# LAB:

# **INTRODUCTION TO ARCVIEW**

# MANUAL FOR USING ARCVIEW GIS

#### 1. INTRODUCTION

This reference manual is your guide to using PC ArcView GIS ver. 3.2. The manual will help you to explore and familiarized with some of the **basic** function and operations in ArcView. Once you feel comfortable with it, you will be able to perform several forestry tasks with GIS applications.

## 2. USED TERMINOLOGY

*Thematic Map* – shows the geographic data of one or more selected areas.

Theme – is a collection of similar geographic features and their attributes. It is a layer in the map and contains information on one subject. (eg. roads, rivers, towns, soils, etc).

**Projects** – means all the components of your ArcView session: views, tables, charts, layouts, and scripts are conveniently stored in one file called a project. ArcView's Project window shows you the contents of your project and makes it easy to manage all your work.

*Save Project* – means saves the project you are working on. If your project hasn't been saved yet, ArcView displays a dialog to let you choose a name and location to save your project to.

*View* – is the screen type in which thematic maps are visualized.

Table – a table format that display information describing the features you see in a view such as state names, compartment numbers, elevations etc;

*Chart* – is a graphic representation of tabular data.

*Layout* – layout let you integrate documents (views, table, and charts) and other graphic elements in a single window to create presentation-quality maps for printing and plotting.

Map – an abstract graphic representation on a plane surface of the physical features of a part or a whole of the Earth's surface that display signs, symbols and spatial relationships among the features. It occupies most of your screen views.

Feature – the type of geographic feature or object represented in a layer or maps which normally includes points, lines and areas (polygons). Each feature has a location, a representative shape, and a symbol that represents one or more of its characteristics.

*Spatial data* – represents a particular type of features, its location and shape and also known as graphic data.

*Attribute data* – describes each characteristic of the spatial features and also known as tabular data.

Legend – the symbol key on amp used to describe a map's symbols and colors and how they are interpreted. It displays on the right part of the view or view's Table of Content.

Menubar – is the topmost line in the view. It posses some of the functionality ordered by subject.

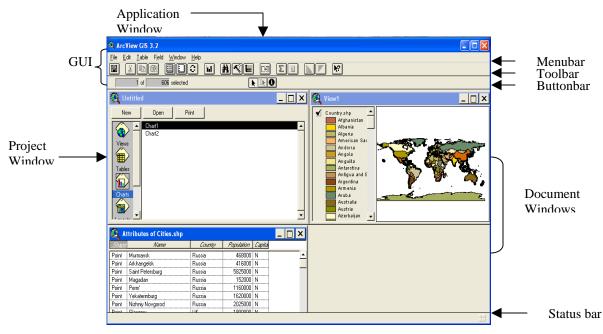
Buttonbar – is the row of buttons just below the *Menubar*. When pressing a button you activate a function that is immediately carried out by the application.

Toolbar – is below the *Buttonbar*. Selection of a tool will usually change the cursor and an action by the user is expected to carry out its function.

## 3. WHAT IS ARCVIEW?

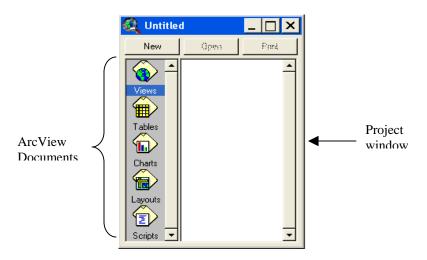
**ArcView** is a desktop GIS software with easy-to-use, point and click graphical user interface (GUI) that lets you easily load spatial and tabular data so you can display the data as maps, tables, and charts. ArcView provides the tools for visualizing, exploring, querying, editing, and analyzing information linked geographic locations.

#### 4. EXPLORING THE ARCVIEW INTERFACE



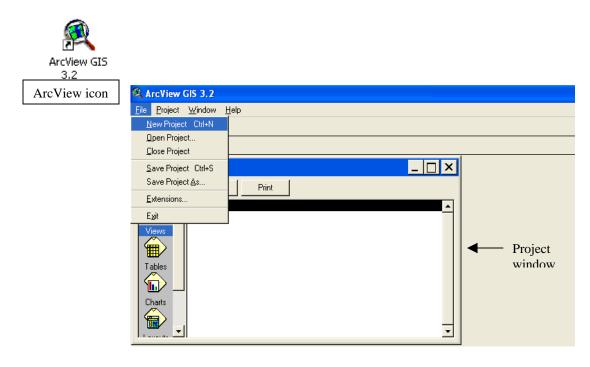
## 5. ARCVIEW PROJECT

- Contain ArcView documents
- Store your work in a single file (.apr) that references your data
- List all documents in the Project window



# 6. STARTUP ARCVIEW GIS

To startup the ArcView GIS is by double-clicking on the ArcView icon using the left mouse button. Simultaneously, a large ArcView GIS application window appears with a smaller window called '*Project window-Untitled*'.

