
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.

$$\exp(a(i) - b) \cdot \exp(c)$$

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.
