Subject: How to increase the speed
Posted by sivan on Mon, 09 Sep 2013 10:11:55 GMT
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Hello everyone,

I'll directly tell you the problem.
I have three arrays, one of them contains hundreds of elements, the others have the same number of elements and contain much more.

Let say (a is the first, b is the 2nd, and c is the 3rd array)
a=findgen(250)+1
b=randomn(seed, 2e5)
c=randomn(seed, 2e5)

What I want to do is to calculate the following equation for each element of a and every element of b and c without using the for loop.

exp(a(i) - b)*exp(c)

The result should be a two dimensional array (array[250, 2e5]).

Problem is also shown via this picture (http://oi42.tinypic.com/10zcx7p.jpg).

I use the following code but it is very slow.

result=dblarr(250, 2e5)
for i=0, 249 do result(i,*)=exp(a(i) - b)*exp(c)

Thanks in advice,
Sivan.

Subject: Re: How to increase the speed
Posted by Moritz Fischer on Mon, 09 Sep 2013 10:44:59 GMT
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Hi!

Try the '#' operator (and some algebra to remove the multiplication):

result = exp(a#replicate(1d,2e5) - replicate(1d,250)#(b-c))

You could use reform/rebin with the SAMPLE keyword to do somthing similar.

Am 09.09.2013 12:11, schrieb sivan:
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> b)*exp(c)
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> Thanks in advice, Sivan.
>

Subject: Re: How to increase the speed
Posted by sivan on Mon, 09 Sep 2013 14:06:48 GMT
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Hi Moritz,

Thanks a lot. I really appreciated. Your advise gave me a perfect idea and I solved the problem.

Best wishes,
Sivan.

On Monday, September 9, 2013 1:44:59 PM UTC+3, Moritz Fischer wrote:
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