Subject: 3-D positions
Posted by panblosky on Fri, 29 Apr 2005 18:24:15 GMT
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Hi, I have the following problem. I have a 3xn array, where n can go from 32000 to 16.000.000. This array represents positions in space, or just lets say x,y,z. The numbers go from 0 to 1. I have a cube of sides 1. I divide that cube into a 3-D grid, where my gridsize can go from 32 to 512 in every direction (depends on how big I want the grid). So, in 1-D, the box is going to be divided in:

lon=findgen(n0)/float(n0-1)*float(boxsize)/boxsize

where n0 is the size of the grid (for example, 128) and boxsize is 1. The same thing goes for the other two dimensions.
Now, I want to find what points (x,y,z) lies in which gridcell (between lon[i+1] and lon[i] in every direction).
If I do it with a for loop (together with a where), it will take for ever. I have tried sorting, but I just can't get it right. Does somebody knows a fast way?
Thanks,

Pablo