Subject: Hough transform help
Posted by mperrin+news on Sat, 17 Aug 2002 04:18:02 GMT
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I'm attempting to use the new HOUGH function in IDL 5.5 to detect linear features in an image. However, I don't understand the scaling it applies to its results.

I have a 256x256 floating-point image. I am doing this:
```
 edge_enh = sobel(image)
 h = hough(edge_enh,/gray,rho=rho,theta=theta)
```

and it very nicely detects the lines in the image as bright points in the Hough transform. However, I want to extract the slopes and intercepts of those lines (in standard y=mx+b format). Well, that should be easy given rho and theta for each line - except that the rho which is being returned ranges from -181 to 181. Negative values don't make any sense to me, particularly given that my image looks something like

..all of which are clearly to the right of the origin and thus should have positive rho. It's getting the thetas perfectly correct as far as I can tell.

Does anyone have any better explanation of the way that Hough calculates the rho values? I can provide more details if it's useful, but as I've never used Hough transforms before I assume there's just something I'm misinterpreting.

- Marshall