
Subject: Re: Checking my work: PERCENTILES.PRO
Posted by [David Fanning](#) on Fri, 21 May 2010 01:01:58 GMT
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Ed Hyer writes:

```
> This routine, I think many people use, and it has this code:
>
>   ;; Special treatment for median of data sets with even number of
>   ;; elements: compute average between two center values
>   IF ABS(value[i]-0.5) LT 1.e-3 AND n MOD 2 EQ 0 AND n GT 1 THEN $
>       thisresult = 0.5 * ( data[ix[long(n/2)]]+data[ix[long(n/
> 2)+1]] ) $
>   ELSE $
>       thisresult = data[ix[ind]]
>
> If you should happen to give PERCENTILES() a two-element array, this
> will crash. What's more, if N=4, this gives the median as
> MEAN(DATA[2:3]), which is clearly wrong. Should be:
>
>       thisresult = 0.5 * ( data[ix[long(n/2)-1]]+data[ix[long(n/
> 2)]] ) $
>
> Does that make sense? Anyway, if I am right, you may want to check
> your libraries to see if this code is in there.
```

Maybe we should substitute this for the entire mess:

```
thisResult = Median(data[ix[ind]], /EVEN)
```

Cheers,

David

--
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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")
