Subject: Anyway to avoid this last for loop
Posted by hldevil on Thu, 08 Jan 2009 09:59:41 GMT
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Hi Everybody,

after having worked my way through dfannings and jdsmiths histogram tips I still haven't found a way to avoid one last (and time consuming) FOR-loop. Maybe someone has an idea.

I have to lists (Millions of entries): one containing detector hit-times, one containing anticoincidence hit-times. Only those detector hits which do not have a AC event at the same time are supposed to be kept.

I used a histogram approach:

```
;AClength is how many frames are thrown out after one AC Hit ->
multiple entries can fall into one bin

detHist=histogram(data,REVERSE_INDICES=ri, /L64, binSize=AClength)
acHist=histogram(ACdeletes, /L64, binSize=AClength)


;renormalize to one
 dI=where(detHist GT 1, cntD)
 aI=where(acHist GT 1, cntA)
 IF cntD NE 0 THEN detHist[dI]=1
 IF cntA NE 0 THEN acHist[aI]=1

 ;subtract the two histograms. All detector frames which have
corresponding AC frame should now have value 0, if AC frame exists but
not detector frame then value is -1. If only detector frame exists
(the ones we want) value stays 1!!!
diffHist=detHist-acHist

;keep the ones with one
 keep=where(diffHist EQ 1, cnt)

;And now my problem. I need the indices of the keep-frames but there
can be more than one in a bin so I'm stuck with this loop:

FOR k=0L, cnt-1 DO BEGIN
    keepIndices=[keepIndices,ri[ri[keep[k]]:ri[keep[k]+1]-1]]
ENDFOR
```

Is there any way I can avoid this, especially because it scales with the number of hits which are kept.

Best Regards,

Steffen