How to Create a Geodatabase from a Repository or XMI file

This document describes how to generate a geodatabase from a data model template stored in a Microsoft Repository Database or XMI file. These files are created from a data model template managed in Visio or Rational Rose.

You do not need to learn the Unified Modeling Language (UML) or purchase Computer Automated Systems Engineering (CASE) software to leverage a template design. Many users start with a repository/XMI, create a geodatabase, and then refine the design using ArcCatalog.

Note: The UML.DTD file is needed to work with some of the data modeling tools, it is located in your Program Files, ArcGIS directory in the Case Tools>Utilities folder. This file enables the Case Tool to recognize the contents of the xml file and needs to be kept in the same folder together with that file.

To get started, you need to have access to ArcCatalog (ArcEditor or ArcInfo license). In this example, we focus on creating a personal geodatabase, but you can also use the same process to generate an enterprise geodatabase schema. The process involves running the Case Tool Schema Wizard to create your Geodatabase from the template.

Note: You need to set the Spatial Reference while running the Schema Wizard. You will need to specify a spatial reference so that the feature classes created can be used with your data. This section describes how to specify the spatial reference while running the Schema Wizard. This process is important because the spatial reference cannot be changed after the schema is created.

Preparing to run the Schema Wizard

Before you begin, you need to set up ArcCatalog to run the Schema wizard.

1.   In ArcCatalog, right-click any of the toolbars and click Customize.

2.   Click the Commands tab and click CASE Tools in the Categories list.
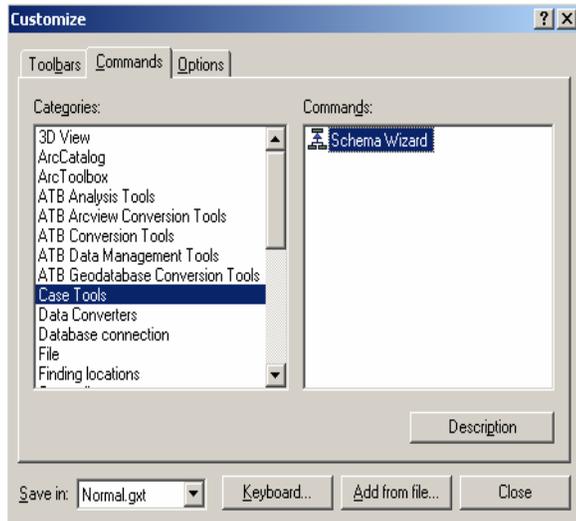
3.   Click and drag the Schema Wizard icon from the Commands list onto an existing toolbar, then Close the Customize dialog box.


The Schema Wizard button is shaded gray when you close the Customize dialog box.

Running the Schema Wizard

1.   If you do not already have a geodatabase to work with, navigate to the folder where you want to work, then right-click on the folder, point to New, and click Personal Geodatabase. Type a name for your personal geodatabase and press Enter.
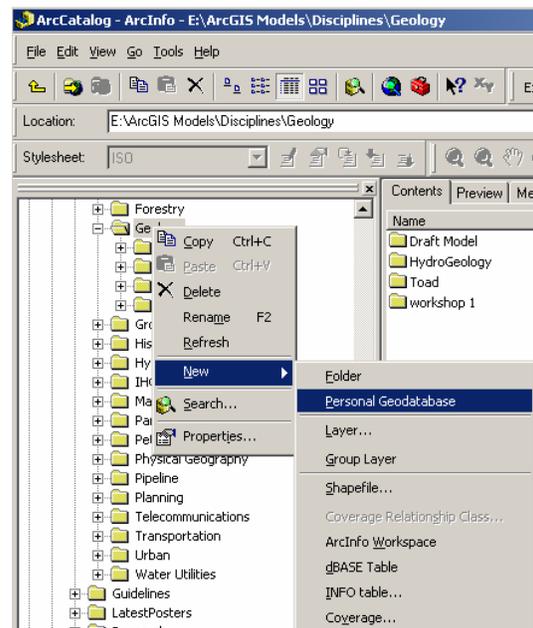
Select the new geodatabase in the Catalog tree.
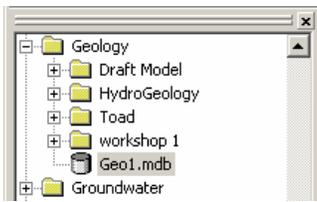
Selecting the geodatabase makes the Schema Wizard button active and allows you to use the repository. Note: do not select the repository database at this point in the process.


