Date: November 5, 1999

Presentation Title: Beyond Pin Maps: Utilizing GIS as a New Approach to Crime Analysis

Presenter: Lori Wilkerson, GIS Manager - City of Wichita

Software: ArcView GIS 3.1 and ArcView Spatial Analyst

Problem: How do I create an ArcView Spatial Analyst Density Map?

Procedure:

Step 1 ***Geocode Crime database in ArcView GIS***

Step 2 ***Load Spatial Analyst Extension***

Click on the **File** Dropdown menu and select **Extensions…**

Click in the Spatial Analyst checkbox, then Click **OK**

Step 3 ***Set View properties***

Click on the **View** dropdown menu and select **Properties…**
Change the "Map Units" to feet or meters

NOTE:
If you are using Decimal Degrees, click on the "Projection…" box, and then project the view to your desired projection.

Step 4 ***Create a density map***

Click on the **Analysis** Dropdown menu and select **Calculate Density…**

Phone:316-268-4591
Wilkerson_L@ci.wichita.ks.us

The “Output Grid Specification” dialog box will appear

In the “Output Grid Extent” Dropdown box, select the theme you will be creating the density map from. In this example the Burg98.shp file was selected.

You can use default values for the rest of the input items…you may want to experiment with the “Output Grid Cell Size” depending on the extent of your study area.

Click **OK**

The next Dialog box to appear will be the “Calculate Density” dialog box.

Use the default value (<None>) for the “Population Field”

You can use the default value for the “Search Radius” or you can experiment with the value for a more radiant look

For a smoother look, select **Kernel** from the “Density Type” dropdown box

Select **Square Miles** from the “Area Units” dropdown box

Click **OK**

ArcView Spatial Analyst has now generated a density map.

Step 5 ***Grid Aesthetics***

Open the “Legend Editor” for the new grid theme

Click on the “Flip color symbol” icon

You can experiment with several options to enhance the look of your map…try different styles of the Color Ramp.

Phone:316-268-4591
Wilkerson_L@ci.wichita.ks.us

Default symbol setting

Flipped color symbol results

Phone:316-268-4591
Wilkerson_L@ci.wichita.ks.us