
Subject: Re: another request for help with getting rid of for loops...
Posted by [Benjamin Hornberger](#) on Tue, 15 Aug 2006 14:10:34 GMT
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davede10@gmail.com wrote:

```
> Hi everyone,  
> i read alot about eliminating for loops in idl , and yet i can't get  
> rid of this simple loop .  
> here is what i'm trying to do (multiply each plane in a data cube by a  
> number):  
> any idea?  
>  
> A=fltarr(100,100,10) ;my data cube  
> A(*,*,*)=1.  
> b=findgen(10) ;just a culumn of numbers  
> c=a  
> for i=0.9 do c(*,*,i)=A(*,*,i)*B(i)  
>  
> thanks,  
> david  
>
```

Here is the solution:

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

Keep in mind, however, that once the arrays reach a certain size, your computer might not be able to allocate the memory for the intermediate "blown-up" array any more and the loop is suddenly orders of magnitude faster than the pure array operation.

And as a side note, you should better use [] instead of () for array subscripting. Check the IDL help index for "subscripts" -> "syntax".

Good luck,
Benjamin

Subject: Re: another request for help with getting rid of for loops...
Posted by [Maarten\[1\]](#) on Tue, 15 Aug 2006 14:18:02 GMT
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davede10@gmail.com wrote:

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> rid of this simple loop .  
> here is what i'm trying to do (multiply each plane in a data cube by a  
> number):
```

```
> any idea?
>
> A=fltarr(100,100,10) ;my data cube
> A(*,*,*)=1.
> b=findgen(10) ;just a column of numbers
> c=a
> for i=0.9 do c(*,*,i)=A(*,*,i)*B(i)
```

```
a = findgen(100,100,10)
b = findgen(10)
c = transpose(rebin(b, 10, 100, 100, /sample))
c = a*c
```

(Using findgen makes it easier to verify the result by searching the old and new method for differences).

Maarten

Subject: Re: another request for help with getting rid of for loops...
Posted by [Craig Markwardt](#) on Wed, 16 Aug 2006 05:00:23 GMT
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Benjamin Hornberger <benjamin.hornberger@stonybrook.edu> writes:
> And as a side note, you should better use [] instead of () for array
> subscripting. Check the IDL help index for "subscripts" -> "syntax".

Suit yourself whippersnapper :-)

Craig

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Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
