
Subject: Re: Performance of a loop

Posted by [Paul van Delst](#) on Thu, 18 Oct 2001 15:34:11 GMT

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azM wrote:

```
>
> How can i speed up this procedure? It steps through a matrix of either
> 64x64x64, 128x128x128 or in the worst case 256x256x256.
>
> <==BEGIN IDL==>
> FOR i = init, limit, 1 DO BEGIN
>   FOR j = init, limit, 1 DO BEGIN
>     FOR k = init, limit, 1 DO BEGIN
>       X=img_a(i:kernel_dim+i,j:kernel_dim+j,k:kernel_dim+k)
>       Y=img_b(i:kernel_dim+i,j:kernel_dim+j,k:kernel_dim+k)
>       sign_prob_map=TM_TEST(X,Y)
>       spm_plot_statistic(i,j,k)= sign_prob_map(0)
>       spm_plot_significance(i,j,k)= sign_prob_map(1)
>     ENDFOR
>   ENDFOR
> ENDFOR
> <== END IDL ==>
```

The easiest mod for some increase in speed:

```
<==BEGIN IDL==>
FOR k = init, limit, 1 DO BEGIN
  FOR j = init, limit, 1 DO BEGIN
    FOR i = init, limit, 1 DO BEGIN
      X=img_a(i:kernel_dim+i,j:kernel_dim+j,k:kernel_dim+k)
      Y=img_b(i:kernel_dim+i,j:kernel_dim+j,k:kernel_dim+k)
      sign_prob_map=TM_TEST(X,Y)
      spm_plot_statistic(i,j,k)= sign_prob_map(0)
      spm_plot_significance(i,j,k)= sign_prob_map(1)
    ENDFOR
  ENDFOR
ENDFOR
<== END IDL ==>
```

assuming the guts of the inner loop can't be sped up somehow.

paulv

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