

---

Subject: Re: multiplication by a diagonal matrix  
Posted by [Craig Markwardt](#) on Fri, 03 Sep 2004 14:42:37 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

lbusett@yahoo.it (Lorenzo Busetto) writes:

> Hi all,  
>  
> I have the following problem: given a matrix  $A(n,m)$  and a vector of  
> weighting factors  $w(n)$ , i need to multiply each row of the matrix  
>  $A(i,*)$  by the corresponding weighting factor  $w(i)$ .

It sounds like you want to use a FOR loop. When  $N$  is small, the number of loop iterations is small, so it will be fast. When  $N$  is large, the number of loop iterations is larger too, but you also get more done per iteration ( $N$  multiplies per iteration), plus you save  $N*(N-1)$  elements of memory compared to the full matrix approach.

Craig

Good luck,  
Craig

--

-----  
Craig B. Markwardt, Ph.D.    EMAIL: [craigmnet@REMOVEcow.physics.wisc.edu](mailto:craigmnet@REMOVEcow.physics.wisc.edu)  
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response  
-----

---