

Create Data Lab (Lab 6 supplement)

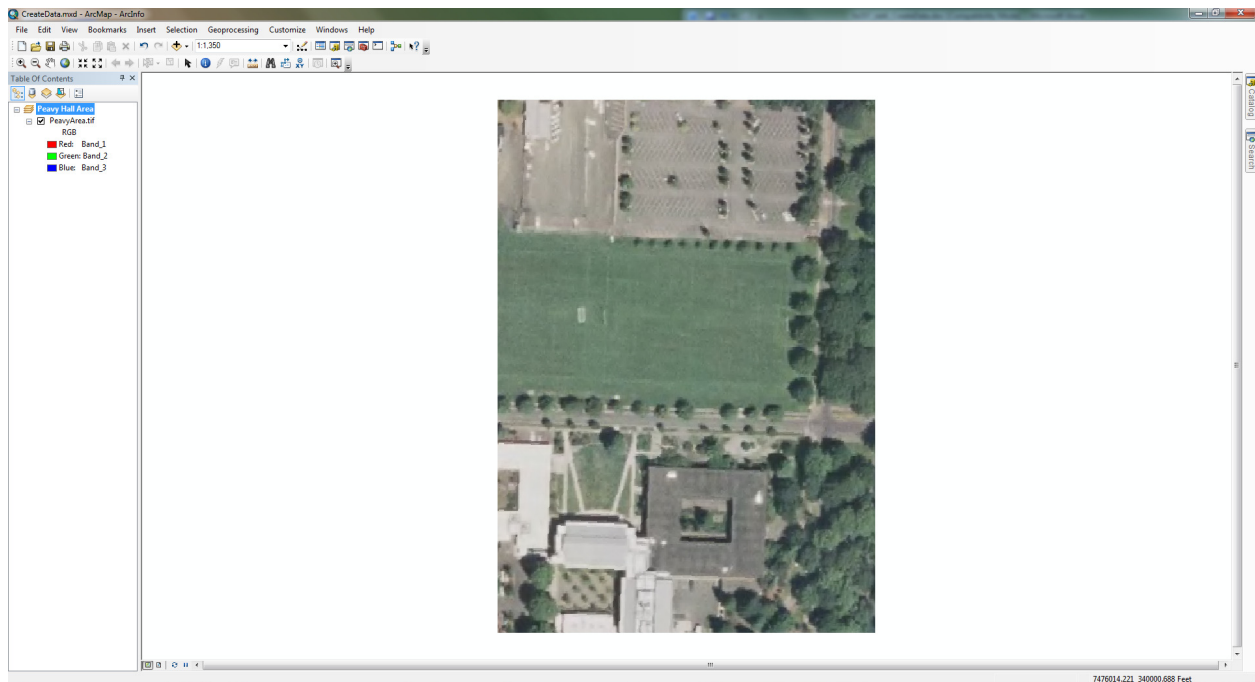
This lab is designed to give you some experience with creating spatial databases from an existing DOQ database. The DOQ we will access is referenced to the Oregon State Plane NAD83 projection, with units set to survey feet. We will be creating three spatial databases that represent the three primary vector data types: points, lines, and polygons.

Copy the CreateData folder from t:\teach\classes\fe357

Create a new map document within your CreateData workspace.

Add the file “PeavyArea.tif” to your map document.

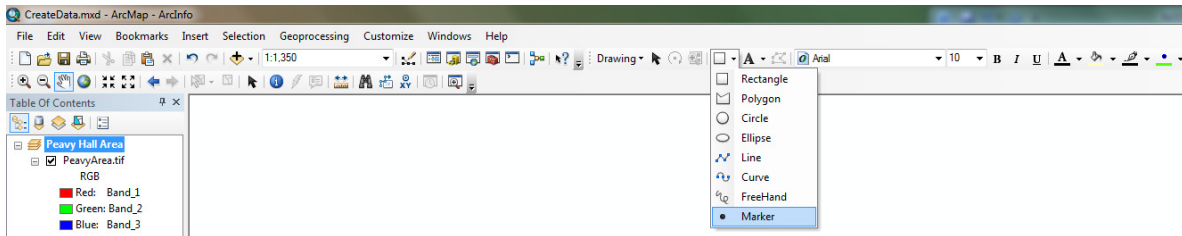
Rename the data frame to Peavy Hall Area.



