
Subject: Re: using WHERE to search for multiple values
Posted by [Paul Van Delst\[1\]](#) on Fri, 26 Apr 2002 13:08:53 GMT
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Doug Martin wrote:

```
>  
> I'm trying to do something like the following:  
>  
> w=where(im eq val)  
>  
> with im a byte array (say, 640x480)  
> and val an array (say, 10 to 40 long)  
>  
> I want to find where im is equal to any of the values in val. But,  
> val is not always the same size.  
>  
> Is there a way to do this using one WHERE call? There seems to be a  
> giant time difference between:  
>  
> for i=0,(size(val))[1]-1 do begin  
>   w=where(im eq val(i))  
>   ...  
> endfor
```

why not do it using the loop but using the COMPLEMENT keyword to WHERE so that subsequent searches don't search the values of IM that you've already matched to the previous VAL(i)? Each subsequent search will be on a smaller part of the IM array.

Of course:

a) you will have to reconstruct the index values to reflect their IM index rather than their IM(complement) indices and
b) this may be even slower if the values you're looking for are randomly distributed throughout the array (i.e. searching an array that is increasingly non-contiguous in memory). You're arrays aren't that large tho'.

paulv

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