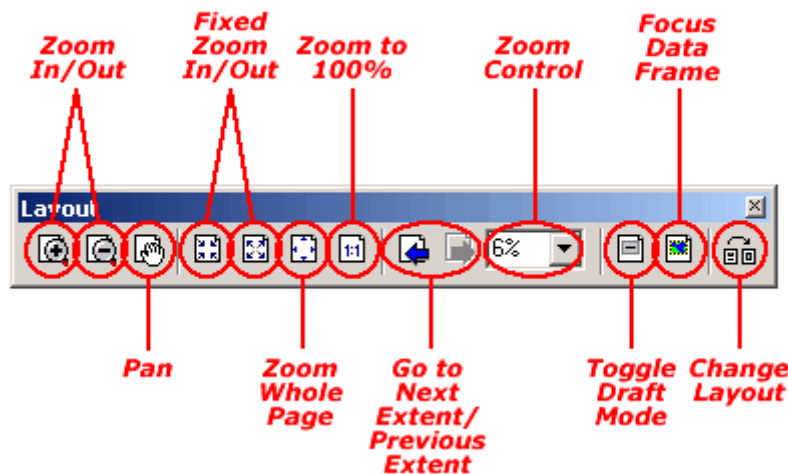


Section 6: Making and Printing Maps Using ArcMap

Using a Map Template to Create a Map:

When a new document is opened, the user often views the data layer in **Data View**. To view the data in layout view, which is the view in which a map will be printed, the user must click on the **View** menu and select **Layout View**.

While viewing the layout, a **Layout** toolbar appears. These tools can be used to navigate around the map layout.

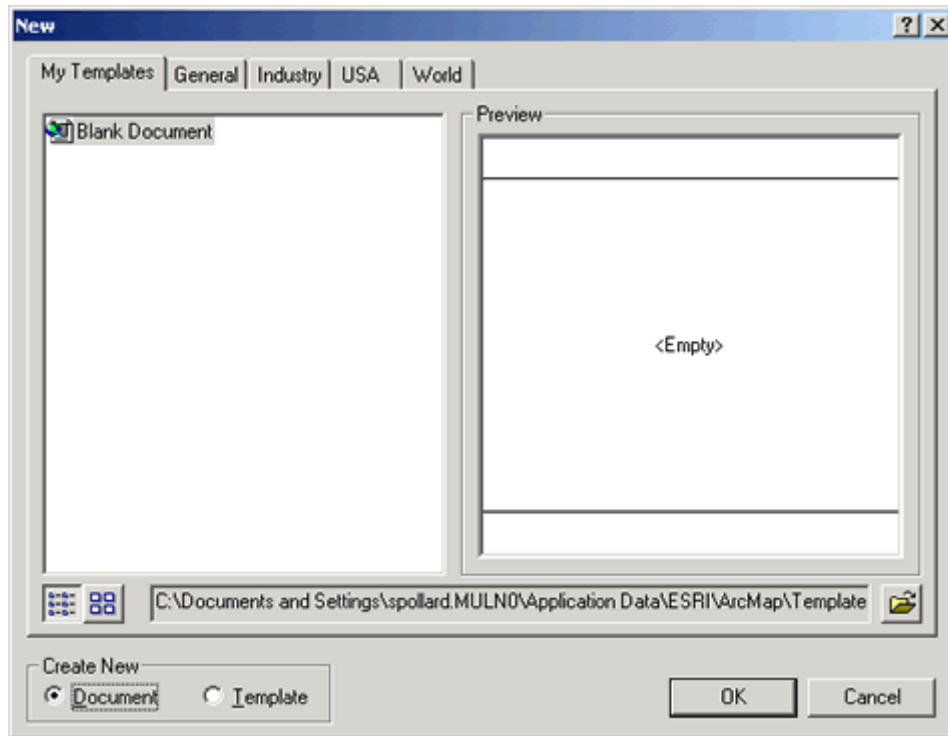


A map template is a map document that allows the user to quickly create a new map. Map templates often contain data, a custom design, and a predefined layout that arranges map elements (North Arrows, Scale Bars, and Logos) on the page. Map templates have a .mxt file extension.

By default, a normal template is used with every ArcMap™ document. The layout page will be displayed as a blank, single data frame. Though these features are characteristic of a normal template, there are other templates available for use. The ArcMap user is also allowed to design and save their own template for later use with other maps.

To open a map template, ArcMap must be launched. In the ArcMap dialog, the user should click the option to use a **template**, then click **OK**. If ArcMap is already running, the user can click the **File** menu and click **New**.

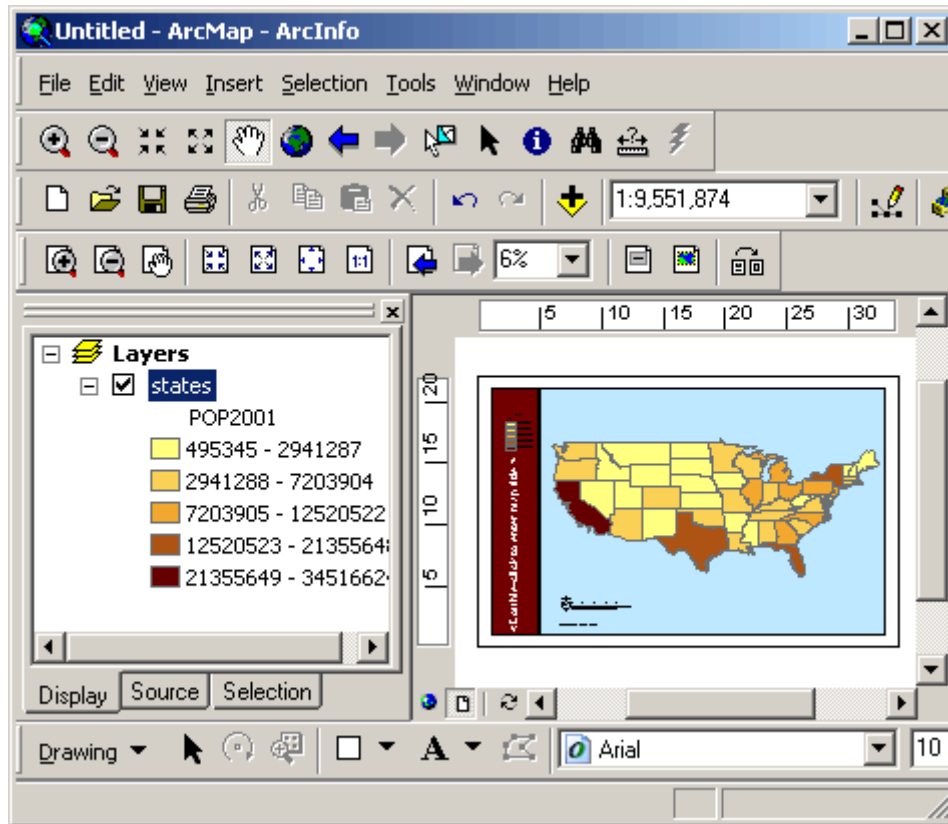
Within the **New Template** dialog box, all of the templates that come with ArcGIS can be found.



