
Subject: Re: Multiplying a cube by a vector
Posted by [thompson](#) on Thu, 09 Dec 1999 08:00:00 GMT
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Pierre Chaniel <pchanial@cea.fr> writes:

> Hi !

> Has anybody written a function that multiplies an array by a vector along
> a given dimension?
> For the last dimension, one can do for an array of dimension nx,ny,nz :

```
> vector_unit = replicate(1, nx*ny)
> newcube = vector ## vector_unit
> newcube = reform(cube,nx*ny, nz) * temporary(newcube)
> newcube = reform(newcube, nx,ny,nz, /overwrite)
```

> but for the other dimensions ?

> Cheers Pierre

Pierre:

I believe that the following will what you want. If CUBE has the dimensions (NX,NY,NZ), and VECTOR_Y has the dimensions (NY), then you can multiply the two with the command

```
NEWCUBE = REBIN( REFORM(VECTOR_Y, 1,NY,1), NX,NY,NZ)
```

(I believe that Stein Vidar Haugan first pointed this out.)

William Thompson
