
Subject: Checking my work: PERCENTILES.PRO

Posted by [MarioIncandenza](#) on Fri, 21 May 2010 00:40:14 GMT

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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.

--Edward H.
