Subject: Incrementing an element multiple times without a loop?
Posted by TimB on Fri, 25 Apr 2014 14:50:24 GMT

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I'm trying to speed up a process within a nested loop. Essentially I have an array of 0's (array a) and another array which tells which elements of a to increment by +1 (array b).

The element in array a should be incremented the same number of times it is in array b.

For example a = [0,0,0], b=[1,1,2], the result should be [0,2,1]
Simply using a[b]+=1 only increments the each unique element in b once and would give [0,1,1]

The only thing I could come up was
result=uniq(b[sort(b)])
result-=[-1,result[0:n_elements(b)-2]]

but that only works if all of the elements in a are mentioned in b at least once. Here's a small example:

PRO ele_increment

a=intarr(5) ;blank array
b=[0,1,0,3,2,4,4,1,1,2,0,1,1] ;elements in arr to increment by +1

;using loop
for i=0,n_elements(b)-1 do a[b[i]]+=1

;no loop
result=uniq(b[sort(b)])
result-=[-1,result[0:n_elements(result)-2]]

print,arr
print,result

END

This works but if I was to remove the 3 from the b array, the result is no longer correct.

Any ideas or thoughts?

Thanks, Tim