Subject: Very strange problem in IDL histogram, A bug???
Posted by Poonam Chandra on Thu, 23 Jun 2011 17:09:58 GMT
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Hi,
My data distribution looks like this:

Range	No.
0-50	0
50-100	8
100-150	14
150-200	18
200-250	8
250-300	8
300-350	5
350-400	2
400-600	17
600-800	4
800-1000	6
1000-2000	2

With the help of Jeremy in a previous discussion, this is how I am
proceeding:

```
data = [50+randomu(seed,8)*50, 100+randomu(seed,14)*50,
150+randomu(seed,18)*50, $
200+randomu(seed,8)*50, 250+randomu(seed,8)*50, 300+randomu(seed,
5)*50, 350+randomu(seed,2)*50, $ 400+randomu(seed,17)*200,
600+randomu(seed,4)*200, 800+randomu(seed,6)*200, $
1000+randomu(seed,2)*1000]

bin_edges = [0,50,100,150,200,250,300,350,400,600,800,1000,2000]
nbins = n_elements(bin_edges)-1
data_bins = value_locate(bin_edges, data)
labelnums = rebin(1 # bin_edges, 2, nbins+1, /sample)
labels = string(labelnums[1:2*nbins], format='(%"%0d - %0d")')

cghistoplot, data_bins, xrange=[0,nbins], xticks=nbins-1, $
xtickv=0.5+indgen(nbins), xtickname=labels, /window
```

And in the plot window, this is what the final distribution is
looking:

0-75	0
75-175	22
175-275	26
275-375	13
375-700	2
700-1050	0

1050-2000 2

This is totally crazy. How did the IDL get this distribution for the histogram?
I backtracked the problem and I see that as long as I define my data has 7
ranges (i.e. 0-50, 50-100, 100-150, 150-200, 200-250, 250-300, 300-350, 350-400),
everything is fine but the moment I add the next range i.e. 400-600, it totally goofs up.
Any idea whats going on? Is it any bug in histogram? If I have your email address, I can actually
send the full program and the final plots for you to have a look at.

Subject: Re: Very strange problem in IDL histogram, A bug???
Posted by Jeremy Bailin on Fri, 24 Jun 2011 20:30:45 GMT
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By default, cghistoplot uses an adaptive algorithm to decide on the binsizes. To force it to a bin size of 1 (which is what you want), use binsize=1 in the cghistoplot call.

-Jeremy.

Subject: Re: Very strange problem in IDL histogram, A bug???
Posted by Poonam on Sat, 25 Jun 2011 18:49:06 GMT
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On Jun 24, 4:30 pm, Jeremy Bailin <astroco...@gmail.com> wrote:
> By default, cghistoplot uses an adaptive algorithm to decide on the binsizes. To force it to a bin size of 1 (which is what you want), use binsize=1 in the cghistoplot call.
>
> -Jeremy.

Thanks Jeremy. I don't have IDL at home. Will try on Monday once I reach office.

Poonam

Subject: Re: Very strange problem in IDL histogram, A bug???
Posted by Poonam Chandra on Mon, 27 Jun 2011 15:18:14 GMT
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On Jun 25, 2:49 pm, Poonam <poonam.chan...@gmail.com> wrote:
> On Jun 24, 4:30 pm, Jeremy Bailin <astroco...@gmail.com> wrote:

>
>> By default, cghistoplot uses an adaptive algorithm to decide on the binsizes. To force it to a bin size of 1 (which is what you want), use binsize=1 in the cghistoplot call.
>
Thanks Jeremy, it did work great.
Poonam