The **My Templates** tab contains the templates created by the user. The **General** and **Industry** tab allows the user to select a particular map layout they prefer to use with their data. The **USA** and **World** tabs allow the user to select from a variety of USA and World Maps that have already been created.

The user should select which template they prefer, and click **OK**. Once the chosen template appears, the user can begin adding the data they wish to use in their final map.

In the following example, a **General** map template called "Landscape Classic" was chosen to display a 1999 population map. If the data is already present within the data view, the user simply needs to switch to **Layout View** and select the **Map Template** button on the **Template** Toolbar.



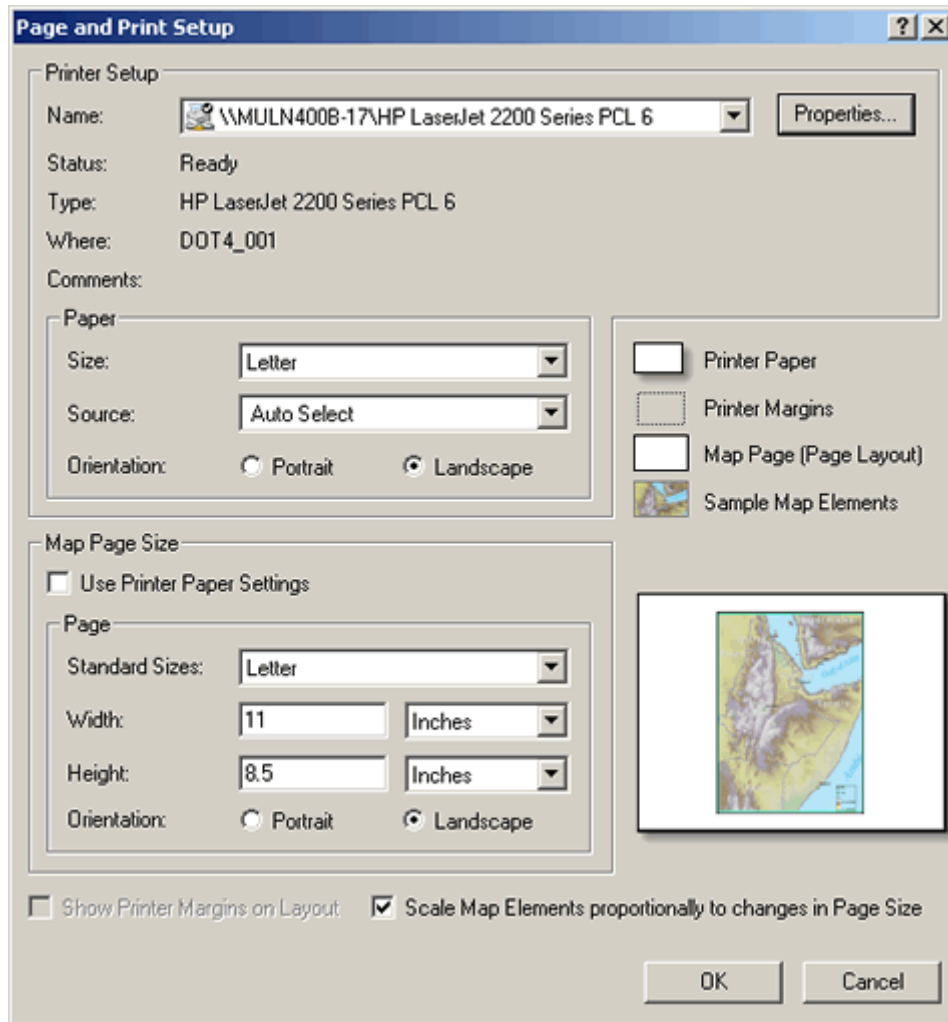
Once a template is selected, the user's data will be incorporated to the style of the template. The user can then begin to edit the map elements (title, north arrows, legend, etc.). Most map elements are already present. The styles can be changed if the user double-clicks on a specific map element, and edits their properties.

Creating Maps Without Using a Map Template:

The previous section describes how to use a map template. In many cases, the user prefers to create their own map layout design. This section focuses on describing the creation of a map layout without using an existing map template and the addition of a map title, a north arrow, a scale bar, and a legend.

Map elements may be arranged within a variety of paper sizes. In addition, the orientation of a page may be either landscape or portrait. It is recommended that the user specifies these characteristics before they begin the map layout process.

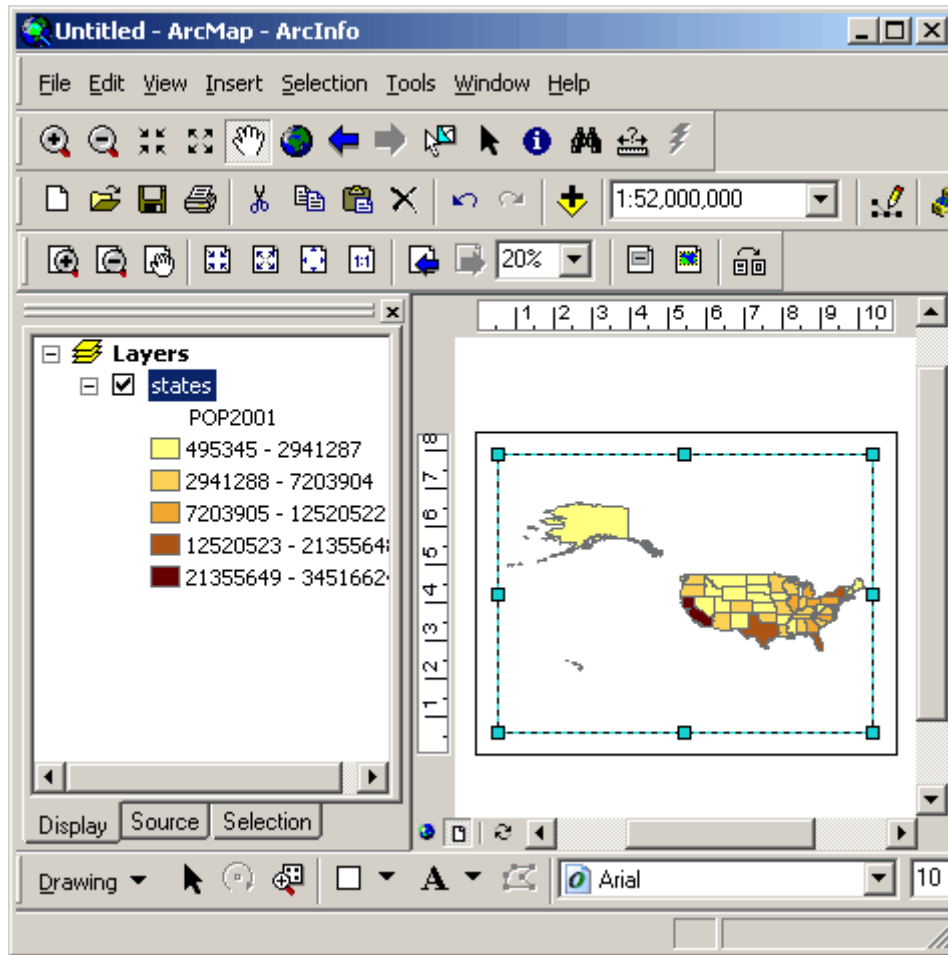
Paper sizes and orientation can be selected by clicking on the **File** menu and selecting **Page and Print Setup**. The **Page and Print Setup** dialog box will appear.



