

QA/QC of Data Processing

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UC



Overview

QA/QC

Understand

Document

Implement

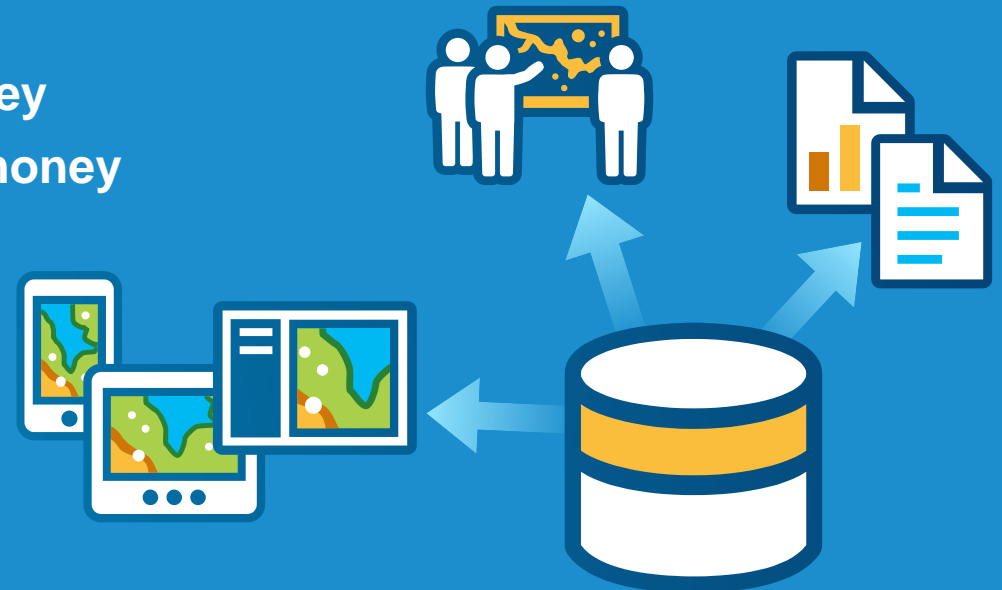


Understanding QA/QC

- **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

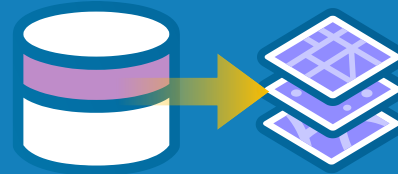
When should I do it?



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, 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 Data Reviewer
 - Checklist

Implementing QA/QC

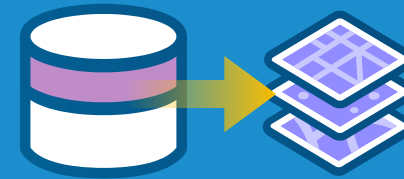
Performing QC



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



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



- **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
- **Industry-related Data Reviewer Templates**
 - Sample Reviewer Batch Jobs

QA

QC

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



