
Subject: Re: array manipulation problem
Posted by [Benno Puetz](#) on Wed, 07 Jun 2000 07:00:00 GMT
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Comparing Paul's solution to mine I found a typo in my previous post:

```
> i = REBIN(REFORM(FINDGEN(n),n,1,1),n,n,n)^2 ; x^2
>
> a = i + $                ; x^2
>
>   TRANSPOSE(i,[1,0,2]) + $      ; y^2
>
>   TRANSPOSE(i,[0,2,1])        ; z^2
>
      ^^^^^
```

should read [2,1,0]

--
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Subject: Re: array manipulation problem
Posted by [Paul Hick](#) on Wed, 07 Jun 2000 07:00:00 GMT
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"Martin B. Schmidt" wrote:

```
> How can I assign
> a[i,j,k] = i^2+j^2+k^2  for all i,j,k (i,j,k=0,1,2,...,n-1)
> without using any loop?
```

```
one  = replicate(1.0, n)
index = findgen(n)^2
a = reform( reform( index#one, n*n)#one + reform( one#index, n*n)#one
+ reform( one#one, n*n)#index ,n,n,n)
```

Not particularly pretty, but it should work.

Cheers,
Paul
--

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| _____ |

Subject: Re: array manipulation problem

Posted by [Benno Puetz](#) on Wed, 07 Jun 2000 07:00:00 GMT

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"Martin B. Schmidt" wrote:

> Hi,
>
> Given:
>
> n=500
> a=FltArr(n,n,n)
>
> How can I assign
> a[i,j,k] = i^2+j^2+k^2 for all i,j,k (i,j,k=0,1,2,...,n-1)
> without using any loop?
>
> Any idea?
>
> Martin

n=500

i = REBIN(REFORM(FINDGEN(n),n,1,1),n,n,n)^2 ; x^2

a = i + \$; x^2

TRANSPOSE(i,[1,0,2]) + \$; y^2

TRANSPOSE(i,[0,2,1]) ; z^2

should work if you have enough memory(I only tried n=5, though, since
this allocates two large arrays, not counting temporary allocations)

--

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