Cross Section

The *Cross Section* function in *Vertical Mapper* is designed to generate a query of grid values along a line or polyline constructed in a MapInfo Map window. The values are displayed as a X,Y line plot in a *Vertical Mapper* Graph window. The line of cross section may be constructed in one of two ways and each method requires a different approach to using the function. For an instructional lesson on creating *Cross Sections* refer to Lesson 6 of the *Installation and Tutorials* manual.

1. Create the line of cross section on an editable layer in a Map window using MapInfo's line or polyline tool, or select existing line work; and,


1. From the drop-down menu, select the *Cross Section* command.

Or

The user may select the tool from the *Vertical Mapper* ButtonPad and, using the cross section pointer, construct a profile line directly on the grid image. Double click to end the line.

Regardless of the way the Cross Section tool is initiated the result is the same. Below is a Graph window which contains a plot of Z-values versus horizontal distance, a legend, and a horizontal distance chart.
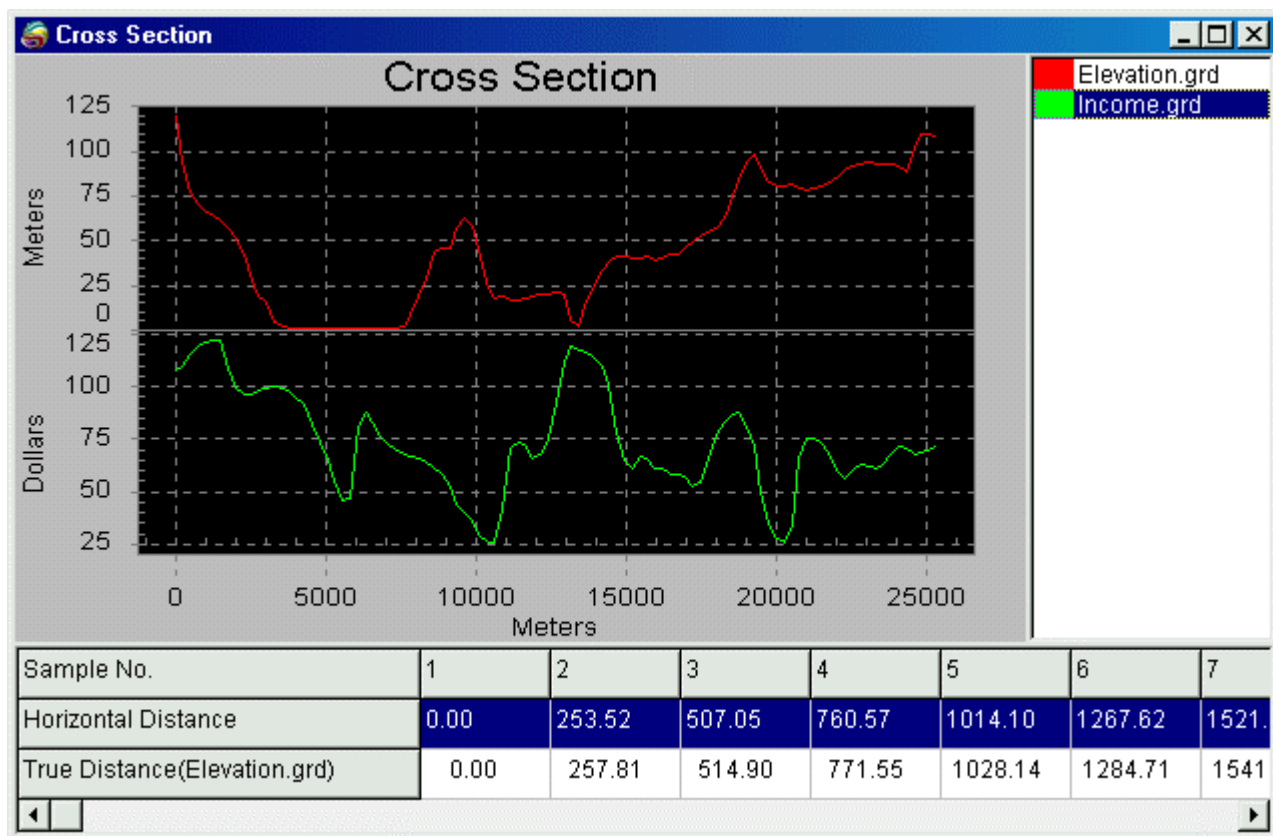
The Graph window is unique to *Vertical Mapper* and contains a number of settings that control display and handling of the graph and legend. These are described in detail in Chapter 8.

> *Note:* The *Graph Window* will show separate plots for all spatially coincident active grids open in the *Grid Manager* when grids with different grid units are encountered. The Graph window has a limitation of six different graphs, however, there is no limit to the number grids that can be plotted in the same graph.

The *Distance Chart* located at the bottom of the Graph window displays three categories of information: the sample number, the horizontal distance, and the true horizontal distance.

- The *Sample No.* identifies each sample taken from the grid(s) along the transect line that was selected or drawn with the *Cross Section* tool. The number of samples is defined by the *Cross Section Samples* setting found in the *Preferences* dialogue.

- The ***Horizontal Distance*** is the "crow fly" distance from the beginning point of the transect line to the indicated sample.

- The ***True Distance*** is the ground or "overland" distance from the beginning point of the transect line to the indicated sample.

Note: The X-axis units can be modified through the *Preferences* dialogue, see Chapter 15.