# Multi-Object Legends for Map Layouts

Multi-object legends allow you to provide key information about multiple map layers in a single legend in a map layout. The Legend Layer Controls window (opened from the Add Legend icon button in the Display Manager) provides a graphical legend design canvas that lets you add layer legends and text, manually reposition legend entries and text, change the legend sample size and label text, and add horizontal and vertical guidelines to align legends and create multiple columns. Multi-object legends are stored automatically as part of the layout when you save it.

## Legend Layer Controls Window

The Legend Layer Controls window includes two tabbed panels, Layout and Frame. The Layout panel includes the legend design canvas and a toolbar with icon buttons to *Add from Layer* (add a layer legend), *Add Text* (to add legend headings), and *Edit Text Style*. The Frame panel provides controls for adding an optional border, background fill color, and drop shadow.
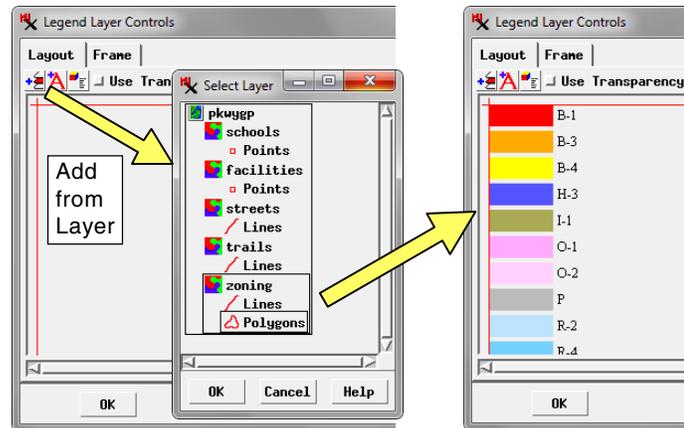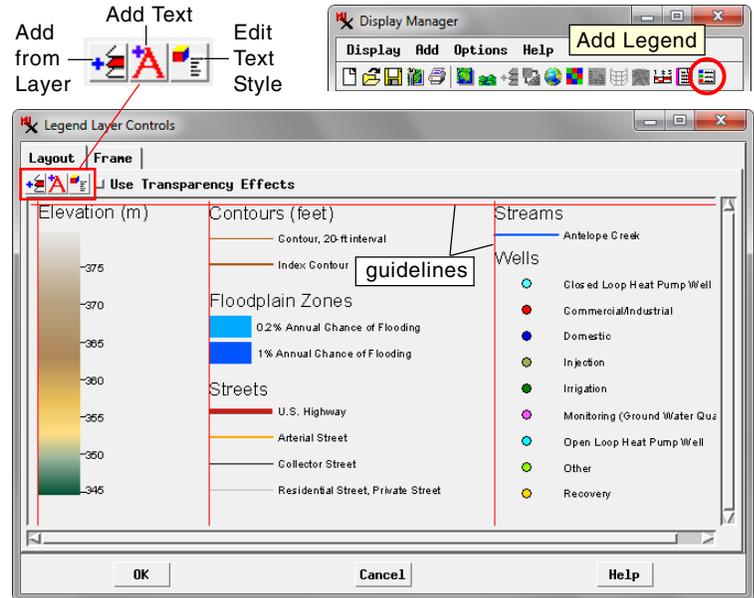


Pressing the Add from Layer icon button opens a Select Layer window which lists the layers in the layout. Left-click to choose an object and, for vector layers, an element type, then press the OK button to add the legend to the design canvas.

## Add from Layer

To add a legend to the design canvas, press the *Add from Layer* icon button, which opens the Select Layer window (illustrated above). This window presents a graphic list of the spatial objects in the layout, including the element types for vector layers. You can add vector element legends and raster legends to a multi-object legend. Left-click on the object/element type you wish to add and press the OK button. The legend is added to the design canvas and is automatically snapped to the default guidelines (red) at the left and top edges of the canvas. For raster layers the legend type you have specified in the Raster Layer Controls window (and shown in the View sidebar legend) is automatically used in the multi-object legend (see the Technical Guide entitled *Legend Types for Raster Layers*).

