

Re: How to calculate a square root of an integer fast?

Source: <http://sci.tech-archive.net/Archive/sci.math.num-analysis/2005-06/msg00028.html>

- *From:* "Alun Harford" <usenet@xxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Sat, 4 Jun 2005 18:44:57 +0100
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<xgl99@xxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message
news:1117899613.758035.37020@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
> hi all,
> I am now using an algorithm here
> <http://astronomy.swin.edu.au/~pbourke/analysis/sqrt/>
> But I find it is slower than float version of sqrt() in the
> standard C library.
> Can anyone point to me a integer version of square root algorithm which
> is fast and utilize hardware optimization. I am working on Intel P4
> CPU.
> Thanks in advance

Assuming you're not too worried about problems due to slight inaccuracy of floating-point, the quickest way is probably to do it with floats and then convert. SSE2 includes a SIMD floating point square root instruction – you'll find it hard to beat that.

Alun Harford

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Include the word 'lemongrass' in any email you send to me, or you'll hit my spam filter. If you're reading archives, I may have changed this word – check <http://www.alunharford.co.uk/>

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- *References:*
 - ◆ [**How to calculate a square root of an integer fast?**](#)
◇ *From:* xgl99
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