
Subject: Re: Error in reading large Fortran unformatted files

Posted by [OM](#) on Thu, 17 Feb 2011 18:15:53 GMT

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On Feb 17, 6:16 pm, Nigel Wade <nmw-n...@ion.le.ac.uk> wrote:

> On 17/02/11 15:02, Kenneth P. Bowman wrote:

>

>> In article

>> <45a7d29c-1223-4e0e-8390-5a549f91c...@s11g2000yqh.googlegroup s.com >,

>> OM <metu...@gmail.com> wrote:

>

>>> The output is now:

>>> nb1=2147483657

>>> nb2=995288272

>

>>> I still have no idea what this means.

>

>> nb1 is the largest possible positive 32-bit signed integer

>

>> IDL> print, 2L^31 - 1

>> 2147483647

>

> The value quoted is 2147483657, which is 10 more than that. Assuming OM

> cut'n'pasted the output, so it's not just a typo, it's a number which

> has no immediate significance that I can think of.

>

> I do, however, agree that the problem is almost certainly due to trying
> to write 4GB of data as a single FORTRAN unformatted record. I doubt
> that when the FORTRAN unformatted format was devised it was never
> envisioned that someone would try to output that much data in a single
> write statement. The record length is a 32bit quantity. I don't see that
> that can be altered based on platform, the format must be the same for
> 32bit and 64bit platforms, and applications. I think the max. you can
> possibly write in a single record is 2GB-1. To write 4GB will require at
> least 3 records.

>

> --

> Nigel Wade

Well, here's the pickle - I'm getting no errors in writing the file,
and with slight modifications I can read the data in Fortran and it
seems to be valid.

Ofer.