2.   Click Schema Wizard to start the Case Schema Creation Wizard.

3.   A brief introduction to the wizard appears. Note: if you have ArcGIS 8.3, you will be able to choose to import from either a Repository or an XMI file. Click Next.
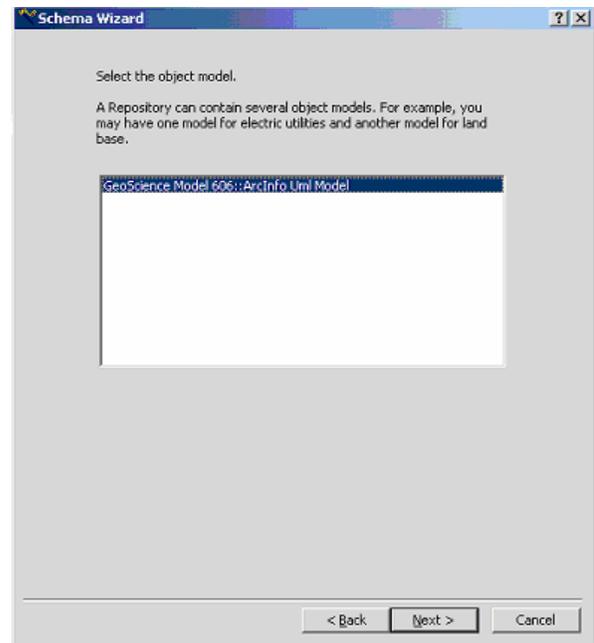
4.   Click Browse and navigate to the repository or XMI file you want to use. In most cases you will not have to enter a username and password. Contact the creator of the repository if this appears to be a problem.
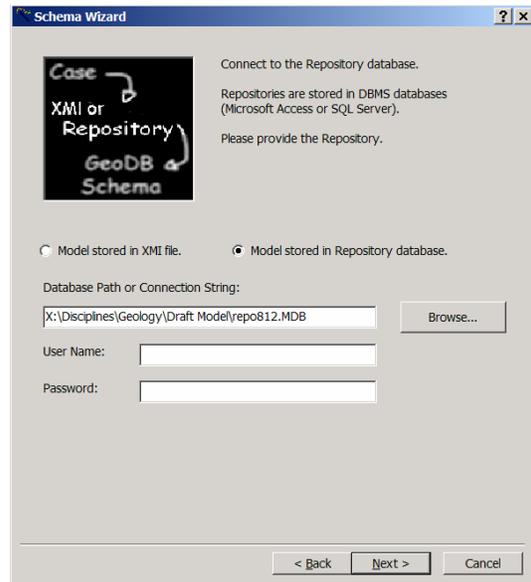
5.   Click Next.

A repository may contain several object models. In most cases there is only one.

6.   Click the object model you want from the repository, click Next.

The wizard begins importing the objects. This may take several minutes, depending upon the size of your object model. After the wizard finishes with the object import, you will be able to preview the contents of the geodatabase that will be created.

7.   The Schema Wizard may ask you to choose "Use default values" or "Use values from previous run". Select "Use Default Values" and click Next. This Schema Wizard form only displays if you are using a repository that has been used previously.

Schema Wizard

From the previous run, this model has stored values for spatial references, grid sizes and configuration keywords.