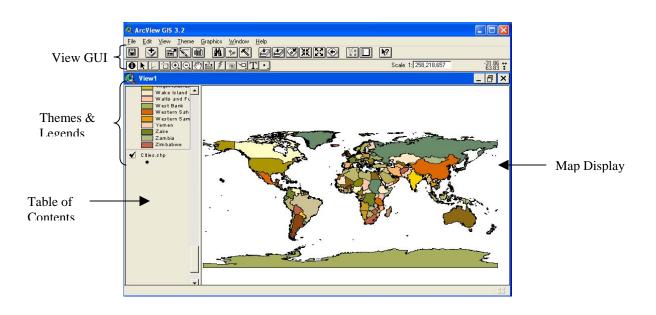


# 7. OPEN A PROJECT

From the File menu, choose *Open Project* (if existing project file .apr is available) or choose *New Project* to start of with a new project file. Once you choose New Project, the Untitled Project window appears and highlight '*View*' and click '*New*' to call for a new view window.

## 8. INTRODUCING VIEW AND THEMES

- Themes are displayed in *view*.
- Each theme has a *title name* and a *legend* in the view's *Table of Contents*.



# **View Graphical User Interface(GUI)**

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## 8.1 Basic Operations In A View

#### 8.1.1 To add themes in a view



By clicking on the Add Theme button, a browser file window appears for you to make selection of one or more themes to the current view from existing data sources such as shapefiles, ARC/Info coverages, images etc. once you add a theme it appears in the view's Table of Contents, where you can click its check box  $\checkmark$  to draw it in the view, turn them on and off, make them active for operations and change their display order.

#### 8.1.2 To turn themes on and off



By clicking on its check box in the view's Table of Contents, it will draw a theme in the view. Clicking again will turn the theme off.

#### 8.1.3 To make a theme active

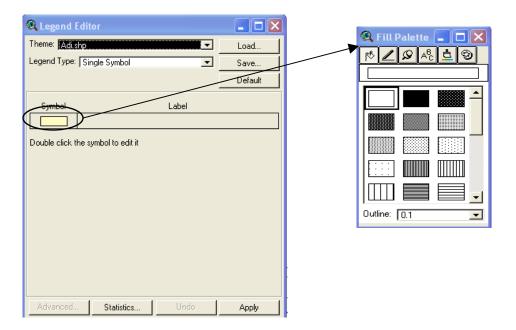
Q	View1	
≤	Rivers.shp	•
≤	Adi.shp	
≰	Cities.shp ●	

By clicking on the theme in the Table of Contents, you make a theme active (raised) and allow you to perform operations on. You can make more than one theme active, by holding the SHIFT key as you click on each theme.

#### 8.1.4 To change themes display order

ArcView draws themes sequentially starting with the theme at the bottom of the view's Table of Contents, and ending with the theme at the top of the Table of Contents. To change the themes display order, by placing the cursor over the theme, hold down the mouse button, then drag the theme to a new position (up or down).

## 8.1.5 To change themes legend



By double clicking the theme legend in the view's Table of Contents will open the Legend Editor. To differentiate your legend with symbols and colors based on your selected attribute, the parameter of the Legend Types in the Legend Editor should be in unique values and the Values Field in your selected attribute.

## 8.1.6 To zoom in and out

Zooms on or zooms out on a view, a layout, centered on apposition or area you define with the mouse. Zooms in cover smaller area but give more detail information, whereas, zooms out return to a larger area with lesser information. There are several zoom options.

i) To zoom in and zoom out on particular position



By clicking on the *Zoom In/Zoom Out* button, ArcView will zoom on or out by a factor of 2.0 from the center of the position you choose.

ii) To zoom in and zoom out on a particular area.



By clicking on the *Zoom In/Zoom Out* tool, the cursor changes to a magnifying glass and you can define the area by dragging a box with the mouse. ArcView will zoom in/out to the area you define.

## 8.1.7 To zoom to full extent



By clicking on the *Zoom* to *Full Extent* button, ArcView will zooms to the full extent of all the themes in a view.

#### 8.1.8 To zoom to active theme



By clicking on the *Zoom* to *Active Theme* button, ArcView will zooms to the spatial extent of the geographic features in the active theme.

