Subject: Re: histogram and binsize problems
Posted by JD Smith on Thu, 27 Feb 2003 21:12:36 GMT
View Forum Message <> Reply to Message

On Thu, 27 Feb 2003 09:52:33 -0700, Chad Bender wrote:

> Hi-
>
> I'm encountering some confusion using the histogram function when
> specifying the min, max, and binsize keywords. I looked at JD Smith's
> tutorial. But I couldn't find the answer to my question there, as all I
> really want is a plain old histogram, not some fancy array manipulation.

I think what you are after is in the tutorial, just up front in the
part people skip over:

NBINS
    A relative of BINSIZE, NBINS is something of a misnomer. The
relation HISTOGRAM uses to compute the bin size if passed NBINS is:

    $BINSIZE=(MAX-MIN)/(NBINS-1)$

    and if NBINS is specified, MAX is changed to be (independent of
any value passed as MAX):

    $MAX=NBINS*BINSIZE+MIN$

    As such, it's probably better to avoid NBINS, if you care about
the MAX value staying put. A better relation which would leave MAX as
is and give you exactly NBINS bins between MIN and MAX:

    $BINSIZE=(MAX-MIN)/NBINS$

Good luck,

JD