Subject: Re: Avoiding loop stats
Posted by Foldy Lajos on Fri, 19 Jan 2007 20:26:10 GMT
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On Fri, 19 Jan 2007, yp wrote:

> IDL Gurus,
> There is perhaps a smart solution to this problem, but I could not
> figure out.
> I have a series of EO images (2D) stacked over time which makes the
> data a 3D array of [4000, 2000, 900] i.e., [lon,lat,time]
> I need to compute various statistical parameters at each pixel over
> time and produce each of them as [4000,2000] array.
>
>
> for i=0,4000L-1 do for j=0,2000L-1 do data_st(i,j)=st_func(data(i,j,*))
>
> where, data=FLTARR[4000,2000,900]
> data_st is the output from a function 'st_func' which works with vector
> data only.
>
> Is there a way to do this avoiding the 4000x2000 loop? It is painfully
> slow on windows.
> thanks in advance
>

Some speedup can be achieved with optimized memory access (if you have
enough memory for two copies of data):

```
temp=transpose(data, [2,0,1])
for j=0l,2000l-1 do for i=0l,4000l-1 do data_st[i,j]=st_func(temp[*,i,j])
```

regards,
lajos