## 8.1.9 To zoom to selected

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By clicking on the *Zoom* to *Selected* button features in the active theme(s). to make a theme active (raised), click on its theme name in the view's Table of Contents.

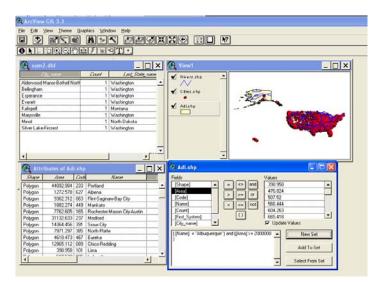
## 8.1.10 To select features from active theme



By choosing the *Select Feature* tool and select your features in the active themes either by pointing them individually or dragging a box around them, ArcView will highlight (in yellow) the selected features on the view. You can also select more than one features at a time, by holding down the SHIFT key while clicking on features.

## 8.1.11 To select features by query expression

A query expression is a precise definition of what you want to select. In this example, is to find out the location of compartments in adi that having an area more than 200 ha.



By following these steps:-

- i) Active the theme containing the features you want to find, in this case adi
- ii) Click on the *Query Builder* button. The dialog box appears for you to build the query expression by either clicking on fields, operators and values, or by typing it in.
- iii) In the list of *Fields*, double-click the *Name* field to enter it into expression.
- iv) Click the *Equal To* (=) button to enter the operator into the expression.
- v) In the list of *Values*, double-click the "*Albuquerque*" to enter it into the expression.
- vi) Now, for the second part of the expression, click the *And* operator to indicate that both parts of expression must be true.
- vii) In the list of *Fields*, double-click the Area field.
- viii) Click the *Greater Than/Equal To*(>=).
- ix) Type in 2000000 (equivalent to 200 ha).
- x) Click the *New Set* button, ArcView executes the query and features that are selected are highlighted in your map view.

# 8.1.12 To clear selected features



By clicking on the *Clear Selected Features* tool, it will deselects any selected features in the active theme(s). Use this tool to start over again with your new selection of features.

# 8.1.13 To identify theme's features



By selecting the *Identify* tool and clicking on the feature in the view, table or chart, ArcView will display the attribute values or records of a selected feature in a dialog box. Before using the Identify tool, make sure the theme of the selected feature must be active. To clear the current identify records, click "*Clear or Clear All*" in the dialog box.

# **8.1.14** To list all the attributes(records)



By clicking on the *Open Theme Table* button, ArcView will display all the records of the active theme(s).

# 8.1.15 To move(pan) a view



By choosing the *Pan* tool and place the cursor on the view, ArcView will allow you to move around your display view in any direction you want while holding down the mouse button. Release the mouse button to leave the map at your desire position.

#### 8.1.16 To measure distance on a view

By following these steps:



- i) Choose the *Measure* tool from the view toolbar.
- ii) Use the mouse to draw a line representing the distance you wish to measure. The line can have one or more line segments.
- iii) Double click to end the line.

The length you measured is displayed in the ArcView status bar. These measurements are displayed in the current distance units of the views.

#### 8.1.17 To specify scale and get coordinate in a view

Q View Properties	X
Name: View1	OK
Creation Date: Tuesday, July 19, 2005 4:05:24 PM	Cancel
Creator:	
Map Units: meters	
Distance Units: kilometers	
Projection Area Of Interest	
Background Color: Select Color	
Comments:	
	<u> </u>
	•

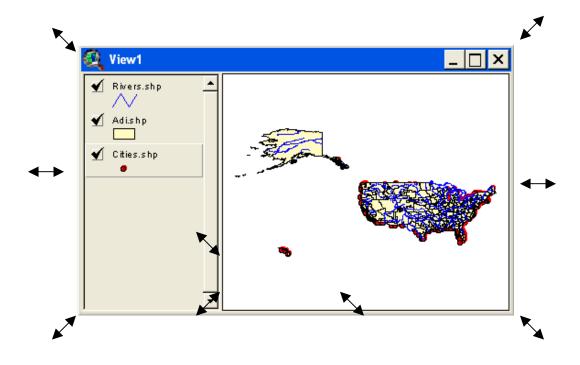
From the View menu, choose *Properties*. A view dialog box appears. In the dialog box, select the appropriate units (eg. *meters*) from the Map Units dropdown list. Once you have specified the view's Map Units, you can also set the Distance Units for the view by selecting again any appropriate units, taking example such as '*meters or kilometers*' from the Distance Units dropdown list. Distance units are the units in which ArcView will display measurements and dimension while you work with this view. Before you click *OK* in the dialog box, you can also change the name of your view by typing in the new name into the *Name* field.

