OpenCities Map PowerView - Software for Viewing and Editing 2D Assets

Target Audience

This course is designed for GIS analysts, GIS technicians, mapping specialists, surveyors, utility engineers, municipal GIS professionals, infrastructure asset managers, CAD technicians, and geospatial data administrators. It is also suitable for professionals involved in spatial data management, utility mapping, land administration, transportation networks, and digital infrastructure projects who wish to enhance their GIS capabilities using OpenCities Map PowerView.

Course Objectives

This course aims to provide participants with the knowledge and practical skills required to effectively manage, edit, visualize, and publish geospatial information using OpenCities Map PowerView. Participants will learn how to connect to multiple spatial databases, create intelligent GIS features, manage coordinate systems, perform thematic mapping, administer geospatial frameworks, and generate professional mapping deliverables. The course also emphasizes interoperability, data quality, and GIS best practices for infrastructure and asset management projects.

Course Outcomes

Upon successful completion of this course, participants will be able to:

- Navigate and configure the OpenCities Map PowerView environment.
- Connect to and manage spatial data from multiple GIS databases and services.
- Create, edit, and maintain intelligent geospatial features with attribute information.
- Apply GIS workflows for infrastructure mapping and asset management.
- Create thematic maps, annotations, and dynamic labels for effective visualization.
- Manage XML Feature Modeling (XFM) projects and geospatial administration tasks.
- Configure coordinate systems and perform geospatial reprojection workflows.
- Exchange data with industry-standard GIS formats and services.
- Produce professional maps, reports, and intelligent PDF deliverables.
- Execute GIS projects efficiently using OpenCities Map PowerView and industry best practices.

Course Outline

The course comprises **40 hours of theory and hands-on laboratory sessions** and is divided into **10 comprehensive modules**. Each module is followed by practical exercises and real-world site development workflows designed to reinforce learning and evaluate the participant's understanding of the concepts covered.

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Module 5: Map Manager and Data Visualization

- Map Manager Fundamentals
- Layer Management
- Display Controls
- Thematic Mapping
- Dynamic Labeling
- Annotation Techniques

Module 6: XML Feature Modeling and Geospatial Administration

- Introduction to XFM Framework
- XML Feature Modeling Concepts
- Property-Based Symbology
- Intelligent Feature Conversion
- Geospatial Administrator Tools
- Feature and Property Definitions

Module 7: Coordinate Systems and Spatial Reference Management

- Geographic Coordinate Systems
- Coordinate System Assignment
- Datum and Ellipsoid Definitions
- On-the-Fly Reprojection
- Georeferencing Workflows
- Spatial Accuracy Management

Module 8: Interoperability and Data Exchange

- Geospatial Data Import and Export
- GML Workflows
- Spatial Data Streaming
- Direct Reference Methods
- Legacy Data Integration
- GIS Data Exchange Best Practices

Module 9: Map Production, Publishing and Reporting

- Map Layout Creation
- Intelligent PDF Publishing
- PostScript Output
- Dynamic Reporting
- Data Browser and Direct Database Access
- Project Deliverables Preparation

Module 10: Advanced GIS Applications

- Custom GIS Application Execution
- GIS Platform Workflows
- Infrastructure Asset Mapping
- Field Data Editing Workflows