

Line Pattern Editor

Use the Line Pattern Editor to create or edit patterns to use in styling lines and polygon borders in vector, CAD, or shape objects. A line pattern can be made up of one or several parallel lines that lie beside or on top of each other. These pattern elements can be solid, dashed, or made up of repeating circles (dotted line). You can also add repeating perpendicular crossing lines to the pattern. Different colors and dimensions can be set for each of the elements in the pattern. A *variable* color option can be set for any line pattern element instead of a specific color. The variable color is assigned in the Style Editor window when the pattern is selected for use. A single line pattern can thus be used to represent several geometric element types in a specific application simply by changing the variable color in the Style Editor.

Standard icon buttons in the top left corner of the Line Pattern Editor let you create a New pattern, Open an existing pattern, Save the current pattern, or Save As to save with a different pattern name. Use the Add Solid Line, Add Dashed Line, Add Circle (outline), Add Circle (filled), and Add Crossing Line icon buttons to add elements to the pattern. Each pattern element is shown in the list in the Pattern Elements box. Use the controls in the Colors box to set the color for each pattern element. The Preview box shows a preview of the pattern.

Pattern Elements List and Settings

Each pattern element you add is shown as a row in the Pattern Elements list. Pattern elements are drawn in the order shown: elements higher in the list are drawn after elements lower in the list. Left-clicking on an entry in the list highlights it; you can then use the Lower and Raise icon buttons to move the entry up or down in the list. The Delete Element icon button deletes the highlighted pattern element. The Undo icon button removes the last pattern element added.

The Type column shows the element type (e.g. Solid Line, Dashed Line), while the Color column shows the color assigned to the element (or “Variable” for the variable color). The unit used for the values shown in the remaining columns is selected on the Units menu at the top of the window.

Enter a value in the Thickness column to set the thickness of the solid or dashed pattern element, crossing line, or outline of the repeating circle. Because solid and dashed pattern elements are drawn parallel to the geometric line element, the thickness value sets the “line width” of the solid or dashed pattern elements (width perpendicular to the trend of the line element in the geometric object being rendered).

Enter a positive or negative value in the Offset column to offset the pattern element from the center of the line. In the

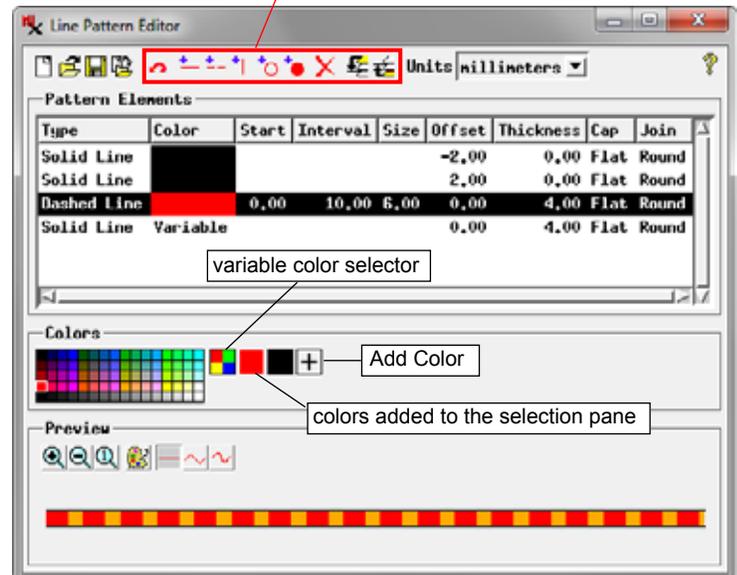
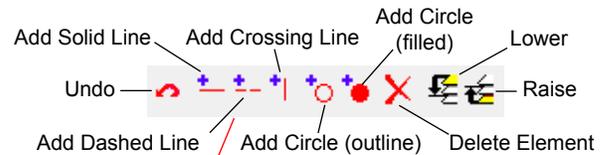
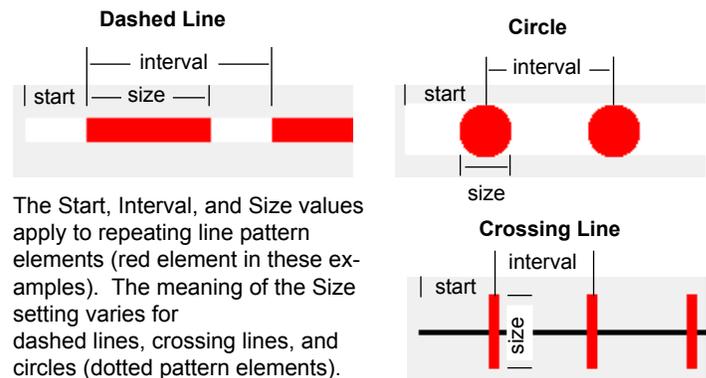


