ArcMap - Digitizing and Editing Features in Shapefiles and Map Layers

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- Add a New Feature to the Map Layer
- Change the Symbology for the New Features
- Create New Features
  - Begin Digitizing Features
  - Edit Attributes of the Feature
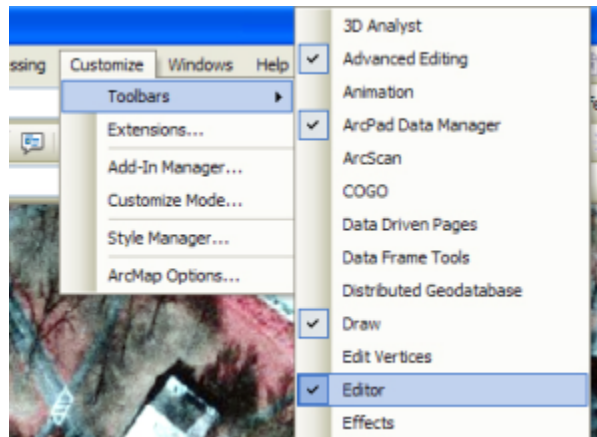- New Shapefiles Do Not Appear in the Editor Window

The type of Feature you can digitize in a Map Layer is dependent upon which Feature Class type was set during the creation of the Shapefile in ArcCatalog. Features are most commonly Polygons, Lines, or Points. For more information, see the tutorial on Creating New Shapefiles or Feature Classes. The following instructions assume that users will be digitizing shapes in a new, empty shapefile. These directions are also relevant to digitizing and editing Shapefiles with existing features.

Add a New Feature to the Map Layer

1. Add all of the Basemaps and other necessary layers you want to work with in the Map Project to ArcMap.
2. Add the new, empty Shapefile/Map Layer you created in ArcCatalog to which you want to add Features.

Change the Symbology for the New Features

1. Double-click on the Symbol below the name of the new Shapefile. The Symbol Selector dialog box will appear.
2. Change the Symbology for your new Features to match the purpose of your map.
3. Add the Editor Toolbar to Your Tools
   (Click image to enlarge)

4. Click Customize Toolbars Editor. If there is a check box next to the Editor option already, it means that the Editor Toolbar is already enabled and visible.

If there is not a check box next to the Editor option, click on Editor to add the Toolbar to your list of tools.

Create New Features

Begin Digitizing Features

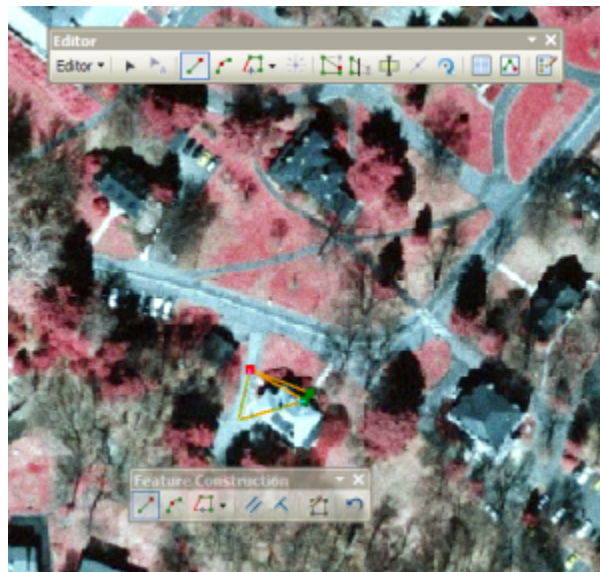1. Click the Editor button in the Editor Toolbar. *(Click image to enlarge)*

2. Choose Start Editing. The Editor window will appear with the Create Features menu. The name of your new Shapefile should appear in the list of Templates. *(Click image to enlarge)*
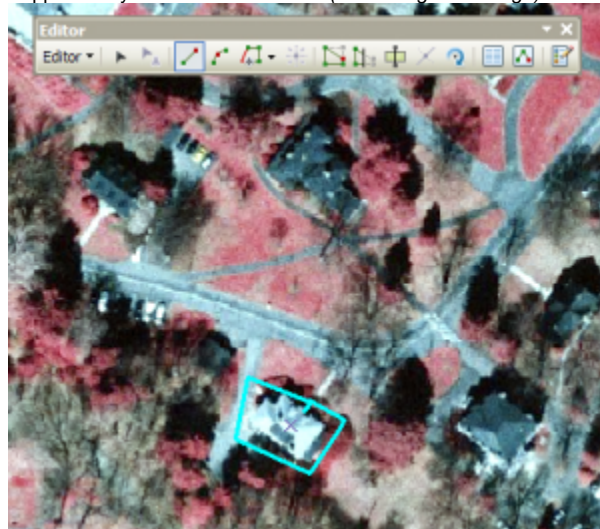
If the name of your new Shapefile does not appear in the Editor window, see the section below on New Shapefiles Not Appearing in the Editor.

