Subject: Re: HISTOGRAM, binsize, and max
Posted by pgrigis on Wed, 18 May 2011 15:22:48 GMT
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On May 18, 10:23 am, David Fanning <n...@idlcoyote.com> wrote:
> andry writes:
>> Can somebody explain why the following gives different number of
>> elements with the HISTOGRAM function?
>
>> IDL> hist_spd= HISTOGRAM(velocity[indb],binsize= .20,min=0.,max=1.40)
>> IDL> print,hist_spd
>>   6   16   23   0   0
>> 0   0
>> IDL> hist_spd= HISTOGRAM(velocity[indb],binsize= 20.,min=0.,max=140.)
>> IDL> print,hist_spd
>>   45   0   0   0   0
>> 0   0   0
>
>> (whatever velocity content is)
>> My main concern is the number of elements returned by the function.
>> The only difference between the 2 command is that I multiplied the
>> binsize and max with 100. BUT they return 7 and 8 elements?
>
>> I would expect they both return the same number of elements.
>
> People expect a lot of things from computers, but the
> computers don't always oblige. I think this is just the normal
> weirdness with how computers represent numbers. It
> turns out this is different from how humans apparently
> do it. :-)
>
>   http://www.idlcoyote.com/math_tips/sky_is_falling.html
>   http://www.idlcoyote.com/math_tips/razoredge.html

When I try that I always get 8 bins no matter what.
I don't see how you could get 7 bins in that situation...

IDL> hist_spd= HISTOGRAM(randomn(seed,10)*200,binsize= .
20,min=0.,max=1.40) & help,hist_spd
HIST_SPD   LONG   = Array[8]

IDL> hist_spd= HISTOGRAM(randomn(seed,10)*200,binsize=
20.0,min=0.,max=140.0) & help,hist_spd
HIST_SPD   LONG   = Array[8]

Ciao,

Paolo

>
> Cheers,
>
> David
>
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:http://www.idlcoyote.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")