Subject: Re: error reading a large number of binary files
Posted by Mark Branson on Tue, 24 Apr 2007 21:11:16 GMT
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** UPDATE on the status of my problem **

I decided to reprocess the original grib files with wgrib again but this time with the -nh switch turned on, which eliminates the f77-style header record. Then in the IDL read routine I just had to turn off the /f77_unformatted switch. Well, this has worked flawlessly in the three tests I have tried!!!

That made me wonder if my problem was with IDL reading ANY fortran-style binary files, or just the ones created by wgrib. So I wrote a fortran-90 program to generate roughly the same size and number of binary files but just writing random numbers to the files, and then a simple readbin.pro IDL routine. Sure enough, it crashes in random places just like my previous set of ECWMF binary files with f77 headers did. Here's some sample output from a few trials -- these random number files are just named x001.bin, x002.bin, ..., x520.bin.

test #1
>>> x062.bin
>>> x063.bin
>>> x064.bin
% READU: Corrupted f77 unformatted file detected. Unit: 100, File:
x064.bin
% Execution halted at: READBIN2 10 /Users/mark/Datasets/
era40/testbin/readbin2.pro
% $MAIN$

test #2
>>> x300.bin
>>> x301.bin
>>> x302.bin
>>> x303.bin
% READU: Corrupted f77 unformatted file detected. Unit: 100, File:
x303.bin
% Execution halted at: READBIN2 10 /Users/mark/Datasets/
era40/testbin/readbin2.pro
% $MAIN$

AND the problem seems to only occur once I make the files very large. i.e., when i just wrote out 520 files of arrays of size 5, it flies through all of those with no problems.

I'd really love to get to the bottom of this problem, and I should mention that one of the ITTVIS consultants has indeed been emailing

with me and has been extremely helpful. But in the meantime I will obviously proceed with the "no-header" files for this project.

Thanks to all of you who offered suggestions -- it's very helpful and encouraging!

Cheers,
Mark
