Subject: Re: generating sequences
Posted by spluque on Fri, 13 Sep 2013 20:36:41 GMT
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On Friday, September 13, 2013 2:56:58 PM UTC-5, Mats Löfdahl wrote:
> 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].

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

Thanks,
Seb