

Viewing Data with the TatukGIS Viewer

TatukGIS is a free data viewer which can be downloaded and used to view NAIP imagery and other geospatial files. It will not open the near infrared band (Band 4), in projects acquired with four bands. These images will display only in the natural color version, with the RGB band assignment.

TatukGIS displays vector files (shapefiles) and will allow the user to query the attribute table for an individual feature.

TatukGIS will not reproject on the fly, and all data must be in the same projection and coordinate system in order to display correctly.

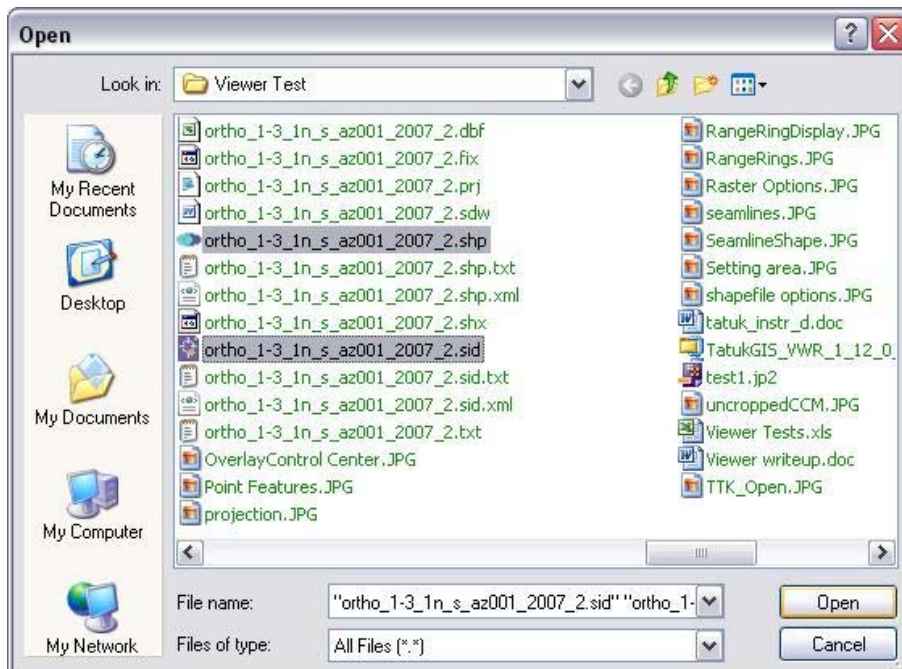
Click on the Add Data Button



Under the *Files of type* dropdown menu, select *All Files* or, as a filter, select a specific file format (such as *All pixel files* for imagery.).

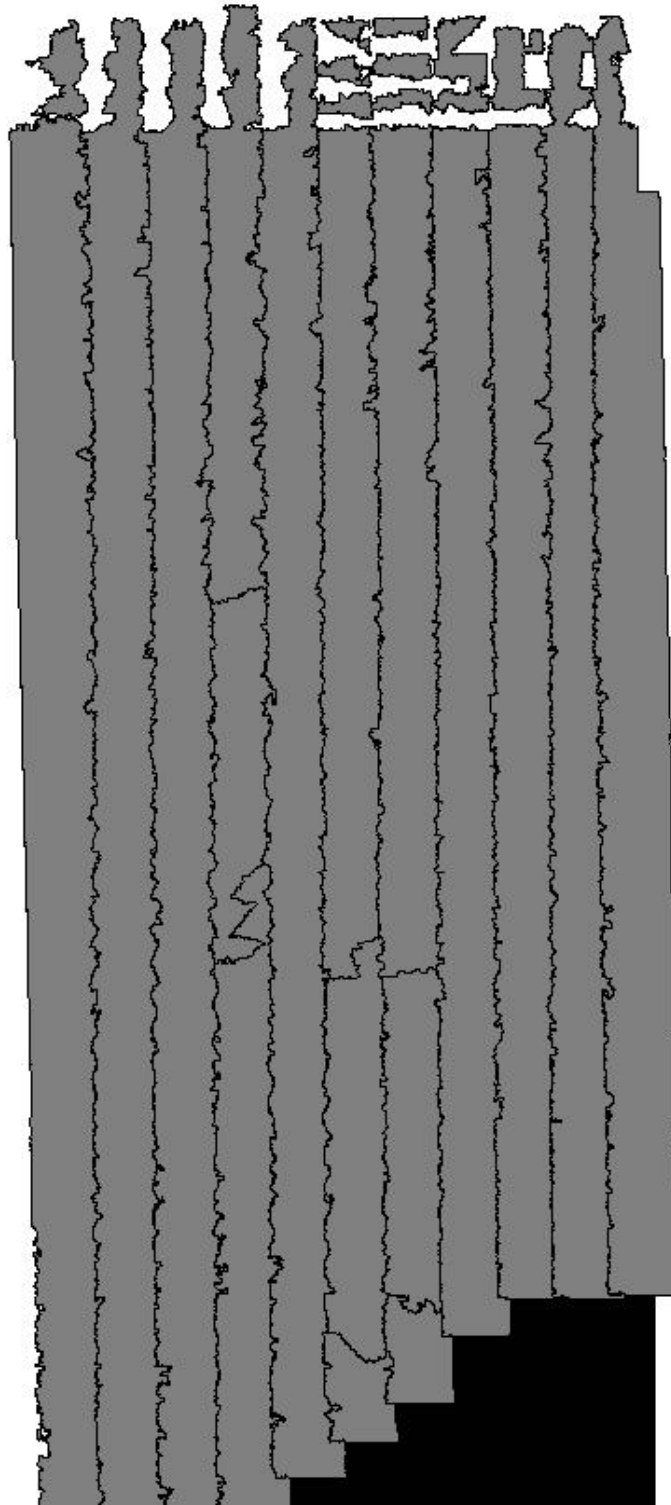
Navigate to the location of the data.

Select the file(s) to load, and click *Open*.

