
Subject: cgHistoplot -- input histogram results?

Posted by [Matthew Argall](#) on Sun, 27 Oct 2013 17:15:16 GMT

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I have data from a few hundred files histogrammed and saved. I would like to use cgHistoplot to display it. Is it possible to take the results of Histogram (or cgHistogram) and use them as inputs to cgHistogram? I see the keyword HISTDATA, but it is an output.

Thanks

Subject: Re: cgHistoplot -- input histogram results?

Posted by [David Fanning](#) on Sun, 27 Oct 2013 18:07:08 GMT

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Matthew Argall writes:

> I have data from a few hundred files histogrammed and saved. I would like to use cgHistoplot to display it. Is it possible to take the results of Histogram (or cgHistogram) and use them as inputs to cgHistogram? I see the keyword HISTDATA, but it is an output.

It is not really possible to do this because so much of what is required to draw the plot (data ranges, binsize, etc.) comes from the data itself and not from the actual histogram.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Seppure ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: cgHistoplot -- input histogram results?

Posted by [David Fanning](#) on Sun, 27 Oct 2013 18:10:58 GMT

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David Fanning writes:

> It is not really possible to do this because so much of what is required
> to draw the plot (data ranges, binsize, etc.) comes from the data itself
> and not from the actual histogram.

Maybe "not possible" is the wrong way to say it. It would be possible if the information required to draw the plot were provided, but this will make some keywords required parameters, rather than the normal optional parameters, etc. It will get VERY ugly and not at all the Coyote style. :-)

Of course, if YOU wanted to do it, I couldn't stop you. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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Subject: Re: cgHistoplot -- input histogram results?
Posted by [Phillip Bitzer](#) on Mon, 28 Oct 2013 16:17:03 GMT
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I have to do this before - basically, I fake the original data set, based on inputs from the original histogram. Basically, I replicate the middle of each bin to match the histogram value (to stay away from the razor's edge):

```
binSize = 5.0
minVal = 0.0
h=HISTOGRAM(data, BIN=binSize, MIN=minVal) ;original histogram
```

```
nData = TOTAL(h)
nHisto = N_ELEMENTS(h)
```

```
middleBins = FINDGEN(nHisto)*binSize/2+minVal
```

```
fakeData = FLTARR(nData)
```

```
FOR i=0, nHisto-1 DO BEGIN
  IF h[i] EQ 0 THEN CONTINUE
  IF i EQ 0 THEN startInd = 0 ELSE startInd = TOTAL(h[0:i-1])
  stopInd = TOTAL(h[0:i])-1
```

```
  fakeData[ startInd : stopInd ] = REPLICATE(middleBins[i], h[i])
```

```
ENDFOR
```

(There's plenty room for improvement in this code....not enough coffee yet :-))

You could then throw fakeData at cgHistplot. I've only had to do this a couple of times - so, the time penalty for duplicating the histogram calculation wasn't important (enough). I suppose as long as the data isn't too finely binned, it would work fine....
