Subject: Re: I need some histogram magic - gridding very large dataset
Posted by rjp23 on Thu, 02 May 2013 09:45:52 GMT

Ok, after re-reading the tutorial I'm getting closer.

```
histogram = HIST_ND(TRANSPOSE([[lon],[lat]]), $
        [1,1], MIN=[-180, -90], $
        MAX=[180, 90],REVERSE_INDICES=ri)

grid_mean=fltarr(361, 181)
grid_mean[*]=!values.f_nan

FOR i=0L,N_ELEMENTS(histogram)-1 DO IF(histogram[i] GT 0) THEN $
        grid_mean[i] = mean(data[ri[ri[i]:(ri[i+1]-1)]])
```

The only thing that's let me a bit confused is why does hist_nd return a (361, 181) array? Isn't that 1 element too large in both direction? If the min and max is -180 and 180, that's 361 values but the bins range between those values e.g. -180 to -179, -179 to -178..., 179 to 180 so there should only be 360 bins (which is what I want).

Or is min/max defined differently? Is max the lower bound of the final bin, so the actual maximum value is max+binsize?