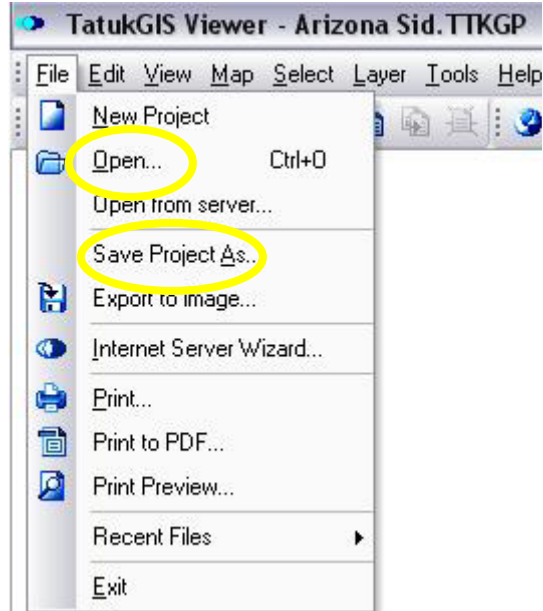


The files will be added to the view in the order they were selected. In this display, the vector layer (shapefile) is above the image. There will be a default fill pattern for the

shapefile. The image will display with the RGB band assignment. In this case a Compressed County Mosaic (CCM) and the corresponding Seamline Shapefile have been added into the view.



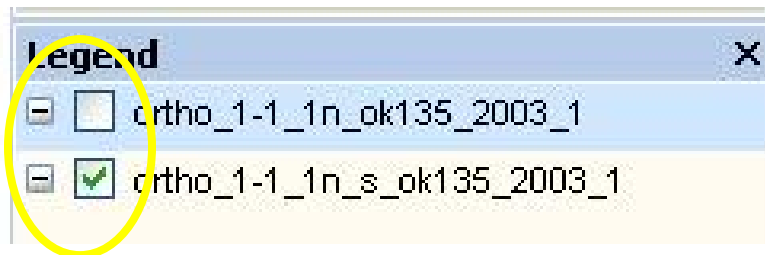
Save or Open a Project



Data in the Display window can be saved as a Project through the File dropdown menu. A saved project can be opened from this menu as well.

Show/Hide a Data Layer

To turn a data layer on or off, check the box next to the layer name in the Legend.



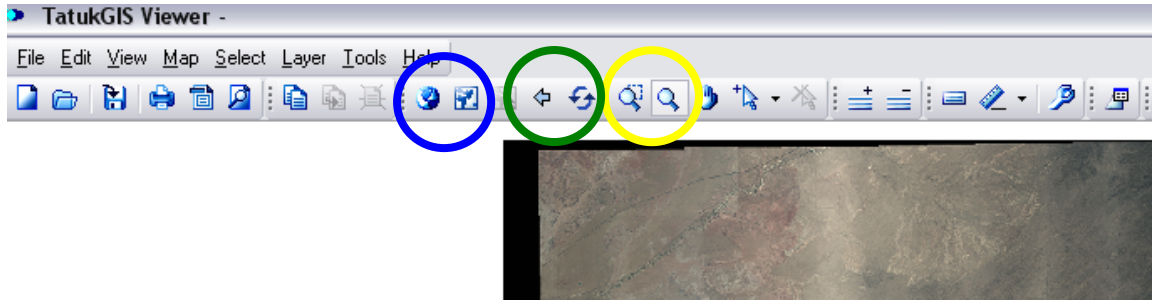
Change the Display Order of Layers



To change the viewing order of the layers, simply select a layer name, and drag it above or below another layer. In this graphic, the shapefile (_2) is being dragged below the image (_21). (The “arrow” cursor did not reproduce in the graphic.)

The order can also be changed by right clicking the file name in the Legend, and selecting *Move Up* or *Move Down* from the dropdown menu.

Zoom in and out on the Display



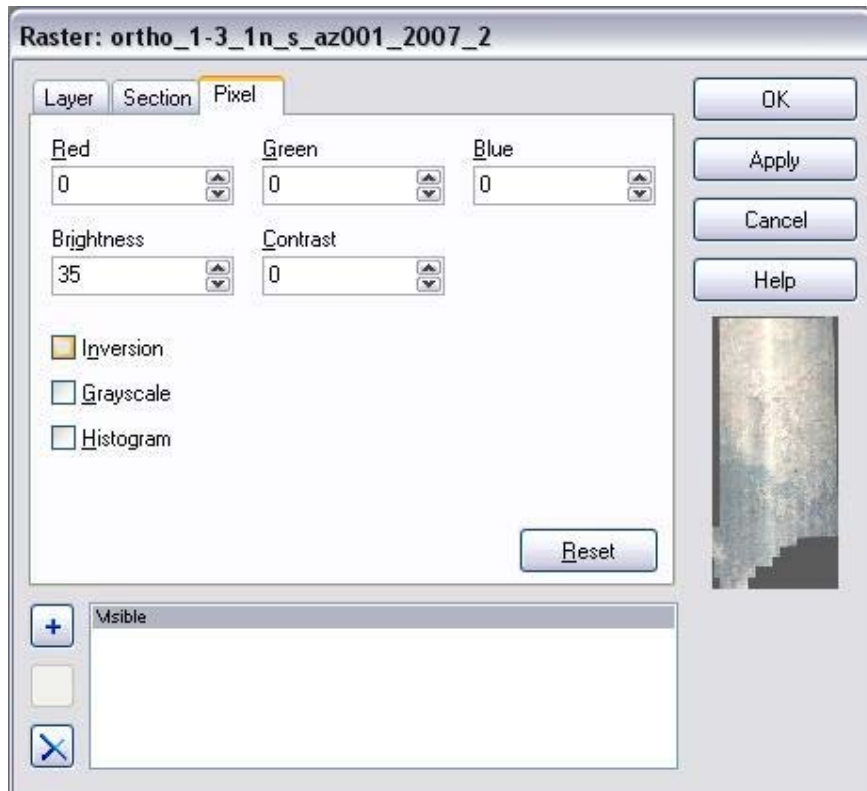
Several icons are used to change the zoom level of the display. The circled pair to the right (yellow) are both zoom tools. The magnifying glass with a small rectangle is for *Zoom mode*, and it allows the user to select a rectangular area to zoom into. The magnifying glass with no rectangle is called *Zoom extended mode*, and it zooms in or out continuously as the cursor is moved over the image.

