Subject: Re: Replicate array over columns - using transpose?
Posted by Russell[1] on Thu, 22 Mar 2012 15:18:30 GMT
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On Mar 22, 8:01 am, Craig Markwardt <craig.markwa...@gmail.com> wrote:
> On Thursday, March 22, 2012 6:11:54 AM UTC-4, robintw wrote:
>> Hi all,
>
>> I've got an array, a, as follows:
>
>> IDL> print, a
>> 10.0000 35.0000 60.0000 85.0000 110.000
>
>> I want to replicate this across 4 columns to produce an array like the
>> following:
>
>> 10 10 10 10
>> 35 35 35 35
>> 60 60 60 60
>> 85 85 85 85
>> 110 110 110 110
>
>> I'm using the CMREPLICATE routine to do this, and get the following:
>
>> IDL> print, CMREPLICATE(a, 4)
>> 10.0000 35.0000 60.0000 85.0000 110.000
>> 10.0000 35.0000 60.0000 85.0000 110.000
>> 10.0000 35.0000 60.0000 85.0000 110.000
>> 10.0000 35.0000 60.0000 85.0000 110.000
>
>> However, I want to replicate it in the columns as in the example above.
>> As far as I can see it there are two ways to deal with this: transpose
>> the array after I've done it (computationally expensive, as I'll be
>> doing it with far larger arrays in the real program) or transpose it
>> before running CMREPLICATE. However, if I do this I get an extra
>> dimension added:
>
>> IDL> help, CMREPLICATE(transpose(a), 4)
>> <Expression> FLOAT = Array[1, 5, 4]
>
>> Is there a way to replicate over the columns without adding this extra
>> dimension? I'm sure I'm missing something simple here.
>
> I'm the CM in CMreplicate, but I wouldn't use CMreplicate. I use this instead.
>
> print, [1,1,1,1,1] # a
>
> Usually I'm matching up X and Y labels to a 2D grid, so I do this,

>
>   XX = (X*0 + 1) # Y
>   YY = X # (Y*0 + 1)
>
> Now XX and YY are 2D arrays with X running along one axis and Y running along the other axis. It looks crazy, but it works.
>
> Craig

Ha! I should have read on. I didn't see someone posted this answer.

Sorry for the repetition,
Russell
