the building blocks of features, used to model real world objects in AutoCAD Map.

- Ø Overview of Geometry objects
- Ø Constructing geometries
- Ø Geometry representation
- Ø Geometry format conversion
- Ø Coordinate systems
- Ø Buffer objects

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Working with Features

This module provides you with the knowledge to work with features.

- Ø Feature service overview
- Ø FDO registry and Providers
- Ø Feature schemas
- Ø Feature classes
- Ø Managing features
- Ø Feature retrieval from datastores
- Ø Spatial operations and analysis
- Ø Working with selection sets

Map and Layers

This module discusses map layers and how to manipulate them.

- Ø Layer groups
- Ø Layer properties
- Ø Layer visibility
- Ø Manipulating layers based on layer definition