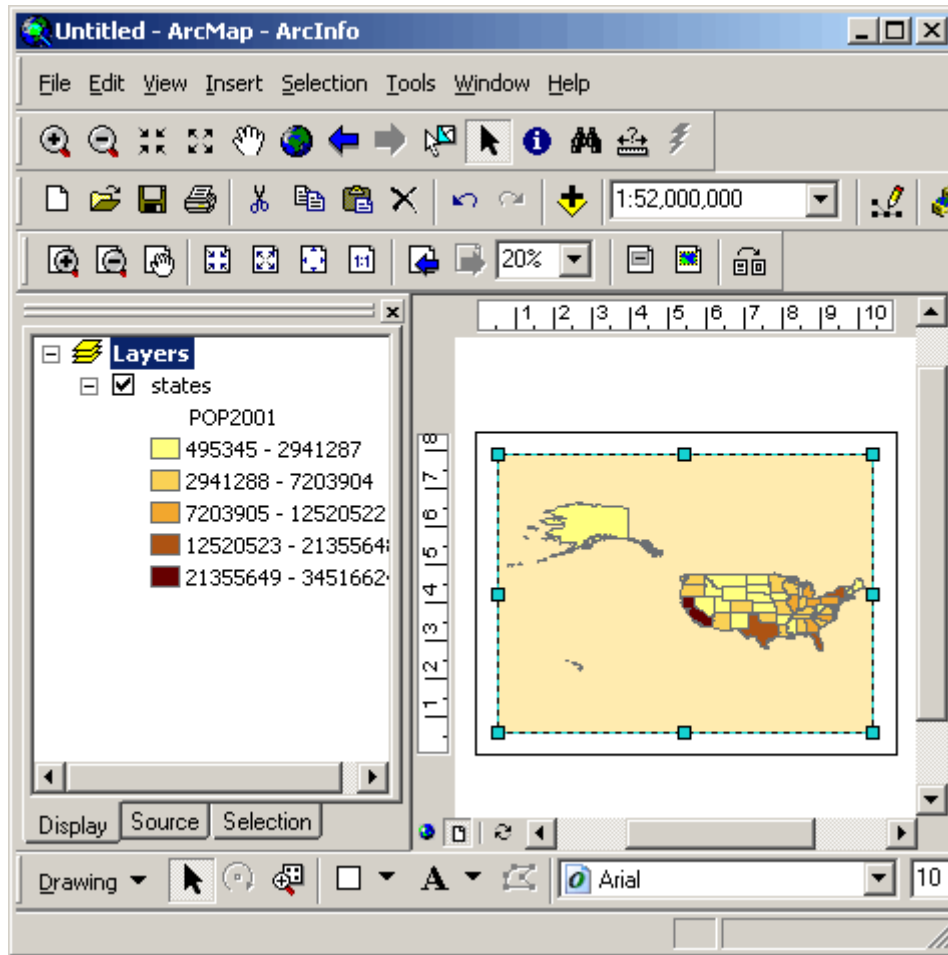
In addition, there are rulers, guides, and grids to help the user arrange map elements on the page. These can be found by right-clicking on an empty portion of the map layout and selecting from the context menu that appears.

In addition, the user may align, nudge, distribute, rotate, and resize selected elements to place them where they wish.

In the following example, data has been added to the Data View and no template has been selected. However, the page size and orientation has been selected, and has been made visible by displaying the Layout View.

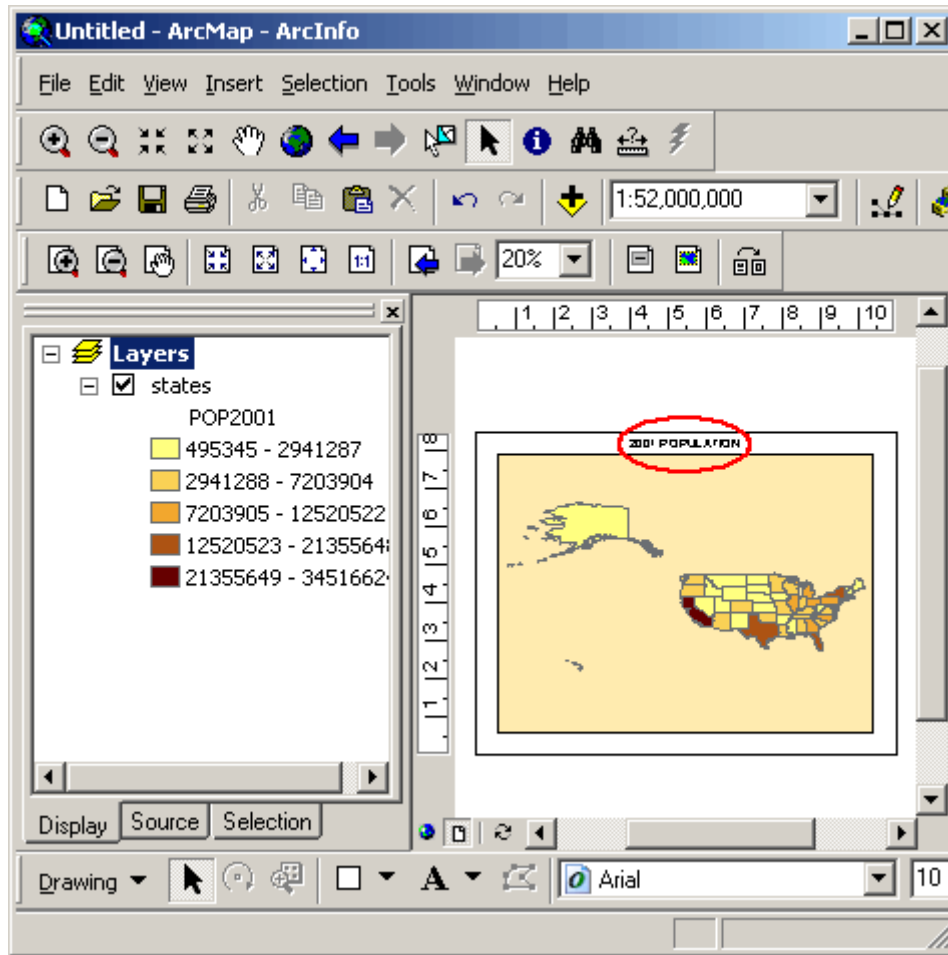


The map **background color** may be changed by selecting the data frame and clicking the down arrow next to the **Fill Color** button on the **Draw** Toolbar. When the user selects a desired color, the map background color will be updated.