Scale 1: 258,218,657 -31.86 ↔ 63.83 ‡
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You can see the scale box at the upper right part of your view activate and a new view name at the top of your map. You can adjust the scale by using the zoom options or typing in the scale you want and press ENTER. Next to the scale box you will find the coordinates. These coordinates give the position of your cursor relative to the real world position in RSO (meters) coordinate system of the view.

#### 8.1.18 Pointer tool

Use this tool to select, move and resize graphics.



#### 8.1.19 To resize the view window frame or a graphics

By choosing the pointer tool, click on the view window frame or graphic corners or side-walls and drag one of its handles. Dragging a corner handle lets you preserve the aspect ratio of the graphic. Dragging a side handle lets you resize either vertically or horizontally.

## 8.1.20 To edit graphics

By clicking on the Pointer tool, and moving with the mouse over the graphic will show you two types of cursor symbols:-



This means you can resize the graphics.



This means you can move the graphic.

#### 8.1.21 To edit the shape of graphics



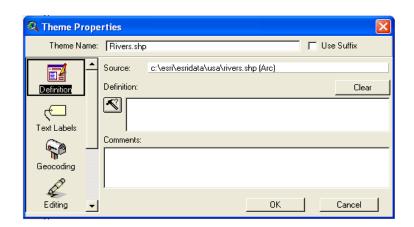
By selecting the Vertex edit tool and click on the graphic will allow you to edit the shape of the graphic. Moving the mouse over the graphic will show you two types of cursor symbols:-

- + This means you can move an existing vertex.
- $\oplus$  This means you can add an extra vertex to the graphic.

## 8.1.22 To label theme features

There are two ways of labeling features:-

- i) Interactively, and
- ii) Auto-label.



By following these steps:-

#### A. Interactive labeling

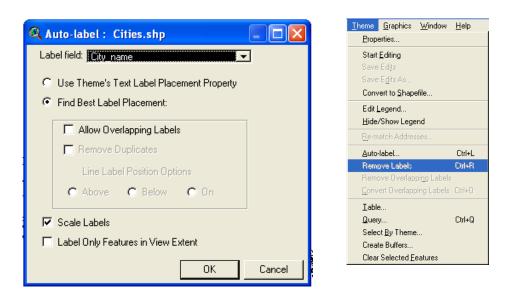


- i) Click on the *Theme Properties* button or choose the *Properties* from the Theme menu, the Theme Properties dialog box appears.
- ii) Select *Text Label* icon to display the theme properties for labels.
- iii) Select the appropriate field from the *Label Field* dropdown list, whose values will be used to label features (e.g. comp\_id).
- iv) Select any position you want to place your label text relative to the center of the feature.
- v) You can either click the *Scale Labels* check box to determine whether or not label size will change as you zoom in or zoom out on the view.
- vi) Click '*OK*' to set the label properties.
- vii) Before labeling features, you can set the font, style, color and size for the label from the '*Show Symbol Window*' in the Window menu.

viii) Click on the *Label* tool, and click on the active view to label your selected features interactively.

## **B.** Auto labeling

- i) Choose *Auto-label* from the *Theme* menu to open the *Auto-label* dialog box.
- ii) Select the appropriate field from the *Label* field dropdown list
- iii) Leave the 'Find Best Label Placement' as a default option.
- iv) Click on the check box for allowing overlapping labels.
- v) Click on the *Scale Labels*.
- vi) Click '*OK*' to display all the label field of the active theme you have selected.
- vii) Click on the Zoom In tool to see the label text clearly.
- viii) To remove all labels, choose *Remove Labels* from the *Theme* menu.



## 8.1.23 To link graphics/images with a view



By following these steps:

- i) Open a new view window.
- ii) Add theme choose any existing image or graphic files (eg. tif, img, bmp, jpg etc.).
- iii) Choose 'Properties' from the View menu and change the title View2 to any code or name related to the attribute (field) of the active theme. Eg. Lucode = 12 and then close the view properties box.
- iv) Choose '*Properties*' from the Theme menu and choose '*Hot Link*' and then fill in the required parameters.

Field = 'Lucode'

Predefined Action = 'Link to Document'

Script = 'Link.Document'

And click 'OK'.

- v) Highlight View1 window with the displayed active theme.
- vi) Click '*Hot Link*' icon.
- vii) Select feature bearing with the Lucode = 12.
- viii) An image will be prompted out to reflect the selected feature.

# 9. INTRODUCING TABLES

- A document for displaying tabular information.
- Formatted into records (rows) and fields (columns).
- Contains descriptive information about the theme features.