## Changing the Order of Legend Entries

You can change the order of vector legend entries in the design canvas by left-clicking and dragging the entry up or down in the sequence (see illustration below). Space is automatically made at the new location and the gap at the former position of the entry is automatically closed up. You can select and move more than one entry at a time. To select a range of legend entries hold down the Shift key while selecting the top and bottom items. Press the Ctrl key while left-clicking to select a discontinuous set of items.
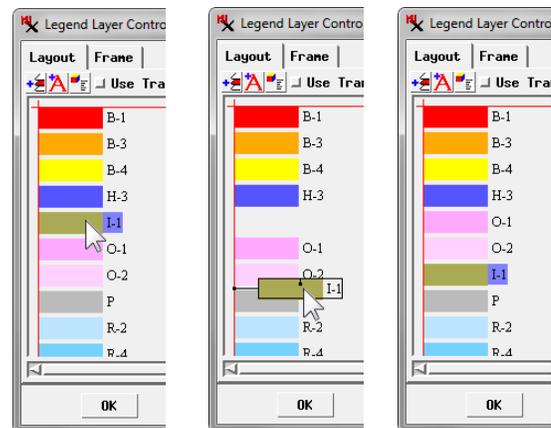


Left-click and drag legend entries up or down to change the order.

## Legend Entry Properties

You can change the legend labels, the size of the samples, and spacing settings using the Properties window. To change the properties for one or more legend entries you have selected, right-click in the design canvas and choose Properties from the popup menu. Use the *Units* menu in this window to choose the units to use for the offset, spacing, and size settings: the choices are Points, Inches, and Millimeters.

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A legend entry is positioned vertically relative to the entry above it (or to a horizontal guideline for the top entry); it is positioned horizontally relative to the vertical guideline to its left. The exact relative positioning is governed by the values in the fields in the *Offset* section of the Properties window. The value in the *Top* field sets the offset between an entry and the one above it; the *Left* field sets an offset between the entry and the guideline to the left.
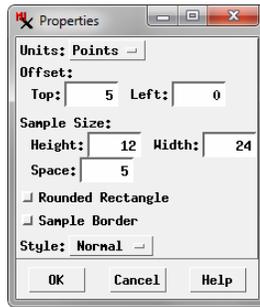
Use the *Height* and *Width* fields to set the size of the legend sample area. The value in the *Space* field sets the spacing between the legend sample and its label. For polygon legends you can turn on the *Rounded Rectangle* toggle to draw the sample with rounded corners, and the *Sample Border* toggle to draw a black border around the rectangle. For line legend entries you can choose to draw a zig-zag line sample rather than a straight line sample. You can set these size and spacing parameters at once for all entries in a legend by selecting all of the entries before opening the Properties window.

When you open the Properties window with only a single entry selected, a pane at the bottom of the window shows the default legend label and allows you to edit the text. You can add and delete text and use the provided icon buttons to cut, copy, and paste text. The *Find* icon button opens a separate window in which you can enter search text to find within a long legend label. The *Style* menu button lets you choose a text style to apply to the entire label (see below). You can use formatting codes to set special formatting for specific portions of the text (see the QuickGuide entitled *Text Style Formatting Codes*).

Cut Copy Paste Find
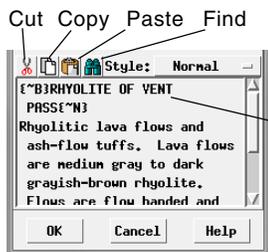
You can use formatting codes to apply special formatting to portions of a legend label.

kt  **Ash-flow tuff** - Light gray to pink to brownish-gray, nonwelded to moderately welded, devitrified, pumiceous and lithic-rich ash-flow tuff.

vp  RHYOLITE OF VENT PASS
Rhyolitic lava flows and ash-flow tuffs. Lava flows are medium gray to dark grayish-brown rhyolite. Flows are flow banded and locally vitric. Ash-flow tuffs are light greenish gray to dark purplish brown, nonwelded, massive, and locally bedded.