Zooming out would need to be done with the *Zoom extended mode* icon, or with the backwards arrow, located in the middle circle (green). The pair on the left, circled in blue, will zoom to the layer extent or to the full extent.

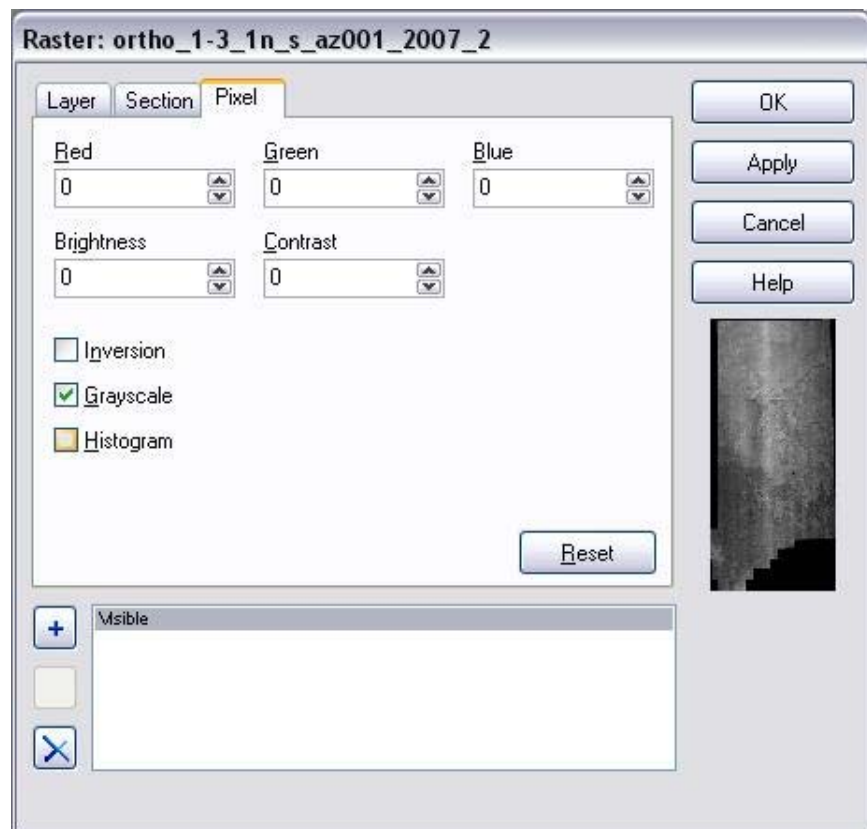
Tonal Changes to an Image

TatukGIS offers some tonal adjustment options for the imagery.

- The dialog box can be accessed by right clicking on the image name in the Legend.
- Select the Properties option from the dropdown menu.
- Select the Pixel tab, and experiment with image display options.
- The Raster dialog box offers the option to change Brightness, Contrast, and relative importance of the different bands. It also allows Inversion (where the dark areas are light, and vice versa), Grayscale (gradations of black to white) and Histogram [stretch].



This CCM is displayed with increased brightness.

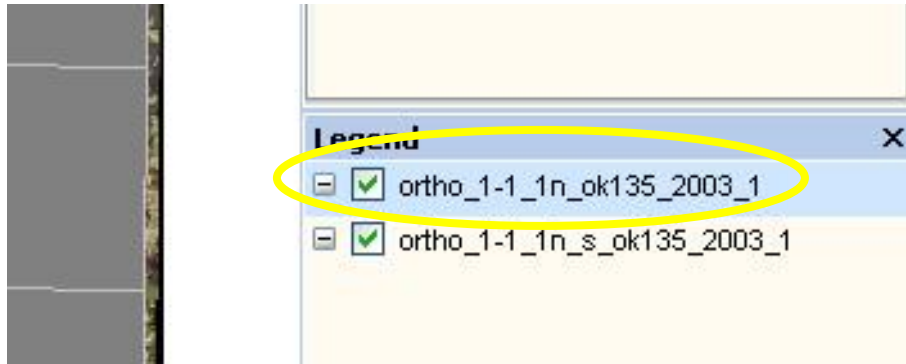


This CCM is displayed as a Grayscale image.

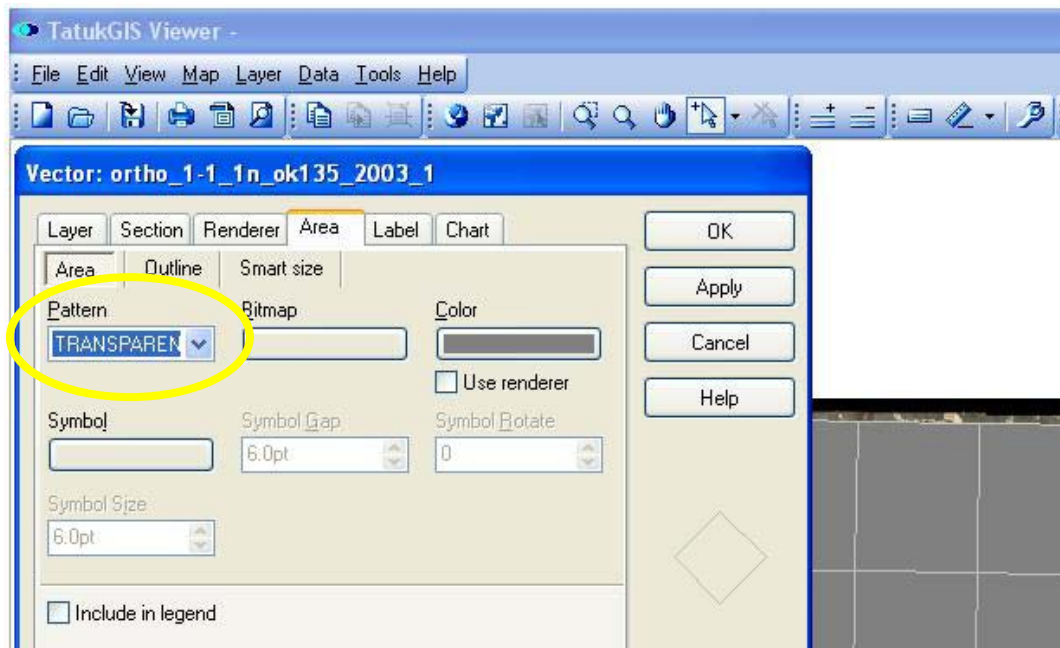
Using the Vector Layer in TatukGIS

The strength of TatukGIS lies in the options for use with vector data. The online Help, or the .pdf manual will explain the possibilities in greater detail.

