
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 latitude

> geo(1,*,*) : trmm longitude

> lat : ground location(latitude)

> lon : ground location(longitude)

> 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.
```
