Subject: generating sequences
Posted by spluque on Fri, 13 Sep 2013 19:01:20 GMT
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Hi,

I thought this should be very easy, but I cannot find how to do it IDL. Say we have a vector with a few starting values:

a=[1, 12, 90]

and we want to generate sequences of 3 numbers starting with these values, so that we end up with:

[1, 2, 3, 12, 13, 14, 90, 91, 92]

How is this done in IDL?

Thanks,
Seb

Subject: Re: generating sequences
Posted by on Fri, 13 Sep 2013 19:10:40 GMT
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On 2013-09-13 21:01, spluque@gmail.com wrote:
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>
> How is this done in IDL?

```
IDL> print,reform(transpose([[a],[a+1],[a+2]]),9)
       1       2       3      12      13      14      90      91      92
```

Subject: Re: generating sequences
Posted by spluque on Fri, 13 Sep 2013 19:29:29 GMT

On Friday, September 13, 2013 2:10:40 PM UTC-5, Mats Löfdahl wrote:
> On 2013-09-13 21:01, spluque@gmail.com wrote:
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>
> 1 2 3 12 13 14 90 91 92

What if the sequence for each starting value was 1000 instead of 3?...

I'm surprised one can't just do:

print, a + indgen(3)

Subject: Re: generating sequences
Posted by on Fri, 13 Sep 2013 19:56:58 GMT

On 2013-09-13 21:29, spluque@gmail.com wrote:
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>>
>> 1 2 3 12 13 14 90 91 92
>
> What if the sequence for each starting value was 1000 instead of 3?...

Let's make a sequence of length N. N=1000 will be kind of a waste of space so let's just do

```
IDL> N=7
IDL> print,reform(transpose(rebin(a,3,N,/samp) + [1,1,1] # indgen(N)),3*N)
       1       2       3       4       5       6
       7      12      13      14      15      16
      17      18      90      91      92      93
      94      95      96
```

If you want to generalize the solution further to a of any length, just substitute n_elements(a) for the number 3 and replicate(1,n_elements(a)) for [1,1,1].

> I'm surprised one can't just do:
>
> print, a + indgen(3)

You can, but of course you'd get a different answer:

```
IDL> print, a + indgen(3)
       1      13      92
```

Subject: Re: generating sequences

On Friday, September 13, 2013 2:56:58 PM UTC-5, Mats Löfdahl wrote:
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>
> 1 2 3 4 5 6
>
> 7 12 13 14 15 16
>
> 17 18 90 91 92 93
>
> 94 95 96
>
>
>
>
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>
> If you want to generalize the solution further to a of any length, just
>
> substitute n_elements(a) for the number 3 and replicate(1,n_elements(a))
>
> for [1,1,1].

Very impressive, I'll have to study these functions for a while!

Thanks,
Seb
