Subject: Re: strange behaviour of bytscl by large arrays
Posted by Lajos Foldy on Thu, 26 Apr 2012 14:59:13 GMT

On Wednesday, April 25, 2012 11:11:43 PM UTC+2, Kenneth P. Bowman wrote:

> Since this turns out to be a floating-point precision issue, does DINDGEN
> use a long64 counter?

I think this is not a precision issue. Float can represent numbers up to 10^{38} with a relative error of 10^{-7}. For huge values FINDGEN() creates indices with much bigger errors and this is the consequence of the current implementation, not the nature of floating point representation.

Double has a relative error of 10^{-16} so DINDGEN does not need an integer counter.

regards,
Lajos