
Subject: Re: REFORM: new subscripts must not change the number elements in array

Posted by [Paul Van Delst\[1\]](#) on Mon, 02 Mar 2015 17:25:47 GMT

[View Forum Message](#) <> [Reply to Message](#)

With apologies for replying to my own reply, but if you really want an array B=[100,200,200] from a starting A=[200,200] array, you just use TRANSPOSE (<http://www.exelisvis.com/docs/TRANSPOSE.html>) on the result from REBIN:

```
IDL> help, b
```

```
B          LONG      = Array[4, 4, 10]
```

```
IDL> b = transpose(b,[2,0,1])
```

```
IDL> help, b
```

```
B          LONG      = Array[10, 4, 4]
```

```
IDL> print, b[0,*,*]
```

```
0
```

```
1
```

```
2
```

```
3
```

```
4
```

```
5
```

```
6
```

```
7
```

```
8
```

```
9
```

```
10
```

```
11
```

```
12
```

```
13
```

```
14
```

```
15
```

```
IDL> print, b[6,*,*]
```

```
0
```

```
1
```

```
2
```

```
3
```

```
4
```

```
5
```

```
6
```

```
7
```

8
9
10
11

12
13
14
15

On 03/02/15 12:20, Paul van Delst wrote:

> On 03/02/15 11:46, g.nacarts@gmail.com wrote:

>> I didn't understand the logic of this `reform(a, 100l, 200l*2l)`. If

>> instead of `A=[200,200]` we have `A=[216,216]` and we want `120x(216x216)`

>> then this is written as `reform(a, 120l, 216l*2l)`. Is that correct?

>

> No. That is not correct.

>

> Read:

> <http://www.exelisvis.com/docs/REFORM.html>

>

> The very first line of the description (actually, the only line) says:

> <quote>

> The REFORM function changes the dimensions of an array without changing
> the total number of elements.

> </quote>

>

> If you start with `A=[200,200]` and you want `B=[200,200,100]` (i.e. 100
> sets of `200x200` arrays) then REFORM is not the command to use.

>

> I think you want REBIN:

> <http://www.exelisvis.com/docs/REBIN.html>

>

> IDL> `a=lindgen(4,4)`

> IDL> `print, a`

> 0 1 2 3
> 4 5 6 7
> 8 9 10 11
> 12 13 14 15

>

> Now create 10 "copies" of a, stacked into a 3-D array:

>

> IDL> `b=rebin(a,4,4,10)`

>

> IDL> `print, b[*,*,0]`

```
>      0      1      2      3
>      4      5      6      7
>      8      9     10     11
>     12     13     14     15
> IDL> print, b[*,*,6]
>      0      1      2      3
>      4      5      6      7
>      8      9     10     11
>     12     13     14     15
>
>>
>> I am trying to understand how you end up with reform(a, 100l,
>> 200l*2l). Because when I typed this a = randomu(s, 216,216) help,
>> reform(a, 120l, 216l*2l,/overwrite) I got the same error "REFORM: New
>> subscripts must not change the number elements in A."
>>
```
