
Subject: Re: finding array subscripts of minimum value of 3 dim. fltarr

Posted by [davidf](#) on Wed, 09 Sep 1998 07:00:00 GMT

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Jens Redemann (redemann@cisk.atmos.ucla.edu) writes:

- > can anybody key me in on the most efficient way of finding
- > the subscripts of the minimum value of a three-dimensional float
- > array?
- > What is the exact numbering convention behind the single-subscript
- > that the min(array) function returns?
- > Hope this is not too trivial of a question.

You can find out how to convert WHERE function output to
2D and 3D array subscripts in this article on my web page:

http://www.dfanning.com/tips/where_to_2d.html

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: finding array subscripts of minimum value of 3 dim. fltarr

Posted by [Jonas](#) on Thu, 10 Sep 1998 07:00:00 GMT

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Jens Redemann skrev i meddelandet <35F6EF28.699D@cisk.atmos.ucla.edu>...

- > Hi everybody,
- >
- > can anybody key me in on the most efficient way of finding
- > the subscripts of the minimum value of a three-dimensional float
- > array?
- > What is the exact numbering convention behind the single-subscript
- > that the min(array) function returns?
- > Hope this is not too trivial of a question.
- >
- > Thanks in advance,
- >
- > Jens

Hi jens

Here's a few rows of code to find out the position of the minimum absolute value of a complex 3D array called compl_kspace_vol. Hope it helps (and that it is correct). Note that you have to use data types that can handle numbers as large as "minpos" everywhere (almost) in order to get the mods and divisions right.

Sincerely

Jonas

```
print, 'finding min'
mincompl=min(abs(compl_kspace_vol), minpos)
print, 'minimum value of 3D matrix:', mincompl
print, minpos
XYpos=minpos mod (long(xsize)*long(ysize))
Zpos = minpos/(long(xsize)*long(ysize))
Xpos = xypos mod xsize
Ypos = xypos/xsize
print, 'Position of minimum value:'
print, 'xpos=', xpos
print, 'ypos=', ypos
print, 'slice=', zpos
```
