Subject: Re: calculating long term statistics on ALBEDO data
Posted by wita on Tue, 05 Apr 2005 16:01:11 GMT
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Hi Klaus,

You idea worked, I now have it implemented as follows:

```
 ;Main processing loop
 FOR i=0L, num_tiles-1 DO BEGIN
   envi_report_stat,base, i, num_tiles
   data = envi_get_tile(tile_id1, i)
   mask = envi_get_tile(tile_id2, i)
   ;Only execute at first iterations to get the data dimensions
   IF i EQ 0 THEN BEGIN
     ds = SIZE(data, /DIMENSIONS)
     means = FLTARR(ds[0],36)
     stdev = means
     decades = LINDGEN(ds[1]) MOD 36
     index   = WHERE(decades EQ 0)
   ENDIF
   ;Loop over Z direction
   FOR k=0, 35 DO BEGIN
     tmpindex = index+k
     count = TOTAL(FINITE(data[*,tmpindex]),2)
     tmpmeans = TOTAL(data[*,tmpindex],2,/NAN)/FLOAT(count)
     tmpmeans2d = REBIN(REFORM(tmpmeans, ds[0], 1), ds[0], $
                  N_ELEMENTS(index))
     tmpstdev = SQRT(TOTAL((data[*,tmpindex] - tmpmeans2d)^2, $
                2, /NAN)/(count[*]-1))
     means[*,k] = tmpmeans
     stdev[*,k] = tmpstdev
   ENDFOR
   WRITEU, unit1, means
   WRITEU, unit2, stdev
 ENDFOR
```

It now runs in a fraction of the time compared to the previous version.

Thanks,

Allard

Subject: Re: calculating long term statistics on ALBEDO data
Posted by Paul Van Delst[1] on Tue, 05 Apr 2005 20:07:44 GMT
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wita wrote:
> Hi Klaus,
>
> You idea worked, I now have it implemented as follows:

You might also want to look into the MOMENT function (I think that's the name). It does the mean, variance, skew and kurtosis in one go.

paulv

--
Paul van Delst
CIMSS @ NOAA/NCEP/EMC

Subject: Re: calculating long term statistics on ALBEDO data
Posted by Klaus Scipal on Wed, 06 Apr 2005 07:51:53 GMT
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The problem with the moment function is that it can only be applied on the entire array. If you want to apply it to a certain dimension you have to loop through which slows everything down

Klaus

"Paul Van Delst" <paul.vandelst@noaa.gov> wrote in message news:d2ur6h$u68$1@news.nems.noaa.gov...
> wita wrote:
>> Hi Klaus,
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> paulv
>
> --
> Paul van Delst
> CIMSS @ NOAA/NCEP/EMC
>
