Region Inspection

Like *Point Inspection*, the *Region Inspection* command in *Vertical Mapper* is designed to update a MapInfo table of regions with new column(s) of values taken from one or more geographically coincident grid file(s). The process inspects the grid file underlying each region, returns a selected number of statistical parameters calculated from the range of grid values lying within each region, and writes the value to a new column in the region table. For an instructional lesson on *Region Inspection* refer to Lesson 13 of the *Installation and Tutorials* manual.

1 In order to begin the *Region Inspection* command, a MapInfo table of region data must be open. In addition, the grid file(s) from which the information is to be extracted must be open. Note that values from ALL open and geographically coincident grids will be added as new columns to the

region table, assuming that the **1** box in the *Grid Manager* has been checked for each grid file.

• From the Grop-down menu, select the *Region Inspection* command.

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Table to Update:		r Al L active gride:
LandCover	Minimum Value	Maximum Value
	V Mean Value	Median Value
	Number of Cells	🗖 Range Value
	Coefficent of Variation	🕞 Standard Deviation
	🗖 Volume	🗖 Sum of Nodes
	Percentage of Region	with no Grid value
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- From the *Region Inspection* dialogue box, select the appropriate region *Table to Update*. From the available list, select all of the statistical parameters to be calculated for each region and written into the region table.
- Each statistical parameter calculated for each open and active grid is written into a separate column of the region table and given a default column name made up of a combination of the parameter name and the grid file name.

Note: It is important to understand the manner in which *Vertical Mapper* calculates area using grids. Every grid file is constructed of cells of equal area, as determined from the unique coordinate system specifications to which the grid has been projected. However, a grid in any coordinate system is only truly accurate, in terms of real spherical (ground) distance, along the line of standard parallel(s). Therefore, as you move farther away from the standard parallel(s), the actual ground area of a grid cell becomes less accurate (usually it is bigger than its real spherical area). While in most cases the error will not be significant, if area is important, you have of two options to minimize for this error:

1.	1. Ensure that the grid is always projected to an appropriate coordinate system that is	
	relevant to the geographic region of interest; or	
2.	Using the Vertical Mapper region contour function, convert the grid file covering the	
	area of interest to a MapInfo region and then query the region to obtain MapInfo's	
	spherical-based area calculation.	