Subject: Re: How to make IDL faster
Posted by Ken Knapp on Wed, 29 Oct 2003 21:28:19 GMT
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My two cents:
Only loop over the rainfall data (k). Use rebin and reform to create
large (and constant) arrays, then simply difference the arrays to find
where the lat and lon matchup:

```
nelem = 207
nscan = 2985

trmmlat = reform(geo(0,*,*))
trmmlon = reform(geo(1,*,*))
trmmtb  = reform(highf(0,*,*))

for k=0,di(0)-1 do begin
   ;remap the 1 lat value to match the trmmlat coordinates
   lat = rebin(reform([lat(k)]),1,1),nelem,nscan)
   lon = rebin(reform([lon(k)]),1,1),nelem,nscan)
   match = where(abs(lat-trmmlat) lt 0.04 and $
               abs(lon-trmmlon) lt 0.04,nmatch)
   if (nmatch gt 0) then begin
     for im=0,nmatch-1 do begin
       print,loc(k),lon(k),lat(k),rain1(k),$
         rain(k),trmmtb(match(im))
     endfor
   endif
endfor
```

Park Kyung Won wrote:

```
>  Hello
>  I write message first time.
>  If I want to compare trmm satellite data with ground point data,
>  I used to this line.
>
>  geo(0,207,2985) : trmm latitute
>  geo(1,*,*) : trmm longitute
>  lat : ground location(latitute)
>  lon : ground location(longitute)
>  rain : automatic weather system rainfall data
>  highf(0,207,2985) : trmm brightness temperature data
>
>  for i=0,207 do begin
>     for j=1200,1700 do begin
>        for k=0,di(0)-1 do begin
```

```
>
>  if geo(0,i,j) gt lat(k)-0.04 and geo(0,i,j) lt lat(k)+0.04 and $
>     geo(1,i,j) gt lon(k)-0.04 and geo(1,i,j) lt lon(k)+0.04 then begin
>       printf,lun3,loc(k),lon(k),lat(k),rain1(k),rain(k),highf(0,i, j)
>  endif
>
>  endfor
>  endfor
>  endfor
>
>  When I caculate 26 trmm data, I wait almost 2hour.
>  How can I change this program?
>  Help me.
```