
Subject: Re: Vector Calculation Q
Posted by [aspinelli](#) on Tue, 14 Jan 1997 08:00:00 GMT
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handy@gemini.oscs.montana.edu (Brian Handy) wrote:

> Hi,

> I've got a puzzler I'd like to figure out. I want to do
> sort of a "running integral on a vector, e.g. if I'm given

> a = [1, 4, 2, 6, 3, 4, 2, 6]

> Then I can easily do
> for i=0, (size(a))(1)-1
> b(i) = total(a(0:i))

> to get...

> b = [1, 5, 7, 13, 16, 20, 22, 28]

> ...I'd like to do this with a vector instead of the loop.
> Any ideas?

My suggestion is not sensible if you have to compute the thing just one time. If, on the other hand, you perform the computation several times, the following may prove useful:

```
.....  
,,,,,,,,,  
pro init  
.....  
,,,,,,,,,  
common globalkernel, m, n
```

```
n = 8  
m = intarr( n, n )
```

```
for i=0,n-1 do begin  
  for j=i, n-1 do begin  
    m(i,j) = 1  
  endfor  
endfor  
end
```

```
.....  
,,,,,,,,,  
pro compute  
.....  
,,,,,,,,,
```

common globalKernel, m, n

a = [1, 4, 2, 6, 3, 4, 2, 6]

print, a # m

end

```
.....  
,,,,,,,,,  
pro test  
.....  
,,,,,,,,,
```

init
compute

end
.....
,,,,,,,,,,,,,

Well, it reduces to building an upper triangular matrix of all ones in the upper half; maybe there is some better way of initializing it than mine!

I suspect, however, that you are not satisfied with my answer :(

Cheers
Andrea

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"Truth hurts, but pimples much more"