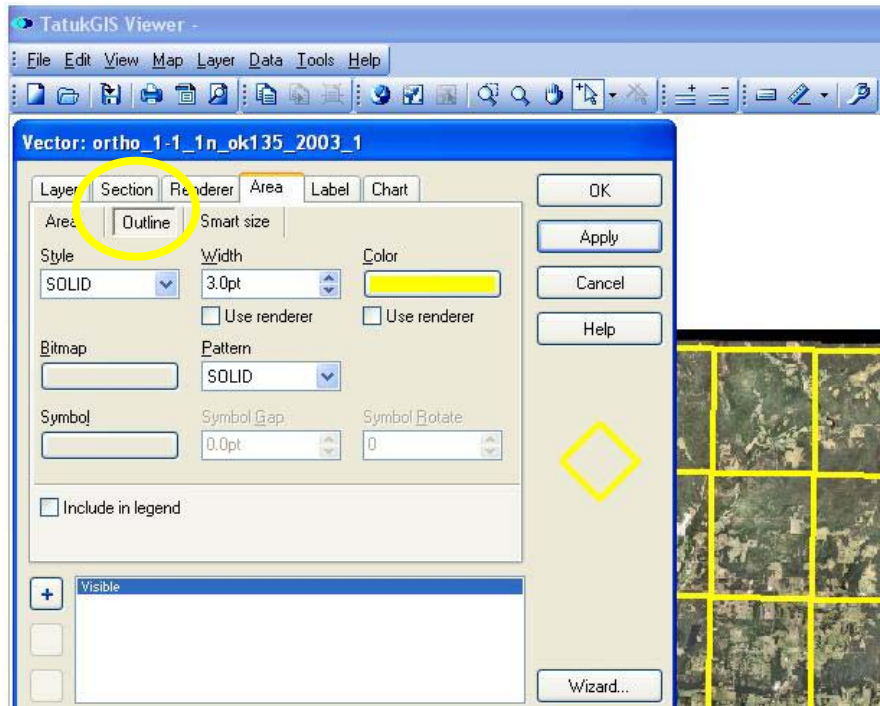
Edit a Vector Layer Display



To edit a vector layer (shapefile) double click on the index name. This will make it the active layer, and will open the Theme Properties menu.



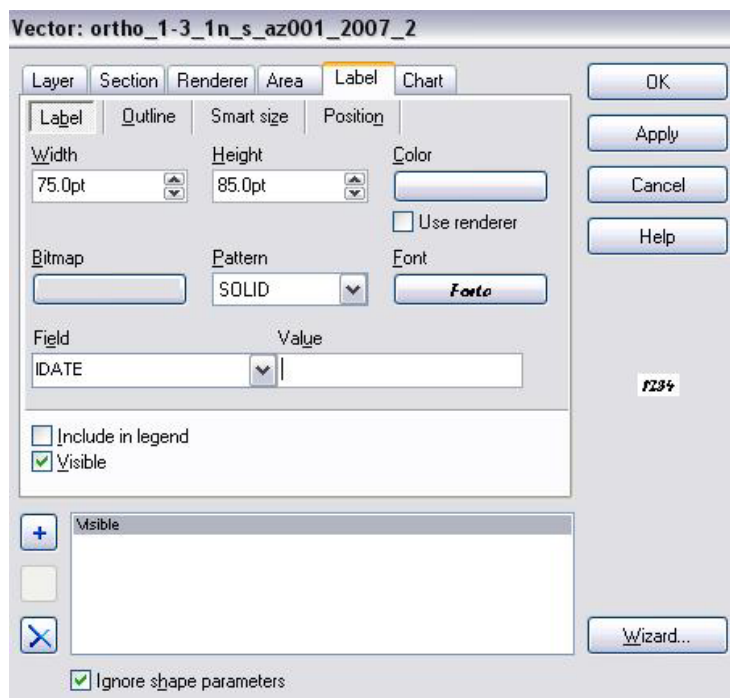
To remove the solid fill, select TRANSPARENT as the Pattern, and click *Apply*. Other patterns and colors are available if desired.



To change the color and size of the index lines select Outline, select a Style, enter a line width (in points) into the Width box, and select a color from the Color box. Click OK.

Labeling the Vector Polygons

The polygons in the vector file (shapefile) can be labeled by right clicking on the name in the *Legend* and selecting the *Properties* option from the dropdown menu.



In the Vector properties box, click on the Label tab, and make a selection in the Field box. This is the attribute which will be displayed as a label.



In this close-up, the image dates from the IDATE field are displayed.

View the Attribute Information

There are several methods for accessing attribute information in TatukGIS. Attributes can be displayed for individual polygons or as an entire table.