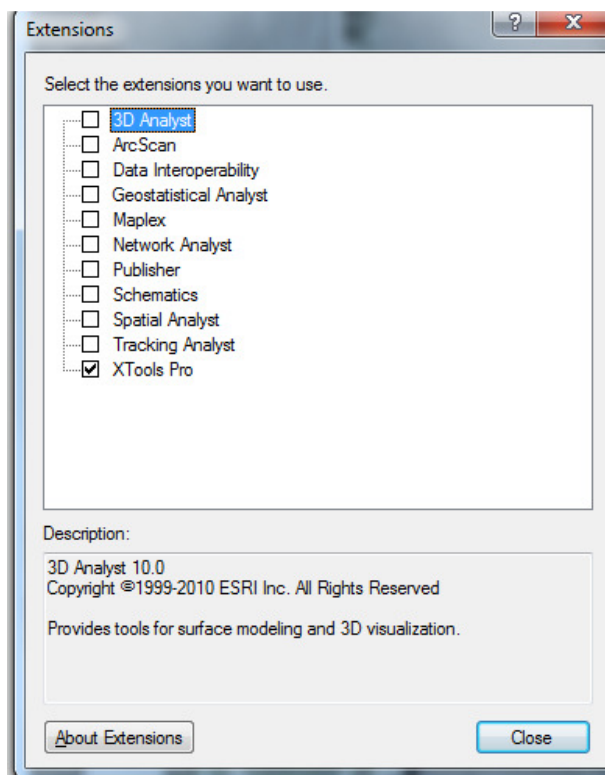
Creating Point Files

Our first database will be points that represent the center of the crowns of three trees. You'll see five larger tree crowns on the eastern side of the rugby field. We want the center of the three most northern tree crowns represented as points.

1. Activate the graphic point tool (this is called new marker) on the Drawing toolbar. You can look at the available toolbars and select one by right clicking in a gray menu space at the top of the ArcGIS screen. You can also access the toolbar option by going to the customize menu and selecting Toolbars.



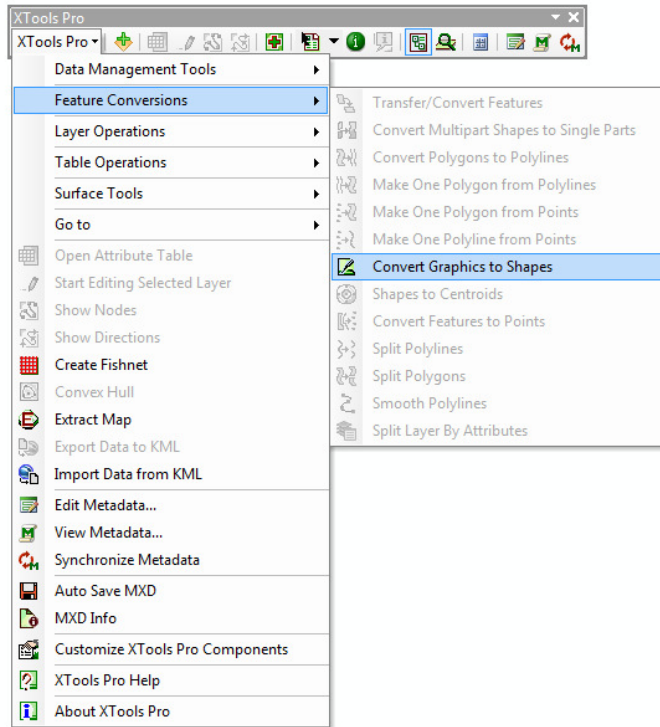
2. Click on the locations where you want to create points.
3. When you've indicated all points, select all the points by
 - a. Using the Select All Elements choice under the edit menu, or
 - b. Using the Select Elements tool on the Tools toolbar
4. Activate the XTools



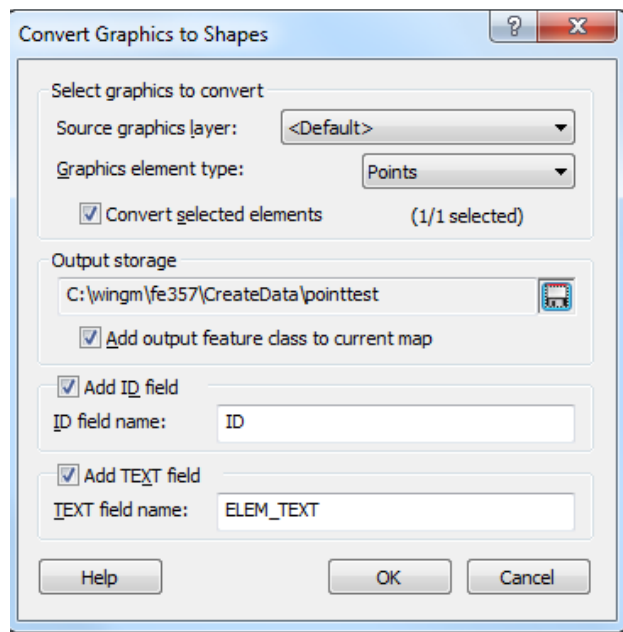
5. Turn on the XTools toolbar.



