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Subject: Re: problem converting FORTRAN to IDL  
Posted by [rivers](#) on Sat, 15 Apr 1995 07:00:00 GMT  
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In article <3mlnpd\$gnd@reznor.larc.nasa.gov>, [zawodny@arbd0.larc.nasa.gov](mailto:zawodny@arbd0.larc.nasa.gov) (Joseph M Zawodny) writes:

> In article <D6zHn2.LyF@ireq.hydro.qc.ca> [brooker@toka.ireq-ccfm.hydro.qc.ca](mailto:brooker@toka.ireq-ccfm.hydro.qc.ca) writes:

>> This is an observation I have just made about IDL.

>>

>> When you compile a FORTRAN program, you can specify G\_floating

>> implementations of REAL\*8. This extends the range of numbers to +-0.56D308.

>> (For default D\_floating, the maximum number allowed is 0.29D38.)

>>

>> On the other hand, IDL has no option for the larger G\_floating numbers. This

>> makes for problems when you convert a "G\_floating REAL\*8 " FORTRAN program to

>> IDL.

>>

>> Peter Brooker

>

> Gee, maybe I do not understand your problem, but I did this quick test.

>

> IDL> a=.5d308

> IDL> print,a

> 5.0000000e+307

>

> Therefor you should be able to use the IDL DOUBLE to implement FORTRAN

> G\_floating calculations.

I belive the original post was probably referring to a DEC Alpha machine. On the Alpha one can compile double precision code to be D\_FLOAT, G\_FLOAT or IEEE\_FLOAT. The default for the DEC C compiler is G\_FLOAT. IDL is clearly compiled with D\_FLOAT, presumably so that the Alpha version is compatible with old VAX binary files, where D\_FLOAT is the default. It would be possible and perhaps nice if RSI would provide 3 different versions (D\_FLOAT, G\_FLOAT and IEEE\_FLOAT) of IDL for the Alpha platform. If you use CALL\_EXTERNAL on the Alpha you need to make sure any routines you call are compiled with the same floating point format used for IDL.

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