

Directional Analysis

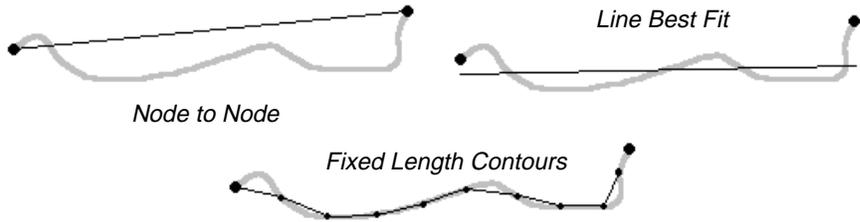
A new Directional Analysis process (Interpret/Vector/Directional Analysis) analyzes lines in an input vector object for directional qualities. The process works in a "select by orientation" fashion, and highlights lines for viewing, or copies them to an output vector object based upon the line directional properties you specify.

In this version of the process you can set orientation selection parameters either by entering values explicitly, or by clicking on directions in the accompanying Rose Diagram. The Rose Diagram window is logically a 180 degree arc that displays line orientation statistics in a centrally symmetric 360 degree presentation.

The process lets you set a Deviation value so that lines whose orientation is "close enough" to the selection orientation are also included. You can also adjust a Minimum Length value to exclude very short lines from analysis and processing.

The Rose diagram can display statistics for a number of directional prop-

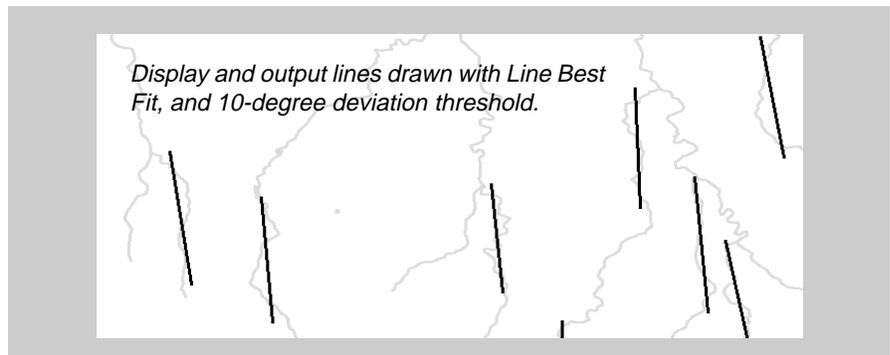
The statistics used to generate the rose diagram can be computed from a variety of directional properties in the input lines.



erties of the input lines: Node to Node, Line Best Fit, Line Segments, Weighted Segments, Average Length, Angle Deviation, and Fixed Length Contours.

Direction Analysis, which is also called "Lineament Analysis", is used

in a variety of applications. Geologists use directional analysis for fault line and fracture system analysis, and for many innovative topographic and lithographic analysis operations. The supplemental documentation for this process lists some recent technical papers for further study.



Lines selected that have an orientation of 20 degrees from North. Selection parameters allow 10 degrees of deviation, and a minimum line length of zero (0).

The rose diagram window shows line orientation statistics with a 180 degree arc displayed in a centrally symmetric 360 degree presentation. The 20 degree orientation has been selected.

