

Rendering Terrain with Horizontal Hachures

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Horizontal hachures are form lines of equal elevation that can provide a textured oblique hill-shading effect to terrain maps. Imhof (1982) differentiates horizontal hachures from contours in three manners. First, horizontal hachures are “more compactly and evenly arranged” than contours. Second, “no exact elevation value is assigned to the individual hachure line.” By contrast, elevation contours are generally drawn at specific elevation values, separate by a constant contour interval, and labeled intermittently with the elevation value. Finally, “the thickness of the [horizontal hachure] lines is not constant, usually following the principle of oblique lighting.” Imhof (1982) also proposes the use of an extremely fine stroke pattern of horizontal hachures to supplement contours. This paper looks at ways to create horizontal hachures from closely space contour lines. Results can provide a textured hill-shading effect for non-illuminated areas, create more continuous horizontal hachures for both illuminated and non-illuminated terrain, or be used to supplement contours for highlighting both form and shading of terrain.

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