

ArcGIS Server Enterprise Configuration and Tuning for Oracle

Two days

Overview

ArcGIS Server includes ArcSDE technology, a server-side software product that acts as the GIS gateway to spatial data stored in relational database management systems (RDBMS). It is an integrated part of ArcGIS and a core element of any enterprise GIS solution. This course prepares Oracle database administrators to implement an enterprise geodatabase by teaching how to build an individual ArcSDE server. Students get familiar with the ArcSDE architecture and learn how to configure Oracle to support ArcSDE, install and configure ArcSDE, and identify and troubleshoot connection types and issues. The course emphasizes the importance of managing storage settings for loading vector and raster data and teaches techniques for maintaining geodatabase performance in an editing environment. Additionally, the course explains how ArcSDE interacts with Oracle databases and presents solid strategies for maintaining and managing an enterprise geodatabase.

Audience

This course is designed for experienced Oracle database administrators who need to understand how to install and configure an enterprise geodatabase and how to manage a multiuser editing environment. Students may choose to also enroll in Data Management in the Multiuser Geodatabase, which complements this course.

Prerequisites and recommendations

Students should have experience with Oracle database administration or application development. Although these courses are not required, students will benefit from completion of ArcGIS Desktop II: Tools and Functionality, ArcGIS Desktop III: GIS Workflows and Analysis, or Building Geodatabases.

Goals

- Configure Oracle to support ArcSDE.
- Install and configure ArcSDE.
- Create multiple ArcSDE workspaces.
- Customize storage for spatial data.
- Configure, create, and monitor connections.
- Implement data management strategies for vector and raster data.
- Optimize ArcSDE.
- Maintain performance of a multiuser geodatabase.

Topics covered

ArcSDE installation: Evaluating the Oracle server configuration; Preparing Oracle to use ArcSDE; Installing ArcSDE; Starting and stopping the ArcSDE server; Exploring ArcSDE system tables.

Data loading: Creating storage space; Creating users and assigning privileges; Creating vector feature classes; Creating raster datasets; Examining feature class components; Customizing storage with the DBTUNE table; Integrating the new ST_GEOMETRY Spatial Type.

Monitoring data access: Creating application server and direct connections; Monitoring connections with ArcSDE and Oracle tools; Managing multiple geodatabases in one Oracle instance.

Editing in a nonversioned environment and managing a multiversioned geodatabase: Registering feature classes as versioned; Compressing the geodatabase; Monitoring changes to the adds, deletes, and system tables.