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Subject: Re: error reading a large number of binary files  
Posted by [Mark Branson](#) on Mon, 23 Apr 2007 17:16:23 GMT  
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On Apr 23, 10:03 am, Paul van Delst <Paul.vanDe...@noaa.gov> wrote:

```
> Hi,
>
> Hmm. Is there *no* pattern as to which file (and where in the file) the failure occurs?
>
> Is there a way to rewrite your IDL code that completely separates the grib read from what
> follows? E.g.
>
>   begin file loop...
>
>     call read function....
>
>     do other stuff....
>
>   end file loop
>
> Maybe with the file reader completely separated from the body of your code you can test it
> differently.
>
> What happens if you *only* read the file data, but don't do anything with it? E.g.:
>
> pro readudaily
>   ; Just because.....
>   CATCH, Error_Status
>   IF ( Error_Status NE 0 ) THEN BEGIN
>     CATCH, /CANCEL
>     MESSAGE, !ERROR_STATE.MSG, /CONTINUE
>     RETURN
>   ENDIF
>
> ; read 4*daily ECMWF ERA-40 reanalysis wind data
> x = fltarr(144,73)
> infiles = FILE_SEARCH('daily_4/u*.bin')
> icnt = 0L & totcnt = 0L
>
> for i = 0,n_elements(infiles)-1 do begin
>
>   ; Read the file
>   openr, lun, infiles[i], /get_lun, /f77_unformatted
>   print, infiles[i]
>   while not EOF(lun) do begin
>     for ilev = 0,22 do begin
>       readu, lun, x
>     endfor
```

```

>   icnt = icnt+1
> endwhile
>   free_lun, lun
>
>   ; Increment counters
>   totcnt = totcnt + icnt
>   icnt = 0L
>
> endfor
> print, '>>> totcnt = ',totcnt
>
> end
>
> ??
>
> Do you still get failures?
>
> cheers,
>
> paulv
>

```

Hi Paul. Thanks for taking an interest in this. On Friday I actually tried something similar to your idea of just reading the files and not doing any computations, and that also failed. And just now I took the program you created above, saved it as readudaily2.pro and tried it three times. Here are the results:

```

attempt #1:
daily_4/u196112.bin
daily_4/u196201.bin
daily_4/u196202.bin
% READUDAILY2: READU: Corrupted f77 unformatted file detected. Unit:
100, File: daily_4/u196202.bin

```

```

attempt #2:
daily_4/u198409.bin
daily_4/u198410.bin
daily_4/u198411.bin
% READUDAILY2: READU: Corrupted f77 unformatted file detected. Unit:
100, File: daily_4/u198411.bin

```

```

attempt #3:
daily_4/u199610.bin
daily_4/u199611.bin
% READUDAILY2: READU: Corrupted f77 unformatted file detected. Unit:
100, File: daily_4/u199611.bin

```

As you can see, it fails on a different file each time. Although since it seemed to get further along on each successive trial, maybe I should try one or two more times and perhaps I'll get lucky??? :) Actually, I think this is just random and not a trend.

I wonder if the same error would occur if I generated a large number of binary files of a smaller size (say a 5x5 array of random numbers), because maybe it's not how large the files are but how many of them there are. ?????

Thanks,  
Mark

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