



**Katherine can see how planning her training schedule keeps knowledge and technology relevant**

# QA/QC for GIS Data

**ESRI Australia's Training Solutions**  
supporting your location intelligence needs through flexible and valuable training options

## Why is it important

Data is the foundation of every successful GIS. To ensure a reliable foundation for their GIS, organizations should have a well-designed quality assurance (QA) plan and quality control (QC) procedures integrated with the generation and maintenance of GIS data. This course covers errors and quality in GIS data and provides practical guidelines for creating a complete QA plan. Students learn techniques for evaluating and verifying data quality. Using ArcGIS Desktop and PLTS GIS Data ReViewer, QC tools and workflows are presented with an eye toward ever-improving technology.

## Designed for

This course is designed for project managers, spatial data managers, and GIS technicians who will be involved in the design and implementation of QA/QC programs for vector data production and maintenance.

**Course Level:** Intermediate

## Learning Outcomes

- // Explain the importance of QA plans and QC procedures.
- // Understand issues involved in GIS data quality.
- // Explain the content and practice of a QA plan.
- // Identify and detect different types of errors in GIS data.
- // Apply QC tools, techniques, and methodologies.
- // Design an error-tracking and verification process.

## Prerequisites

Participants should have completed *ArcGIS Desktop 1: Tools and Functionality* and *Desktop 3: GIS Workflows and Analysis*. *Building Geodatabases* is recommended.

## Recommended Reading

**A to Z GIS:** Tasha Wade and Shelly Sommer

Certain recommended books can be purchased online, by visiting the ESRI Australia online store at [www.esriaustralia.com.au/onlinestore](http://www.esriaustralia.com.au/onlinestore)

## Course Details

<b>Duration</b>	2 days
<b>Commencement Dates</b>	For the latest course calendar please visit <a href="http://www.esriaustralia.com.au/training">www.esriaustralia.com.au/training</a>
<b>Terms &amp; Conditions</b>	Please see our website for the latest terms and conditions

## Course Content

### Understanding quality and error

- // Sources of error in GIS data
- // Role of QA in GIS
- // Finding errors visually in ArcMap

### Creating a QA Plan

- // Testing with a pilot project
- // Writing an acceptance workflow

### Establishing data acceptance criteria

- // Data sampling strategies and methods
- // Sample size and tracking
- // QA/QC Sampling tools Toolbox

### Designing a QC workflow

- // QC tasks and reporting
- // Workflow design tips
- // Diagramming a QC workflow

### Recording and tracking errors

- // Roles and responsibilities
- // Methods for recording errors
- // Recording and tracking with ArcGIS
- // Recording and tracking with PLTS GIS Data ReViewer

### Initial QC checks

- // Checking schema, attributes and geometry
- // Initial checks with ArcGIS and/or PLTS Data ReViewer

### Validating geometry using topology

- // Topology basics
- // Finding and recording topology errors with ArcGIS and/or PLTS Data ReViewer

### Visual review techniques

- // Setting symbols and labels
- // Tools and methods for visual review
- // Visual error inspection with ArcGIS and/or PLTS Data ReViewer

### QC report & completing QA plan

- // QC reporting workflow
- // Calculating error rates

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## About ESRI Australia

ESRI Australia is the source of astute professional services and Geographic Information Systems (GIS) technology. We're experts in location intelligence; with over 30 years experience in implementing GIS solutions in dozens of industries.

Our passion for technology and considered approach gives our clients the power to see more and do more. With our expertise, knowledge, vision and technical capability, we turn 'possibility' into 'reality'

## ESRI Australia Training Solutions

Derive maximum benefit from your location intelligence solution by ensuring your workforce has the knowledge and skills to fully utilise our investment in GIS.

ESRI Australia offers a complete range of training services to help educate and support your solution end users and administrators. With courses for beginners,

Intermediate and advanced users, ESRI Australia caters for all skill sets and educational requirements.

Our courses are taught by ESRI authorised instructors, which means that your employees can be assured of receiving consistent quality GIS training by accredited trainers.

Our flexible training options range from developing and delivering a complete training program for your organisation through to a range of scheduled courses held at centrally located training facilities.

With a client site, scheduled or knowledge transfer training available, ESRI Australia can provide the solution to meet your organisations training needs.