Subject: Re: REVERSE even row elements in data array.
Posted by davidf on Sun, 02 Aug 1998 07:00:00 GMT
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Henry Throop (throop2@my-dejanews.com) writes in response
to this question by Jouhahn Lee:

>> Would you tell me how can I apply REVERSE only to the even row data in
>> 64*32 array?

> Try this, with your array to be reversed in the array 'data':
>
> xdim = 64 ; x array dimension
> ydim = 32 ; y array dimension
>
> odds = double(((1+intarr(xdim)) # indgen(ydim)) mod 2)
> ; create a list of integers and a list of 1's,
> ; co-multiply them, and extract last bit.
>
> evens = not odds ; every row of this array which is 1 will be
> ; reversed
>
> result = data*odds + reverse(data*evens)
> ; reverse and extract the appropriate elements

This is very nice. But can you elaborate on why you used
the DOUBLE function in the code above? I get the same result
without it and I am wondering what problem you are trying
to solve by using it.

Thanks for this solution.

David

P.S. I solved the problem in a slightly simpler way, like this:

```
evens = Indgen(32/2) * 2
data[*, evens] = Reverse( data[*, evens] )
```

--
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Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: REVERSE even row elements in data array.
Posted by throop2 on Sun, 02 Aug 1998 07:00:00 GMT
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In article <35C3E2CB.7F621C0A@maxwell.ph.kcl.ac.uk>,
Jouhahn Lee <jl@maxwell.ph.kcl.ac.uk> wrote:
> Thanks to Mike and Kevin, I could retrieve the microscopic data using
> IDL. Thanks.
>
> Now I can have 64*32 array expandible to 1024* 512 array.
> By the way, in 64*32 array, I need to change the even rows's data
> elements.
> I made a C program for this but I found that subroutine REVERSE in IDL
> can do.
>
> Would you tell me how can I apply REVERSE only to the even row data in
> 64*32 array?
> (ie. keep the odd row, reverse the even row) How can I do that? I am
> still novice using
> IDL so I need to have some help please. Thanks in advance!

When I'm doing things like this, I often create an array of 1's and 0's
to multiply the original array by. This extracts the chosen elements,
and the complement of this array returns all the other, non-chosen elements.

Try this, with your array to be reversed in the array 'data':

```
xdim = 64  ; x array dimension
ydim = 32  ; y array dimension

odds = double(((1+intarr(xdim)) # indgen(ydim)) mod 2)
  ; create a list of integers and a list of 1's,
  ; co-multiply them, and extract last bit.

evens = not odds ; every row of this array which is 1 will be
  ; reversed

result = data*odds + reverse(data*evens)
  ; reverse and extract the appropriate elements
```

- henry

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Subject: Re: REVERSE even row elements in data array.
Posted by Kevin Ivory on Mon, 03 Aug 1998 07:00:00 GMT
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Kevin Ivory wrote:
> result(*, rev) = reverse(data(*, rev), 2) ; reverse every second row

Well, I figure I mixed up the dimensions. This should be correct:

result(*, rev) = reverse(data(*, rev)) ; reverse every second row

Best regards
Kevin
--
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Subject: Re: REVERSE even row elements in data array.
Posted by Kevin Ivory on Mon, 03 Aug 1998 07:00:00 GMT
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Jouhahn Lee wrote:
> Would you tell me how can I apply REVERSE only to the even row data in
> 64*32 array?

Henry Throop <throop@colorado.edu> already showed you an algorithm
I find confusing. I would do it like this:

```
data = indgen(64, 32)     ; some test data
ydim = (size(data))[2]    ; extract number of data rows
rev  = indgen(ydim/2) * 2 ; generate the row indexing array
result = data             ; only needed if you want to keep original array
result(*, rev) = reverse(data(*, rev), 2) ; reverse every second row
```

Voila,
Kevin
--
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