
Subject: Re: Using two different arrays in the same calculation

Posted by [landers](#) on Thu, 09 Jun 1994 16:09:29 GMT

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In article <2t49er\$dp5@due.uninett.no>, ragnar@kvark.fi.uib.no (Ragnar Aas) writes:

|> I have the following problem :

|>

|> I have two different arrays, (8) of float and (300,8) of float.

|> I want to vectorize the equation and therefore I need to use both

|> arrays in the same equation. For example :

|>

|> newarray=cos(small_array)*sin(large_array)

|>

|> where I want the data in small_array to be used over and over 300 times

|> in this calculation.

|>

|> Hope somebody can help me.

|>

|> Ragnar Aas

Try like this:

```
a = fltarr(8)
```

```
b = fltarr(300,8)
```

```
ia = lindgen(300,8) / 300L
```

```
c = a(ia) * b
```

Here's why.... ia is a 300,8 array of indices into the 8-element array.

So $ia(*,0) = 0$, $ia(*,1) = 1$, etc.

Then $a(ia)$ becomes a 300,8 array that repeats the 8-element array 300 times.

Note that you'd have to play with this if the index orders were reversed (like you were trying to operate on an 8-element and a (8,300) arrays). You'd need to change ia to be $\text{lindgen}(8,300) \bmod 8$

;Dave
