Subject: Re: Simplify if statements and for loops inside for loops
Posted by Russell[1] on Fri, 29 Mar 2013 22:16:42 GMT
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Just to help your thread stay alive. Again, don't ask people to dissect your code, especially code that is more than 5 lines long. Instead state the data you have, making sure to say the dimensionality, datatype, and give examples (if possible). Then state what you want of your data.

R

On Friday, March 29, 2013 12:07:51 PM UTC-4, morganls...@gmail.com wrote:
> Hello,
>
>
>
> I'm going for loop crazy and can't figure out how to simplify. It just keeps getting longer and more complicated. The gist of what I'm trying to do is match each element of mdate = string[14] to array adatea=string[74] (find matching dates). Once I know where if any place it matches I want to see if criteria are met to actually use that profile. This is where I go crazy. In some cases because there could be more than one profile on a single day, index might equal more than one location. For each of those locations I need to make sure there are at least 15 non-NaN values in the array and if so, calculate the difference between each altitude level and then if those differences do not exceed 500m I can use the profile do more calculations but if not then I just want to move onto the next matching date. Is there anyway to simplify this? Thank you.
>
>
>
> Sincerely,
>
> Morgan
>
>
>
>
> for k=2,2 do begin
>
>   indexa = where(strmatch(strmid(adatea,0,8),strmid(mdate(k),0,8)) eq 1,num)
>
>   s = size(adatea)
>
>   ncol = s(1)
>
>   col = indexa mod ncol
>
>   row = indexa/ncol
>
>   if num eq 1 then begin ; If matches then go through profile critera
>
>   inda = where(finite(aalta(col,row,*)), count) ; Count number of non-NaN altitudes

```
>
>      l = 0
>
>   endif else begin
>
>   if num gt 1 then begin
>
>      for l=0,n_elements(num)-1 do begin
>
>        inda(l) = where(finite(aalta(col(l),row(l),*)), count)
>
>      endfor
>
>      if (n_elements(inda(l)) ge 15 ) then begin
>
>        dcount=0
>
>        diffa = fltarr(50)
>
>        for k=0,count-2 do begin ; Calculate difference between altitude levels
>
>          diffa(k) = aalta(col,row,inda(k+1))-aalta(col,row,inda(k))
>
>          dcount = dcount+1
>
>        endfor
>
>        diffa = diffa(0:dcount-1)
>
>        ; Only interested in profiles with altitude differences less than 500 m
>
>        if (max(abs(diffa)) lt 500.0) then begin
>
>          ; Calculate potential temperature for ACARS
>
>          for m=0,49 do begin
>
>            aThetaa(icount,jcount,m) = PotentialTemperature(apresa(col,row,m), atempa(col,row,m))
>
>          endfor
>
>          icount = icount + 1
>
>        endif
>
>      endif
>
> endif
```

```
>
> endfor
```