
Subject: Re: Efficient comparison of arrays
Posted by [wonko](#) on Mon, 11 Aug 1997 07:00:00 GMT
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afl@cdc.noaa.gov (Andy Loughe) wrote:

> Given vectors of the type...
>
> a = [1,2,3,4,5]
> b = [3,4,5,6,7]
>
> What is the most efficient way to determine which values that occur in
> a also occur in b (i.e., the values [3,4,5] occur in both a and b).
>
> Presumably this needs to be done without loops (to be efficient), but
> an obvious solution escapes me.

What type of data would this be? If you are dealing with integers, what about this:

```
max_value = max( [ a, b ], min_value=min_value )  
mask = indgen( max_value-min_value+1 )  
mask(a-min_value) = 1  
mask(b-min_value) = mask(b-min_value) + 1  
values = where( mask eq 2, count ) + min_value
```

Voila, no loops, I would give this a try. Bad luck if you have floating point data.

Someone already came up with this question five months ago, but I don't remember the responses. Maybe you can find the thread via dejanews.

Alex

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