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1         1	
	4 2 man

## 9.1 Basic Operations In A Table

## 9.1.1 To open a table from existing source

(See item No. 8.1.13)

Shape	City lips	<u>City_name</u>	State_lips	State_name	State_city Type
Point	05280	Bellingham	53	Washington	5305280 city
Point	35050	Havre	30	Montana	3035050 city
Point	01990	Anacortes	53	Washington	5301990 city
Point	47560	Mount Vernon	53	Washington	5347560 city
Point	50360	Oak Harbor	53	Washington	5350360 city
Point	53380	Minot	38	North Dakota	3853380 city
Point	40075	Kalispell	30	Montana	3040075 city
Point	86220	Williston	38	North Dakota	3886220 city
Point	55365	Port Angeles	53	Washington	5355365 city
Point	49992	North Marysville	53	Washington	5349992 census designated
Point	43955	Marysville	53	Washington	5343955 city
Point	77542	West Lake Stevens	53	Washington	5377542 census designated
Point	22640	Everett	53	Washington	5322640 city
Point	32060	Grand Forks	38	North Dakota	3832060 city
ا منون	57705	Dates Field Lates Official	l En	1 1 / Lin	Energie Linne Anti-

Once you have had called out the table attributes from the active view, now you can always make the table off and on by highlighting the *attribute of the themes* from the Table Project window.

#### 9.1.2 To create a new table and file

By choosing the Table icon in the Project window and click New. In the New Table dialog box, navigate where you want to store the new file and specify a name. Click 'OK' and a new empty table is created without fields and records in dBase format.



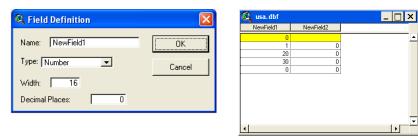
#### 9.1.3 To add fields and records

By selecting *Add Field* from the Edit menu, a Field Definition dialog box appears and type a *Name* for the new field you want to create, and followed with data *Type*, *Width* and/or *Decimal Places* parameters. A new, empty field is added to the table.



Choose Add Record (Ctrl + A) from the Edit menu to add one blank record to the table and repeat this as many times as you needed. To add data, click the *Edit* tool, and click on the first cell in the new field, and type in the first value. To move to the next cell, click on it or press 'ENTER' and start filling in all the values for the rest of the cells. To move to the next cell across, press TAB or click on it with the mouse.

Once finished entering values, choose Stop Editing from the Table menu. You will be prompted to save your data. Choose '*Yes*'.



## 9.1.4 To edit values in a table



By following these steps :-

- i) First choose Start Editing from the Table menu.
- ii) Click Edit too to activate the editing processes.
- iii) Highlight the field to be edited in the existing table.
- iv) Click to the appropriate cells and start filling in the new data.

#### 9.1.5 To change the position of a field in table

By dragging the field's name left or right to the new position in the table.

		s of Cities.shp	$\frown$			
Shape	City_hps	Cit <u>y</u> name	State_fip:	State_name	State_city	Туре
Point	05280	Bellingham	$\sim$	Washington	5305280	city
Point	35050	Havre	30	Montana	3035050	city
Point	01990	Anacortes	53	Washington	5301990	city
Point	47560	Mount Vernon	53	Washington	5347560	city
Point	50360	0ak Harbor	53	Washington	5350360	city
Point	53380	Minot	38	North Dakota	3853380	city
Point	40075	Kalispell	30	Montana	3040075	city
Point	86220	Williston	38	North Dakota	3886220	city
Point	55365	Port Angeles	53	Washington	5355365	city
Point	49992	North Marysville	53	Washington	5349992	census designated
Point	43955	Marysville	53	Washington	5343955	city
Point	77542	West Lake Stevens	53	Washington	5377542	census designated
Point	22640	Everett	53	Washington	5322640	city
Point	32060	Grand Forks	38	North Dakota	3832060	city
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#### 9.1.6 To rename/change the title of the table

- i) From the Table menu, choose *Properties*.
- ii) Type in your new title for the selected table in the *Title* column at the top of the Table Properties dialog box.
- iii) Click 'OK'.

