Subject: Re: Gridding options
Posted by Craig Markwardt on Wed, 30 Aug 2000 07:00:00 GMT
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"J.D. Smith" <jdsmith@astro.cornell.edu> writes:

> Ben Tupper wrote:
>> (Sorry, JD, it does have loopity-loops. You can flick a worm into the
>> air... but that doesn't mean it knows how to fly! I'm still trying to
>> figure out what .....
>>
> **
> tt=total(a[(((dy=((di=lindgen(((n=nx<ny)),nx+ny-1)))/n))*(nx gt ny?1:nx)+ $
> (nx gt ny?1:-1)*((dx=di mod n))*(nx-1))>0<(nx*ny-1)]* $
> (dy ge dx AND (dy-dx) lt nx>ny),1)
> **
>>
>> means. Maybe I need to drink less/more coffee.)
>
> It's written in an ancient IDL runic language lost in the dark ages (1993).
> Simply run it on an array "a" after defining the dimensions "nx" and "ny" and
> all will be clear.

Another disadvantage to vectorizing with very large arrays is that IDL has to generate the indices for the array dynamically. This can consume a lot of memory (sometimes more than the array itself, if it's a byte or int array!). The expression, lindgen((nx<ny), nx+ny-1), [some deleted] is the giveaway that JD had to essentially create a whole new array even bigger than the original. Still, it's a pretty impressive computation.

Todd, did you compare the run time?

Craig

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