ArcGIS Data Reviewer -
Implementing Data Quality Reporting in Web Clients
Shankar Chandrasekaran
Agenda

• What is ArcGIS Data Reviewer
  - For Desktop
  - For Server
• Architecture overview
• Automated Validation
• Summarize Data Quality
• Validation Results
• Demo
• References/Resources
What is ArcGIS Data Reviewer?
Data Quality Management for ArcGIS

• Provides
  - Rule-based validation
  - Interactive tools
  - Track errors

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

• For multiple domains
  - Configurable
  - Extendable
What is ArcGIS Data Reviewer for Server?

- System to support data quality management for ArcGIS
- Automates quality control process
- Monitor and Measure data quality
Automated validation

- Rules/Checks are configured on Data Reviewer for Desktop
- Store multiple checks into batch job files.
- Execute batch jobs on Data Reviewer for Server or Desktop

Overlapping Gravity Mains
Overlapping Lateral Lines
Invalid Domain
Invalid Upstream Elevation
Orphan Casings
Summarize Data Quality

• **Dashboard**
  - Provides organizations with status of overall data quality
  - Helps stakeholders make informed and accurate decisions
  - Interactively summarize results based on different perspectives
  - Summaries are derived from validation results
Validation Results

• Results are records that are stored in Reviewer workspace
• Contains information about a feature or a row which failed QC standard
• Query Results
  - Apply filters
  - Sort/Page
Validation Results – Contd.

- Spatial and non-spatial
- Attributes describe check, problem, and validation information
- Object ID provides link back to feature that failed validation

<table>
<thead>
<tr>
<th>Object Id</th>
<th>Session Id</th>
<th>Checktitle</th>
<th>Resource Name</th>
<th>Check Name</th>
<th>Severity</th>
<th>Review Technician</th>
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<tr>
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<td>Gravity Main</td>
<td>ssGravityMain</td>
<td>Domain Check</td>
<td>2</td>
<td>testuser</td>
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Reviewer Results

ArcGIS Server

Reviewer Service

Results Task

REST API

Results

Reviewer Workspace

A Z

Z A
Analyzing Validation Results

Demo
ArcGIS Data Reviewer
Data quality management in the ArcGIS platform

• Data Reviewer for Desktop
  - ArcGIS Pro
  - ArcMap

• Data Reviewer for Server
  - ArcGIS Server (standard or higher)

• Data Reviewer API
  - JavaScript
  - ArcGIS Pro SDK for Microsoft .NET

• Web AppBuilder for ArcGIS
ArcGIS Data Reviewer
Automate, Simplify, and Improve your Quality Control Process

• Extension to ArcGIS for Desktop and Server

• Supports complete QC process

• Provides
  - Rule based workflows
  - Interactive tools
  - Track errors

• Enables increased efficiencies

• Relevant to multiple domains
Where to start
Leveraging templates

- Data Reviewer Templates
  - Electrical utilities
  - Gas utilities
  - Local government
  - Topographic mapping
  - Water resources
  - Water utilities
- Based on Esri industry models
- Use as starting point

solutions.arcgis.com
Want to learn more?

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

- Documentation
  - Desktop
  - Server (server.arcgis.com)
Want to learn more?

• Documentation
  - Desktop
  - Server

• Training
  - Assessing Data Quality using ArcGIS Data Reviewer
  - Evaluating Positional Accuracy Using ArcGIS Data Reviewer for Desktop
  - Data QC with ArcGIS: Automating Validation
  - Data QC with ArcGIS: Visual Review
  - Quality Control Using ArcGIS Data Reviewer for Desktop

• GeoNet (geonet.esri.com)
  - Data Reviewer place
<table>
<thead>
<tr>
<th>Day and Description</th>
<th>Type</th>
<th>Time</th>
<th>Location</th>
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<tbody>
<tr>
<td><strong>Tuesday, July 11</strong></td>
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<tr>
<td>ArcGIS Data Reviewer: An Introduction</td>
<td>Technical Workshop</td>
<td>10:15 - 11:30am</td>
<td>Room 31B</td>
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<tr>
<td><strong>Wednesday, July 12</strong></td>
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<td>ArcGIS Data Reviewer: An Introduction</td>
<td>Technical Workshop</td>
<td>3:15 - 4:30pm</td>
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<td>ArcGIS Data Reviewer: Integrating Data Validation Capabilities into Web Applications</td>
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<td>ArcGIS Data Reviewer: Implementing Data Quality Reporting in Web Clients</td>
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<td>Demo Theater 8 Enterprise</td>
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<tr>
<td>ArcGIS Data Reviewer: Validating Linear-Referenced Events</td>
<td>Demo Theater</td>
<td>10:30 - 11:15am</td>
<td>Demo Theater 6 Spatial Data Mgmt</td>
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Want to learn more?

- Documentation
  - Desktop
  - Server

- Training (training.esri.com)
  - Assessing Data Quality using ArcGIS Data Reviewer (Seminar)
  - Evaluating Positional Accuracy Using ArcGIS Data Reviewer for Desktop (Seminar)
  - Data QC with ArcGIS: Automating Validation (Web Course)
  - Data QC with ArcGIS: Visual Review (Web Course)
  - Quality Control Using ArcGIS Data Reviewer for Desktop (Instructor-Led)
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