Deploying and Maintaining a Multiuser Geodatabase

STUDENT EDITION

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Course introduction

Introduction
Course goals
Additional resources
Installing the course data
Icons used in this workbook

1 What is a multiuser geodatabase?

Lesson introduction
Multitier architecture
Identifying the appropriate software tier
Multiuser geodatabase components
Hierarchy of users
Comparing tools for making a multiuser geodatabase
Create an enterprise geodatabase
Explore the repository
Exercise flow
Orientation to the course exercise environment
Exercise 1A: Create a multiuser geodatabase in SQL Server
    Confirm services on the RDBMS server
    Install RDBMS client software
    Create a multiuser geodatabase
Exercise 1B: Create a multiuser geodatabase in Oracle
    Confirm services on the RDBMS server
    Install RDBMS client software
    Create a multiuser geodatabase
Exercise 1C: Create a multiuser geodatabase in PostgreSQL
    Confirm services on the RDBMS server
    Configure PostgreSQL server
    Create a multiuser geodatabase
Lesson review

2 Connecting to the geodatabase

Lesson introduction
RDBMS client software
Create a connection
Software version compatibility
Authentication methods
Connection files
Exercise 2: Configure connections to a multiuser geodatabase
    Create a connection using the Catalog pane
    Manage active connections
    Connect to a specific version
    Create a folder connection

Create a connection using a geoprocessing tool
Manage connection files
(Optional) Remove Oracle APEX tables
Lesson review

3 Loading data into the geodatabase

Lesson introduction
Data owner account
Create the data owner account
RDBMS considerations
Geoprocessing environment settings
Choosing a data-loading tool
Updating datasets
Automation
Use ModelBuilder
Exercise 3: Load data into the geodatabase
Create the data owner account and connection
Load multiple datasets into a geodatabase
Append data into a single feature class
Load data by importing an XML workspace document
Update datasets
Lesson review

4 Configuring privileges

Lesson introduction
Data users
Creating data users
Roles
Manage users
Defining roles
Designing roles
Securing credentials
Exercise 4: Configure privileges for data use
Create roles
Create users
Apply privileges
Test privileges
Lesson review

5 Managing storage

Lesson introduction
Configuration parameters
Configuration keywords
Supported spatial types

DBTUNE table
Create and update keywords
Exercise 5: Customize storage using configuration keywords
- Investigate Help documentation
- Export DBTUNE
- Modify the DEFAULTS keyword
- Create a custom keyword
- Import DBTUNE
- Load data using modified and new keywords

Lesson review

6 Maintaining the geodatabase

Lesson introduction
Attribute indexes
Statistics
Manage attribute indexes and statistics
Spatial indexes
Maintaining geodatabase performance for versioned data
Scheduling tasks
Manage performance tasks with Python
Schema locks
View and clear locks
Exercise 6: Maintain performance in your geodatabase
- Import census data
- Create indexes
- Update statistics
- Compress the geodatabase
- Rebuild indexes
- Automate performance tasks

Lesson review

7 Associating data

Lesson introduction
Query layers
Create query layers
Database views
Create database views
Choosing between query layers and database views
Determining whether to create query layers or database views
Exercise 7: Associate data with database views and query layers
- Create a query layer
- Explore election data
- Create database views
- Use database views

Lesson review

8 Applying the geodatabase workflow

Lesson introduction
Geodatabase workflow
Geodatabase responsibilities
Geodatabase tasks
Exercise 8: Configure and manage a multiuser geodatabase
- (Oracle only) Drop objects from previous database
- (PostgreSQL only) Configure PostgreSQL server
- Create the Manhattan geodatabase
- Load data into the geodatabase
- Apply privileges
- Maintain performance

Lesson review

Appendixes

Appendix A: Esri data license agreement
Appendix B: Answers to lesson review questions
- Lesson 1: What is a multiuser geodatabase?
- Lesson 2: Connecting to the geodatabase
- Lesson 3: Loading data into the geodatabase
- Lesson 4: Configuring privileges
- Lesson 5: Managing storage
- Lesson 6: Maintaining the geodatabase
- Lesson 7: Associating data
- Lesson 8: Applying the geodatabase workflow