

## Training the GIS Professional

# Working with 3D Using ArcGIS 10.x - 2 Days

### Overview

At version 10, ArcGIS 3D Analyst supports a complete solution for 3D GIS. This course teaches fundamental concepts of 3D GIS as you learn how to visualise, edit, model, and analyse GIS data within a 3D context.

### Who should attend

At version 10, ArcGIS 3D Analyst supports a complete solution for 3D GIS. This course teaches fundamental concepts of 3D GIS as you learn how to visualise, edit, model, and analyse GIS data within a 3D context.

### Goals

- Visualise GIS data in 3D globes and local perspectives.
- Create and import 3D data.
- Edit and maintain 3D vector data in a 3D environment.
- Perform 3D analyses including viewshed, visibility, volumetric, and terrain analyses on vector and raster data.
- Use best practices to optimise 3D views for use on the desktop.
- Visualise temporal data in 3D by enabling time and creating 3D animations.

### Topics Covered

#### Using 3D GIS

Working with ArcScene vs. ArcGlobe

#### Working with 3D data

Rasters, TINs and terrains

#### Visualising GIS data in 3D

3D symbols, temporal and animations

### Editing features in 3D

Creating textured 3D objects

### Analysing data using 3D tools

Skylines and visibility analysis

### Optimising 3D performance

Preparing raster data and application settings

### Solving problems with 3D GIS

Subsurface and Virtual City workflow

### Prerequisites

Completion of ArcGIS 2 - Essentials of ArcGIS 10.x for Desktop

### Contact Us

For GIS training enquiries and bookings visit [www.esriuk.com/training](http://www.esriuk.com/training), email us at [training@esriuk.com](mailto:training@esriuk.com) or call us on 01296 745504

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### Topics in detail

#### Using 3D GIS

- Considerations for incorporating 3D into GIS workflows
- Working with ArcScene vs. ArcGlobe
- Navigating a scene using ArcScene
- View a scene from multiple perspectives
- Navigating 3D data in ArcGlobe

#### Working with 3D data

- Understanding z-values and z-aware features
- Rasters, TINs, and terrains
- Creating an elevation raster from a digital elevation model (DEM)
- Interpolating a surface
- Creating 3D features

#### Visualising GIS data in 3D

- Using 3D symbols
- Visualising temporal data in 3D
- Creating animations

#### Editing features in 3D

- Editing workflow
- Creating textured 3D objects
- Editing features and 3D networks

#### Analysing data using 3D tools

- Functional surface types
- Suitability models
- Determining optimal aspect, slope, and elevation
- Performing suitability analysis
- Creating skylines and skyline barriers to perform visibility analysis

#### Optimising 3D performance

- Preparing raster data and feature data
- Layer property and application settings
- ArcScene optimisation techniques
- ArcGlobe optimisation techniques

#### Solving problems with 3D GIS

- Subsurface workflow
- 3D Virtual City workflow
- Coastal flood inundation