Transparency values you have set for element colors (*e.g.*, for polygon fill colors) are not applied automatically when a multi-object legend is drawn in the layout. To apply these transparency values, turn on the *Use Transparency Effects* toggle above the legend design canvas.

## Guidelines

When you move legend items in the design canvas, they snap to the closest guideline when you stop dragging (unless you have not placed them close enough to the guideline). The right mouse-button menu for the legend design canvas provides entries that allow you to add vertical and horizontal guides to the canvas. Once you have added a guideline, you can click and drag the line to reposition it. You can use vertical guides to create a legend with multiple columns, with the legend(s) in each column aligned to the guideline to their left. A vertical guide to the right of a legend also establishes the text block width of the legend labels; this width is used to control word wrap, centering, and text justification for the labels.
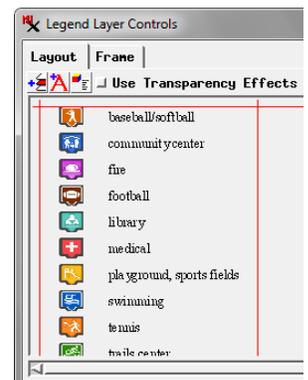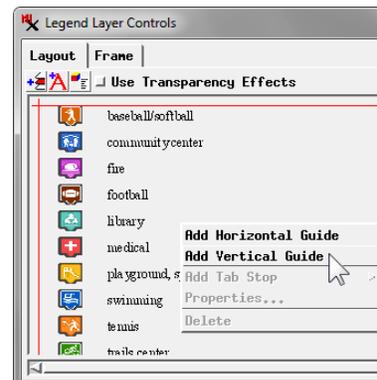
## Text and Text Styles

Two text style names are predefined for legends: Normal and Heading. The Normal style is the default choice for legend sample labels and by default has a smaller text size than the Heading style. To add text for legend headings, press the Add Text icon button. A Properties window opens (with the Style menu button set to Heading) allowing you to enter the desired text. You can reposition headings in the design canvas just as you do legend entries.

New Style  Delete  Rename
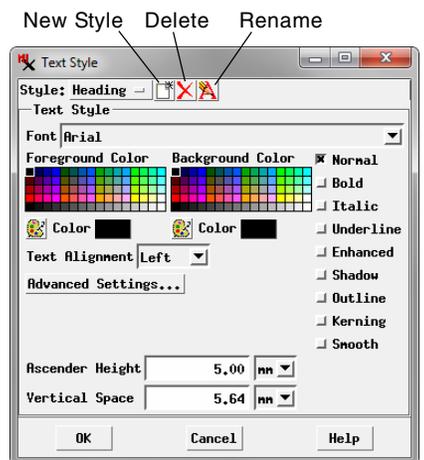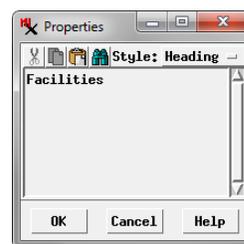
You can modify the default text styles and add additional styles by pressing the Edit Styles icon button, which opens the Text Style window. Use the Style menu button at the top to choose a text style to edit. Press the New Style icon button to create and name a new text style. For information on the Text Style controls, see the TechGuide entitled *Setting Text Styles.*

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## Frame Options

The Frame panel provides toggles for adding an optional border, background fill color, and drop shadow to the multi-object legend. Turning on the *Fill Background* toggle provides a colored background for the legend, the *Draw Border* option encloses it in a border line, and the *Draw Drop Shadow* option creates a drop-shadow effect. Press the color button to the right of a toggle option to open a Choose Color window to set the color to use for that element. For a legend border you can enter a value in the Thickness field to set the border thickness. The controls for the drop shadow include a Distance field to set the separation between the legend edge and the outside edge of the drop shadow, and angle controls. You can drag the marker in the angle graphic to set the direction of offset of the drop shadow or enter a value in the Angle field (0 to 360 degrees measured counter-clockwise from the positive x-axis). The selection on the Units menu button sets the distance units used for the border thickness and the drop shadow distance.