
Subject: Re: 2 arrays, average, missing data
Posted by [David Fanning](#) on Thu, 08 Sep 2005 14:38:22 GMT
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KJM writes:

> IDL newbie here, I would appreciate any help. (Have been pouring over
> Gumley and Fanning books for a day now, can't get this simple
> calculation done.)
>
> I have 2 arrays. Each array has float values and missing
> data(value=0). I want to create a third array that has the average of
> the two arrays if there are two good values. Otherwise, I want the
> third array to take the value of the array that has data.
>
>
> If my arrays are A and B, and the new array C, I know I can use:
>
> $C = (A+B)/2$
>
> to get the third array with averaged values. The only problem, is
> that missing data values are averaged in with good values also. (ie:
> 275 averaged w/ 0 -- when I want to just take the 275 value).
>
> Have tried If statements, -- but I realize these are all for scalar
> values, not array.
>
> My basic idea is:
>
> If A = 0, C = B
> If B = 0, C = A
> If A and B EQ 0, C = 0
> If A and B NE 0, C = (A+B)/2

I think your basic idea is great. :-)

Here is what I would do.

```
C = (A + B) / 2
indices = WHERE(A EQ 0 AND B NE 0, count)
IF count GT 0 THEN C[indices] = B
indices = WHERE(A NE 0 AND B EQ 0, count)
IF count GT 0 THEN C[indices] = A
```

Cheers,

David

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