Subject: Re: simple array math question
Posted by Craig Markwardt on Fri, 24 Jan 2003 19:29:11 GMT
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"Pepijn Kenter" <kenter@tpd.tno.nl> writes:
> "Kenneth Bowman" <k-bowman@null.tamu.edu> wrote in message
> news:k-bowman-4D0582.08381824012003@news.tamu.edu...
>> In article <b0rce6$23c$1@news.surfnet.nl>,
>> "Pepijn Kenter" <kenter@tpd.tno.nl> wrote:
>>
>>> And does any IDL-wizard know a similar trick to average each row/column
> of
>>> a?
>>> i.e. to replace the following lines:
>>>
>>> result = dblarr(3)
>>> for i = 0, 2 do result[i] = mean(a[*,i])
>>
>> That's an easy one:
>>
>> result1 = TOTAL(a, 1, /DOUBLE)/n1
>> result2 = TOTAL(a, 2, /DOUBLE)/n2
>>
>> where n1 and n2 are the sizes of the first and second dimensions,
>> respectively.
>>
>> Ken Bowman
>
> Thanks, but what I actually meant was a way where you can replace the mean
> function by any, arbitrary function.
> I forgot about the dimension parameter of the TOTAL function, so my example
> was a bad one. Sorry.

"Arbitrary function"? No. In more recent versions of IDL, quite a number of built-in math functions have the ability to specify one or more dimensions over which the function is to be applied. I have a function called CMAPPLY, which may be useful with older versions of IDL, and does many of those same things. One thing it can do is apply an arbitrary function, but it won't necessarily be speedy. JD Smith also has a DLM which did a lot of these kinds of things.

Good luck,
Craig

http://cow.physics.wisc.edu/~craigm/idl/idl.html (under Array/Set ops)

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