Sen's Slope Estimate (Series Data)

The BoltSize.LAZ file is used to illustrate this procedure. The purpose is to estimate the slope from one time period to another time period for a series of data over equal intervals of time. The optional plot provides a graphical representation of the slopes obtained. One can often visually spot non-random patterns in the data and cyclic trends.
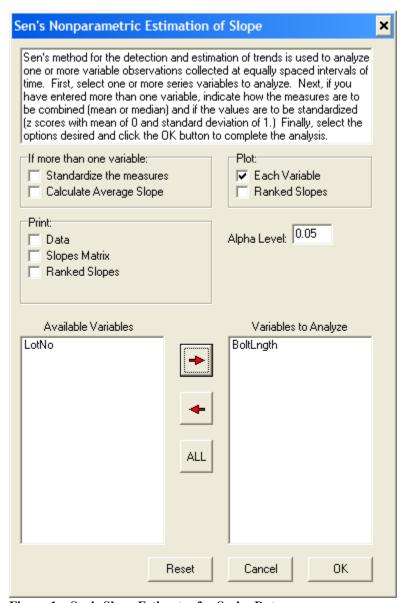

Figure 1.   Sen's Slope Estimates for Series Data
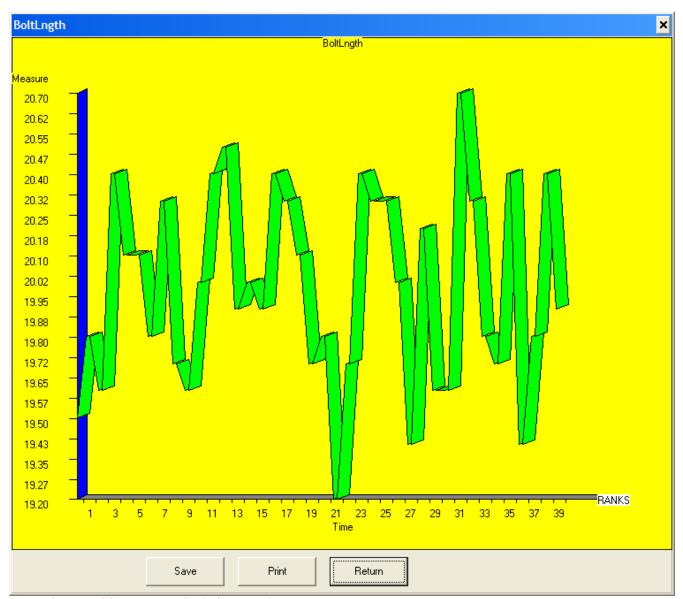
Figure 2. Plot of Slopes From Sen's Slope Estimates

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SEN'S DETECTION AND ESTIMATION OF TRENDS
Number of data points = 40, Confidence Interval = 0.97

Results for BoltLngth
Median Slope for 780 values =     0.000
Mann-Kendall Variance statistic = 7275.667 (9 ties observed)
Ranks of the lower and upper confidence = ( 306.410, 474.590)
Corresponding lower and upper slopes = (  -0.010,   0.011)
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