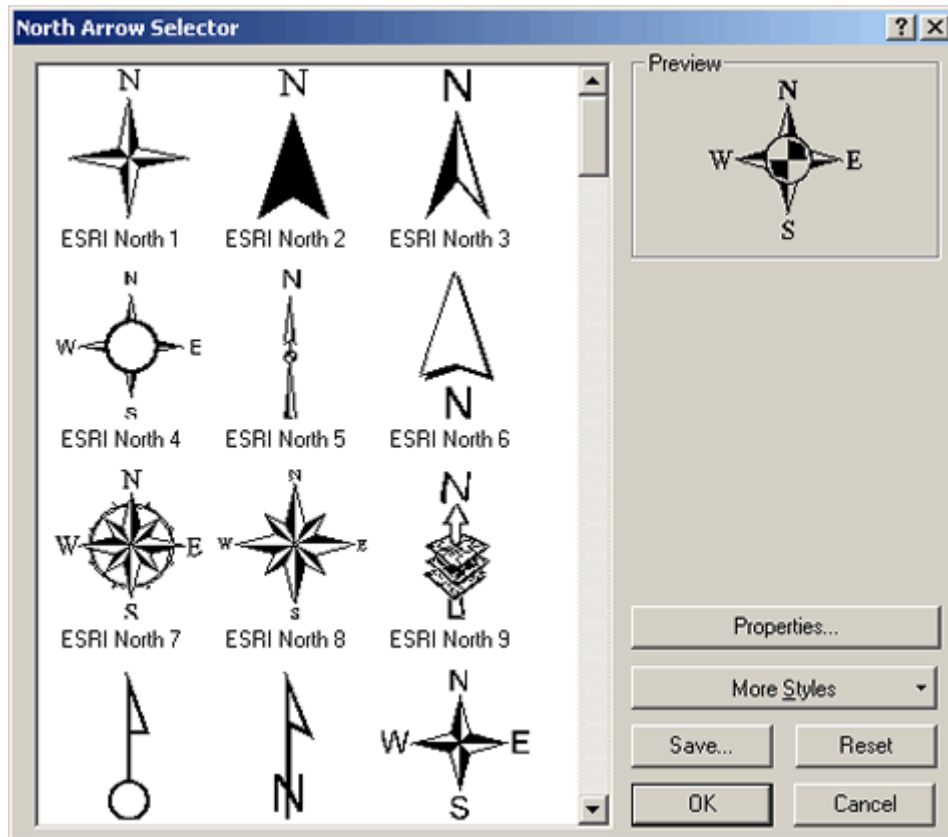


A **map title** may be added to the layout by clicking the **Insert** menu and selecting the **Title** option. A text box will be added to the page. Within this text box, a default title will be present. The user can type in a preferred title within the text box and press **Enter**. After the **Enter** key has been pressed, the user can go back and edit the title by double-clicking the on the title and editing its text properties.

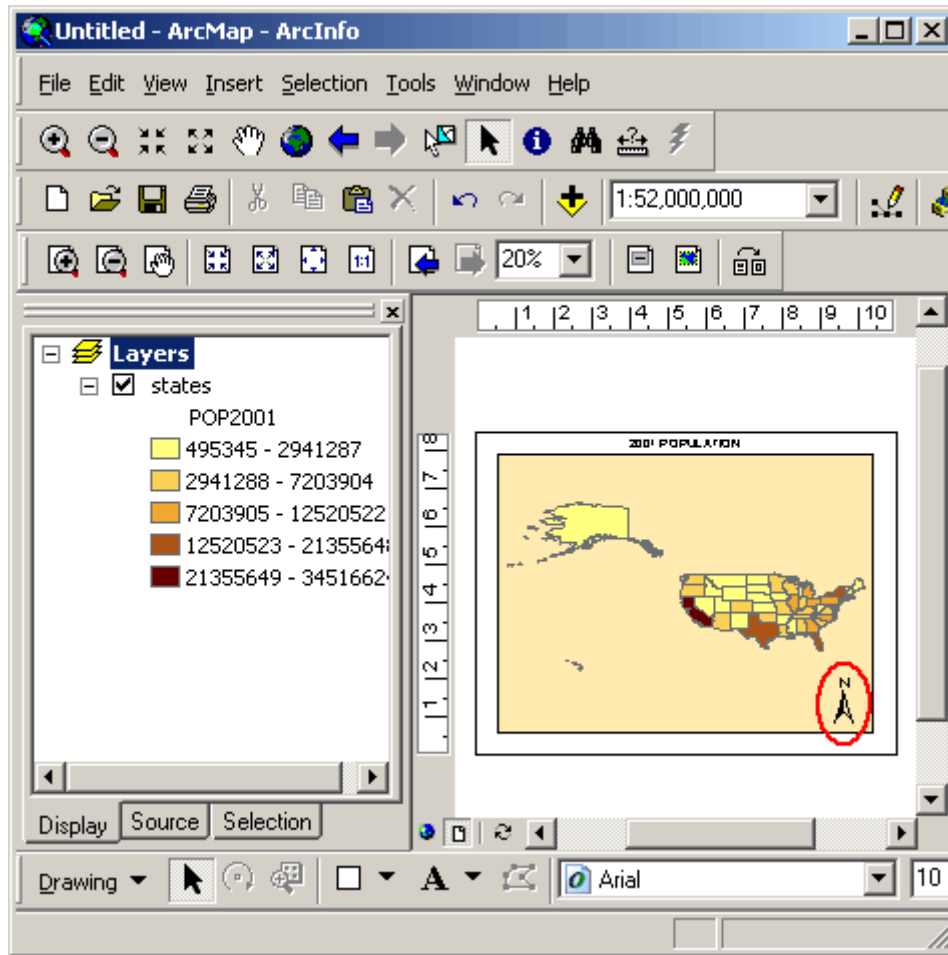
The font, size, style, or color of the title may be changed using the **Draw** Toolbar.



