To compute hillshade from a surface

1 Activate the grid or TIN theme on which to compute the hillshade in a view or 3D scene.

2 From the Surface menu, choose Compute Hillshade.

3 Enter where the illumination source is in relation to the input grid or TIN theme in the Azimuth type-in box.

4 Enter the slope or angle of the illumination source above the horizon in the Altitude type-in box. Press OK.

5 If the input theme is a TIN, specify the output extent in the Output Grid Extent dropdown list, the cell size in the Output Grid Cell Size Input field, and the number of rows and columns in the Number of Rows and Number of Columns input fields on the Output Grid Specification dialog. Press OK.

Compute Hillshade is used to determine the hypothetical illumination of a surface as part of an analysis step or for graphical display. For analysis, Compute Hillshade can be used to determine the length of time and intensity of the sun in a given location. For a graphical display, Compute Hillshade can greatly enhance the relief of a surface when the output is used as the brightness theme for the display of another grid theme. This can be done with the Advanced button in the Legend Editor.

Various features in the input grid or TIN theme can be accentuated, and different effects achieved, by altering the azimuth and altitude parameters. The azimuth is expressed in positive degrees from 0 to 360, measured clockwise from north. The altitude is expressed in positive degrees, with 0 degrees at the horizon and 90 degrees directly overhead.

The output grid theme from Compute Hillshade is automatically named "Hillshade of" followed by the name of the input theme. The grid data set associated with the output theme is written to the project's working directory, with the name "hlshd" followed by a unique number. Use Properties in the Theme menu to find out which data set is associated with which theme. Use Properties in the Project menu to change the project's working directory. The grid data set associated with the output theme is temporary and will be deleted when the theme is deleted. Use Save Data Set in the Theme menu or save the project to prevent the grid data set from being deleted when the theme is deleted.