
Subject: Re: confused multiplying arrays

Posted by [penteado](#) on Thu, 11 Nov 2010 21:33:57 GMT

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On Nov 11, 7:11 pm, Paula <paulartcoe...@gmail.com> wrote:

```
> IDL> help,area,fluxes
> AREA          FLOAT   = Array[2000]
> FLUXES        FLOAT   = Array[2000, 112864]
>
> I want the i-th element in area AREA[i] to multiply all elements in
> the corresponding 2nd dimension in fluxes FLUXES[i,*] and then sum up
> all the 2000 resulting fluxes, i.e., using loop:
>
> for i = 0,1999 do begin
>   TOTAL_FLUX = TOTAL_FLUX + AREA[i]*reform(FLUXES[i,*])
> endfor
>
> i've been trying to figure out (without success) how to compute
> TOTAL_FLUX without the loop using TOTAL(). ideas?
```

If I understand it right, you want total_flux to be a 112864-element array, where each is the sum of all 2000 elements in the corresponding line of fluxes, weighted by area. So, if there is enough memory, it could be done with

```
total_flux=total(rebin(area,100,112864)*fluxes,1)
```

Subject: Re: confused multiplying arrays

Posted by [paulartcoelho](#) on Thu, 11 Nov 2010 21:41:18 GMT

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On Nov 11, 7:33 pm, Paulo Penteado <pp.pente...@gmail.com> wrote:

```
>
> If I understand it right, you want total_flux to be a 112864-element
> array, where each is the sum of all 2000 elements in the corresponding
> line of fluxes, weighted by area.
```

absolutely right.

```
> total_flux=total(rebin(area,100,112864)*fluxes,1)
```

hmmm...

why the '100' in rebin(area,100,112864) ?

p.

Subject: Re: confused multiplying arrays
Posted by [paulartcoelho](#) on Thu, 11 Nov 2010 21:46:58 GMT
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On Nov 11, 7:41 pm, Paula <paulartcoe...@gmail.com> wrote:

```
>> total_flux=total(rebin(area,100,112864)*fluxes,1)
```

```
>
```

```
> hmmm...
```

```
> why the '100' in rebin(area,100,112864) ?
```

thinking about it... it would be then

```
total_flux=total(rebin(area,2000,112864)*fluxes,1)
```

right?

Subject: Re: confused multiplying arrays
Posted by [penteado](#) on Thu, 11 Nov 2010 21:47:50 GMT
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On Nov 11, 7:41 pm, Paula <paulartcoe...@gmail.com> wrote:

```
>> total_flux=total(rebin(area,100,112864)*fluxes,1)
```

```
>
```

```
> hmmm...
```

```
> why the '100' in rebin(area,100,112864) ?
```

```
>
```

```
> p.
```

Because i wrote it wrong. I meant

```
total_flux=total(rebin(area,2000,112864)*fluxes,1)
```

Subject: Re: confused multiplying arrays
Posted by [MC](#) on Fri, 12 Nov 2010 00:49:22 GMT
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On Nov 12, 10:11 am, Paula <paulartcoe...@gmail.com> wrote:

```
> hello,
```

```
>
```

```
> i've got two arrays:
```

```
>
```

```
> IDL> help,area,fluxes
```

```
> AREA          FLOAT    = Array[2000]
```

```
> FLUXES        FLOAT    = Array[2000, 112864]
```

```
>
```

```
> I want the i-th element in area AREA[i] to multiply all elements in
> the corresponding 2nd dimension in fluxes FLUXES[i,*] and then sum up
> all the 2000 resulting fluxes, i.e., using loop:
>
> for i = 0,1999 do begin
>   TOTAL_FLUX = TOTAL_FLUX + AREA[i]*reform(FLUXES[i,*])
> endfor
>
> i've been trying to figure out (without success) how to compute
> TOTAL_FLUX without the loop using TOTAL(). ideas?
>
> thx
> p.
```

Perhaps I've missed something, but isn't it just Area#Fluxes ?

Cheers
