Legend Samples for CartoScript Styles

CartoScripts give you the ability to develop vector point and line styles that are data-dependent. For example, a CartoScript can draw different point or line symbols depending on database values associated with each element or vary the orientation of individual point symbols.

You can also create legend samples for vector elements that you have styled using CartoScripts or other style scripts. To do so, use the Selection tool in the View window to mark a representative element for each script “style” in the layer, use the right mouse-button menu on the layer’s entry in the Display Manager or sidebar legend layer list to add that element to the legend, and provide a legend label (see the box to the left). For example, the Syncline layer in the sidebar legend excerpt above includes two different types of line symbol rendered by a CartoScript. One line styled with the overturned syncline symbol was selected and added to the legend, then one styled with the normal syncline symbol was added. Each legend sample is drawn by the script using the database attributes of the element selected for it. (The list of elements selected for the legend is maintained in a legend element selection table for that vector element type. This table is created automatically when you add elements to the legend.) If you change your mind about an element you have added to the legend, you can simply reselect the element and use the right mouse button menu to remove it from the legend.

Once you have selected legend samples for points, lines, or polygons in a vector object, you can also create a legend using the scripted symbols in a map layout for printing. Simply create a multi-object legend, add the appropriate element type for that object, and the scripted legend samples appear automatically in the legend. The color plate entitled Geologic Map of the Granite Gulch Study Area, Inyo County, California includes a multi-object legend identifying numerous structural symbols rendered by CartoScript.

You can use several variables in your CartoScripts to execute special drawing instructions when any legend sample is drawn or just when a sidebar legend sample is drawn. Use these instructions to properly scale the symbol to the legend sample rectangle. For more information see the tutorial booklet Using CartoScripts.

To create a legend sample for an element styled by a script:

1. Make sure the element type is selectable in the View window.
2. Turn on the Select tool on the View window.
3. In the View, mark an element that has the desired CartoScript style.
4. In the Display Manager or View sidebar legend, right-click on the layer name and choose Add Active [element] to Legend from the menu (where “element” is the current element type).
5. Enter the legend label text into the pop-up Prompt window and press [OK].
6. Repeat for each unique CartoScript style.

Line Sample Styles in Sidebar Legends

Line samples in sidebar legends can be set to draw straight or with a zigzag pattern (the default) for individual vector objects. To do so you use the Legend Style menu on the Lines tabbed panel of the Vector Layer Controls window. This choice is available for all line style options. The Straight legend style option is particularly appropriate for lines with complex symbology rendered by CartoScript, such as the syncline symbols shown above. Multi-object legends in map layouts provide separate control over line sample shape.