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 consistantly) 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"

Subject: Re: Definition of Median was(Re: Finding the index of the median)
Posted by Jack Saba on Thu, 31 Oct 1996 08:00:00 GMT
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meron@cars3.uchicago.edu wrote:
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From CRC std math tables:

"When n is odd, the median is the middle value of the set of ordered data; when n is even, the median is usually taken as the mean of the two middle values of the set of ordered data."
