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GEOSPATIAL RESOURCES AND MAP COLLECTION

CREATING AND EDITING SIMPLE SHAPEFILES IN ARCMAP

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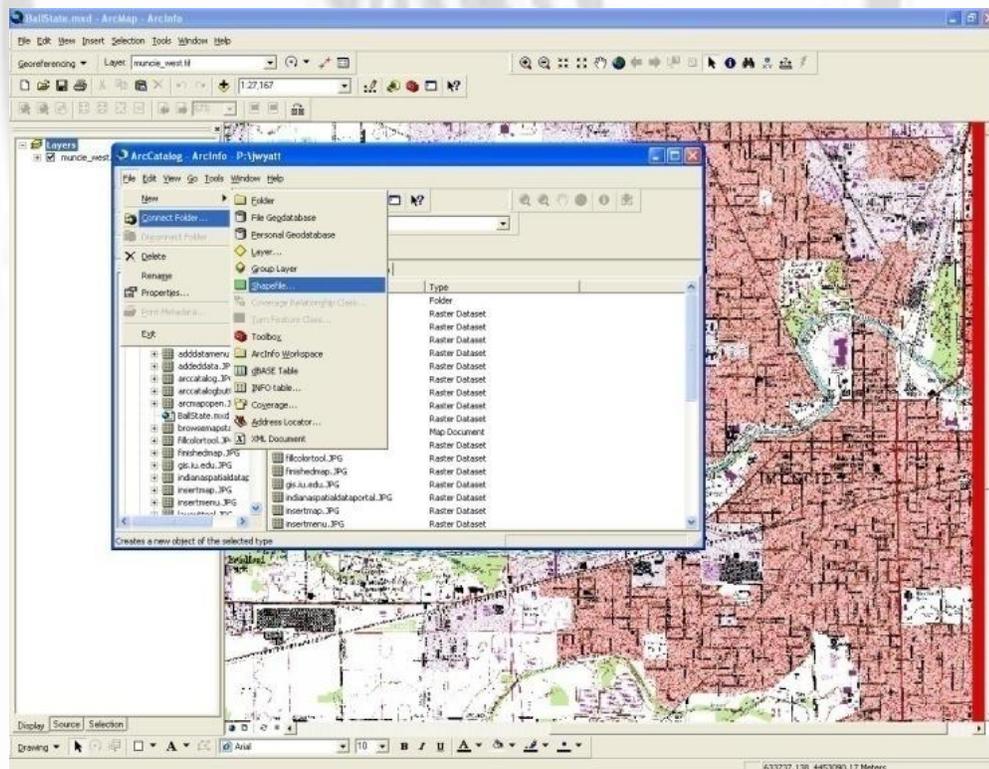A destination for research, learning, and friends

Creating and Editing Shapefiles in ArcMap

A shapefile stores map (geographic) features and attribute data that can be used to show a specific location on your map. You may choose from a point, a polyline, or a polygon. This tutorial will walk users through creating a new shapefile and then adding to an ArcMap document.
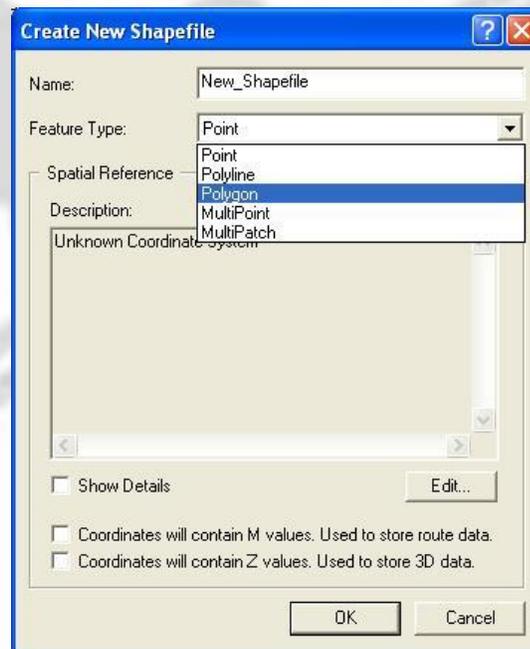
*This tutorial is for users who are intermediate users of ESRI's ArcMap software.

