Subject: Irregular grid -> 2D binned
Posted by will[1] on Sat, 22 Jul 2006 03:27:26 GMT
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I've sucked it up, I think I need a push in the right direction.
Imagine that I have a long (~6 million points) list of data that
includes three fields: latitude, longitude, abundance. The lats and
lons are all over the place (i.e. no regular grid) and I'd like to bin
them into an image. Additionally I'd like to average abundance of each
bin to be the color for the image.

I can use the reverse indices keword in histogram. I can even use mean
pretty well. I can get a binned histogram using histo_2D. But I'm
having a hard time thinking about how to go from the reverse indices of
histogram to the histo_2D case which doesn't offer the same keyword.
The only way I can think of to do this is to:

a) do a histogram of the latitudes (using RI)
b) do a histogram of the longitudes (using RI)
c) find the intersection of indices for each bin that I want
d) "flatten" the lat, lon, indices/abund cube with matrix
multiplication

It's the "c" part I'm sketched out on, my brain's can't think around
anything but a very evil Loop.

Has this really easy or been answered here before? (Array decimation
was the closest thing I found).

Thanks in advance!