Subject: Re: 1e38 limit?
Posted by Spon on Fri, 27 Feb 2009 16:07:32 GMT
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On Feb 27, 3:55 pm, Paula <paulartcoe...@gmail.com> wrote:
> hello,
>
> i read float numbers from a text file, and eventually i need to
> multiply them by large numbers ~1e40.
> 'result' is the array that i read from the text file, and 'chi' is the
> array i'm analysing. i extract it with:
>
> chi = double(reform(result[3,*]))
>
> and then i do something like:
>
> chi = chi * 1e40
>
> but the routine apparently enters into an infinite loop, lots of CPU,
> RAM and HD usage, and i end up having to kill the process after a
> while. trial-and-error showed me that as long as i keep the
> multiplicative factor <= 1e38, everything runs smoothly.
>
> i tried even a stupid:
> chi = chi * 1e38
> chi = chi * 1e2
>
> but the routine still gets crazy with that.
>
> what is going on? how can i work it around?
>
> many thanks,
> paula

I'll try that again :-\

Hi Paula,

try
IDL> Help, 1e40

Your multiplier is too large to be represented as a float, so you have
to use double precision.
What happens if you replace it with 1d40? You may still be getting
overflow, but you'll have a lot more room to play.

I find you can't read the following article often enough:
http://www.dfanning.com/math_tips/sky_is_falling.html

All the best,
Chris