Creating a New Shapefile

1. **Open** a new ArcMap Document

2. To create a new shapefile you can either click on the ArcCatalog button in ArcMaps main GUI, or you can go through your computer's Start Menu ->All Programs->ArcGIS->ArcCatalog.

3. Once ArcCatalog has opened navigate to the folder where you are saving your work in the column on the left. **Click** on the folder that the new shapefile should be stored in. Then go to **File ->New->Shapefile.** (see illustration below)
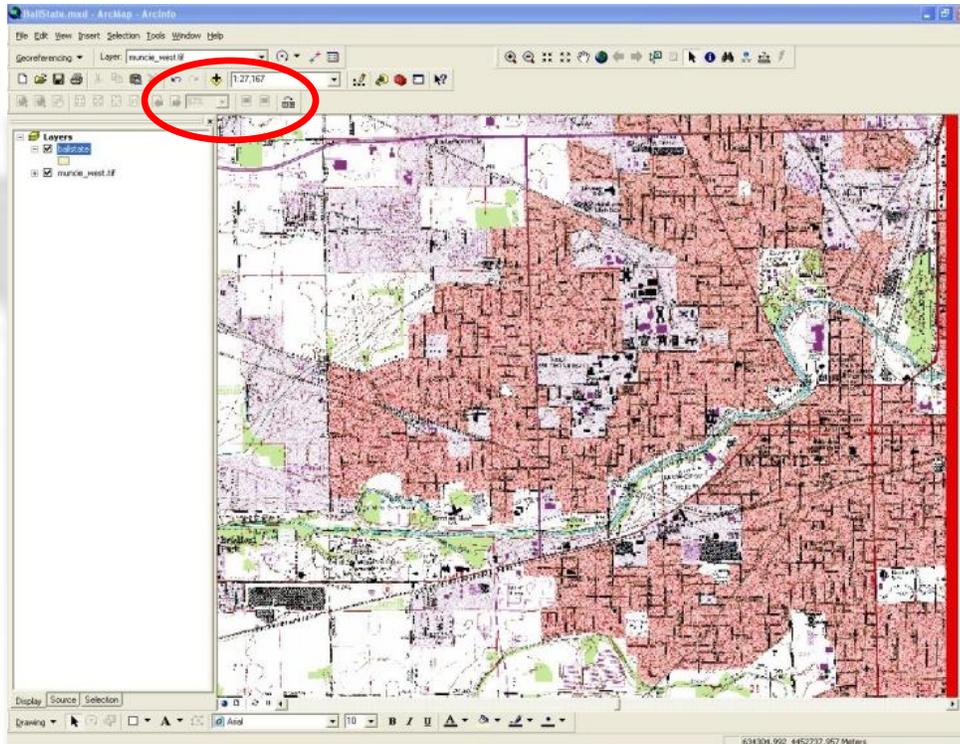
4. In the **Create New Shapefile** window, you can name your shapefile, and select the type of shapefile you want to add. **Click** on the **Feature Type** drop down box and click on **Polygon**, then click **OK**.

5. In the **Description** box on the form it will say *Unknown Coordinate System.* **Hit** the **Edit** button just below this box and choose your preferred coordinate system.

6. Hit **OK** (see illustration below)

7. You should notice that your new shapefile has added to the list of items in your folder in the ArcCatalog menu.

8. **Close** ArcCatalog.

9. In ArcMap **Click** the **Add Data** button in the main GUI.

10. **Navigate** to the folder where you saved the shapefile. Depending on what you named it, the title may look different, but look for this icon the **.shp** tells you that it is a shapefile, and the image represents a polygon.