🔍 Table	Properties			X
Title: Att	ributes of Cities.s	shp		OK
Creator:				Cancel
Creation Da	ate: Wedn	esday, July	20, 2005 11:15:42 AM	1
Comments				
				*
Visible	Field		Alias	
✓	Shape			<b>•</b>
· · · · · ·	City_fips			
	City_name			
	State_fips			
· · · · · · · · · · · · · · · · · · ·	State_name			
· · · · · · · · · · · · · · · · · · ·	State_city			
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#### 9.1.7 To hide or make the field(s) invisible

By following these steps:-

- i) From the Table menu, choose *Properties*.
- ii) At the bottom of the Table Properties dialog box, uncheck the field(s) you wish to hide by clicking in the *Visible* column.
- iii) Click 'OK'.

#### 9.1.8 To rename one or more of a table's fields

By following these steps:-

- i) From the Table menu, choose *Properties*.
- ii) At the bottom of the Table Properties dialog box, type in the new name for the field you wish to rename in the *Alias* column.
- iii) Click 'OK'.

#### 9.1.9 To resize a field in a table

- i) Point the cursor to the border at the right of the name of the field you want to resize. The cursor will change to a two-headed arrow.
- ii) Then drag the border of the field left or right direction you wish to resize.

Point 50360 Dak Har Point 53380 Minot	es /ernon /bor	53 30 53 53 53 53 38	Washington Montana Washington Washington Washington	5305280 3035050 5301990 5347560 5350360	city city city
Point 01990 Anacortu Point 47560 Mount V Point 50360 Oak Har Point 53380 Minot	fernon rbor	53 53 53 53	Washington Washington Washington	5301990 5347560 5350360	city city
Point 47560 Mount V Point 50360 Oak Har Point 53380 Minot	fernon rbor	53 53	Washington Washington	5347560 5350360	city
Point 50360 Dak Har Point 53380 Minot	rbor	53	Washington	5350360	
Point 53380 Minot					city
		38	N. J. D. L. J.		
Point 40075 Kalispell			North Dakota	3853380	city
		30	Montana	3040075	city
Point 86220 Williston		38	North Dakota	3886220	city
Point 55365 Port Ang	jeles	53	Washington	5355365	city
Point 49992 North M	arysville	53	Washington	5349992	census designated
Point 43955 Marysvil	le	53	Washington	5343955	city
Point 77542 West La	ike Stevens	53	Washington	5377542	census designated
Point 22640 Everett		53	Washington	5322640	city
Point 32060 Grand F	orks	38	North Dakota	3832060	city

#### 9.1.10 To sort an attribute table



By following these steps:-

- i) In the table, click/highlight the name of the field you wish to use to sort the attributes, in this case Area.
- ii) Click the Sort Descending button to sort the records on the Area field, largest first, or click the Sort Ascending button to sort the said records, smallest first.
- iii) Click the Promote button to display the selected records only to the top of the table.

Shape	<u>City</u> fips	City_name	State_lips	State_name	State_city	Туре	Сар
Point	00950	Altamonte Springs	12	Florida	1200950	city	N
Point	00975	Alexandria	22	Louisiana	2200975	city	N
Point	00980	Albion	26	Michigan	2600980	city	N
Point	00100	Abbeville	22	Louisiana	2200100	city	N
Point	00100	Aberdeen	46	South Dakota	4600100	city	N
Point	00100	Aberdeen	53	Washington	5300100	city	N
Point	00125	Aberdeen	24	Maryland	2400125	town	N
Point	00135	Abington	25	Massachusetts	2500135	census designated place	N
Point	00200	Ada	40	Oklahoma	4000200	city	N
Point	00243	Addison	17	Illinois	1700243	village	N
Point	00280	Affton	29	Missouri	2900280	census designated place	N
Point	00394	Agoura Hills	06	California	0600394	city	N
Point	00400	Adelphi	24	Maryland	2400400	census designated place	N
Point	00440	Adrian	26	Michigan	2600440	city	N

## 9.1.11 To summarize an item/field

By following these steps:-



i)

- First highlight the *item/field* in the existing table to be summarized (eg. Name).
- ii) Click *Summary* button or choose *Summarize* from the Field menu, and a Summary Table Definition appears for you to fill in required parameters.
- iii) Select Area from the Field dropdown list.
- iv) Choose *Sum* button from the Summarize by dropdown list.
- v) Click *Add* button and click '*OK*', a summarized table is created showing the statistical value of sum\_area by name.

R Summary Table Definition	🍳 sum 2. db	f
	<u>City_name</u>	CountFirst_Statenan
Save As c:\docume^1\admini^1\locals^1\temp\sum1.dbf	Abbeville	1 Louisiana
Field: Cancel	Aberdeen	3 Washington
	Abington	1 Massachusett
Shape Add	Ada	1 Oklahoma
	Addison	1 Illinois
Summarize by: Delete	Adelphi	1 Maryland
Merce	Adrian	1 Michigan
Imeiñe	Affton	1 Missouri
	Agoura Hills	1 California
	Albion	1 Michigan
	Alexandria	1 Louisiana
	▲	a ter si



*Las<u>t</u> State<u>name</u>* Louisiana \_ 🗆 🗙

## 9.1.12 To join or link an attribute tables

Once you have had created the summary table, sum2.dbf from the attribute of cities, now you can either join or link both tables using the common field.

