
Subject: Re: How to make IDL faster

Posted by [MKatz843](#) on Wed, 29 Oct 2003 19:18:17 GMT

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```
> 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
>
> How can I change this program?
> Help me.
```

This is minor, but you can get a small speed advantage by taking out the begin...end where possible. For example your code could be

```
for i=0,207 do $
  for j=1200,1700 do $
    for k=0,di(0)-1 do $
      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 printf,lun3,loc(k),lon(k),lat(k),rain1(k),rain(k),highf(0,i, j)
```

It makes a small difference but it can help. You have to use begin...end only when there is more than one line of code to execute. Here, you can string them together.

You could change

```
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
```

to this

```
if (abs(geo(0,i,j) - lat(k)) LT 0.04) and $
  (abs(geo(1,i,j) - lon(k)) LT 0.04) then . . .
```

Here I am thinking that you minimize the number of times you have to go to the geo() array and get the (0,i,j) element.

M. Katz
