

Converting Coverage Annotation to Geodatabase Format

Editor's note: This is a companion tutorial to the article "Converting Annotation from Coverage to Geodatabase Format" that ran in the October–December 2001 issue of *ArcUser* magazine. This article, the second of a two-part series, provides an overview of the process of converting annotation in a coverage to a geodatabase annotation feature class and discusses how annotation is stored in a coverage versus how it stored in a geodatabase.

Organizing the Sample Data

Download the sample dataset, *annocov.exe*, from *ArcUser Online*. Start ArcCatalog and choose File > New > ArcInfo Workspace. Create a new workspace called MyWorkspace. In Windows Explorer create a new folder called *annocov* in the MyWorkspace folder. Double-click on *annocov.exe* and extract its files into the *annocov* folder.

Right-click on the MyWorkspace folder and choose New > Personal Geodatabase from the context menu. The default name for the new geodatabase is New Personal Geodatabase. Right-click on the default name the change it to MyGDB.

Examining the Annotation Coverage

Coverage annotation stores text labels as strings along with associated characteristics including text symbol number, location, positioning and size specifications in the TXT file. There is one set of these files for each annotation subclass in a coverage. An annotation subclass may have a text attribute table (TAT) to store attributes. The TAT table can relate the same annotation to more than one geographic feature and to draw text from the TAT or a related table instead of the text string contained in the TXT.

To convert an annotation coverage to a geodatabase annotation feature class, the coverage must have a text attribute table (TAT) file. This tutorial uses a coverage called *annocov* that contains a annotation feature class called *Test*. This annotation feature class has a TAT file and the annotation is organized into two levels.

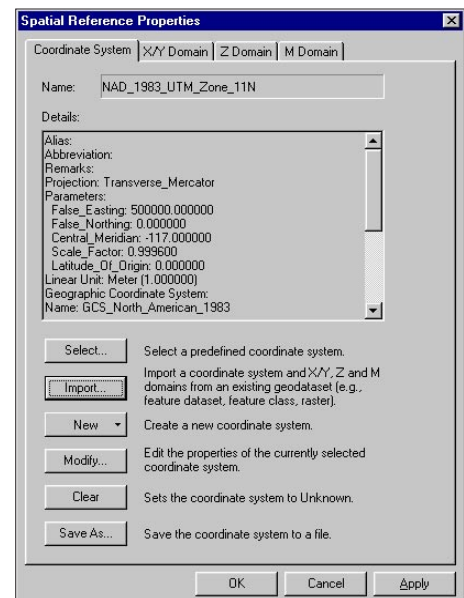
There are two methods for verifying that an annotation coverage subclass has a TAT file. In Workstation ArcInfo, use the DESCRIBE command at an Arc prompt to obtain a detailed description of the feature contents of a geographic dataset including the annotation feature class, its subclass name, the number of annotation features, and the number of bytes of attribute data. Alternatively, in ArcCatalog, right-clicking on *annocov.test* and choosing Properties from the context menu will bring up the Coverage Feature Class Properties dialog box. The Item tab displays the item fields present in the TAT table. After closing the Coverage Feature Class Properties dialog box, clicking on the Preview tab in Geography mode will display the annotation very simply with generic symbology.

Creating a Feature Dataset

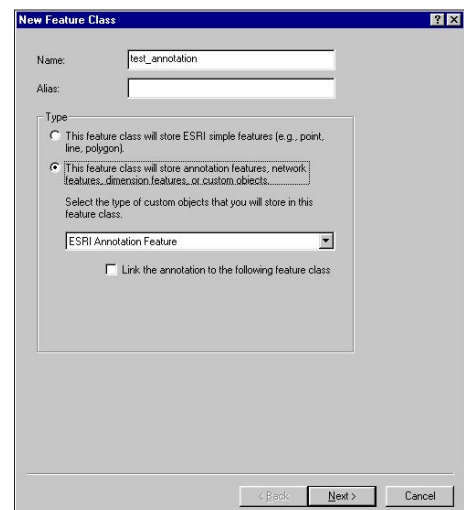
Before converting the coverage in ArcMap, feature classes for storing the annotation and other features in the coverage must be created in ArcCatalog. Because the associated spatial features will share the same coordinate space and may be coincident, it is advisable to create a feature dataset as well.