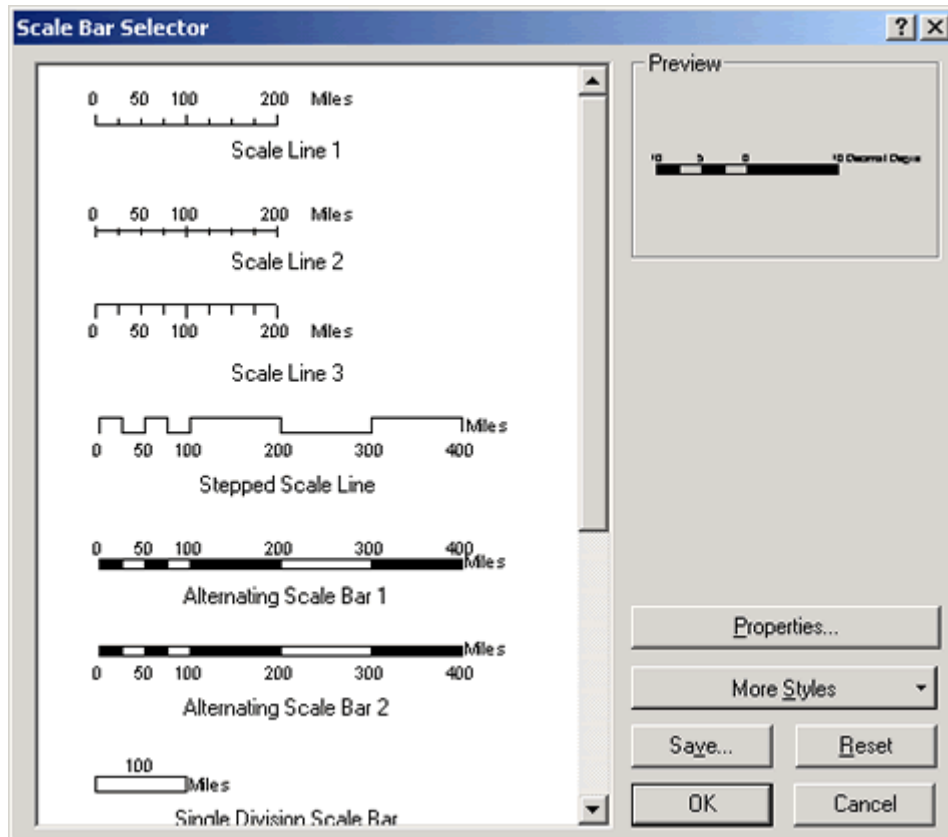
A **North Arrow** may be added by clicking the **Insert** menu and selecting the **North Arrow** option. In the **North Arrow Selector** dialog box that appears, the user may select from a variety of north arrows and change the properties of any selected arrow.



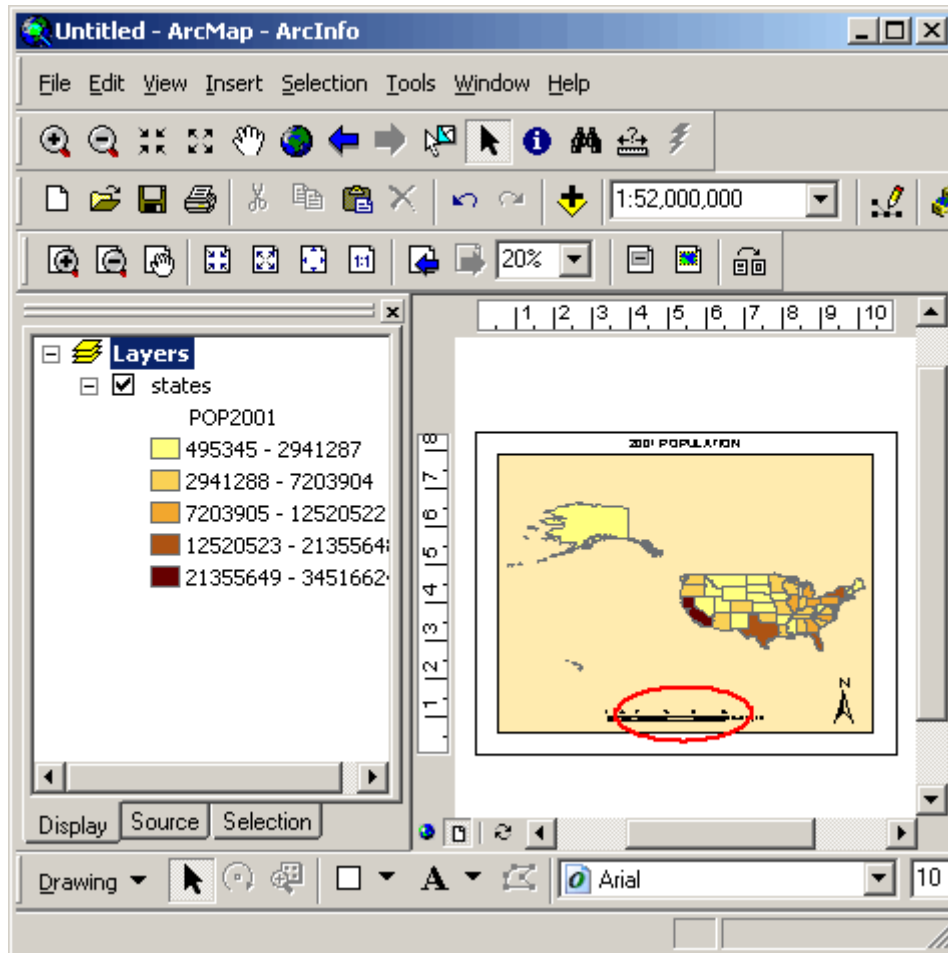
Once an arrow has been selected, its properties specified, and the **OK** button clicked, the north arrow will be added to the map layout. The user can resize the north arrow by clicking and dragging on one of its corners. In addition, the user can move the north arrow to any desired location within the map layout.



