
Subject: PV-WAVE: shade_surf question

Posted by [Todd M. Kulick](#) on Tue, 13 Jul 1993 21:52:27 GMT

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My goal is to render shaded surface images of actual landscapes. I have elevation and color data (LANDSAT). The color data is 24-bit (RGB) color data. I am trying to use the 'shade_surf' procedure with the 'shades=' option to accomplish my goal. I best-fit the 24-bit color data so that my 'shades' data is of N colors, not $256^{**}3$. It is my understanding that the 'shade_surf' procedure will only take byte arrays for the 'shades=' option. If anyone knows of a neat (or even non-neat) way of overlaying 24-bit color data onto my elevation data I would be very interested. Still, this is not my only problem. Even once I concede to best-color-fit my data (which is fine since I may end up displaying the final image on a PsuedoColor device anyway) I cannot achieve my goals. :(

The procedure does some form of Gourad shading. It seems that if two adjacent points are shaded with colormap indices '1' and '10' then any internal interpolated points do use colormap indices '2' through '9'. This is not appropriate for my circumstances. Since I have a full color image that has been best-fit to $N(\leq 256)$ colormap entries the adjacency of colormap entries has no real meaning. What I get is two points that are light green and dark green with orange, purple and white in between them. Obviously the resultant image is not a good representation of the actual landscape. Again, I request help from any of you netters who might know either how PVWAVE is actually shading my images or how I might convince it to do what I want.

Pertinent statistics:

I work on Sun Sparc 10s and/or Decstations running SunOS 4.1.3 and/or Ultrix 4.2. PV WAVE version is 4.00. All replies to me please; I will post a summary if requested.

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kulick+@cmu.edu | `She had a sorrowful, happy-type of frowning smile . . .'
| -- Satan and Adam (Down Home Blues)
