
Subject: Re: FOR loops removal

Posted by [Chris\[6\]](#) on Thu, 21 Aug 2008 18:34:06 GMT

[View Forum Message](#) <> [Reply to Message](#)

What about something like this?

```
s= 2*(array le 2)-1  
array = (array ne 0)*array + (array eq 0)*(shift(s,1)+shift(s,-1))
```

You'll have to manually fix the endpoints, but the rest should be good. I tested this and the first loop on an array of 400,000 elements. The first loop ran in .54 seconds, while the second ran in .054s.

Also, you should be a little careful when testing whether array equals zero. If the array isn't an integer type (int, byte, long, etc), then its possible to have numbers you think ought to be zero but, because of finite precision arithmetic, have very small nonzero values. If you suspect that this is happening, you can try a test like `abs(array) le eps`, where `eps` is something like 10^{-5} or something big enough to cover roundoff error but small enough not to treat nonzero data you care about as zero

chris