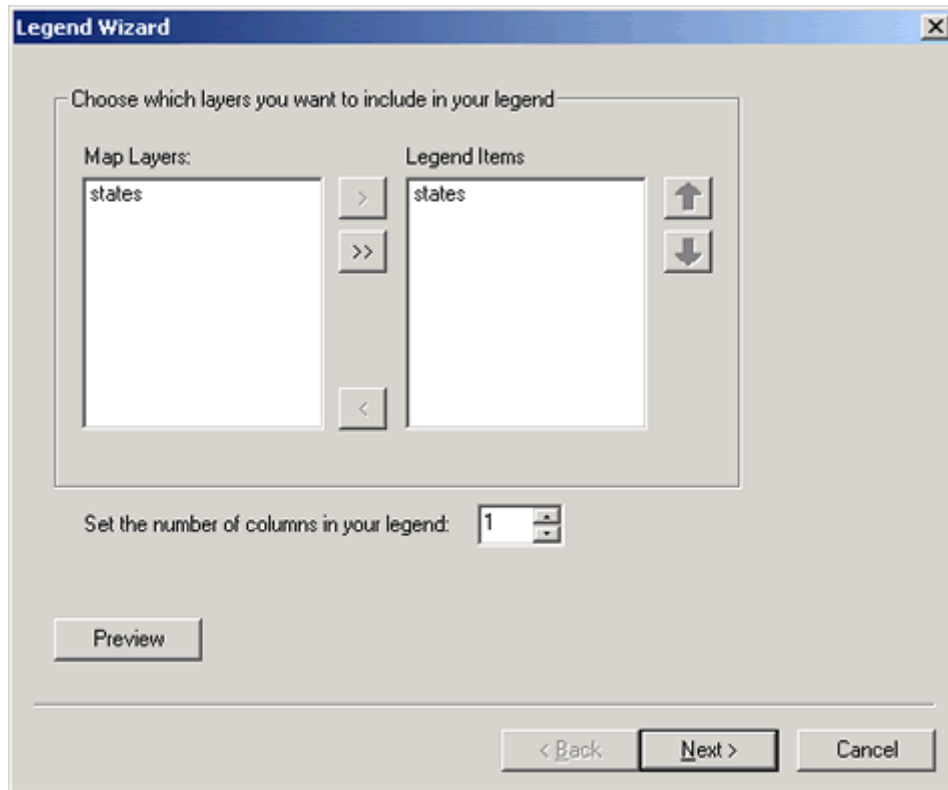
A Scale Bar may be added by clicking the **Insert** menu and selecting the **Scale Bar** option. The desired scale bar style may be chosen and its properties may be edited within the **Scale Bar Selector** dialog box.



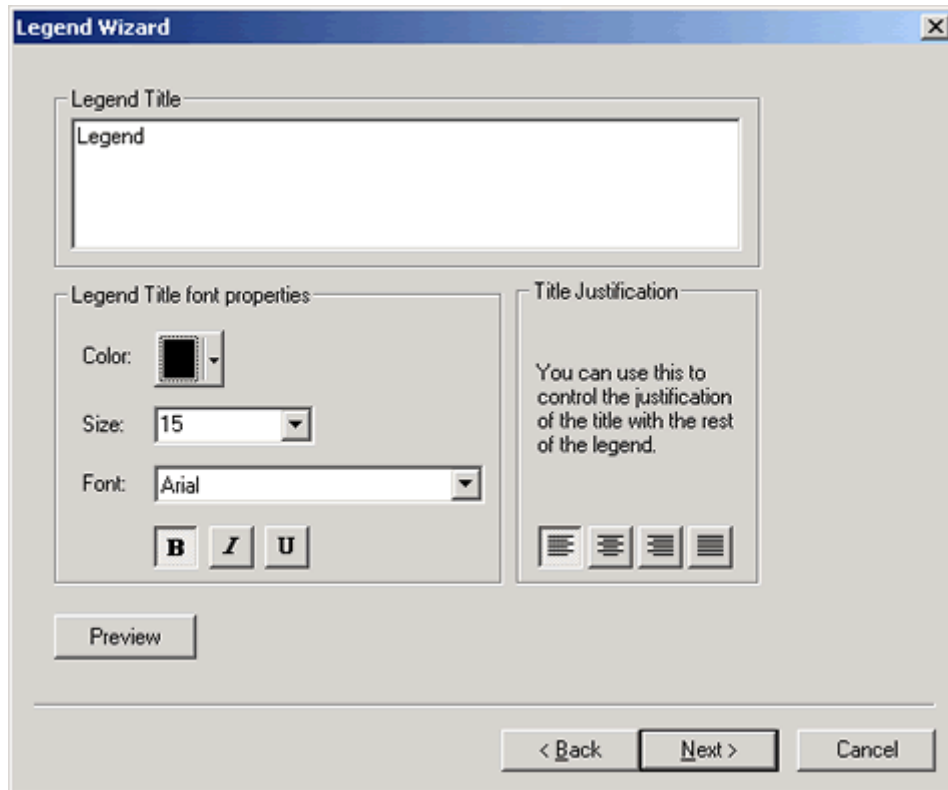
When the **OK** button has been clicked, the chosen scale bar will automatically appear within the map layout. The user can click and drag the scale bar to the desired location.



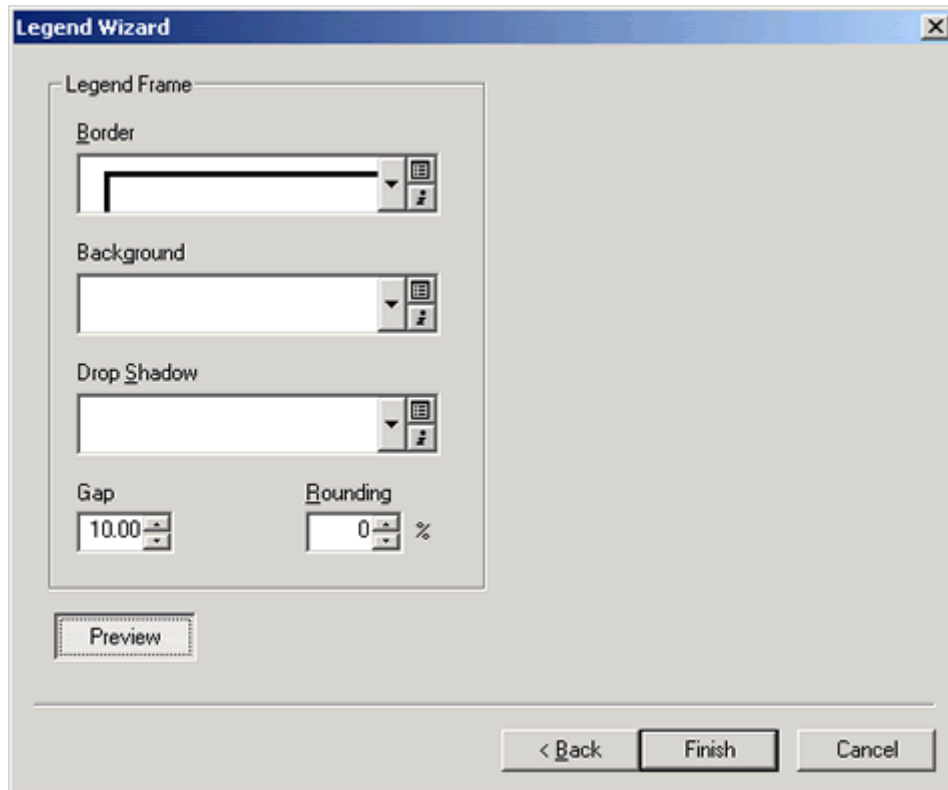
A Legend may be added by clicking the *Insert* menu and selecting the **Legend** option. The **Legend Wizard** dialog box will appear.



