Subject: Re: max, mean, min of array
Posted by Alex Schuster on Wed, 23 Jan 2002 15:04:47 GMT
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Wayne Landsman wrote, a while ago:

> Dinh Huong wrote:

>> I have an array of 400,400,10 contains 10 month Tï¿½ of 400x400 pixel
>> area. I am trying to calculate min, max, mean Tï¿½for each pixel and
>> output is 400x400 image. How to solve this by IDL?
>> Any help will be appreciate,
>
> In IDL V5.5, if you have a 400 by 400 by 10 array, you can find the
> maximum over the 3rd dimension using the DIMENSION keyword.
>
> IDL> pixmax = max(array, dimen=3) ;Return a 400 x 400 array
>
> In earlier versions of IDL you have to loop over each pixel, and (as
> David mentioned) Craig Markwardt's CMAPPLY will make sure that this
> looping is done as efficiently as possible.

It's possible without, um, with fewer loops:

```
zdim = (size( array, /dimension ))[2]
pixmin = ( pixmax = array[*,*,0] )
for i = 1, zdim-1 do begin
 pixmax = pixmax > array[*,*,i]
 pixmin = pixmin < array[*,*,i]
endfor
pixmean = total( array, 3 ) / zdim
```

Hey Craig, I think with this method you can get rid of your ho, hum
comment in cmapply.pro.

Alex
--
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