By following these steps:-

- i) Make the summary table, sum2.dbf active if it is not already and click/highlight on the 'Name' field.
- ii) Open the attribute table for the cities theme and click/highlight on the 'City\_name' field.

Cit <u>y</u> name	Count	Last_State_ne	8/776	Shape	City hip.	Cit <u>y</u> name	State_lip	×
Alderwood Manor-Bothell North	1	Washington		Point	05280	Bellingham	53	Washing
Bellingham	1	Washington		Point	35050	Havre	30	Montana
Esperance	1	Washington		Point	01990	Anacortes	53	Washingt
Everett	1	Washington		Point	47560	Mount Vernon	53	Washing
Kalispell	1	Montana		Point	50360	0ak Harbor	53	Washing
Marysville	1	Washington		Point	53380	Minot	38	North Da
Minot	1	North Dakota		Point	40075	Kalispell	30	Montana
Silver Lake-Fircrest	1	Washington		Point	86220	Williston	38	North Da
				Point	55365	Port Angeles	53	Washingt
				Point	49992	North Marysville	53	Washingt
				Point	43955	Marysville	53	Washing



iii)

iv)

Click the Join button or choose Join from the Table menu, ArcView appends the records in sum2.dbf to the Attribute of cities table and closes the sum2.dbf table automatically.

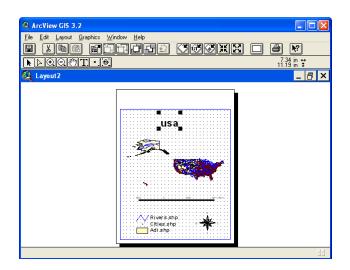
Alternatively, click the Link button or choose Link from the Table menu, ArcView links the records from both tables as one to many relationship. Selecting a record in the destination table (sum2.dbf) will automatically select the records related to it in the theme table and vice-versa, if selecting one of the theme's feature in the view will selects that feature's records in both tables.

## **10. INTRODUCING CHARTS**

- (KIV) –

## 11. INTRODUCING LAYOUTS

- A template for creating presentation-quality maps.
- Display multiple documents (views, table charts), map components such as north arrows, legend and scale bars and graphics.
- Can be sent to printer or plotter.



## 11.1 Basic Operations In A Layout

## 11.1.1 To create a new, empty layout

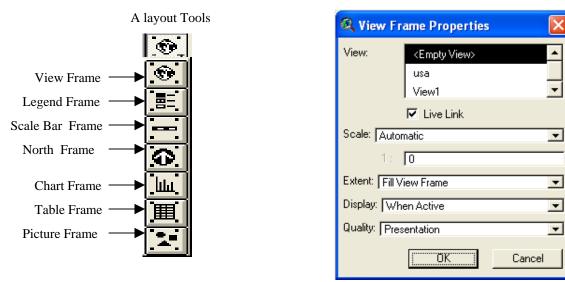
By double-clicking the *Layouts* icon in the Project window, a new, empty layout is created using the default template (portrait). If you to use a different template for the layout, choose *Use Template* from the Layout menu.

# **11.1.2** To set-up the layout page

Before you proceed with any work on the layout you have created, you should specify the size of your paper map you intend to print it on as follows:-

- i) Choose *Page Setup* from the Layout menu.
- ii) From the *Page Setup* dropdown list, choose the paper format you will be using. You can customize your paper format by choosing Custom from the *Page Size* list. Specify your size *Units* and type the size into the *Width* and *Height* columns.
- iii) You can also specify your map template either portrait or landscape in the *Orientation* option.
- iv) Click '*OK*' when finished.

#### 11.1.3 To add a view to the layout



By following these steps :-

- i) Click on the *View Frame* tool and move the cursor into the layout page (it changes to cross-hair). Then click and hold the mouse button in the upper left corner of the layout page and start dragging it to the lower right and release the mouse button.
- ii) When the View Frame Properties dialog box appears, click the *View1* and just accept the remaining default options by clicking '*OK*'.
- iii) You can also use the *Pointer* tool to select, move or resize the view frame.