11. Click on the shapefile then click **Add**. A warning may appear about a missing spatial reference if you didn't select a coordinate system when creating the shapefile. Hit **OK**. The new shapefile will be added in the table of contents (see illustration below).
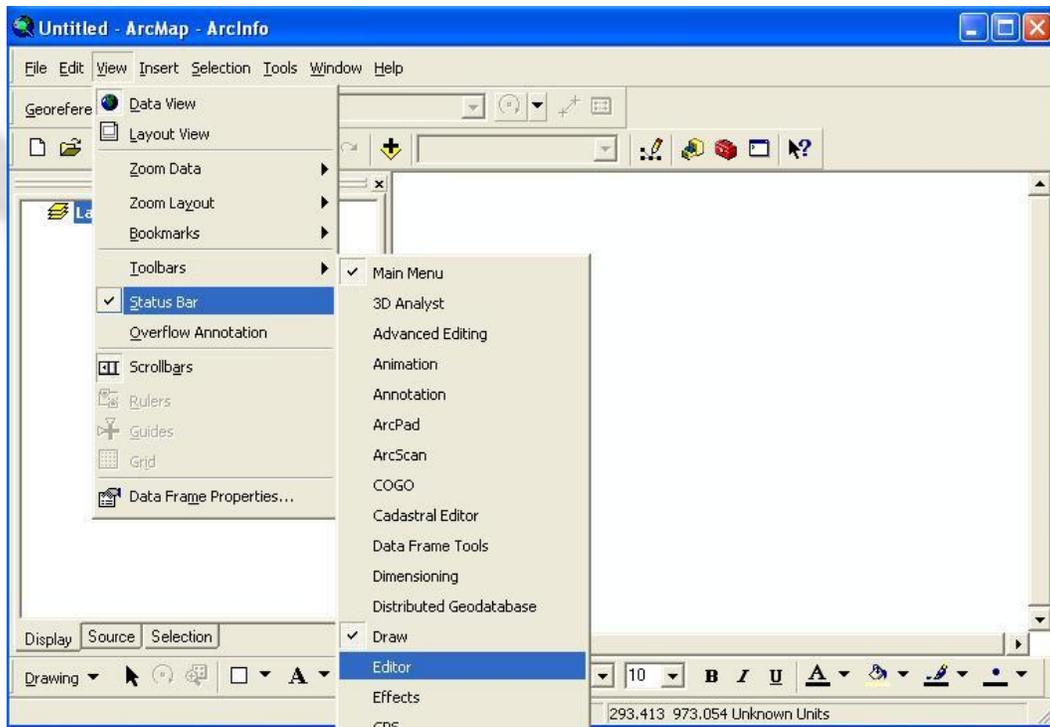
12. After the shapefile is added in the table of contents you can begin editing it.
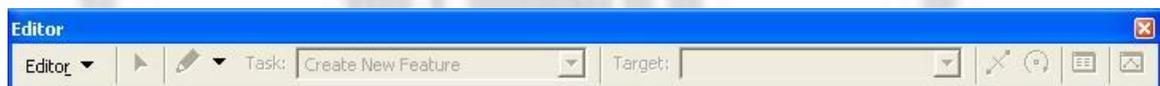
Editing Your Shapefile

In this part of the tutorial you will learn how to create simple features within your shapefile using the Editor tool. For more detailed instructions on editing a shapefile go to Help in ArcMap and search using the keyword Editing.

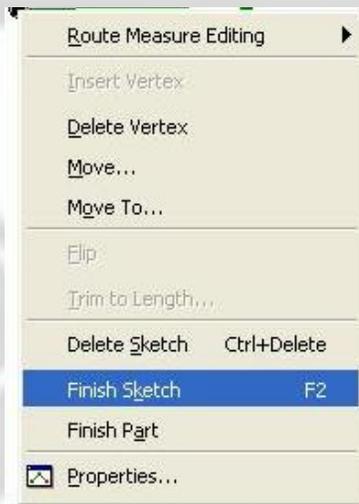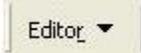1. Click on to **View->Toolbars->Editor** (see illustration below) to bring up the *Editor Toolbar.*

2. **Click** on the **Editor Button** [Editor ▼] in the *Editor Toolbar*. (See illustration below)

3. In the dropdown menu click **Start Editing**. A window will pop up and list the layers available for editing. Click on your shapefile, and click **Start Editing**.

4. Click on the **Sketch Tool** [✏️ ▼] next to the *Editor Button*, and begin drawing your shapefile. This is very similar to creating a line drawing in Microsoft Office programs. **Click** the map where you want the beginning of the shape to be, and then continue clicking at each corner or where you want to place a vertex (a point capable of manipulation).

5. When you are finished adding your last vertex, **right-click** and choose **finish sketch**. (See illustration below).

6. When you've finished adding your last polygon, go to the **Editor Button**

   `Editor ▾`   and click **Stop Editing** in the drop down box. A box will pop up asking if you want to save your edits, click **YES.**

You have now successfully created and added data to a shapefile!

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