Subject: Data elimination from array
Posted by StevenM on Fri, 08 Dec 2006 17:07:44 GMT
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Firstly, thanks to those of you who have replied to my posts, the replies have been very helpful and I really appreciate the time that has been taken on them.

I am trying to re-organise an array of numbers into 4 new arrays. The array has 21446656 data points, and I would like to split it up into four arrays of 5361664 data points. I would like the first 1792 data points in the first new array, the second 1792 data points in the second new array and so on. I would then like for the 5th set of 1792 data points (ie starting at data point 8959) to be put in the first new array and so on.

To make this a bit clearer here is an example
array{0,12,14,16,22,43,12,35,67,88,12,11}

would become

array1{0,22,67}
array2{12,43,88}
array3{14,12,12}
array4{16,35,11}

thanks in advance

Steven

Subject: Re: Data elimination from array
Posted by Bob[3] on Fri, 08 Dec 2006 21:25:43 GMT
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On Dec 8, 3:45 pm, "Braedley" <mike.braed...@gmail.com> wrote:
> Except that it doesn't work.

What doesn't work? Wox's code? It worked when I tried it.

Subject: Re: Data elimination from array
Posted by Bob[3] on Fri, 08 Dec 2006 21:51:10 GMT
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On Dec 8, 3:45 pm, "Braedley" <mike.braed...@gmail.com> wrote:
> Except that it doesn't work.

What doesn't work? Wox's code? It worked when I tried it.

Subject: Re: Data elimination from array
Posted by Michael Galloy on Fri, 08 Dec 2006 21:59:22 GMT
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Bob Crawford wrote:
> On Dec 8, 3:45 pm, "Braedley" <mike.braed...@gmail.com> wrote:
>> Except that it doesn't work.
>
> What doesn't work? Wox's code? It worked when I tried it.

Mine original code doesn't work (or it only works for the case the
length of each "block" is 1).

I think this should be more general:

```
array = findgen(21446656)
nlen = 1792

r = reform(array, nlen, n_elements(array) / nlen)
array1 = reform(r[*, 0:*:4], n_elements(array) / 4)
array2 = reform(r[*, 0:*:4], n_elements(array) / 4)
array3 = reform(r[*, 0:*:4], n_elements(array) / 4)
array4 = reform(r[*, 0:*:4], n_elements(array) / 4)
```

Mike
--
www.michaelgalloy.com

Subject: Re: Data elimination from array
Posted by Braedley on Sat, 09 Dec 2006 02:40:49 GMT
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Yeah, it just doesn't look as clear to me (plus, I think you still have
an error in there). Mine is also a fair amount faster on my machine
(AMD 64 X2 4800+, IDLv6.2). It does provide the correct result.

Braedley

mgalloy@gmail.com wrote:
> Bob Crawford wrote:
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>>
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> array4 = reform(r[*, 0:*:4], n_elements(array) / 4)
>
> Mike
> --
> www.michaelgalloy.com

Subject: Re: Data elimination from array
Posted by Braedley on Sat, 09 Dec 2006 02:55:40 GMT
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And after some optimizations of your code, Mike, it's on par with mine,
so I offer up the choice to you, Steven.

Braedley

Braedley wrote:
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> an error in there). Mine is also a fair amount faster on my machine
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>
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>>
>> Mike
>> --
>> www.michaelgalloy.com

Subject: Re: Data elimination from array
Posted by Michael Galloy on Sun, 10 Dec 2006 00:08:01 GMT
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Braedley wrote:
> And after some optimizations of your code, Mike, it's on par with mine,
> so I offer up the choice to you, Steven.

OK, I took out all the repetitive calls to N_ELEMENTS and fixed the bugs
on array2, array3, array4 which were all identical to array1.

I think the only real difference is stride notation versus creating an
index array.

```
array = findgen(21446656)
nlen = 1792

n = n_elements(array)
r = reform(array, nlen, n / nlen)
array1 = reform(r[*, 0:*:4], n / 4)
array2 = reform(r[*, 1:*:4], n / 4)
array3 = reform(r[*, 2:*:4], n / 4)
array4 = reform(r[*, 3:*:4], n / 4)
```

Mike
--
www.michaelgalloy.com