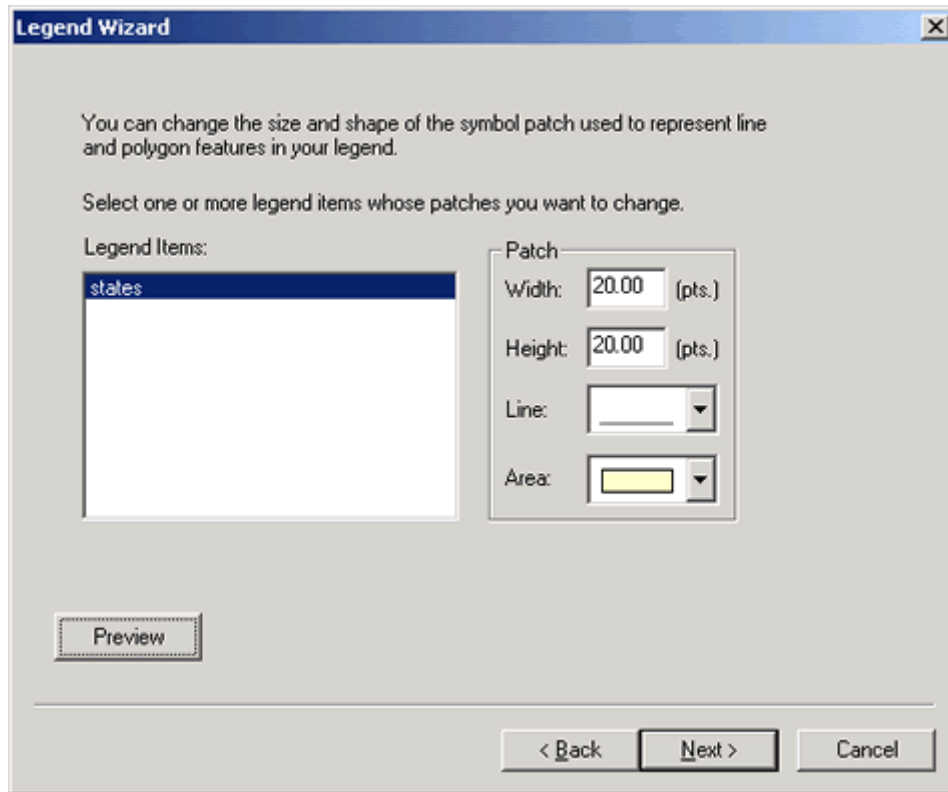
By default, the legend includes all layers from the map, and the number of legend columns is set to one. The user can choose which layers may be displayed in the legend by selecting the layer from the **Map Layer** box and clicking the right arrow (>). The selected layers will be displayed in the **Legend Items** box. Once the user selects the layers they want, the **Next** button should be clicked. The second frame of the wizard will appear.



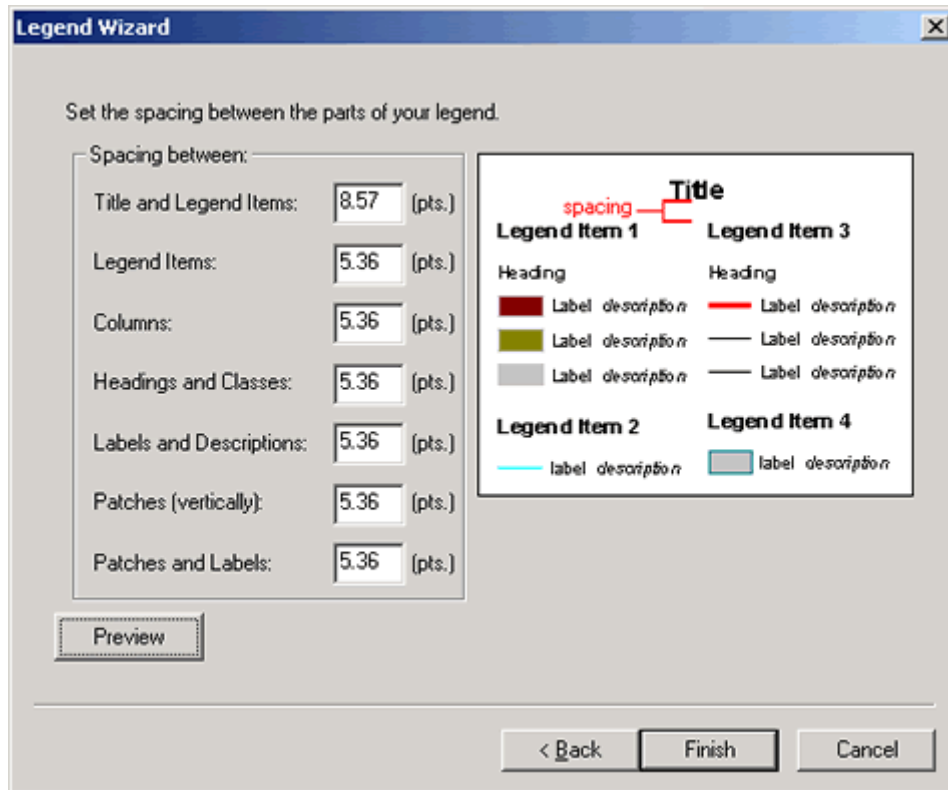
Within this frame, the user enters a legend title, specifies its properties, and sets the title justification. Once the parameters are set the user can click the **Preview** button in order to see a sample legend displayed on the map. The user must click the **Preview** button again before they can move on to the next frame of the **legend wizard** dialog. When all parameters have been selected, the **Next** button should be clicked. The next frame of the wizard will appear.



