



**Jonathan can see** the benefits of the practical skills he develops through a course; it makes him more efficient in performing his job

# Desktop III: Workflows and Analysis

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

## Why is it important?

Understanding how and when to apply ArcGIS® tools and functions is the key to creating an efficient GIS workflow. Building on the skills and knowledge taught in *ArcGIS Desktop II: Tools and Functionality*, this course shows how to apply ArcGIS tools in a workflow context with a focus on working with data stored in a geodatabase and performing geoprocessing and analysis. In the course exercises, you organise and edit data stored in a geodatabase, prepare data for analysis, create and edit geoprocessing models using ModelBuilder™, and work through a challenging analysis project.

## Designed for

This course is designed for experienced ArcGIS users who want to learn more about the ArcGIS tools for creating and editing data and GIS analysis. If you've completed Introduction to ArcGIS I or Desktop I: Getting started with GIS and have some hands-on experience with ArcGIS, this course would be the appropriate next step.

**Course Level:** Intermediate

## Learning Outcomes

- // Add data from different sources to a geodatabase
- // Create subtypes and use them when editing data
- // Validate geodatabase feature geometry and attributes
- // Edit data using a geodatabase topology
- // Create and edit geodatabase annotation
- // Create and edit metadata using a template
- // Create custom symbols and style sheets
- // Create and apply a custom map template
- // Run analysis tools using dialog boxes, models, and the command line window
- // Build a complex model using ModelBuilder

## Prerequisites

Students should have completed Introduction to ArcGIS I, ArcGIS Desktop II: Tools and Functionality or Learning ArcGIS Desktop or have equivalent knowledge.

## Recommended Reading

**The ESRI Guide to GIS Analysis, Volume 1:** Geographic Patterns and Relationships. *Andy Mitchell*

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>	For the latest ESRI Australia training terms & conditions please visit <a href="http://www.esriaustralia.com.au/training">www.esriaustralia.com.au/training</a>

## Course Content

### Getting data into the geodatabase:

- // File and personal geodatabases
- // Data conversion
- // Importing and exporting data
- // Copying data between geodatabases
- // Using the Simple Data Loader
- // Using an OLE DB connection
- // Adding data from a GIS server
- // Working with map projections and datums

### Geodatabase behaviour:

- // Subtypes and Domains
- // Geodatabase topology

### Editing GIS data:

- // Creating new data
- // Constructing an edit sketch using constraints (direction, length, parallel)
- // Creating adjacent polygons
- // Modifying existing features
- // Reshaping features and boundaries
- // Exploding multipart features
- // Editing using geodatabase behaviours.

### Aligning spatial data:

- // Common data alignment problems
- // Georeferencing CAD data
- // Matching layer boundaries
- // Transformation and Rubber sheeting
- // RMS error

### Managing geoprocessing tools and settings:

- // Toolboxes and how they are stored
- // System tools, models, scripts
- // Locating tools in ArcToolbox
- // Tool parameters
- // Parameter error detection
- // Environment settings
- // Tool layers
- // Geoprocessing results

### Analysing GIS data:

- // Common analysis tools
- // Proximity tools
- // Analysing tabular data
- // Creating a raster subset
- // Typical analysis workflow

### Using ModelBuilder for analysis:

- // Model elements
- // Setting model parameters
- // Troubleshooting a model
- // Creating model documentation.

### GIS analysis projects:

- // Real-world GIS analysis projects

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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 your 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 Inc. 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 client site, scheduled or knowledge transfer training available, ESRI Australia can provide the solution to meet your organisation's training needs.

For course descriptions, or further information about ESRI Australia's flexible training solutions please visit [www.esriaustralia.com.au/training](http://www.esriaustralia.com.au/training)

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