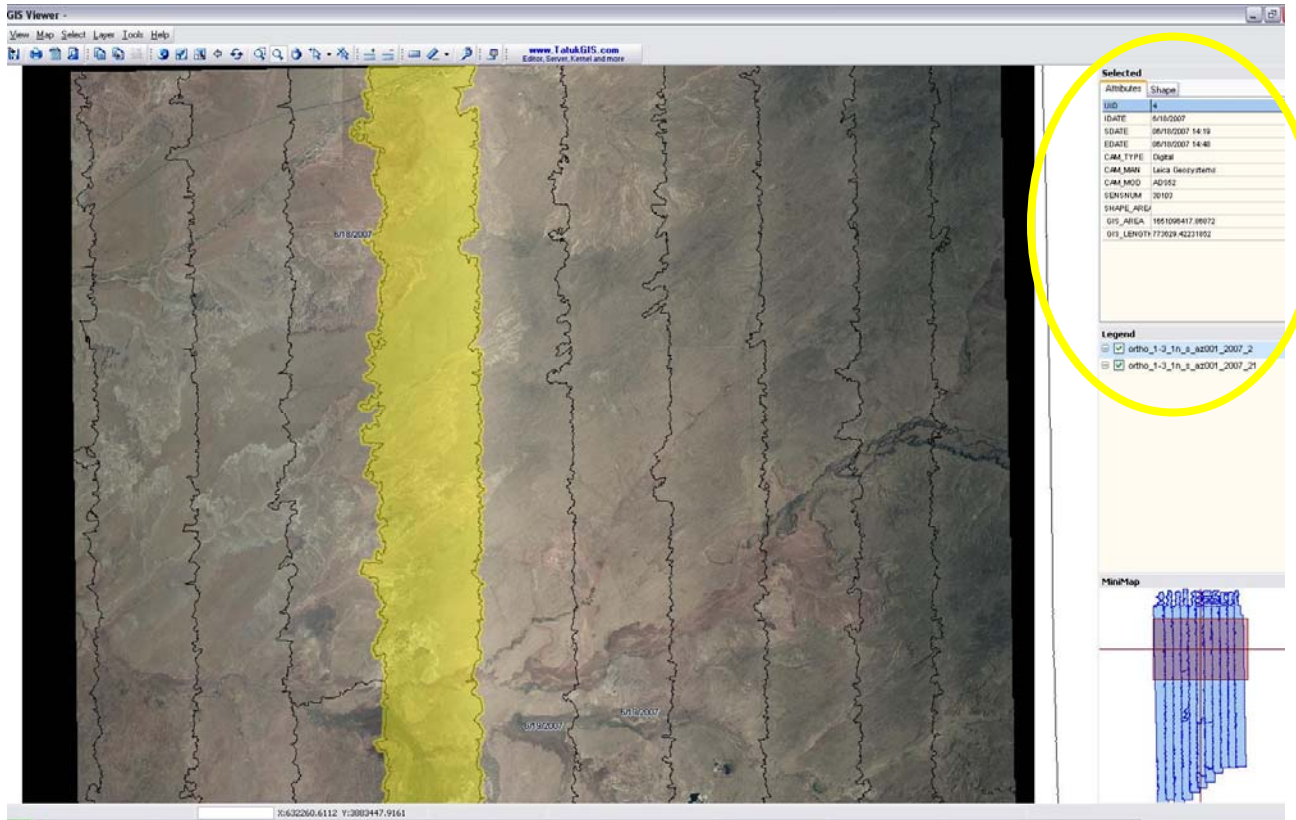
One of the easiest ways to view attribute information is with the *Select Localize* icon. This is the arrow with a plus sign. After clicking on a polygon with this tool, it will change color and the attributes will display in the box to the left (see next page).



There are two tabs in this box – one for Attributes and the other for information about the polygon's Shape.

The arrow icon to the right of the *Select Localize* icon, with an "X" over it, is *Deselect All*.





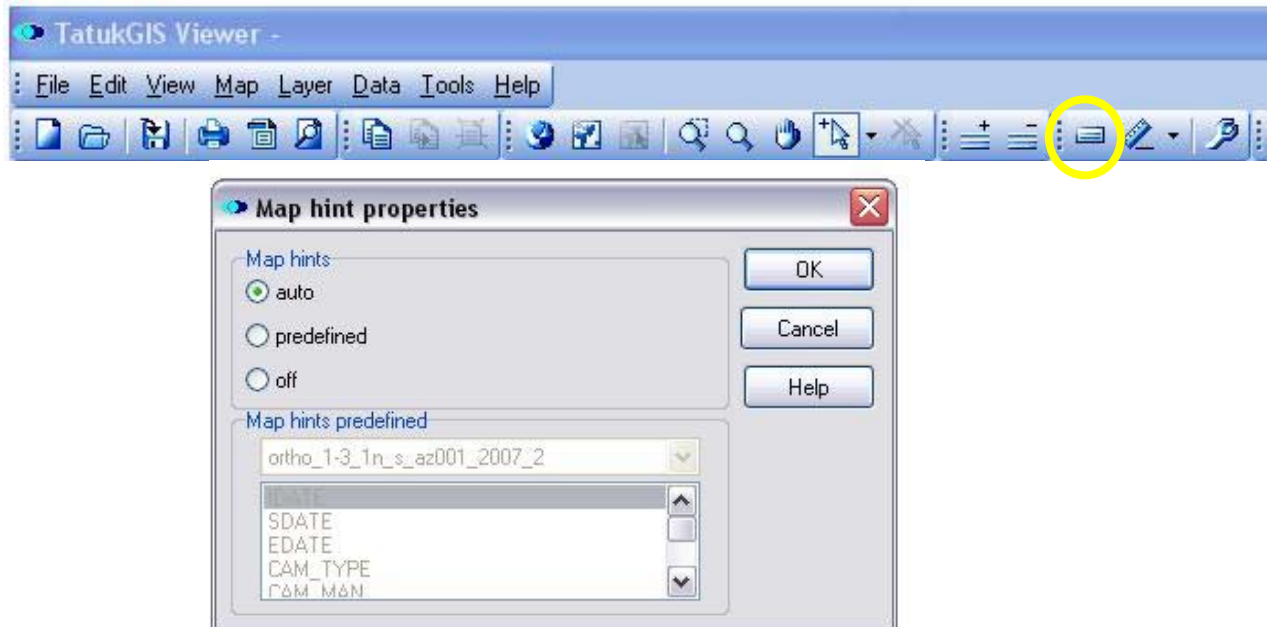
In the examples below, both tabs of information for the selected polygon are displayed.

Selected	
Attributes	Shape
UID	4
IDATE	6/18/2007
SDATE	06/18/2007 14:19
EDATE	06/18/2007 14:48
CAM_TYPE	Digital
CAM_MAN	Leica Geosystems
CAM_MOD	ADS52
SENSNUM	30103
SHAPE_AREA	
GIS_AREA	1651096417.86872
GIS_LENGTH	773629.42231852

Legend	
<input checked="" type="checkbox"/>	ortho_1-3_1n_s_az001_2007_2

Selected	
Attributes	Shape
Count	1
Points	19050
Parts	1
Length	773629.42
Area	1651096417.87

Another method for viewing attribute data is with *Map Hints*.



