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Subject: Re: How to represent the spatial distribution of a parameter

Posted by [Jeremy Bailin](#) on Thu, 11 Dec 2008 15:36:17 GMT

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On Dec 11, 10:34 am, Jeremy Bailin <astroco...@gmail.com> wrote:

> On Dec 10, 8:05 am, "Jean H." <jghas...@DELTHIS.ucalgary.ANDTHIS.ca>

> wrote:

>

>

>

>> Hi,

>

>> I did something similar a while ago... here is part of it:

>

>> newX = Xdata / CellSizeX ;Agregate the data

>> newY = Ydata / CellSizeY

>

>> nbCol = ceil((maxX+1.0) / cellSizeX)

>> nbRow = ceil((maxY+1.0) / cellSizeY)

>> nPoint = n\_elements(newX)

>

>> image = lonarr(nbCol, nbRow)

>> nbPointsXY = lonarr(nbCol, nbRow)

>

>> for i = 0L, nPoint-1 do begin

>>     image[newX[i], newY[i]] += v[i]

>>     nbPointsXY[newX[i], newY[i]] += 1

>> endfor

>

>> image /= nbPointsXY ;do the average

>

>> tvscl, image

>

>> Jean

>

> If there are on average lots of points per grid cell, it would be more

> efficient to use the reverse indices in David's HIST\_ND:

>

> histimage = hist\_nd(transpose([X],[Y]), [binX,binY], \$

> min=[minX,minY], max=[maxX,maxY], reverse\_indices=hiri)

> meanimage = fltarr(size(histimage,/dimen))

> for i=0L,n\_elements(histimage)-1 do if histimage[i] gt 0 then \$

>     meanimage[i] = mean(V[hiri[hiri[i]:hiri[i+1]-1]])

>

> If performance is still a serious issue, you should go

read[http://www.dfanning.com/code\\_tips/drizzling.html](http://www.dfanning.com/code_tips/drizzling.html)(it's effectively the

> same thing - you just need to divide by histimage at the end). In

> fact, go read it anyway - it's very illuminating. :-)=

>  
> -Jeremy.

...although, to answer the original poster's question, I'd agree with  
Giorgio - your easiest option is probably to use GRIDDATA.

-Jeremy.

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