
Subject: I need some histogram magic - gridding very large dataset

Posted by [rjp23](#) on Thu, 02 May 2013 09:02:48 GMT

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I'm fairly sure this can be done using HISTOGRAM but I can't figure out how.

I have some global (irregularly spaced) satellite data which I want to average into 2 degree lat/lon boxes.

Previously my dataset was only 10,000 or so elements large so I just looped over the lat and lon and used WHERE to find all the data values in the grid box and then averaged them.

Something along these lines:

```
FOR j=0, n_lon-1 DO BEGIN
```

```
FOR k=0, n_lat-1 DO BEGIN
```

```
    lon= lon_min + j * lon_grid
```

```
    lat= lat_min + k * lat_grid
```

```
    temp=where(data_lon GE lon AND data_lon LT lon + lon_grid AND data_lat GE lat AND  
data_lat LT lat + lat_grid)
```

```
    mean_data[i,j]=mean(data[temp])
```

```
ENDFOR
```

```
ENDFOR
```

This worked fine but now I have a dataset with upwards of 20 million datapoints and this way is taking far too long.

Any HISTOMAGIC suitable for this one?
