ArcGIS Data Reviewer: Automating quality control in Data
- Using Ready to Use Attribute Rules
Shankar Chandrasekaran
Agenda

• What is ArcGIS Data Reviewer?
• Attribute Rules
  - Overview
  - Types
• Ready To Use Rules
  - Overview
  - Demo –Manage Ready To Use Rules
  - Supported Checks
  - Demo – Editor
• Summary
What is ArcGIS Data Reviewer?
Data quality management for ArcGIS platform

• Provides
  - Rule-based automated validation
  - Semi-automated workflows
  - Track and report quality
What is ArcGIS Data Reviewer?
Data quality management for ArcGIS platform

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

- ArcGIS Platform
  - Server
  - Desktop
  - Data Reviewer API
    - JavaScript
    - ArcGIS Pro SDK for Microsoft .NET
  - Web AppBuilder for ArcGIS

- APIs

- Apps

- Portal
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
Attribute Rules - Types

- Validation
- Calculation
- Constraints
  - Immediate Calculation
  - Batch Calculation
Attribute Rules - Types

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
Attribute Rules - Types

Calculation

Validation
- 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

Constraints
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
- Enhances editing experience
Ready To Use Rules - Overview

- 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
Ready To Use Rules
Constraint Evaluation

- Supported as part of constraints
- Triggered during
  - Creation
  - Modification
  - Deletion of a feature
- Can be exported to another feature class or table
Manage Ready To Use Rules - Demo
Shankar Chandrasekaran
Ready To Use Rules

Supported Checks

- Supported as part of constraints
- Assess
  - Feature’s Integrity
  - Spatial relationships

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.
Ready To Use Rules

Supported Checks

- Supported as part of constraints
- Assess
  - Feature’s Integrity
  - Spatial relationships
  - Geometric properties like Length, vertices, area or perimeter based on set rules

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.
Summary

- Data Reviewer – A Quality Assurance platform
- Configurable Attribute Rules – Constraints
- Configurable Attribute Rules - Validations (coming soon..)
Want to learn more?

- Product page
Want to learn more?

- Documentation
  - ArcGIS Pro
Want to learn more?

- **Documentation**
  - ArcGIS Pro

- **GeoNet** *(geonet.esri.com)*
  - Data Reviewer place
Please Take Our Survey on the App

Download the Esri Events app and find your event

Select the session you attended

Scroll down to find the feedback section

Complete answers and select “Submit”

Please Take Our Survey on the App

Download the Esri Events app and find your event

Select the session you attended

Scroll down to find the feedback section

Complete answers and select “Submit”
Questions