



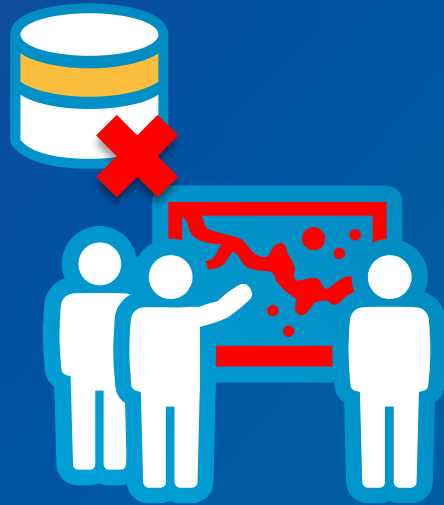
QA/QC of Your Geodata – When and How

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Overview

QA/QC



Understand



Document



Implement

Understanding QA/QC

- **Fit For Use**
 - support your GIS applications?
 - support your Business Systems?
- **Decision-making**
 - Good data → good decisions → save time & money
 - Bad data → bad decisions → more time & more money
- **Reporting**
 - Accuracy & Accountability

QA/QC

Why is it important?



Understanding QA/QC

QA/QC

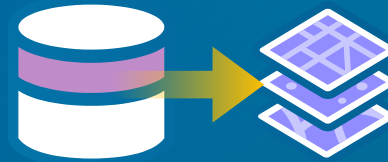
When should I do it?



Daily
Maintenance



Data Conversion/
Migration



Acquisition of Data
(Free or Purchase)



Annual
Data Revisions

Understanding QA/QC

What is the difference?

QA

Quality Assurance– Processes or methods to help prevent errors from being introduced into the data.

- Examples:
 - Quality Assurance Plan
 - Data Model, Industry-specific Editing Templates, Attribute Assistant (ArcMap), Attribute Rules (ArcGIS Pro), data-specific editing tools

QC

Quality Control– Processes or tools to identify errors that are already in the data.

- Examples:
 - GP Models, Data Reviewer Batch Jobs
 - GDB Topology

Documenting QA/QC

QA Develop a Plan



Purpose & Scope

Roles & Responsibility

Software Versions

QA Requirements & Acceptance Criteria

QC Workflow
– Processes & Tools

Reporting & Addressing Errors (high-level)

Documenting QA/QC

- **GIS Applications vs QC Requirements**
 - Required fields, feature connectivity, topological relationships
- What can be automated?
- What will need to be checked manually/visually?

ID	Requirement	Requirement number	Requirement category	Software	Product capability	Data Reviewer check
5	Ability to ensure that source data will be migrated into the production database and have appropriate domains and relationships	D002	Data Requirement- Logical consistency	Data Reviewer	Domain Check Relationship Check Subtype Check	Yes

Traceability Matrix

Implementing QA/QC

QC

Configure Checks

- **Automated Data Validation**
 - Geoprocessing Tools & Models (Toolbox)
 - Python Scripts
 - ArcGIS Data Reviewer
- **Manual Data Validation**
 - ArcMap Document
 - ArcGIS Pro Project
 - ArcGIS Data Reviewer
 - Checklist

Implementing QA/QC

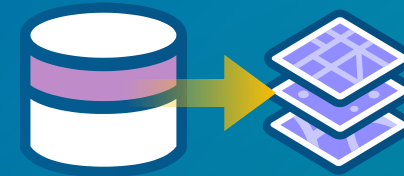


- **Daily or when editing**
 - Step/Task in a workflow
 - Current extent



- **Periodically (weekly or monthly)**
 - Scheduled, automated
 - Full database

Performing QC

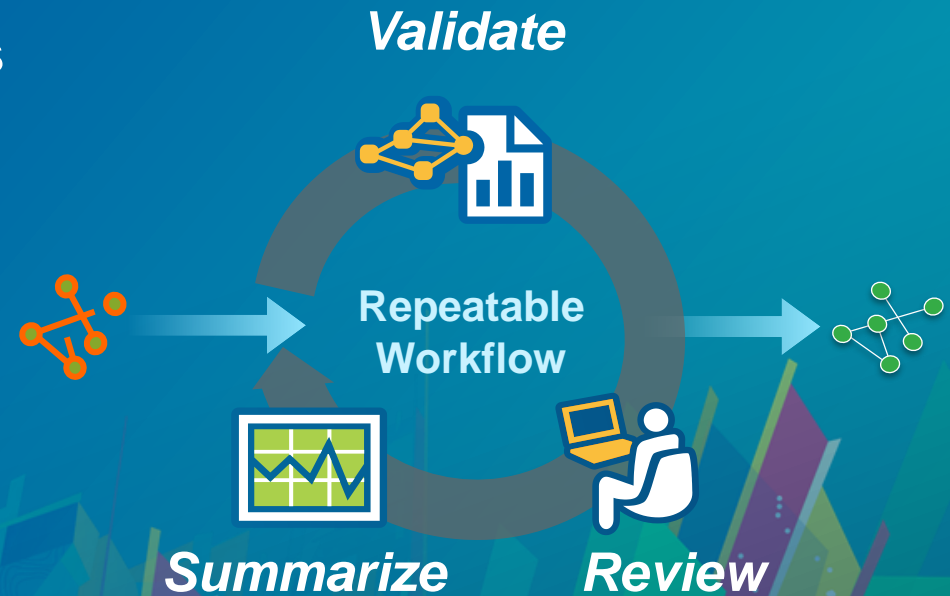


- **New or Updated Dataset**
 - When received
 - Full dataset

Summary

- 1. QA/QC is important & perform regularly
- 2. Create a QA Plan & define QC requirements
- 3. Develop a repeatable, automated process

