

Re: float bug? perl 5.8, DBI and oracle 10.2.0

Source: <http://coding.derkeiler.com/Archive/Perl/perl.dbi.users/2007-07/msg00121.html>

- *From:* Tim.Bunce@xxxxxxxxxx (Tim Bunce)
 - *Date:* Wed, 18 Jul 2007 16:10:47 +0100
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On Wed, Jul 18, 2007 at 10:58:58AM -0400, Rutherfordale, Will wrote:

Tim, I have a couple of feedback comments on your text.

A) I would not characterise 32-bit signed integers as giving 10 digits of precision as you did. They give $\log_{10}(2^{31}) \approx 9.3319$ digits of precision. Since you can't count on the full 10th digit, I would truncate and tell people you get 9 digits of precision. Similarly a signed 64-bit integer gives 18.9649 or really just 18 digits of precision to be safe, but 128-bit signed integers give you a full 38 digits.

B) long double is not usually 96 bits, but rather 80 bits. Most machines that people use follow the IEEE 754 standard, which says ≥ 79 bits but is normally implemented as 80 bits.

Okay.

Good explanation generally.

Thanks for the feedback Will. I'll make some changes.

For the general list, I'm still interested in the issue of alternative representations for financial work. Has anyone had much experience with the (`NUMERIC` , `Math::BigFloat`) combination? Is that used generally by people in the field?

Might be worth meditating on that question over at <http://perlmonks.org>

Tim.

-Will

Re: float bug? perl 5.8, DBI and oracle 10.2.0

-----Original Message-----

From: Tim Bunce [<mailto:Tim.Bunce@xxxxxxxxxx>]

Sent: Tuesday 17 July 2007 19:02

To: Christopher Sarnowski

Cc: erwan@xxxxxxxxxxxxxx; dbi-users@xxxxxxxxxx

Subject: Re: float bug? perl 5.8, DBI and oracle 10.2.0

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Funnily enough I wrote a section on this topic back in May 2006 for the 2nd edition of DBI book (which is currently shelved, by the way). I've appended the relevant chunk of the rough draft. Comments welcome.

Tim.

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=head3 Perl Integer Values

Integers are typically stored as 32 or 64 bit (4 or 8 byte) values depending on how perl was configured. You can check the size of integers in your perl by running `C<perl -V>` and look