

Implementing Versioned Workflows in 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 Establishing the multiuser editing environment

- Lesson introduction
- Business needs
- Editing workflow options
- Choosing an editing workflow
- Geodatabase roles and tasks
- How to select an editing workflow in ArcGIS
- Exercise 1: Set editing workflows for various feature classes
 - Create a connection to the geodatabase
 - Attempt to start an edit session
 - Enable ArcMap for nonversioned editing
 - Choose the versioned editing workflow for complex feature classes
 - Register a stand-alone feature class as versioned
 - Choose the versioned editing with the move-to-base option workflow
- Lesson review

2 Organizing versions

- Lesson introduction
- Defining a version
- Drawing the version tree
- Version tree scenarios
- Exercise 2: Organize versions
 - Connect to the geodatabase
 - Create a new version
 - Switch versions in ArcMap
 - Create a version as another user
 - Delete a version
- Lesson review

3 Editing nonversioned datasets

- Lesson introduction
- Nonversioned editing scenario
- No conflict detection
- Multiple users editing the same nonversioned data
- Supporting DBMS integrity constraints

Exercise 3: Edit nonversioned data
Explore the business table
Propagate nonversioned edits to all versions
Verify that third-party changes are immediately available to ArcGIS
Lesson review

4 Examining delta tables in the versioned environment

Lesson introduction
Edit isolation
Registering simple data
Registering related data
Registering feature datasets
Tracking edits
Exercise 4: Examine the delta tables
Create delta tables
Monitor versioned editing
Save edits
Lesson review

5 Exploring versioning system tables

Lesson introduction
SDE_STATES table
SDE_STATE_LINEAGES table
SDE_MVTABLES_MODIFIED table
Exercise 5: Explore system table architecture
Establish a versioned editing workflow
Split a feature
Merge features
Insert two features
Save edits
Perform database maintenance
Drawing the state tree
Representing versions
Lesson review

6 Merging lineages through reconcile and post

Lesson introduction
Explicit reconcile and post
Performing an explicit reconcile and post
Merging protected lineages
Implicit (auto) reconcile and post
Exercise 6: Merge state lineages
Establish the versioning environment
Edit both versions

- Explicit reconcile and post
- Implicit reconcile and post
- Lesson review

7 Reviewing conflicts

- Lesson introduction
- Defining a conflict
- Conflict resolution
- Would there be a conflict?
- Exercise 7: Review and resolve conflicts
 - Establish the versioning environment
 - Resolve a single conflict
 - Resolve many conflicts
- Lesson review

8 Bulk loading into versions

- Lesson introduction
- Bulk loading
- Data loaders
- Data loading scenarios
- Reconciling after a bulk load
- Storing bulk loads
- Exercise 8: Bulk load into versions
 - Establish the versioning environment
 - Perform an edit in the QA version
 - Load new lightning strikes into the BULKLOAD version
 - Reconcile and post BULKLOAD to QA
 - Load lightning strikes into QA and reconcile and post to DEFAULT
- Lesson review

9 Compressing a versioned geodatabase

- Lesson introduction
- Managing the state tree
- Removing unreferenced records
- Migrating edits to the base tables
- Achieving a full compress
- Compress workflow
- Exercise 9: Compress the geodatabase
 - Establish the versioning environment
 - Edit each version
 - Investigate versioning tables
 - Run the first compress
 - Achieve a full compress
- Lesson review

10 Registering data as versioned with the move-to-base option

Lesson introduction

Choosing the move-to-base option

Saving edits to the DEFAULT version

Posting edits to the DEFAULT version

Managing conflicts

Exercise 10: Register data as versioned with the move-to-base option

- Establish the versioning environment

- Save edits to the DEFAULT version

- Post edits to the DEFAULT version

Lesson review

11 Versioned editing with third-party apps

Lesson introduction

Creating versioned views

Querying with a versioned view

Editing the DEFAULT version

Editing other versions

Exercise 11: Explore versioned editing with non-Esri apps

- Establish the versioning environment

- Edit the DEFAULT version at State 0

- Edit the DEFAULT version at a state greater than 0

- Edit a named version

Lesson review

12 Implementing versioning in your own environment

Lesson introduction

Identify business needs

Design the version tree

Data maintenance strategy

Policy development

Lesson review

Appendixes

Appendix A: Esri data license agreement

Appendix B: Answers to lesson review questions

- Lesson 1: Establishing the multiuser editing environment
- Lesson 2: Organizing versions
- Lesson 3: Editing nonversioned datasets
- Lesson 4: Examining delta tables in the versioned environment
- Lesson 5: Exploring versioning system tables
- Lesson 6: Merging lineages through reconcile and post
- Lesson 7: Reviewing conflicts
- Lesson 8: Bulk loading into versions
- Lesson 9: Compressing a versioned geodatabase
- Lesson 10: Registering data as versioned with the move-to-base option
- Lesson 11: Versioned editing with third-party apps
- Lesson 12: Implementing versioning in your own environment