Subject: Re: Fast matrix filling in IDL
Posted by davidf on Fri, 11 Dec 1998 08:00:00 GMT
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Timm Weitkamp (weitkamp@my-dejanews.com) writes:

> What is the fastest way of filling a matrix with identical
> column vectors in IDL?
>
> More precisely, if A is a float matrix (m x n) and V is
> a vector with m elements, is there a faster way than
>
> FOR i=0,n-1 DO A[*,i]=V ?

I don't know about "fastest", but

```
vector = Replicate(1, n)
array = V ## vector
```

is about 5 times faster for a 1000 by 500 array.
Here is my example program:

```
********************************************************** *
PRO TEST

array = Fltarr(1000, 500)
v = RandomU(seed, 1000)

time = systime(1)
FOR i=0,500-1 DO array[*,i] = v
Print, 'Time for Loop: ', systime(1) - time

time = systime(1)
vector = Replicate(1, 500)
array = v ## vector
Print, 'Time for Matrix Operations: ', systime(1) - time
END
********************************************************** *
```

And the results:

```
IDL> test
Time for Loop:                0.10000002
Time for Matrix Operations:      0.019999981
```

Cheers,

David

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