Subject: Re: histogram and binsize problems
Posted by Chad Bender on Thu, 27 Feb 2003 19:26:35 GMT
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> You may wish to check out the HIST_PLOT procedure I wrote as an example
> program for my book (Chapter 6, pp 260-262):

Thanks for the suggestions. Liam, your routine gives me the same result
as I was getting with just:
plot, findgen(31), histogram(data,min=0.0,max=0.15,binsize=0.005), psym=10

I looked through it briefly, and it is doing enough strange things to
convience me that how histogram sets up its bins is not trivial. However,
using it does not get rid of the bins with value 0.

I tried a few other things to see if I could figure out something of what
histogram is doing. It's obvious from something like the following that
histogram has rounding issues at the bin boundaries.
IDL> test=findgen(31)*0.005
IDL> plot, test, histogram(test, min=0.0, max=0.15, binsize=0.005),
psym=10
IDL> plot, test, histogram(test, binsize=0.005), psym=10

But from expanding the min and max by +-binsize/2, I get almost the
expected result
IDL> hist=histogram(test, min=-0.0025, max=0.1525, binsize=0.005)
IDL> help, hist
HIST LONG = Array[32]
IDL> plot, findgen(32)*0.005, hist, psym=10, ystyle=3, xstyle=3

From this I can see that the last bin is empty. It
falls outside the range I specified by min and max (ie. it covers
0.1525-0.1575). So why does IDL create it at all?

Chad

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