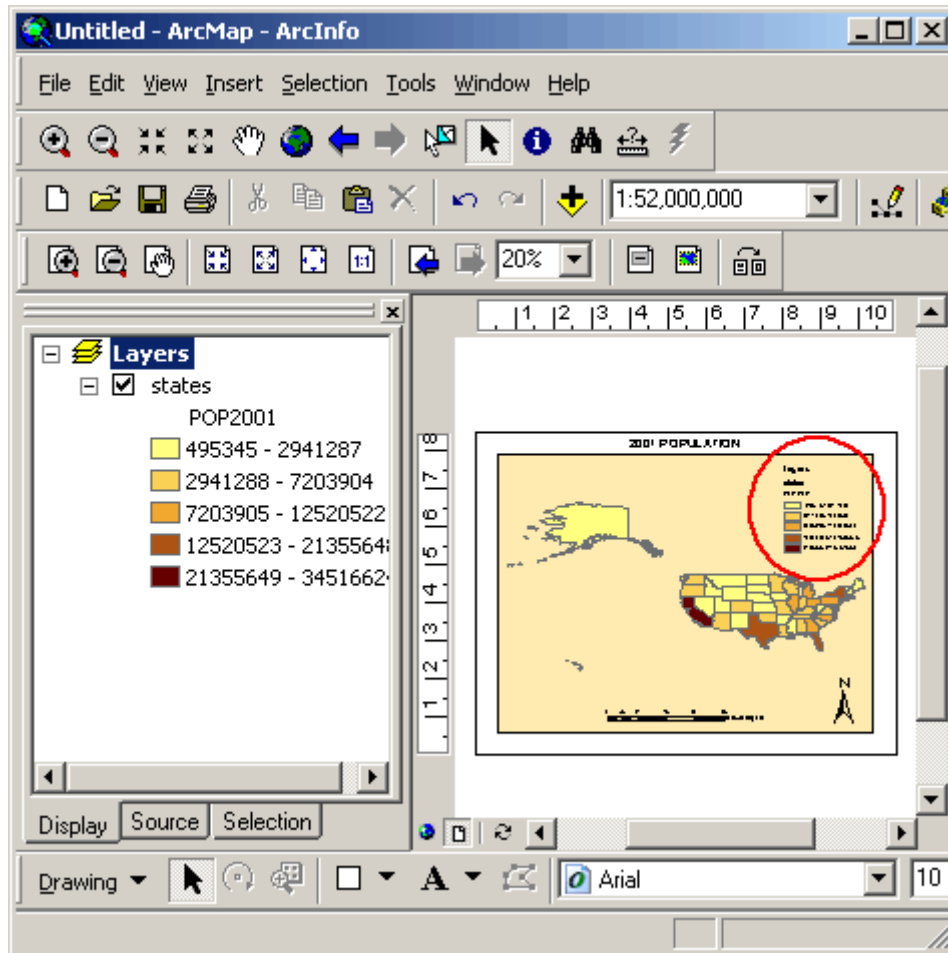
Within this frame, the user may select a Legend Frame border, background color, and drop shadow. Once parameters are selected, the **Next** button should be clicked. The next frame of the wizard will appear.



Within this frame, the user may change the size and shape of the symbol patch used to represent line and polygon features within the legend. Once parameters have been set, the **Next** button should be clicked. The last frame of the wizard will appear.

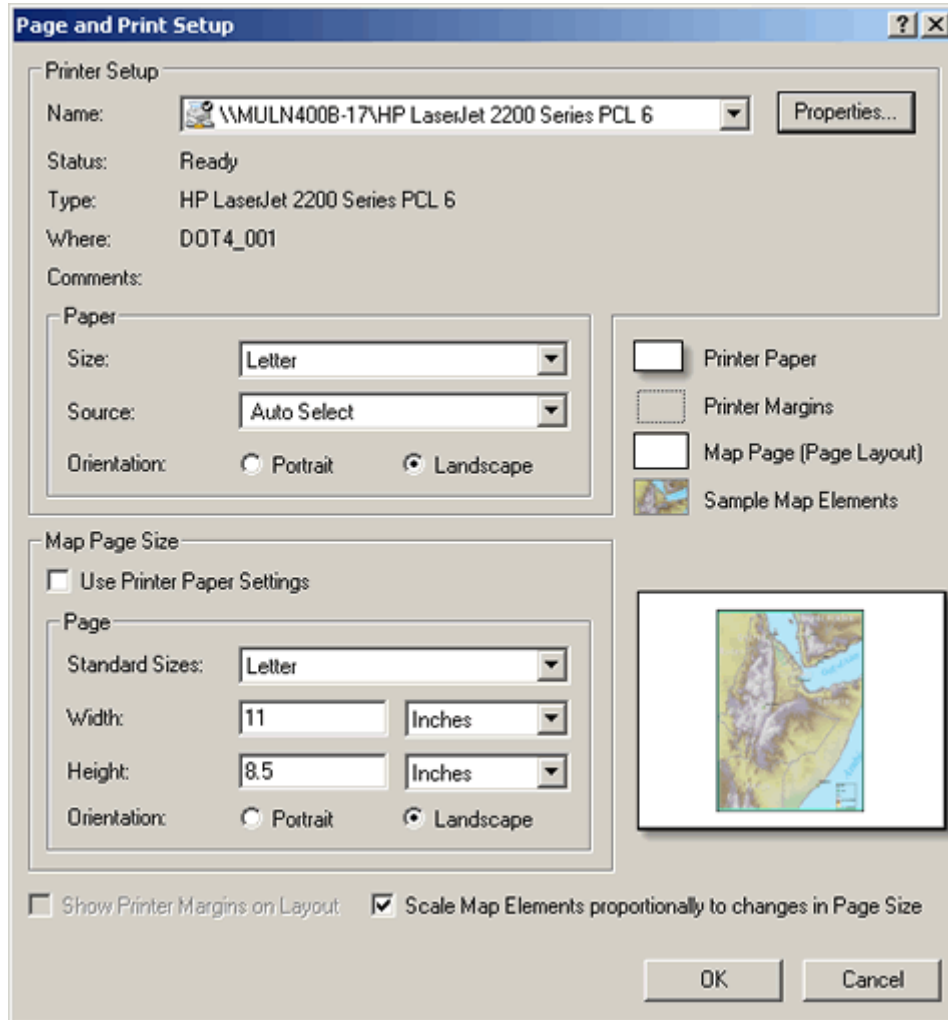


Within this frame, the user may change the spacing between the different components of the legend. Once the spacing has been set, the **Finish** button should be clicked. The layout display will updated, and the user can re-size and move the legend box to a desired location.



Selecting Print Options:

If the user has not already selected parameters within the page setup dialog box, they should do so before printing. This can be done by clicking the **File** menu and selecting **Page and Print Setup**. A dialog box appears.



The user needs to make sure that the map size is the same as the printer page size. Once all parameters have been chosen, the *OK* button should be clicked.

Before printing the map, the user should always preview their map. This can be done by clicking the **File** menu and selecting **Print Preview**. This allows the user to see if anything needs to be changed before the map is printed.

If changes need to be made, the **Print Preview** should be closed (by clicking the *Close* button), and the appropriate changes should be made. If everything appears the way that it should, the user may click the **Print** button. Appropriate print parameters must be set, and the **OK** button should be clicked when the user is ready to print the map.