

# Data QC and Cleanup

*Course Length:* 1 Day

*ArcGIS Version:* 10.x

*App:* ArcMap

## Overview

Errors in your data, whether in the attributes or in the geometry, cause real problems when creating maps and performing analysis. There are some types of errors that are very common, such as misspellings in the attribute table and edges of polygons that should, but don't quite, line up. This course is designed to teach ArcGIS techniques for finding and fixing GIS data quality issues. The course covers both spatial data problems and tabular data inconsistencies and errors. The course also touches on data management techniques that help prevent future errors, including using topology to maintain line and polygon integrity during the editing of data and using domains to prevent typos in your attribute tables.

## Audience

Those who are comfortable with ArcGIS Desktop and who are responsible for data quality control.

## Topics Covered

- Geospatial Data Quality – Learn when and how data problems are introduced into GIS. (What Types of Issues Do We Find in GIS Data; When Are Issues Introduced into GIS Data; How Do We Fix Data Issues?)
- Table Edits – Add columns to an attribute table, add XY coordinates to tables for point features on your map, and use the Field Calculator to calculate values for attribute fields. (Manual Edits; Updating Coordinates and Geometry in the Attribute Table; Field Calculator; Printing and Exporting Tables)
- Solving Attribute Problems– Find attribute problems using SQL and solve them using a little bit of Python in the Field Calculator. (Language Review; Numerical Issues; String and Text Issues)
- Tools for Attribute QC – Use tools and table joins to fix data. (Attribute QC Tools; Joins and Relates)
- Tools for Geometry QC – ArcToolbox tools for finding and fixing geometry problems. (Finding Problems; Fixing Problems)
- Getting it Right from the Start – Discussion on what to do when creating new datasets to prevent errors and inconsistencies. (Things to Think About When Creating and Editing Data)

## Format

In-person instruction with hands-on practice and course materials you can keep.

## Prerequisites

Attendees must have knowledge of Microsoft Windows® and have a comfortable working knowledge of the use of ArcGIS Desktop, including the topics covered in the **Fundamentals of ArcGIS** and **Intermediate GIS Concepts** classes.