Subject: Re: generating sequences
Posted by on Fri, 13 Sep 2013 19:56:58 GMT
View Forum Message <> Reply to Message

On 2013-09-13 21:29, spluque@gmail.com wrote:
> On Friday, September 13, 2013 2:10:40 PM UTC-5, Mats Löfdahl wrote:
>> On 2013-09-13 21:01, spluque@gmail.com wrote:
>>> 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?
>>
>> IDL> print,reform(transpose([[a],[a+1],[a+2]]),9)
>>
>> 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
```