QA/QC



Resources

- **LGIM data model**
- **Industry-related Editing Templates**
 - Tools
 - Attribute assistant
 - Attribute Rules
- **Industry-related Data Reviewer Templates**
 - Sample Reviewer Batch Jobs
 - Data Reviewer POSTER

QA

<http://solutions.arcgis.com/>

The background features a teal-to-blue gradient. On the right side, there are several diagonal stripes in yellow, pink, and green. A faint map of Europe is visible in the lower right quadrant, overlaid on these stripes. In the top left corner, there are some overlapping, semi-transparent geometric shapes in shades of green, yellow, and pink.

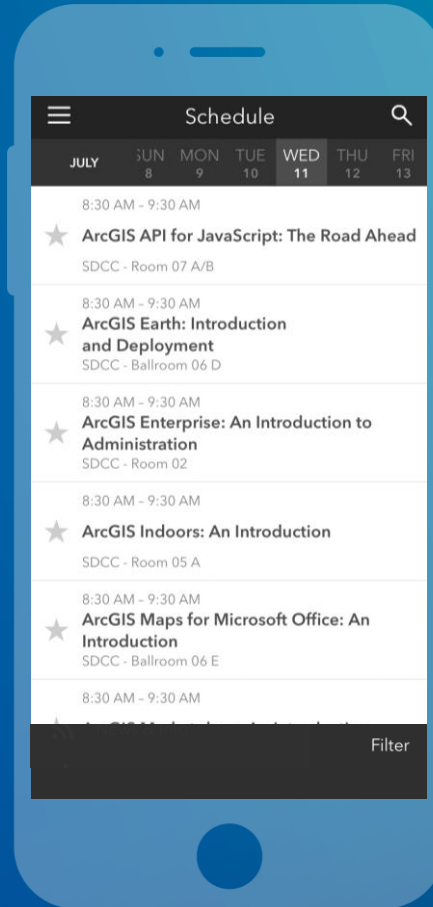
Questions?

Please Take Our Survey on the App

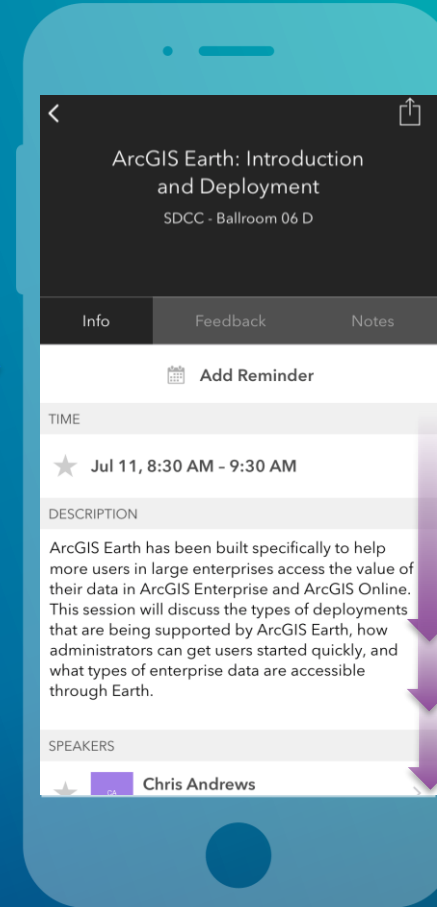
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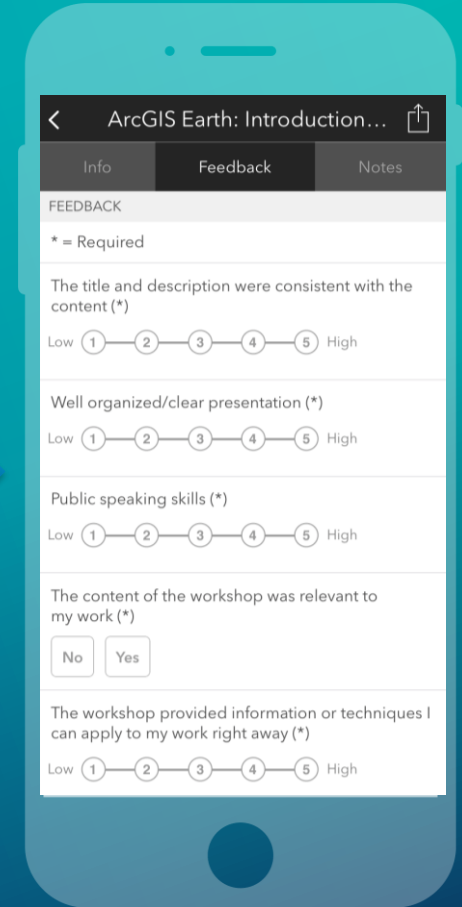
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