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