Subject: Re: Is it really more efficient to work with arrays than FOR loops?
Posted by Paolo Grigis on Thu, 23 Nov 2006 15:21:25 GMT
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Well, you might want to express x and y as 2-dimensional arrays,
something like

```
n=400
x=findgen(n)#replicate(1,n)
y=transpose(x)
```

then you can write condition in the form

```
ind=where( x*a+y*b GE c)
```

and compute whatever you want to compute for
x[ind] and y[ind]...

Ciao,
Paolo

Alvin wrote:

```
>  Hey all,
>  I was wondering if it is really that more efficient to work with arrays
>  (large ones that is). For example I have the following simple code,
>  which takes about 30 min to run:
>
>  FOR z=0L, 400 DO BEGIN
>      FOR y=0L, 400 DO BEGIN
>          FOR x=0L, 400 DO BEGIN
>              fn=f(z)     ;a function of z
>              gn=f(z)    ;another function of z
>              IF ( f(z) * x + g(z) * y GE f(z) * g(z) )  THEN BEGIN
>                  blah
>                  blah
>                  blah
>              ENDIF
>           ENDFOR
>       ENDFOR
>  ENDFOR
>
>  Now if I tried to vectorize the above, would it do me any good in
>  saving time and possibly memory? If I say something like  f(z) # x +
>  g(z) # y, where these are all vectors, I have a feeling that I am not
>  covering all the possible combinations as the FOR loop above. Does
>  anyone have any ideas, or suggestions?
>  Thanks,
>  Alvin.
```

>