You can:

○ Use default values.

○ Use values from previous run.

< Back   Next >   Cancel
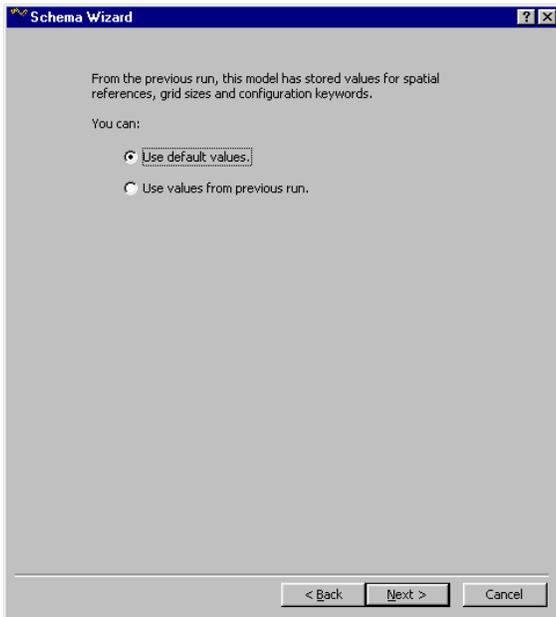
The Schema Wizard form shows your objects in a tree view. All of the datasets in your object model are selected and have check marks beside them by de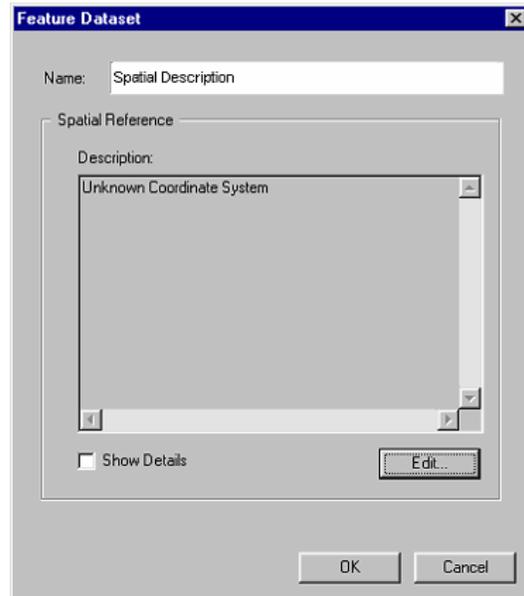fault. You can uncheck the check boxes to unselect any dataset that you do not want to add to your geodatabase. Click the plus and minus signs located next to dataset to expand and contract the tree view.

Schema Wizard

Select the feature datasets to create.

Workspace
  ☑ Spatial Description
       PolySpatialDesc
       LineSpatialDesc
       PointSpatialDesc
  Concept
  ConceptRelationship
  Occurrence
  OccurrenceRelationship
  DrillHoleCollar
  Lithology
  DrillHoleSegment
  StructuralMeasure
  StratigraphicAge
  RankLevel
  TextDesc
  NameDesc
  ImageDesc
  LineHasOccurrences
  OccurrenceHasStratigraphicAge
  ConceptHasRankLevel
  PolyHasOccurrences
  OccurrenceHasImageDesc

Properties...

< Back   Next >   Cancel

8.   Select a dataset and set the Spatial Reference for each dataset in the Catalog tree.

You can click a dataset (i.e. "Spatial Description") and then select the Properties button, to open the dataset's Properties dialog box. You will need to select each dataset and specify the Spatial Reference.