#### 11.1.4 To add a legend to the layout

- i) Click on the *Legend Frame* tool and move the cursor into the layout page where you want to place your legend.
- ii) Then click and hold the mouse button, drag the cursor to define the legend frame, and release the mouse button.
- iii) The Legend Frame dialog box appears and pick *View1* and click '*OK*'. The legend from view1 displays in the layout.

🔍 Legend F	rame Properties	×
View Frame:	<empty legend=""> ViewFrame1: usa</empty>	▲ ▼
Display: Quality:	When Active	
Quality.	Cancel	

#### **11.1.5** To add a scale bar to the layout

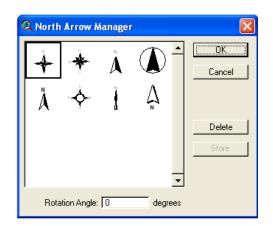
By following these steps:-

- i) Before you can calculate the scale of your map, make sure you have set your *Map Units* in the View Properties either in meters, kilometers or other units (see item 8.1.16).
- ii) Click on the *Scale Bar Frame* tool and move the cursor into the layout page where you want to place your scale bar.
- iii) Then click and hold the mouse button, drag the cursor to define the bar frame, and release the mouse button.
- iv) The Scale Bar Frame dialog box appears and pick *View1* and set the *Units* to *Kilometers* and *Interval* to 5.
- v) Click '*OK*' and the scale bar of view1 displays in the layout.

🔍 Scale Bar Pro	operties 🔀
View Frame:	<empty scalebar=""> ViewFrame1: usa</empty>
	Preserve Interval
Style:	
Units:	miles
Interval:	1
Intervals:	2
Left Divisions:	2
	Cancel

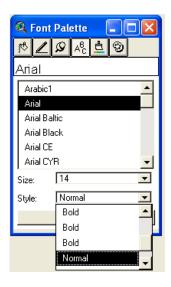
#### 11.1.6 To add a north arrow to the layout

- i) Click on the *North Arrow Frame* tool and move the cursor into the layout page and define the area for the north arrow frame.
- ii) The North Arrow Manager dialog box appears and select the north arrow. Click '*OK*'. The north arrow displays in the layout.



## **11.1.7** To add a title to the layout

- i) Before adding a title to the layout, set the size and font of the title from the *Show Symbol Window* in the Window menu.
- ii) Click the *Font Palette* button and set the *font* to Arial, the text size to 12, and the *style* to Normal. Close the *Font Palette*.
- iii) Click on the *Text* tool and move the cursor into the layout page and insert point where you want to place your text.
- iv) Type in the map's title in the *Text Properties* window.
- v) Click 'OK'.



#### 11.1.8 To add graphics to the layout

For finishing touch, you will add a border to your layout.



Click and hold down the *Draw* tool, drag the mouse down to the *Rectangle* tool and then release the mouse button. Use the rectangle tool to drag a box on the layout from the top left corner to the bottom right. Finish and your map looks great!!!!.

#### **11.1.9** How to print the layout

From the File menu, select *Print* and a print dialog box appears for you to print out your layout.

🔍 Print		
Print:	Layout1	•
Printer:	\\EOCICT01\HP designjet 5500ps 42 by hp on desig	Setup
To file:		Browse
🔲 Print T	o File	
		ок (
		Cancel

a) Printing from windows

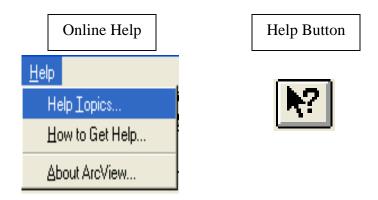
You can print out ArcView layouts to any windows printer for which you have a driver or to a plotter using the PostScript driver to translate your layout to a PostScript format.

b) Printing to a file

You can also print your layout to a file by check in *Print To File* column and store it in your destination directory. Click '*OK*'.

## 12. ARCVIEW'S HELP SYSTEM

You are advise to make full use of the ArcView's Help System, whenever you need further explanation or information regarding the usage of the function tools, buttons or menu you choose.



#### 12.1 To find out what a button, tool, or menu choice does

Move the cursor over it but do not select it. A description will appear in ArcView's status bar at the bottom ArcView screen.

#### 12.2 To get help about a button, tool, or menu choice

- i) Click the *Help* button
- ii) Click the button, tool, or menu choice you want to get help for.

## 12.3 To browse the contents of ArcView's Help

From the Help menu, choose *Help* Topics. In the dialog that appears, click either the *Contents*, *Index* or *Find* tabs you are interested with.

Note: For further detailed information, please refer to the Manual Using ArcView GIS by ESRI which comes together with the ArcView Software.