Clicking on the *Map Hints* icon (circled, above) will open a dialog box with the option to display all of the attributes (auto) or only one (predefined). As the cursor moves over a polygon, the attributes will temporarily appear inside a shaded rectangle.



Display the Attribute Table

The attribute data can also be displayed as an entire table.



The table is opened by clicking on the Data icon at the far right of the toolbar. It will display at the bottom of the screen, and can be enlarged. It will move up into the Display screen, and the data displayed will become smaller (see graphic below).

TatukGIS Viewer -

File Edit View Map Select Layer Tools Help

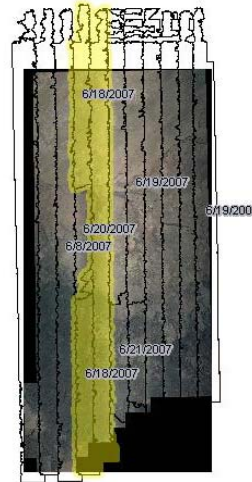
www.TatukGIS.com
Editor, Server, Kernel and more

Drag a column header here to group by that column

GIS_UID	GIS_SEL	GIS_HID	GIS_LEN	GIS_ARE	IDATE	SDATE	EDATE	CAM_TYPE	CAM_MAN	CAM_MOD	SENSNUM	SHAPE
1	<input type="checkbox"/>		824204.292	1831794862	6/8/2007	06/08/2007 15:04	06/08/2007 15:38	Digital	Leica Geosystems	ADSS2	30103	
2	<input type="checkbox"/>		820125.709	1835912284	6/8/2007	06/08/2007 15:43	06/08/2007 16:09	Digital	Leica Geosystems	ADSS2	30103	
3	<input type="checkbox"/>		739230.272	2102734328	6/8/2007	06/08/2007 16:14	06/08/2007 16:49	Digital	Leica Geosystems	ADSS2	30103	
4	<input type="checkbox"/>		773629.422	1651096417	6/18/2007	06/18/2007 14:19	06/18/2007 14:48	Digital	Leica Geosystems	ADSS2	30103	
5	<input checked="" type="checkbox"/>		381752.859	725162760	6/18/2007	06/18/2007 14:53	06/18/2007 15:08	Digital	Leica Geosystems	ADSS2	30103	
6	<input type="checkbox"/>		352873.589	600948908	6/18/2007	06/18/2007 15:10	06/18/2007 15:22	Digital	Leica Geosystems	ADSS2	30103	
7	<input type="checkbox"/>		557694.916	1717109432	6/19/2007	06/19/2007 07:54	06/19/2007 08:23	Digital	Leica Geosystems	ADSS2	30103	
8	<input type="checkbox"/>		676909.952	1296304647	6/19/2007	06/19/2007 08:28	06/19/2007 08:57	Digital	Leica Geosystems	ADSS2	30103	
9	<input type="checkbox"/>		676629.055	1432680984	6/19/2007	06/19/2007 09:02	06/19/2007 09:31	Digital	Leica Geosystems	ADSS2	30103	
10	<input type="checkbox"/>		720307.374	1518901439	6/19/2007	06/19/2007 09:36	06/19/2007 10:05	Digital	Leica Geosystems	ADSS2	30103	
11	<input type="checkbox"/>		636077.344	1232546450	6/19/2007	06/19/2007 10:09	06/19/2007 10:38	Digital	Leica Geosystems	ADSS2	30103	
12	<input type="checkbox"/>		634278.209	1140198024	6/19/2007	06/19/2007 10:43	06/19/2007 11:12	Digital	Leica Geosystems	ADSS2	30103	
13	<input type="checkbox"/>		206539.278	372510039	6/20/2007	06/20/2007 11:02	06/20/2007 11:09	Digital	Leica Geosystems	ADSS2	30103	
14	<input type="checkbox"/>		220750.655	471558364	6/21/2007	06/21/2007 07:51	06/21/2007 07:58	Digital	Leica Geosystems	ADSS2	30103	
15	<input type="checkbox"/>		184542.540	362615411	6/21/2007	06/21/2007 08:02	06/21/2007 08:08	Digital	Leica Geosystems	ADSS2	30103	

An individual polygon can be selected in the display by clicking the check box in the GIS_SELECTED column.

If a column header is dragged into the blue area, the individual records will be grouped by that header. In the example below, all of the records with the same IDATE (image date) are grouped together. If the boxes are checked, all records in a group will be selected in the display.



DATE /											
GIS_UID	GIS_SEL	GIS_HID	GIS_LEN	GIS_ARE	SDATE	EDATE	CAM_TYPE	CAM_MAN	CAM_MOD	SENSNUM	SHAPE_
IDATE : 6/8/2007											
1	<input type="checkbox"/>	<input type="checkbox"/>	824204.292	1831794862	06/08/2007 15:04	06/08/2007 15:38	Digital	Leica Geosystems	ADSS2	30103	
2	<input type="checkbox"/>	<input type="checkbox"/>	820125.709	1835912284	06/08/2007 15:43	06/08/2007 16:09	Digital	Leica Geosystems	ADSS2	30103	
3	<input type="checkbox"/>	<input type="checkbox"/>	739230.272	2102734328	06/08/2007 16:14	06/08/2007 16:49	Digital	Leica Geosystems	ADSS2	30103	
IDATE : 6/18/2007											
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	773629.422	1651096417	06/18/2007 14:19	06/18/2007 14:48	Digital	Leica Geosystems	ADSS2	30103	
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	381752.859	725162760.1	06/18/2007 14:53	06/18/2007 15:08	Digital	Leica Geosystems	ADSS2	30103	
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	352873.589	600948908.	06/18/2007 15:10	06/18/2007 15:22	Digital	Leica Geosystems	ADSS2	30103	
IDATE : 6/19/2007											
7	<input type="checkbox"/>	<input type="checkbox"/>	557694.916	1717109432	06/19/2007 07:54	06/19/2007 08:23	Digital	Leica Geosystems	ADSS2	30103	
8	<input type="checkbox"/>	<input type="checkbox"/>	676909.952	1296304647	06/19/2007 08:28	06/19/2007 08:57	Digital	Leica Geosystems	ADSS2	30103	
9	<input type="checkbox"/>	<input type="checkbox"/>	676629.055	1432680984	06/19/2007 09:02	06/19/2007 09:31	Digital	Leica Geosystems	ADSS2	30103	
10	<input type="checkbox"/>	<input type="checkbox"/>	720307.374	1518901439	06/19/2007 09:36	06/19/2007 10:05	Digital	Leica Geosystems	ADSS2	30103	
11	<input type="checkbox"/>	<input type="checkbox"/>	636077.344	1232546450	06/19/2007 10:09	06/19/2007 10:38	Digital	Leica Geosystems	ADSS2	30103	
12	<input type="checkbox"/>	<input type="checkbox"/>	634278.209	1140198024	06/19/2007 10:43	06/19/2007 11:12	Digital	Leica Geosystems	ADSS2	30103	
IDATE : 6/20/2007											
IDATE : 6/21/2007											

