
Subject: Re: make all array values equal to zero
Posted by [Michael Galloy](#) on Thu, 11 Dec 2014 17:52:40 GMT
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On 12/11/14, 9:59 AM, alx wrote:

```
> IDL> A=randomn(rien,10000000)
> IDL> tic & A *= (A gt 1) & toc
> % Time elapsed: 0.078000069 seconds.
> IDL> tic & A[where(A gt 1,/NULL)]=0 & toc
> % Time elapsed: 0.047000170 seconds.
>
> The "where" solution appears to be somewhat faster.
```

Your solution should scale with the number of elements which match the condition.

So for 50% of the elements matching:

```
IDL> n = 10000000L
IDL> a = 2.0 * randomu(seed, n)
IDL> tic & a *= (A gt 1) & toc
    Elapsed Time: 0.024550
IDL> a = 2.0 * randomu(seed, n)
IDL> tic & A[where(A gt 1,/NULL)]=0 & toc
    Elapsed Time: 0.023005
```

For about 15% of the elements matching:

```
IDL> a = randomn(seed, n)
IDL> tic & A[where(A gt 1,/NULL)]=0 & toc
    Elapsed Time: 0.014616
```

For all of the elements matching:

```
IDL> a = randomu(seed, n) + 1.0
IDL> tic & A[where(A gt 1,/NULL)]=0 & toc
    Elapsed Time: 0.024564
```

But, in any case, the WHERE solution seems equal or faster in all cases.

Mike

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Modern IDL: A Guide to IDL Programming (<http://modernidl.idldev.com>)

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