6. Access the Feature Conversions menu choice, then the Convert Graphics to Shapes command.



7. Choose the disc icon in the Convert Graphics to Shapes box and output the point shapefile as “pointtest” in your CreateData folder.

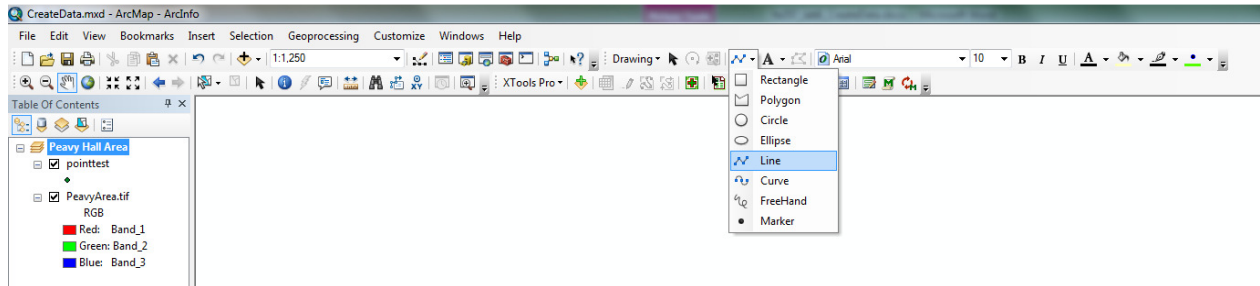


8. This should add a new shapefile to your map display area.
9. Clean up your graphic shapes by choosing the delete key.

Creating Line Shapefiles

Our next goal is to create a line database that represents the west and south lines of the rugby field.

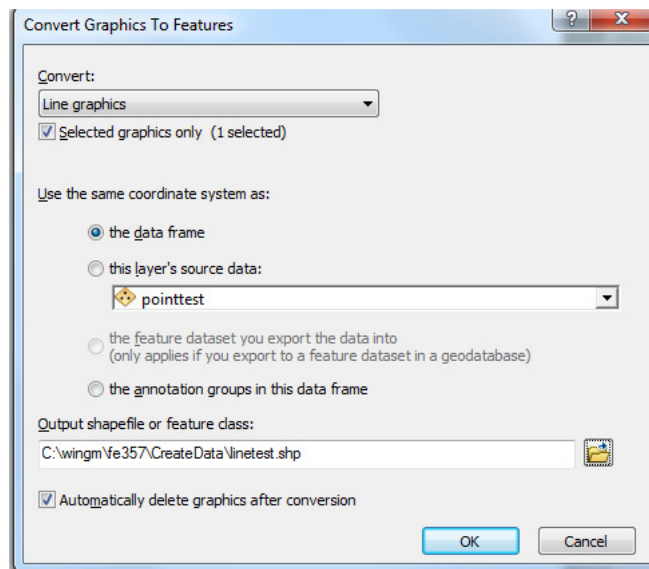
1. Activate the line graphic tool (called new line).



2. Click on the locations where you want to create lines.
3. When you've indicated all lines, select all the lines by
 - a. Using the Select All Elements choice under the edit menu, or
 - b. Using the Select Elements tool on the Tools toolbar

Let's use a different method of creating a shapefile

1. From the Drawing menu, choose Convert Graphics to Features
2. Make sure the Selected graphics only box is checked.
3. Out the file to your workspace and name it linetest.shp.
4. Check the "Automatically delete graphics after conversion" box.
5. Choose OK.

