
Subject: Re: Subscripting multidimensional arrays
Posted by [Chris Lee](#) on Fri, 12 Dec 2003 14:55:16 GMT
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In article <nwfCb.37807\$SU2.20541@newssvr29.news.prodigy.com>, "Jonathan Greenberg" <greenberg@ucdavis.edu> wrote:

```
> Hi all -- I was hoping to get some help with converting a vector which
> contains the x,y,z position for a value I want to extract from a
> multidimensional array -- I understand that using an array to subscript
> another array requires knowing the linear subscript position. For
> example: a =   0   10   20
>              30   40   50
>              60   70   80
>
>              90  100  110
>              120  130  140
>              150  160  170
> I have a vector which is defined as:
> locationvector=[2,2,2]
> I want to extract the value at that position (e.g. a[2,2,2] = 170), but
> I can't do a:
> a[locationvector] --> I apparently have to convert the locationvector to
> that linear position. How do I do this? Does IDL have a built in
> function that will do this conversion, or is there an easy formula for
> doing this conversion in ANY dimension? Thanks! --j
>
```

```
function element, array, loc_vector
```

```
s=size(array)
d=s[1:s[0]] ;dimensions
e=lonarr(s[0]) ;product of dimensions
e[0]=1L
for i=1L, s[0]-1 do e[i]=e[i-1]*d[i-1]
;e is the number of elements each dimension contains
return, total(loc_vector*e)
```

```
end
```

```
;;test
a=findgen(4,5,6)
;in this example, e=[1,4,20]

b=[2,3,4]
print, a[2,3,4], a[element(a,b)]
```

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seems to work, there must be a better way though...

Chris.