The Query Builder

The icon on the far right of the Toolbar below the Table will open a Query Builder. It will set up very simple SQL type queries.

In the first example below, the query builder opens up a calendar to assist in selecting a field populated with dates. The selection is displayed with Map Hints.

Query **AND** <root>

IDATE equals 6/20/2007

press button to add r

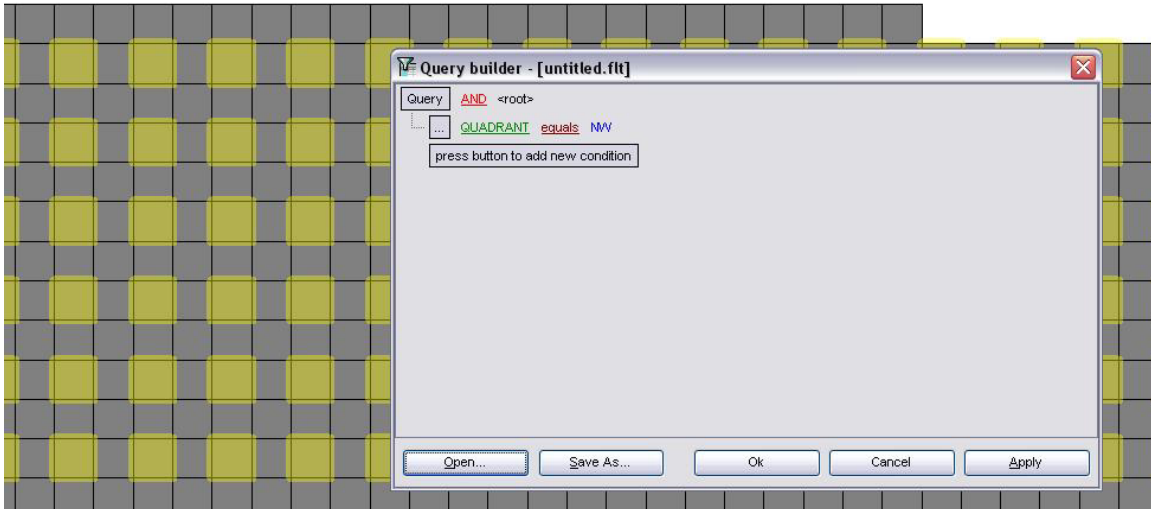
June 2007						
S	M	T	W	T	F	S
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
1	2	3	4	5	6	7

Buttons: Today, Clear

Buttons: Open..., Save As..., Ok, Cancel, Apply

06/19/2007 09:02	06/19/2007 09:31	Digital	Leica Geosystems	ADS52	30103
06/19/2007 09:36	06/19/2007 10:05	Digital	Leica Geosystems	ADS52	30103



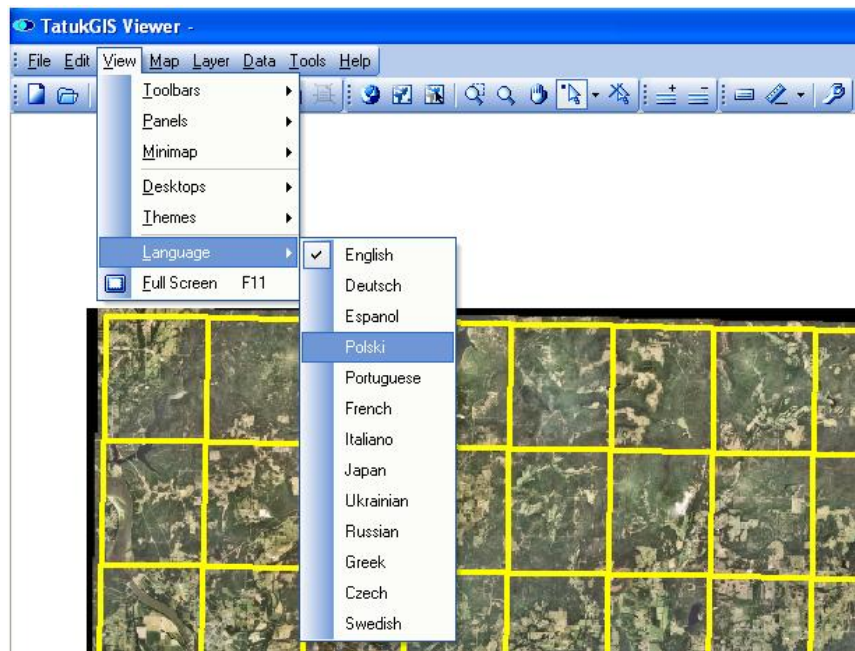


Another query selected all quadrants labeled as NW (northwest).

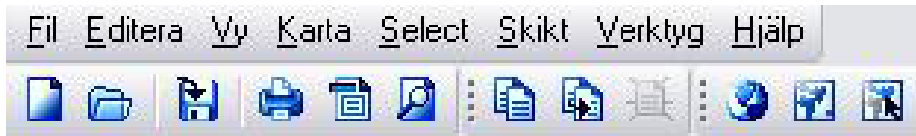
Removing the Attribute Table

The table can be removed from the view by clicking on the *Data* icon in the main Toolbar.

