Subject: Minimum/Maximum over a certain dimension
Posted by smd on Thu, 20 Apr 1995 07:00:00 GMT
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Hi,

I use IDL v3.6.1a on a PC. I would like to find out if there is
a vectorized (fast) way of computing the minimum/maximum of an
array along a given dimension.

To explain, if A is a bytarr of size (2,30,40) and I wish
to compute the minimum along the first dimension, the result
should be a bytarr of size (30,40) in which each element is
the pointwise minimum of A(0,*,*) and A(1,*,*).

Such a feature is available for the TOTAL() function, but
is not available for MIN() or MAX(). Does anyone know how
to do this operation without using a FOR loop that goes
over all the elements. In the above example, the FOR loop
would have to extend over 30*40 = 1200 elements. I have
to deal with images that are of size 720 x 480 and this
takes enough computation time.

Thanks

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Subject: Re:Minimum/Maximum over a certain dimension
Posted by dudley on Tue, 25 Apr 1995 07:00:00 GMT
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smd@philabs.philips.com writes:

> To explain, if A is a bytarr of size (2,30,40) and I wish
> to compute the minimum along the first dimension, the result
> should be a bytarr of size (30,40) in which each element is
> the pointwise minimum of A(0,*,*) and A(1,*,*).

The above can be done by:
c=A(0,*,*)<A(1,*,*)

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