9.   Click Edit in the Spatial Reference section.

Feature Dataset

Name: Spatial Description

Spatial Reference

Description:

Unknown Coordinate System
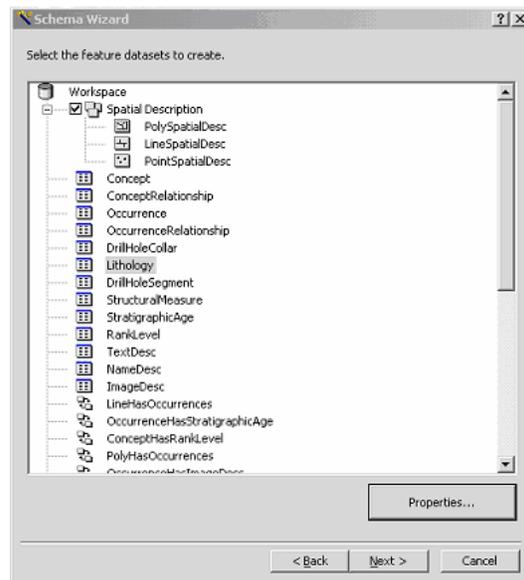
☐ Show Details   Edit...

OK   Cancel

All of the feature classes in a feature dataset must share the same spatial reference. You can use the coordinate system of an existing dataset (for example, a land base coverage) to set the spatial reference. Be sure that the extent of the dataset is the same as or greater than all of the features that you will load into the dataset.

10.   Select or import a coordinate system for your dataset.

For more information about setting a spatial reference, see *Building a Geodatabase* and *Using ArcCatalog*.

If you are satisfied with the dataset spatial reference properties, click OK.

11.   In the Schema Wizard form, you can also highlight an object and modify the object's class properties.

Schema Wizard

Select the feature datasets to create.

Workspace
  ☑ Spatial Description
       PolySpatialDesc
       LineSpatialDesc
       PointSpatialDesc
  Concept
  ConceptRelationship
  Occurrence
  OccurrenceRelationship
  DrillHoleCollar
  Lithology
  DrillHoleSegment
  StructuralMeasure
  StratigraphicAge
  RankLevel
  TextDesc
  NameDesc
  ImageDesc
  LineHasOccurrences
  OccurrenceHasStratigraphicAge
  ConceptHasRankLevel
  PolyHasOccurrences
  OccurrenceHasImageDesc

Properties...

< Back   Next >   Cancel

You can click an object and then select the [object name] Properties button (i.e., "Lithology" as selected above), or simply double-click the object, to open the object's Properties dialog box. The Schema Wizard will allow you to modify an object's properties before importing the object in the feature dataset.

12.   If you are satisfied with the object's properties, click OK. Examine and change any other objects, then click Next.
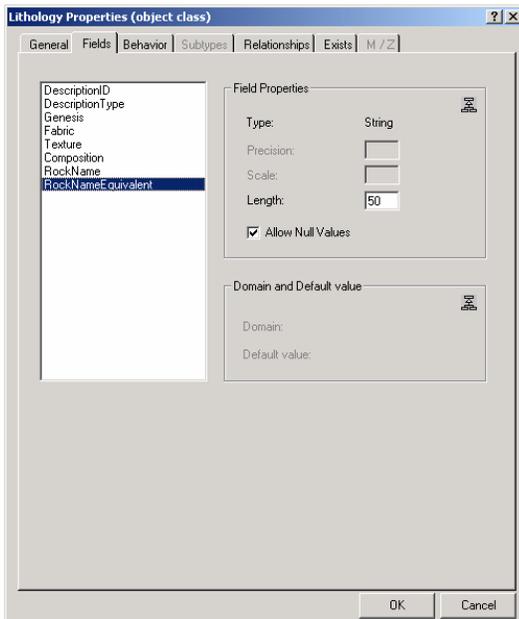
13. The Schema wizard presents a summary of the feature and object classes you've chosen to create. Click Finish. The Schema Wizard generates a log file summary, which can be immediately viewed. The log file summary "Schema Wizard Log" is also saved in your temp folder.

14. Select the database and view its contents.

Your database now contains the objects (feature datasets, feature classes, tables, relationships) that were defined in your object model and generated by the Case Schema Creation Wizard.