3. Click on the name of the new, empty Shapefile. A set of options will appear in the Construction Tools area at the bottom of the Create Features menu.

4. Click on the tool you will use to create your features. The main tool for creating each type of Feature appears as the first option in Construction Tools. When you move the cursor over the main Data Frame, the cursor will become a cross-hair. Click with the cross-hair to begin digitizing the Feature you want to create.
   a. Points: You only need click once to create the Feature, which will be a vertex (point).
   b. Lines: Click along all of the points where you want to line to appear. A vertext will appear each time you click, but these vertices will disappear when you are done creating the Feature. Double click on the last vertex to end a Line Feature.
   c. Polygons: Click along the main points of the Feature's perimeter. A line will continue to connect the first vertex drawn to the cross-hairs. Polygons are closed shapes, so the last vertex and the first vertex should be in the same location. Double click on the last/first vertex to finish a Polygon Feature. *(Click image to enlarge)*

If you have properly finished a Feature, it will appear in cyan in the Data Frame. *(Click image to enlarge)*

Edit Attributes of the Feature

Click on the Attributes button of the Editor Toolbar. The Attributes menu will appear.

Click inside the cells next to the Attribute names to fill in data about each new Feature. It's advisable to at least name each new Feature during this part of the process to create a human readable label.
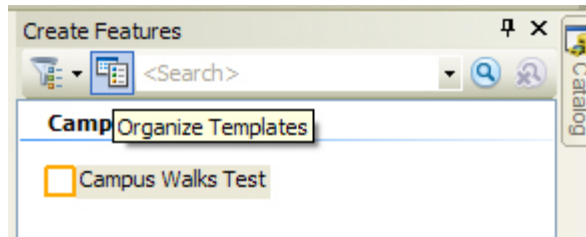
Press the Enter button on your keyboard when you are finished adding data to the Attributes of the new Feature.

Return to creating new Features by clicking on the Create Feature tab at the bottom of the Editor window.

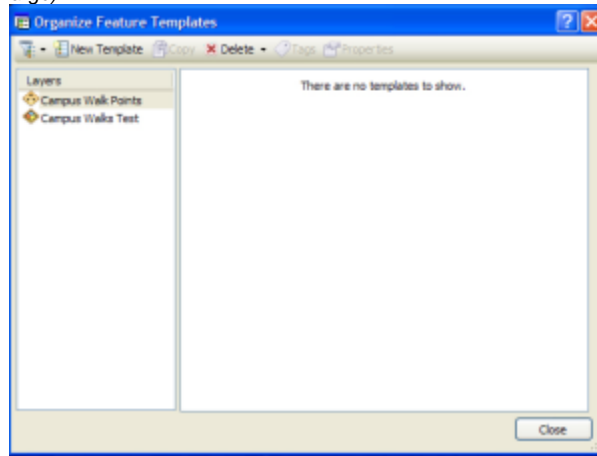## New Shapefiles Do Not Appear in the Editor Window

Occassionally a newly created Shapefile will not appear in the Editor window, even when it appears properly in the ArcMap Table of Contents. This is easily rectified.

1. Open an Editing session by clicking on the Editor button in the Editor Toolbar.
2. In the Editor window, using the Create Features menu, click on the Organize Templates button.

The Organize Feature Templates dialog box will appear.

3. Find the Layer/Shapefile that you want to Digitize in the Layers menu. Highlight it by clicking on it once. If it's not showing up in the Create Features menu, you will see a message in the main display area of the Organize Feature Templates dialog box that says, "There are no templates to show." *(Click image to enlarge)*

4. Click on the New Templates button. The New Template Wizard will appear.
5. Be sure that the box next to the desired Shapefile/Map Layer is checked. Do not check boxes next to any other Shapefile/Map Layer names unless you want to create new templates for them.
6. Click Finish. The template for the Shapefile should now appear in the Create Features menu of the Editor window.
7. Close the Organize Feature Templates dialog box.