Building Geodatabases

Get the most out of your data

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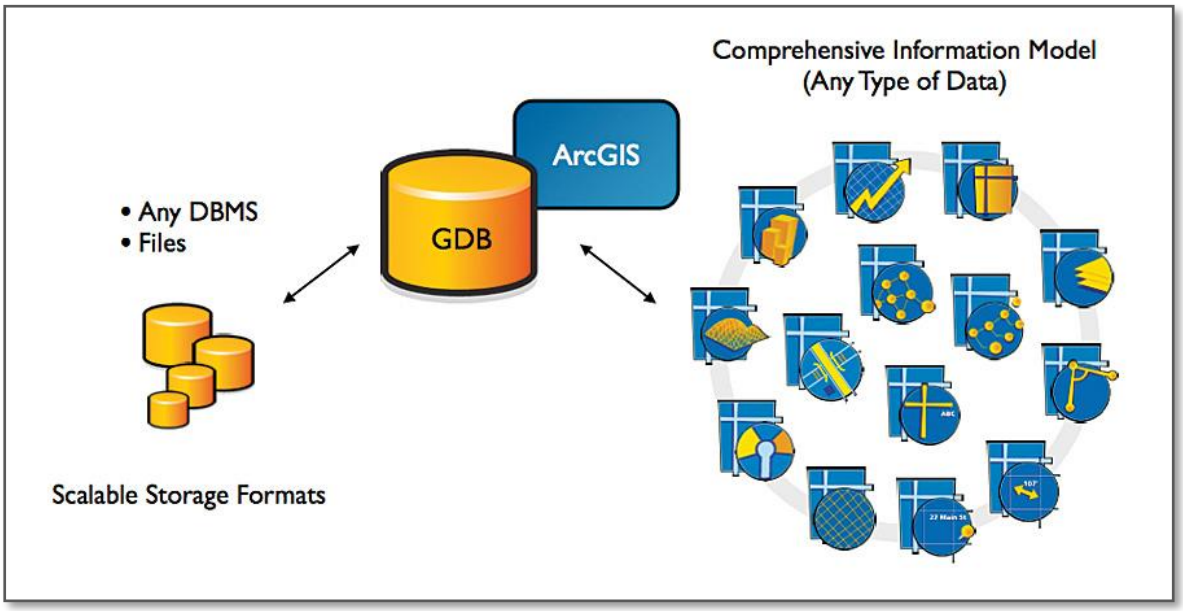
SGD$1,440 / pax

Level: Intermediate | Course duration: 3 days

Esri Singapore's Building geodatabases training course for intermediate level using ArcGIS for Desktop Advanced.



What is the course about?

This course teaches you the essential concepts and skills needed to efficiently create a geodatabase, add data to it, and realistically model the real-world spatial relationships inherent to your data. You will learn about unique geodatabase features that help ensure data integrity over time and why the geodatabase is the preferred format for storing and managing geographic data. Course concepts apply to file-based and multiuser ArcSDE geodatabases. This course is taught using ArcGIS for Desktop Advanced.

Who is the target audience?

GIS analysts, specialists, data technicians, database designers, and others who need to manage and maintain data stored in a geodatabase; and GIS managers and database administrators who need to understand the capabilities of the geodatabase may also benefit.

Are there any prerequisites?

Completion of ArcGIS 2: Essential Workflows or equivalent knowledge is required.

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What skills will I learn?

After completing this course, you will be able to:

- Access GIS data stored in file-based geodatabases, multiuser geodatabases, and ArcGIS for Server
- Create an appropriate geodatabase structure to organise data for efficient storage, display, and editing
- Add rules and behaviours to ensure the spatial and attribute integrity of geographic data
- Jumpstart into geodatabase design using a template data model
- Create a geodata service to share a geodatabase with desktop, web, and mobile users

Course topics

Exploring the geodatabase

- Geodatabase components
- Connecting to a geodatabase
- Geodata services

Creating and loading data

- Creating a geodatabase
- Creating feature classes and tables
- Modifying feature classes and tables
- Data loading techniques
- Database recovery and backups

Managing raster data

- Considerations for raster management
- Creating a mosaic dataset

Maintaining data integrity using subtypes

- What are subtypes and when should you use them?
- Creating subtypes
- Specifying default values

Maintaining attribute integrity

- Creating attribute domains
- Applying domains to subtypes
- Validating attribute edits

Relating data using relationship classes

- When to use
- Table cardinality
- Relationship class properties and rules

Adding attachments

- Storing file-based information with features
- Adding attachments using a geoprocessing tool

Designing geodatabase topologies

- Topology workflow
- Topology rules
- Validating a topology

Sharing a geodatabase

- Sharing methods: map packages and geodata services
- Publishing geodata services
- Managing service data
- Sharing map packages

Designing a geodatabase

- Design process and considerations
- Template data models

Project: Build a geodatabase

- Create feature classes and tables
- Load data
- Design attribute integrity rules
- Create domains, subtypes, a relationship class, and a topology
- Test rules in an edit session
- Share the geodatabase schema

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Course topics (cont.)

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