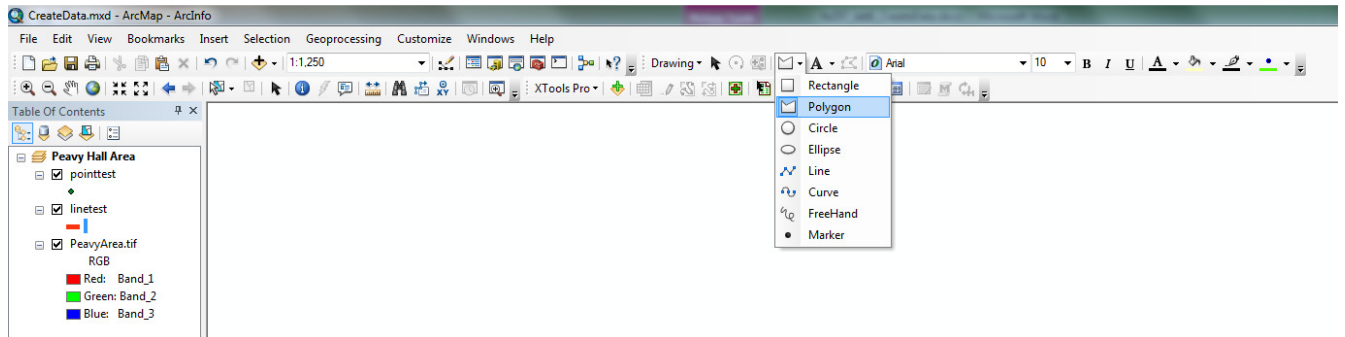


6. This should add a new line shapefile to your map display area.

Creating Polygon Shapefiles

Our next goal is to create a polygon that represents the perimeter of the rugby field.

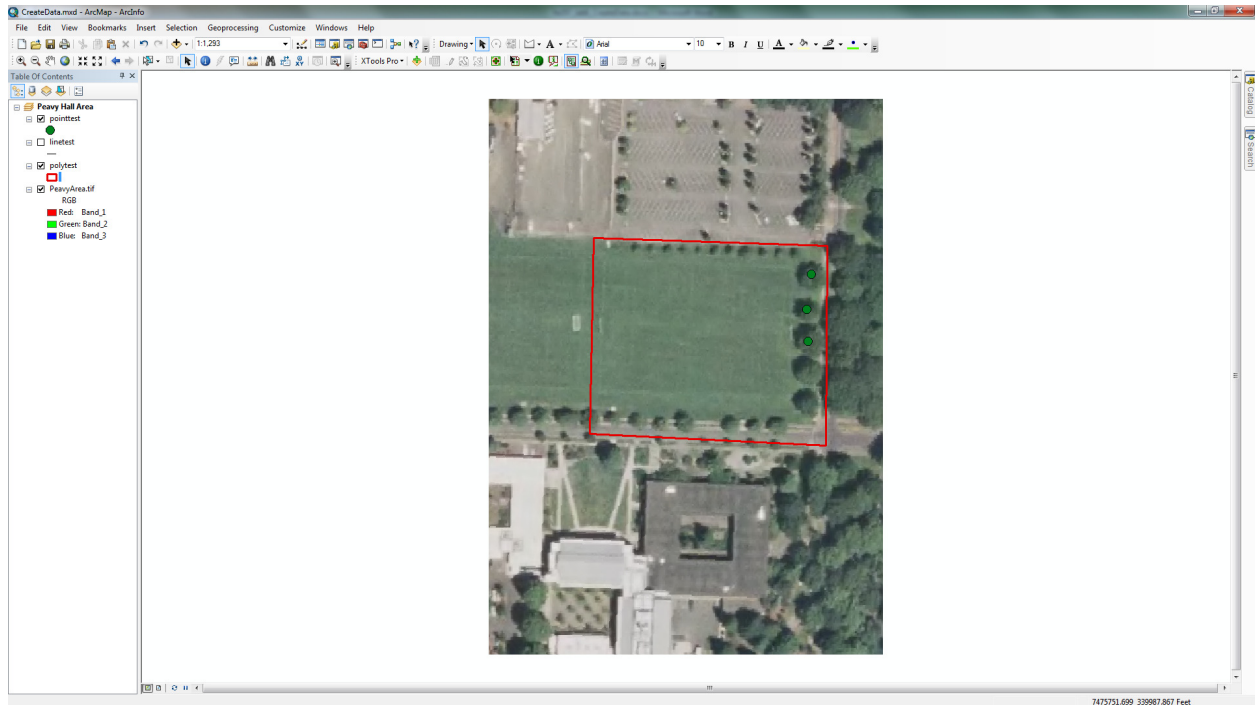
Polygons can be created by the new polygon graphic tool.



Using one of the shapefile creation methods we just learned, create a new shapefile and write the file out as polytest.shp to your workspace.

Create Data Lab Application

Create three databases of features within the area outlined in the map below.



Your databases should contain:

1. A point shapefile of all trees in this area.
2. A line shapefile of the sidewalk on the south side of the rugby field.
3. A polygon shapefile of the rugby field perimeter as marked by the chalked lines and two goal posts.

Create a map that shows your three new databases, and the DOQ in the background.

Include all the elements in your map that lead to a quality mapping product.

Submit this map with your Lab 6 assignment. 5 points.