CO-FOUNDER OF ARSTECHNICA.COM DEMYSTIFIES MICROPROCESSORS IN NEW, FOUR COLOR BOOK

Includes previously unpublished information on Intel’s Pentium M, Core and Core 2 Duo


Inside the Machine uses analogies, four-color diagrams, and clear language to convey the ideas that form the basis of modern computing. After discussing computers in the abstract, the book examines specific microprocessors from Intel, IBM, and Motorola, from the original Intel Pentium through today’s leading processors. Inside the Machine also explains technology terms and concepts that readers often hear but may not fully understand, such as pipelining, L1 cache, main memory, superscalar processing, and out-of-order execution. With an understanding of how the microprocessor works, readers gain a firm grasp of the fundamental concepts at the heart of all of modern computing.

“Comprehensive and detailed – this is Jon Stokes at his best, delivering an approachable and entertaining work despite a complex topic,” said Robert Love, Chief Architect, Linux Desktop, Novell Corporation.

Also discussed in Inside the Machine:

- Parts of the computer and microprocessor
- Programming fundamentals (arithmetic instructions, memory accesses, control flow instructions, data types)
- Intermediate and advanced microprocessor concepts (pipelining, superscalar execution, out-of-order execution, branch prediction, speculative execution)
- Intermediate and advanced computing concepts (machine language instructions (encoding and decoding), instruction set architectures, RISC and CISC, the memory hierarchy)
- 64-bit computing vs. 32-bit computing
- Caching and performance

“Jon and Ars Technica have been dishing out down-and-dirty tech coverage for years. I’ve been a regular site reader myself and respect the way they mix accurate, informative coverage with
opinions and attitude,” said No Starch Press publisher and founder Bill Pollock. “We think Jon’s Ars Technica audience dovetails nicely with the geeks who read our books.”

**Inside the Machine** is perfect for the growing community of hardware tinkerers who like to dig into the guts of their machines, students of science and engineering, and IT and business professionals.

**Additional Resources:**
Table of contents: [http://www.nostarch.com/insidemachine_toc.htm](http://www.nostarch.com/insidemachine_toc.htm)

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**Inside the Machine: An Illustrated Introduction to Microprocessors and Computer Architecture**
*by Jon M. Stokes*
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