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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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Paul van Delst            Religious and cultural  
CIMSS @ NOAA/NCEP       purity is a fundamentalist  
Ph: (301)763-8000 x7274    fantasy  
Fax:(301)763-8545            V.S.Naipaul

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