
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 cgHistoplot. 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....
