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...@s11g2000ygh.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.