Subject: Re: IDL is not accurate enough! Posted by Kenneth P. Bowman on Thu, 28 Aug 2008 20:50:47 GMT View Forum Message <> Reply to Message

In article <MPG.232081d2b8625528989730@news.giganews.com>, David Fanning <news@dfanning.com> wrote:

> noahh.schwartz@gmail.com writes:

- >> I've been having problems with IDL accuracy. I'm trying to perform
- >> calculations using the gamma function. The problem is that it grows
- >> VERY fast! Performing this calculation in double (namely gamma(x)/
- >> gamma(y) with x and y big) yields the result: NaN...
- >> Would it be possible to use a program like 'Mathematica' (or any
- >> other) and to plug it in my ILD program? Some kind of CALL_EXTERNAL
- >> that is to say. If it is possible, how can I do it and what is the
- >> best program to use?

- > It seems *highly* unlikely to me that IDL's implementation
- > of DOUBLE is any less accurate than any other program's
- > implementation. In fact, this probably has something to
- > do with the *computer* and not with the program. :-)

Mathematica can do arbitrary-precision arithmetic ... with hundreds of digits, if necessary. Don't expect it to be fast, though, as it is all done in software, not with the hardware floating-point unit with which we normally do single- and double-precision arithmetic.

Ken