
Subject: Re: row calculation in a 2D array
Posted by [Vap User](#) on Mon, 31 Aug 1998 07:00:00 GMT
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"Jonas" <jonas_2@hotmail.com> writes:

The general case may be hard, if not impossible. Depends on what you mean by 'operation' below. To do it generally probably requires that the operation be a linear combination of the elements of the arrays. Anyway, this will work to find the average.

if A is your 10 by 10 array.

```
tmpA=A[3:6,*] ; the sub-array
```

```
avg=replicate( 1, 4)##transpose(tmpA)/4.; the average.
```

or, equivalently, but transposed,

```
avg = transpose(replicate(1,4))#tmpA/4.
```

You should almost always be able to replace loops of summations with the '#' (or '##') operator and a judicious choice of multiplicand.

whd

```
>
> Probably a damn simple one, but anyway:
>
> I want to perform the same operation on each sub-row in a 2D array.
> Say I want to calculate the mean of element 4-7 in each row of a 10x10
> array, and store the result in a 10 element-vector, where each element holds
> the mean from the respective row
>
> how is this done the smartest way, without using time-consuming loops?
>
> sincerely
> Jonas
>
>
```

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I don't speak for JPL, it doesn't speak for me.

Well, not all the time, at least.

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