Change the Language of the Display Window

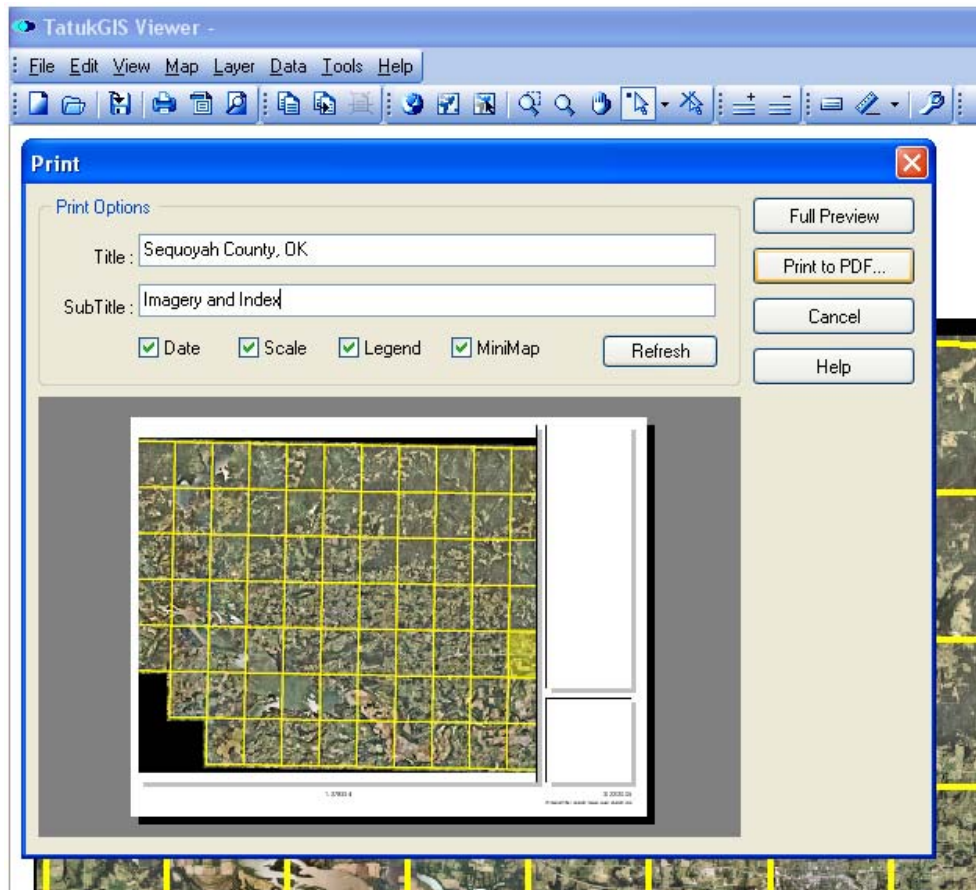


TatukGIS allows the user to select from several different languages in the display. To change the program language, select View, Language, and one of the options. (The data in the tables remains in the original language.)



The Toolbar is shown with headings in Swedish.

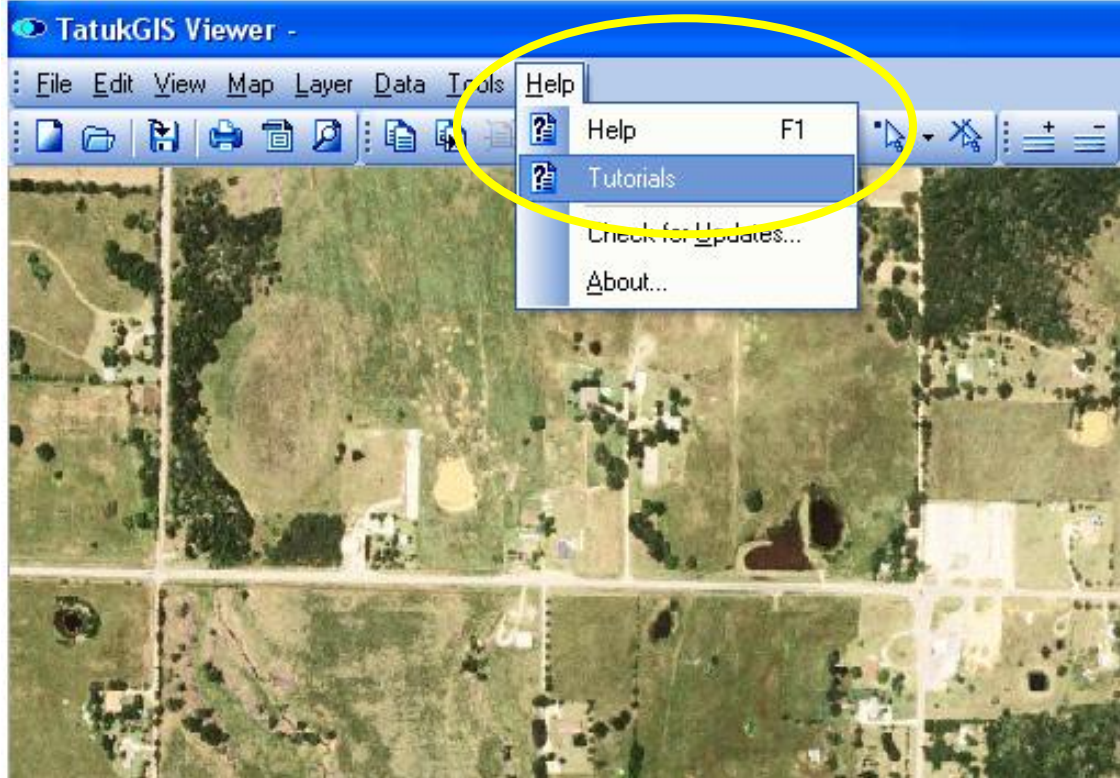
Printing a Map



To print a map select the File dropdown menu. There are three options available.

- Print will print what is on the screen to the printer specified.
- Print Preview gives the option of adding a title to the bottom of the page, as well as a text scale and legend before printing.
- Print to PDF will open Adobe Acrobat and create a .pdf file.

For additional instructions on using the software click on Help, Help or Tutorials.



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