
Subject: Re: CDF vs HDF

Posted by [K. Bowman](#) on Tue, 30 Mar 2004 22:53:25 GMT

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In article <87ptaum3hk.fsf@lumen.indyrad.iupui.edu>,
mmiller3@iupui.edu (Michael A. Miller) wrote:

- > NetCDF cannot handle files larger
- > than 2 Gbytes due to an internal 32 bit integer.

This is not strictly true.

From the UNIDATA netCDF FAQ:

- > Is it possible to create netCDF files larger than 2 Gbytes?
- >
- > It is possible to write netCDF files that exceed 2 Gbytes on platforms that
- > have "Large File Support" (LFS). Such files would be platform-independent to
- > other LFS platforms, but if you open such a file on an older platform
- > without LFS, you would expect a "file too large" error.
- >
- > There are significant restrictions on the structure of large netCDF files
- > that result from the 32-bit relative offsets that are part of the netCDF
- > file format. If you don't use the unlimited dimension, only one variable can
- > exceed 2 Gbytes in size, but it can be as large as the underlying file
- > system permits. It must be the last variable in the dataset, and the offset
- > to the beginning of this variable must be less than about 2 Gbytes. If you
- > use the unlimited dimension, any number of record variables may exceed 2
- > Gbytes in size, as long as the offset of the start of each record variable
- > within a record is less than about 2 Gbytes. For examples of both these
- > forms of large netCDF files, see the Large File Support section in the
- > User's Guide.
- >
- > To enable LFS for writing large netCDF files requires that the libraries be
- > built with specific combinations of platform-specific compile flags on some
- > systems. For examples, see the Installation instructions.

OSes with LFS include IRIX, Solaris, AIX, ...

I have not tried this from IDL. We have a mixture of 32- and 64-bit systems, and I need files to be portable.

Ken Bowman