1. In the Catalog, right-click on MyGDB and choose New > Feature Dataset.
2. In the Feature Dataset dialog box name the new feature dataset MyAnnoFeaturedataset.
3. Click on the Edit button to invoke the Spatial Reference Properties dialog box.
4. Click the Import button and navigate to and select *annocov* from MyWorkspace folder. Click Add.
5. A description of the spatial reference appears in the Spatial References Properties dialog box. Click Apply then OK to accept the reference.

What You Will Need
To successfully complete this tutorial you will need ArcGIS 8.1 (ArcInfo, ArcEditor, or ArcView), the sample data for this exercise downloaded from the *ArcUser Online* Web site (www.esri.com/arcuser).



Create a feature dataset for the coverage and accept the spatial reference associated with the coverage.



Name the new feature class and specify that it will store annotation.

Creating Feature Classes

The next procedure creates feature classes for the new feature dataset that will store polygon and annotation features from the coverage.

1. In ArcCatalog, right click on MyAnnoFeaturedataset and choose Import > Coverage to Geodatabase Wizard.
2. In the wizard panel, click on the button with the folder icon and browse to MyWorkspace and choose annocov as the input coverage and click Open.
3. In the next panel, check polygon as the feature class to convert.
4. Because this new feature class is being created in MyAnnoFeaturedataset in MyGDB, the choices for destination geodatabase and feature dataset are greyed out because they are already set. Click on Next.
5. In the next panel, accept the default values for the feature class and click Next. Click Finish after reading the Summary panel and wait while ArcCatalog converts the features in the coverage.
6. Right-click on MyAnnoFeaturedataset again and choose New > Feature Class.
7. Name this feature class test_annotation, click the radio button indicating that the new feature class will store annotation features, and choose ESRI Annotation Features in the drop-down. Choose Next.
8. In the next panel, specify a reference scale as 100000 and map units as meters. The reference scale determines the display size for the text and also serves as a marker scale for sizing text up or down when zooming in or out. The map units or reference scale units will automatically match the spatial reference's units if the annotation feature class is being created in a feature dataset. Choose Next.
9. Accept the default database storage configuration parameters for the new annotation feature class. Choose Next.
10. The final panel shows the new fields created for the annotation feature class. At this point fields from the coverage TAT file can be imported.
11. Choose Finish.

Populating the Annotation Feature Class

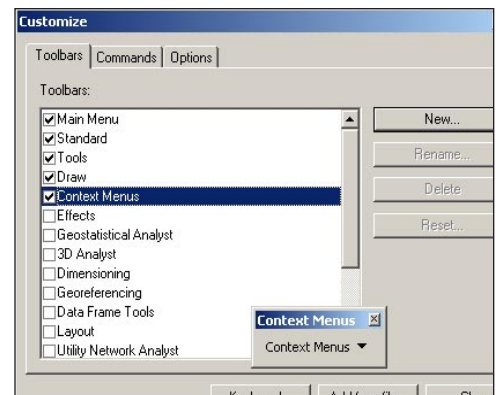
Populating the new test_annotation feature class with coverage annotation happens in ArcMap.

1. Close out ArcCatalog.
2. Start ArcMap and choose A New Empty Map.
3. Click on the Add Data button and navigate to MyWorkspace/annocov. Add polygon and annotation.test coverage to the data frame. Note that the polygon coverage is added only for reference purposes.

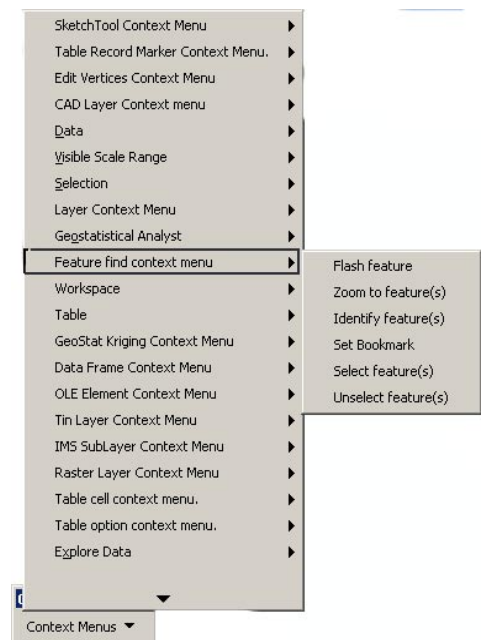
Modifying ArcMap

Before executing the actual conversion a new command must be added to the ArcMap interface. The Convert Coverage Annotation command is not found on any standard toolbar but is only available through the Customize dialog in ArcMap.

