

TRELLIS DISPLAY: A FRAMEWORK FOR DISPLAYING  
MULTIVARIABLE DATA

William S. Cleveland, Bell Labs, USA

Trellis display is a framework for the visualization of data. Its most prominent aspect is an overall visual design, reminiscent of a garden trelliswork, in which panels are laid out into rows, columns, and pages. On each panel of the trellis, a subset of the data is graphed by a display method such as a scatterplot, curve plot, boxplot, 3-D wireframe, normal quantile plot, or dot plot. Each panel shows the relationship of certain variables conditional on the values of other variables. A number of display methods employed in the visual design of Trellis display enable it to succeed in uncovering the structure of data even when the structure is quite complicated. For example, Trellis display provides a powerful mechanism for understanding interactions in studies of how a response depends on explanatory variables. <http://cm.bell-labs.com/stat/project/trellis> has more information.