ArcGIS Data Reviewer - Implementing Ready-To-Use Rules Across the Platform

Shankar Chandrasekaran
Agenda

• What is ArcGIS Data Reviewer?
  • Attribute Rules
    - Overview
    - Types
  • Ready To Use Rules
    - Overview
    - Supported Checks
• Demo
• Summary
ArcGIS Data Reviewer

- Reduce risk in decision-making
- Lower data management costs
- Streamline quality control workflows
- Implement repeatable processes
- Increase transparency

Automate, simplify, standardize and unify workflows to improve data quality
What is ArcGIS Data Reviewer?
Data Quality Management for ArcGIS

- **Provides**
  - Rule-based automated validation
  - Semi-automated workflows
  - Track and report quality

- **For individuals and enterprise**
  - Saves time/money
  - Less rework

- **For multiple domains**
  - Configurable
  - Extendable

Validate

Repeatable Workflow

Summarize

Review
Attribute Rules
Overview

- User defined rules for simple features using Arcade scripting
- Ensures data quality during data collection and maintenance
- Enforces data integrity
- Defined in feature classes or tables
- Supported across the ArcGIS platform
Types - Overview

- Validation
- Calculation
  - Immediate Calculation
  - Batch Calculation
- Constraints
Types - Validation

Validation
- Evaluated using validation service
- Creates errors in error tables
- Evaluation only on dirty features
- Post – feature creation evaluation

Calculation
- Immediate Calculation
- Batch Calculation

Constraints
Types - Calculation

Calculation

- Automatically populate attributes
- Applied on a field in a dataset
- Evaluation order can be defined

Immediate Calculation
- Evaluated during Edit operation

Batch Calculation
- Evaluated using Validation Service
Attribute Rules - Types

Validation

Calculation

Immediate Calculation

Batch Calculation

Constraints

Evaluated during Editing operation

Can configure user defined error message

Edits are rolled back on violation

Creates a smart editing experience
Ready To Use Rules
Reviewer Configurable Attribute Rules
Overview

Ready To Use Rules - Attribute Constraint Rules

Easily Configurable Attribute Rules (no scripting required)

Templated Arcade scripts with parameters

Assess feature’s Integrity and geometric properties

Evaluate Spatial relationship across feature classes
GIS Data Editor Demo
Shankar Chandrasekaran
Supported Checks

**Ready To Use Rules**

- Supported as part of constraints
- Assess a feature’s
  - Integrity
  - Spatial relationships
  - Geometric properties

**Cutbacks**
Finds segments where the angle between segments in a polygon or polyline is below a specified minimum value.

**Duplicate Vertex**
Finds vertices from the same feature that are collocated or within a specified tolerance of one another.

**Feature on Feature**
Finds features that have a specific relationship, either from two different feature layers or within the same feature layer.

**Monotonicity**
Searches Z or M-enabled polylines for vertices that are not strictly increasing or decreasing in value or are trending based on specified conditions.

**Polyline or Path Closes on Self**
Finds paths or lines in polyline features that close themselves.
Supported Checks (Contd.)

Ready To Use Rules

- Supported as part of constraints
- Assess a feature’s
  - Allowed Geometric properties like Length, vertices, area or perimeter

Evaluate Polyline Length
Finds polyline segments, parts or features that have a line length within a specified tolerance.

Evaluate Part Count
Finds features with a part count that is within a specified value.

Evaluate Polygon Perimeter and Area
Finds polyline segments, parts, or features that have a line length within a specified tolerance.

Evaluate Vertex Count
Finds polyline or polygon features that have a vertex count within a specified tolerance.
Evaluation
Ready To Use Rules

• Supported as part of constraints
• Triggered during
  • Creation
  • Modification
  • Deletion of a feature
Summary

• What is ArcGIS Data Reviewer?
• Attribute Rules
  - Overview
  - Types
• Ready To Use Rules
  - Overview
  - Supported Checks
• Demo
• Summary
See Us Here

**Tuesday**
ArcGIS Data Reviewer: An Introduction (Offering #1)  
Room 30 C  08:30 am - 09:30 am

**Wednesday**
ArcGIS Data Reviewer: An Introduction (Offering #2)  
Room 30 E  08:30 am - 09:30 am
ArcGIS Data Reviewer: Implementing Ready-to-Use Rules across the platform  
Demo Theater 4  10:00 am - 10:45 am
ArcGIS Data Reviewer: Deploying Data Quality Web Services  
Demo Theater 5  11:15 am - 12:00 pm
ArcGIS Data Reviewer: Validating linear-referenced events  
Demo Theater 4  11:15 am - 12:00 pm

**Thursday**
ArcGIS Data Reviewer: Advanced Data Validation  
Room 30 E  08:30 am - 09:30 am
Want to learn more?

- Product page

www.esri.com/datareviewer
Want to learn more?

- Documentation
  - Desktop
desktop.arcgis.com
Want to learn more?

- Documentation
  - Desktop
  - Server

enterprise.arcgis.com
Want to learn more?

- Documentation
  - Desktop
  - Server

- Training

http://esriurl.com/15503
Want to learn more?

- Documentation
  - Desktop
  - Server
- Training
- GeoNet Community

http://esriurl.com/15504
Please Share Your Feedback in the App

Download the Esri Events app and find your event

Select the session you attended

Scroll down to “Survey”

Log in to access the survey

Complete the survey and select “Submit”
Questions ?