
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

Subject: Re: Incrementing an element multiple times without a loop?

Posted by [Lajos Foldy](#) on Fri, 25 Apr 2014 15:00:21 GMT

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On Friday, April 25, 2014 4:50:24 PM UTC+2, timbo...@gmail.com wrote:

>
> 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]
>

++a[b]

(a[b]+=1 and a[b]++ give different results, I don't know whether this is good or bad :-)

regards,
Lajos

Subject: Re: Incrementing an element multiple times without a loop?

Posted by [wlandsman](#) on Fri, 25 Apr 2014 15:00:31 GMT

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On Friday, April 25, 2014 10:50:24 AM UTC-4, timbo...@gmail.com wrote:

> Any ideas or thoughts?

Probably more than you want to know. I believe you want a "drizzle" algorithm as discussed here:

http://www.idlcoyote.com/code_tips/drizzling.html

Subject: Re: Incrementing an element multiple times without a loop?

Posted by [TimB](#) on Fri, 25 Apr 2014 15:05:18 GMT

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I just realised histogram(b) is actually all I might need.

On Saturday, April 26, 2014 1:00:31 AM UTC+10, wlandsman wrote:

> On Friday, April 25, 2014 10:50:24 AM UTC-4, timbo...@gmail.com wrote:
>
>
>
>
>
>
>> Any ideas or thoughts?

>
>
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> Probably more than you want to know. I believe you want a "drizzle" algorithm as discussed here:
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