

How to Load Data into the Geodatabase

This document describes how load data into a geodatabase after it has been created from a data model template, or personal geodatabase.

Note: *You need to set the Spatial Reference while running the Schema Wizard or when creating the geodatabase.* You will need to specify a spatial reference so that the feature classes created can be used with your data. There is a separate document that 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. This document assumes that you have a database created that will fit your data.

Converting Data to a Different Format

Converting data from one format to another is a common task, usually done at the beginning of a project. You might receive data in Interchange (e00) format and have to import that data to a coverage, then import that into the geodatabase. Or, you might export data from a shapefile into a geodatabase, or you may import from one geodatabase to another.

ArcCatalog makes it easy to change a data source's format. Right-click the data source whose format you want to change and point to Export. A list of the data converters that are appropriate for the selected data source will appear.

Importing a geodatabase feature class

You can use the Feature class to Geodatabase tool in ArcCatalog and ArcToolbox to import feature classes from one geodatabase to another or to import features from one feature class into a new feature class in the same geodatabase. This tool creates simple feature classes only and does not preserve object identity.

When you use this tool to import a custom or network feature class, a new simple feature class is created and the geometry and attributes of each feature are imported. If the input feature class has any subtypes, default values, relationships, and so on, they are not imported along with the features.

Copying and moving geodatabase data (limited in ArcView)

In addition to the Feature class to Geodatabase tool, ArcCatalog contains tools to directly move and copy data between geodatabases while preserving object identity, subtypes, relationships, network connectivity, and so on. With this method of copying data, you can copy entire feature datasets or individual feature classes between geodatabases.

When the data is copied, the copy has all the behavior of the original data; any attribute domains referenced in the original geodatabase are copied along with the feature class or table. If the feature class or table participates in a relationship class, then that relationship class, along with the feature class or table it is related to through that relationship class, is also copied. For example, if

you copy a feature class with feature-linked annotation, the feature-linked annotation is automatically copied with the feature class.

If you are copying a feature class into an existing feature dataset either in the same geodatabase or in another geodatabase, then the spatial reference of the feature class and the feature dataset must match. If the spatial references do not match, you will not be able to copy the data.

You can move feature classes and relationship classes in and out of, or between, feature datasets in the same geodatabase by dragging and dropping them in ArcCatalog. When moving a feature class into a feature dataset, the feature class and the feature dataset must have the same spatial reference.

If you copy or move a network feature class, all the feature classes that participate in the network, and the geometric network itself, are also copied or moved with the feature class.

How to import shapefiles

Importing shapefiles using default values

In the ArcCatalog tree, right-click the shapefile you want to import into your geodatabase.

Point to Export.

Click Shapefile to Geodatabase Wizard.

The wizard appears with the input shapefile field already populated with the shapefile you selected in ArcCatalog.

Click Next.

Navigate to the database or database connection into which you want to import the shapefile, or type its path.

To import the shapefile into an existing feature dataset in the database, click the first option and then click the feature dataset's name from the dropdown list.

Or, to import the shapefile into a new feature dataset, click the second option and type the new feature dataset's name.

Or, to import the shapefile as a standalone feature class, click the third option.

Type a name for the new feature class.

Click Next.

Click the first option to accept the default parameters.

Click Next.

Review the options you specified for your data import operation. If you want to change something, you can go back through the wizard by clicking the Back button.

When satisfied with your options, click Finish to import the shapefile into the database.

Tips

Shapefiles can also be imported into geodatabases by clicking the geodatabase and using the Import menu. In this case, the destination database is prepopulated, and you must browse for—or type the name of—the shapefile.

If you select multiple shapefiles from the contents view of ArcCatalog and click Import/Shapefile to Geodatabase, the tool

will automatically be set in batch mode with all of the input shapefiles prepopulated.

Importing shapefiles using custom values

Follow steps 1 through 8 for 'Importing shapefiles using default values' (see above).

Click the second option to import the shapefile defining custom parameters.

Click Next.

Type custom spatial index grid values if you do not want to use the defaults. (Only one index grid is used in Personal geodatabases, while ArcSDE geodatabases use up to three.)

Click Next.

Review the names in the Corrected Fields column. Click a name and then type a new one if you do not want to use the default.

Double-click in the Delete Field column and then click Yes if you do not want to include one of the original fields in the new feature class.

Click Next.

Review the summary of the coordinate system that will be used.

Click Change if you want to modify any of the shapefile's coordinate system parameters.

Click on one of the buttons to change the default coordinate system by one of the following methods:

Selecting a preexisting one

Importing a coordinate system from a shapefile, coverage, or feature class

Defining a new one

Modifying the default coordinate system's parameters

Click the X/Y Domain tab and modify the default parameters.

Repeat the previous step with the Z Domain and M Domain tabs, if present.

Click OK.

Click Next.

Review the summary of the parameters used to import the shapefile.

To change a parameter, navigate back to the appropriate panel by clicking Back.

Click Finish.

Tips

Changes to the field names are proposed when the original field names are invalid in the database. For example, when a field name contains an invalid character such as a hyphen, the hyphen is replaced by an underscore in the corrected field name. An error message indicating why the original name was corrected appears in the Original Error column.

You can click the Revert button to change the corrected field names back to their original values as automatically corrected by the Import wizard.

For details on creating new coordinate systems, see ArcGIS help topics for Creating feature datasets or Using the Extract Data Wizard.