Subject: Re: Anyway to avoid this last for loop
Posted by hldevil on Thu, 08 Jan 2009 17:31:28 GMT
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On 8 Jan., 15:28, Tom McGlynn <t...@milkyway.gsfc.nasa.gov> wrote:
> On Jan 8, 4:59 am, hlde...@gmx.de wrote:
>
>> ;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
>
> Can't these last four lines be replaced by
> detHist = detHist<1
> acHist = acHist<1
>
> The < and > operators are useful though not necessarily intuitive.
>
>
>
>
>
>
>> ;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
>
> To do it all at once, I think you can just go back to the data array
> as below:
>

```
>      keepHist = where (diffHist EQ 1, cnt)   ; From the original
>      if (cnt gt 0) then begin
>         keepers = intarr(n_elements(detHist))
>         keepers[keepHist] = 1;
>         keepIndices = where(keepers[data/ACLENGTH] eq 1)
>      endif else begin
>         keepIndices = [-1]
>      endelse
>
>  Haven't tested it, but it seems like it or something like it should
>  work reasonably efficiently.
>
>      Good luck,
>      Tom McGlynn
```

Seems reasonable. I'll try it and see if I get the same results as with the for loop.

Thanks,

Steffen
