



Esri International User Conference | San Diego, CA
Technical Workshops | Tuesday, July 12th

Finding & Fixing Errors Using Topology

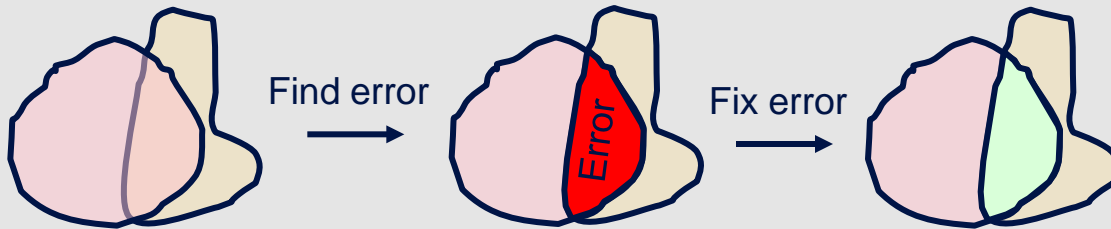
Jennifer Cadkin, Larry Young



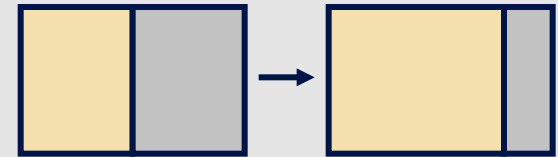
Topology manages spatial integrity

- With tools for editing coincident geometry between feature classes
- Based on rules
 - Tools for finding and fixing errors

Soil polygons must not overlap



Move a parcel boundary



Move a pipe and its valves



Streets must not intersect



Topology Rules

- **For features classes or subtypes**
- **Checked during Validate Topology**
 - Errors stored in geodatabase
- **Saved or loaded**
 - Binary file (.rul) – Edit with ArcObjects not a text editor
- **Examples**
 - Soil polygons can't have gaps between them
 - Parcels can't overlap
 - Address points must be inside parcels

Topology Errors

- **Created during Validate Topology when a topology rule is violated**
- **Violated rule determines error geometry**
- **Errors contain information**
 - **What rule was violated**
 - **Which features created the error - parentage**
 - **How to draw the rule violation**

Managing Errors

- **Error management is based on work flow**
- **Errors cannot be deleted but can be managed**
- **Management options**
 - **Leave the error in the geodatabase**
 - **Fix the error using Fix Topology Error tool or some other method**
 - **Make the error an exception**
 - **e.g., rule applies everywhere except here**

Topology Demonstration

Jennifer Cadkin



Summary of Finding & Fixing Errors Using Topology

- **Build and validate geodatabase topologies to improve spatial integrity between your data layers**
- **Use the available editor tools to find and fix your errors**
- **Use automated fixes as much as you can, but they aren't the answer to every error**
- **Other sessions for Editing:**
 - **Road Ahead – ArcGIS Desktop 10.1 – Wed, 3:15 pm, Room 10**
 - **Designing and Authoring Maps for Editing – Wed, 8:30 am & Thurs, 1:30 pm, Room 6D**
 - **Editing Tips and Tricks – Wed, 10:15 am & Thurs, 10:15 am, Room 3**
 - **Introduction to Editing in ArcMap – Wed, 1:30 pm, Room 6D**
 - **Understanding Topology in Geodatabase – Thurs, 8:30 am, Room 6C**



esri