

Re: A Simplified Number System

Source: <http://sci.tech-archive.net/Archive/sci.lang/2004-11/0301.html>

From: Tak To (takto_at_alum.mit.edu.-)

Date: 11/02/04

Date: Tue, 02 Nov 2004 18:11:34 -0500

Sean wrote:

> *What are your "fixed point numbers"? The ones most familiar
> to me are BCD.*

Lee Sau Dan wrote:

> *Fixed point is as opposed to floating point. Recall that a floating
> point number consists of 2 (signed) parts: mantissa and exponent.
> With fixed point, I mean the exponent is always fixed. So, you only
> need to store the mantissa. The exponent is implicit. You would of
> course use exponents that are (negative) powers of 10 for financial
> applications. A reasonable way to represent the mantissa in binary is
> to use 2's complement form.*

Wiktor S. wrote:

> *It's like keeping all prices in cents instead of dollars and it's
> fractions (or whatever currencies you use). I think it's the best
> solution. Normal integers and normal arithmetics. You only need to
> display them correctly. No weird BCD, no special structures.*

In some programming languages such as PL/1, one can declare fixed point numbers as, for example, FIXED(5,2), meaning a precision of 5 (decimal) digits for the integral part, 2 digits for the fraction part. The compiler would then do all the conversion for you.

Tak

--

-----+-----
Tak To

takto@alum.mit.eduxx

-----^^
[taode takto ~{LU5B~}]

NB: trim the xx to get my real email addr