

The most challenging part of any geospatial project is designing a successful data model.

A geodatabase requires planning and revision until it meets the requirements of all those who will collect and use the data. A mutual understanding of the data and data standards is essential. These initial efforts will dictate the form and usability of the resulting GIS. A good design will allow for fast data access and organization, will be scaleable and may allow you to answer questions you haven't even thought of yet with your collected data.

Consider -

- How to represent geographic features for each as well as their tabular attributes
- How the data will be organized into datasets such as feature classes, attributes and domains
- Integrity rules for implementing rich GIS behavior (such as topologies, networks, and raster catalogs), and for defining spatial and attribute relationships between datasets

Once you've considered these issues, **begin implementing** your design by creating feature datasets, feature classes, tables, and other items one at a time. Revise them until you reach a design that meets your requirements.

Once your design is complete, **add data to tables and feature classes and build indexes** for the appropriate fields to improve query performance.

You can also grant and revoke privileges on your table, feature class, or feature datasets for other database users.

After creating feature classes, tables, and feature datasets, **create more advanced items** such as relationship classes, topologies, and geometric networks. Note: Trimble GPS Analyst does not support geometric networks.

Need help?

ArcGIS Desktop Help is an excellent resource that breaks this process down into manageable steps and guides you through all these steps.