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Subject: Re: Definition of Median was(Re: Finding the index of the median)

Posted by [meron](#) on Wed, 30 Oct 1996 08:00:00 GMT

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In article <327771BA.2781@silk.gsfc.nasa.gov>, "Thomas A. McGlynn"

<tam@silk.gsfc.nasa.gov> writes:

> In looking at the get the index of the median

> value, I noted that the behavior

> of the IDL median filter is not what I would have expected.

>

> E.g.,

> print, median([1,2,3,10])

>

> prints out 3. This is independent of the order of elements

> in the array. Is there an accepted definition of what

> the median value is in this case. For example, I might

> think 2.5 is a more appropriate choice (but one which would

> have made the previous discussion incorrect).

>

No, median must be one of the elements of the set. 2.5 isn't such.

The definition is, in principle "a value from the original set such that there are as many values below it as above it". Which cannot be fulfilled strictly if the number of elements is even. So in such case you decide arbitrarily (but preferably consistently) whether to pick the one above or below the dividing line.

Mati Meron | "When you argue with a fool,

meron@cars.uchicago.edu | chances are he is doing just the same"

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