
Subject: array juggling

Posted by [MA](#) on Wed, 08 Nov 2006 17:38:29 GMT

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Hello,

I have the following problem:

I want to get a subset of data out of a 3D array. This is how I do it now, but I want to eliminate the loop:

```
;-----  
-----  
num_lon=360           ; longitude dimension  
num_lat=181           ; latitude dimension  
num_mod_levs=60        ; number of model levels  
temp3D = FltArr(num_lon,num_lat,num_mod_levs)  
OpenR,1, case_data.ecmwf_path+case_data.prefix+time+'_T.dump'  
ReadU,1,temp3D  
Close,1  
  
num_records=6500  
T=FltArr(num_mod_levs,num_records)  
  
; latindex and lonindex are of dimension num_records  
; and contain latitude and longitude  
; indices. I.e. temp3D[lonindex[0],latindex[0],*] picks  
; out one column in my global map and  
; gives me the temperature for that colum. I want to get  
; those temperature columns for  
; 6500 latindex/lonindex combinations, and save  
; them in the array T.  
  
FOR i=0,num_records-1 DO BEGIN  
  T[* ,i]=Reform(temp3D[lonindex[i],latindex[i],*],60)  
ENDFOR  
;-----
```

It seems to me I should be able to do something like this instead, and avoid the loop:

```
T=temp3D[lonindex,latindex,*]
```

with a rotate or something thrown in. But this doesn't seem to work. Would it work if num_mod_levs were the leading dimension?

Any ideas?

Thanks, Maike
