



QA/QC of Your Geodata – When and How

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2019 ESRI
FEDERAL GIS CONFERENCE
WASHINGTON, DC

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

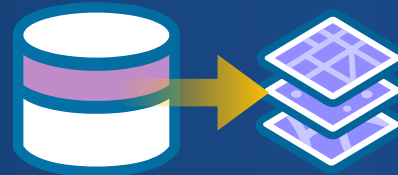
When should I do it?



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:
 - 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 tools (Select by Attribute, Select by Location), GP Model, Data Reviewer Batch Jobs

Documenting QA/QC

QA Develop a Plan



Purpose & Scope

Roles & Responsibility

Testing Environment

Requirements & Acceptance Criteria

QC Workflow
– Processes & Tools

Reporting & Addressing Errors (high-level)

Documenting QA/QC

- **GIS Applications, Business Systems**
 - Required fields, feature connectivity, topological relationships
- **What can be automated?**
- **What will need to be checked manually/visually?**
 - Data Reviewer Sampling

QC
Identify
Requirements

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

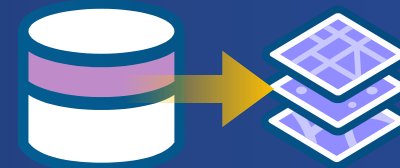


- **Daily or when editing**
 - Step/Task in a workflow
 - Current extent



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

Performing QC



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

Summary

- QA/QC is important & perform regularly
- Create a QA Plan & define QC requirements
- 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**

QA

QC

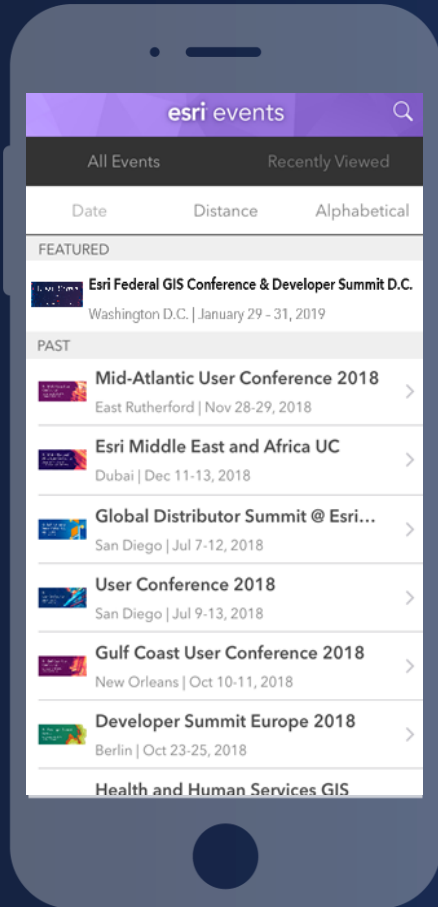
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The background is a solid dark blue color. In the top-right and bottom-left corners, there are abstract, layered geometric shapes in shades of light blue and red, resembling stylized architectural elements or data visualizations. The word "Questions?" is centered in the middle of the page in a white, bold, sans-serif font.

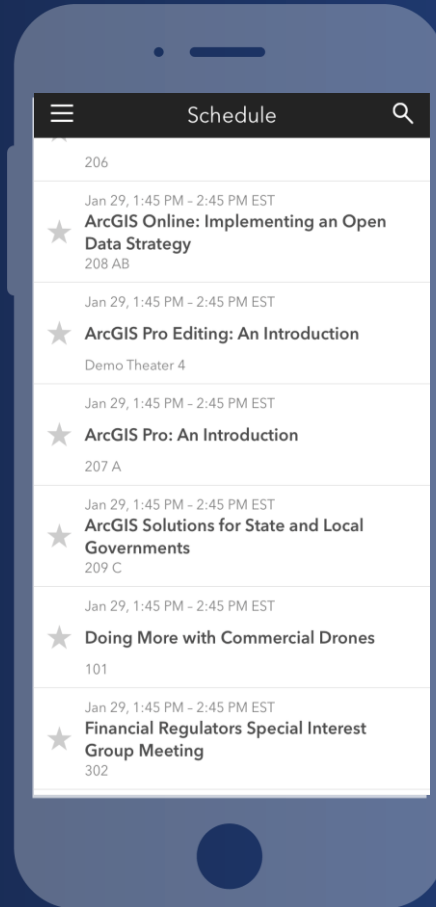
Questions?

Please Take Our Survey on the App

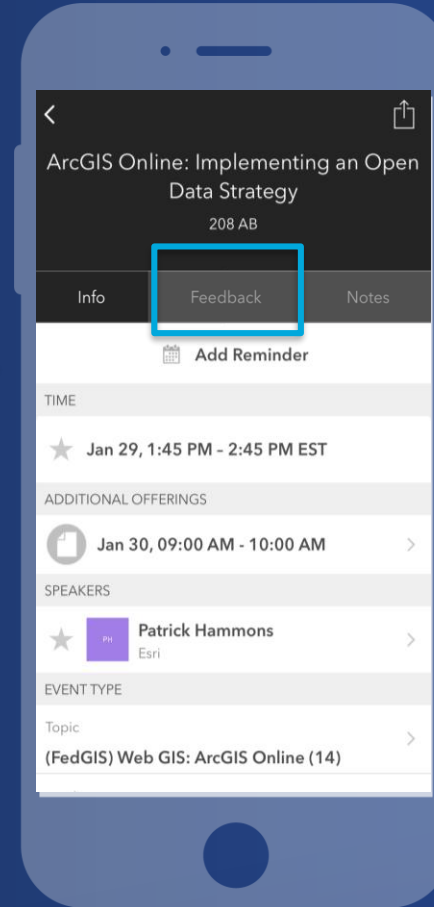
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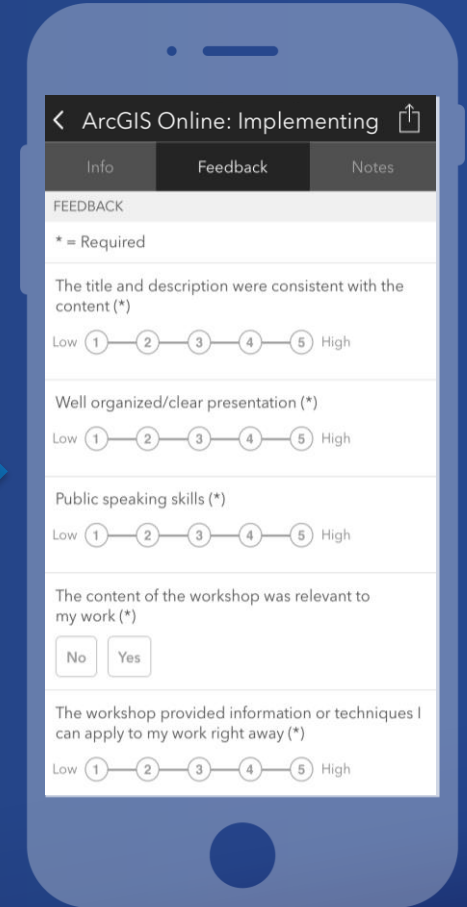
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Ask my question

ANSWERED QUESTIONS

No questions have been answered yet.

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