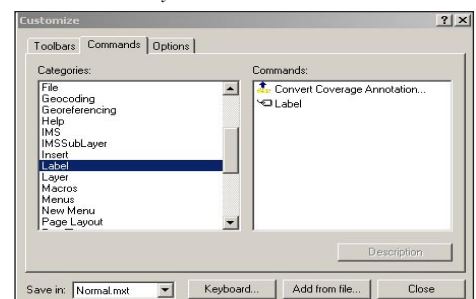
1. Add the convert annotation command by choosing View > Toolbars > Customize.
2. In the Customize dialog box, click on the Toolbars tab and check the box next to Context Menus.
3. A toolbar with a drop-down list of all the context menus in the application appears. Click on the arrow next to Feature Layer Context Menu.
4. Add the convert annotation command to this context menu by clicking on the Commands tab in the Customize dialog box.
5. Click the Label category in the left pane and drag the Convert Coverage Annotation command from the Commands list in the right pane and drop it on Feature Layer Context Menu. The command appears in the context menu.
6. Click Close on the Customize dialog box.



Add the convert annotation command by choosing View > Toolbars > Customize. In the Customize dialog box, click on the Toolbars tab and check the box next to Context Menus.



A toolbar with a drop-down list of all the context menus in the application appears. Click on the arrow next to Feature Layer Context Menu.



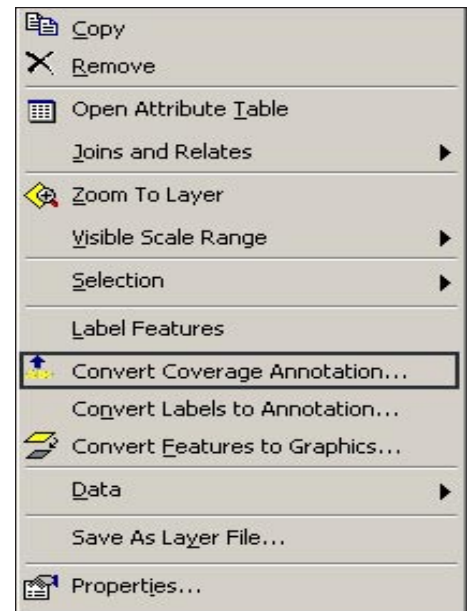
Clicking on the Commands tab in the Customize dialog box and click the Label category in the left pane. Drag the Convert Coverage Annotation command from the Commands list in the right pane and drop it on Feature Layer Context Menu.

Completing the Conversion Process

You are now ready to begin the conversion process. Because the Convert Coverage Annotation command was added to a context menu, it will only be accessible when coverage annotation is displayed in the data frame. Before beginning the conversion process, make sure the coverage annotation layer is displayed as a layer in the map.

1. Right click on the annotation.test layer and choose Properties. Click on the Symbols tab and make any needed changes to font, color, and size of the annotation. ArcMap doesn't support the same symbolsets and fonts that ArcInfo uses so converted annotation will not exactly replicate the original annotation.
2. Begin the conversion process by right-clicking on the coverage annotation layer and choosing Convert Coverage Annotation from the context menu. In the Convert Coverage Annotation dialog box, check the coverage annotation feature class that will be converted. Multiple coverage annotation classes can be converted to a single geodatabase annotation feature class.
3. Click the option to convert the annotation into a database.
4. Click the Browse button to navigate to test_annotation, the annotation feature class you created in ArcCatalog.
5. Click the Convert button and begins the process. Click Yes to add the converted annotation to the map and click the Close button when the conversion process is complete.

Explore the newly created geodatabase annotation. This annotation can be edited by choosing Starting Editing from the Editor toolbar. Font, size, and other annotation characteristics can be further refined. Additional information on annotation in geodatabases can be found in *Building a Geodatabase* and *Using ArcMap*. Both books are part of the documentation that comes with ArcGIS.



Begin the conversion process by right-clicking on the coverage annotation layer and choosing Convert Coverage Annotation from the context menu.