illustration above, a pair of thin solid line pattern elements are used to bound thicker solid and dashed pattern elements. Each of these thin elements is offset half of the width of the thicker elements, with one offset value positive and the other negative.



The values in the Start, Interval, and Size columns apply to repeating pattern elements: dashed line, crossing line, and circle (see illustration above). The Start distance sets the distance from the start of the line to the beginning of the first repeating pattern element. The Interval value is the distance between the starting ends of successive dashes or between the centers of circles and crossing elements. The meaning of the Size parameter varies. For dashed lines it is the length of the dashes. For crossing lines it is the length of the crossing line (perpendicular to the line element in the geometric object being rendered). For repeating circles the Size is the diameter of the circle.

(continued)

The Cap and Join columns set rendering options for the pattern elements. Left-click in either column to pop up a menu showing the option for the column. The Cap menu setting governs how the ends of pattern elements and subelements (solid lines, dashes, and crossing lines) are drawn. The choices are Flat (flat right-angle termination) and Round (rounded termination); see illustration below. Rounded terminations are added to the specified size of dashes and crossing lines; this has the effect of reducing the visible spacing between dashes.



The options on the Join menu set how the outside edges of solid and dashed pattern elements are rendered at line vertices where the geometric line changes direction (see illustration above). The Miter option produces sharp corners; the edges of the two line segments converge to a single point. The Round option produces rounded corners at the vertices, while the Bevel option terminates the edges of the two line segments in a straight line parallel to the average direction of the line segments.

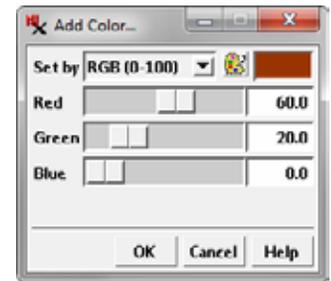
Colors Box

Colors for the pattern elements you have added are selected using the controls in the Colors box. The controls include a color palette and the icon for the Variable color. To choose a fixed color for the pattern element currently selected in the list, left-click on a color tile in the palette. A sample for the chosen color is added to the pane to the right of the palette. You can click on this sample or the corresponding palette tile to assign this color to additional elements. To assign the variable color to the selected pattern element, left-click on the Variable icon button.

You can choose a different color palette by right-clicking on the palette, which opens the Select Palette window. This window shows a graphic list of the available discrete color

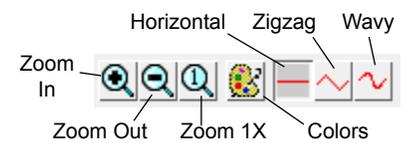
palettes. Left-click on the desired palette in the list and press the OK button to show this palette in the Line Pattern Editor.

You can use a color not in the provided palette by pressing the Add Color icon button, which opens the Add Color window. The Set by menu in this window determines the type of controls that are shown. The menu provides a choice of color models that you can use for specifying the color, including RGB (0-100), RGB (0-255), HIS, and others. Adjust the color sliders or enter values in the numeric fields and press OK to set the custom color, which is then shown as a sample in the Colors box.



Preview Box

The Preview box provides a preview of the line pattern so you can assess the result and adjust settings if needed. Icon buttons on the right side of the button row in the box let you switch the preview between Horizontal (straight), Zigzag, and Wavy renderings so you can assess how the pattern will look with different line geometries. Standard icon buttons let you zoom the preview in or out. The Colors icon button opens a standard Select Colors window that allows you to select a color for the preview background and change the current Variable color.



Pattern Preview Options

