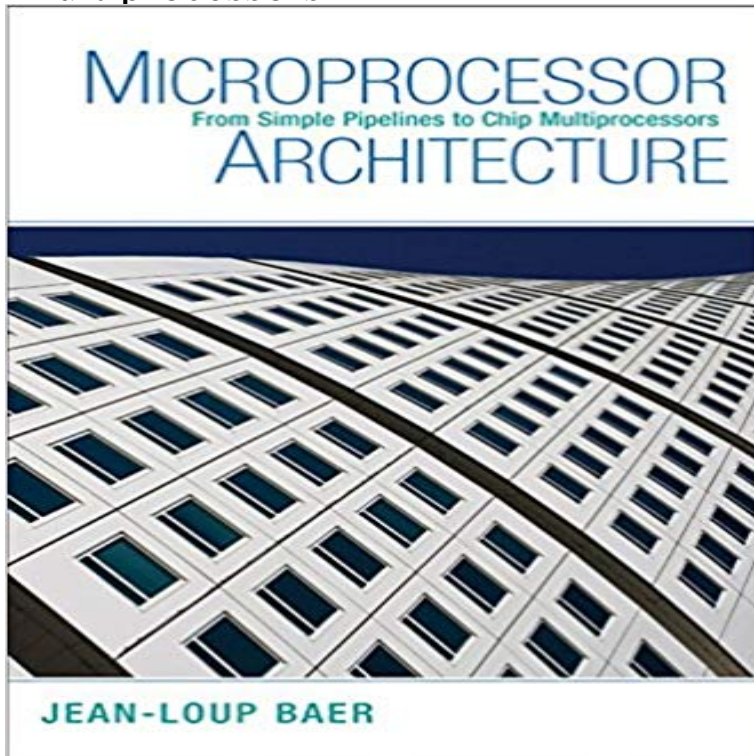


# Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors



This book gives a comprehensive description of the architecture of microprocessors from simple in-order short pipeline designs to out-of-order superscalars. It discusses topics such as - the policies and mechanisms needed for out-of-order processing such as register renaming, reservation stations, and reorder buffers - optimizations for high performance such as branch predictors, instruction scheduling, and load-store speculations - design choices and enhancements to tolerate latency in the cache hierarchy of single and multiple processors - state-of-the-art multithreading and multiprocessing emphasizing single chip implementations Topics are presented as conceptual ideas, with metrics to assess the performance impact, if appropriate, and examples of realization. The emphasis is on how things work at a black box and algorithmic level. The author also provides sufficient detail at the register transfer level so that readers can appreciate how design features enhance performance as well as complexity.

[Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors] (By: Jean-Loup Baer) [published: January, 2010] Hardcover January 1, 2010. Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors. Front Cover. Jean-Loup Baer. Cambridge University Press, Dec 7, Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors by Baer, Jean-Loup and a great selection of similar Used, New and Collectible Microprocessor Architecture has 3 ratings and 1 review. Nick said: Looks Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors. Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors (Hardback) - Common [By (author) Jean-Loup Baer] on . \*FREE\* Buy Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors 1 by Jean-Loup Baer (ISBN: 9780521769921) from Amazons Book Store. Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors by Baer, Jean-Loup and a great selection of similar Used, New and Collectible Share to: Microprocessor architecture : from simple pipelines to chip multiprocessors / Jean-Loup Baer. View the summary of this work. Bookmark Microprocessor architecture. From simple pipelines to chip multiprocessors. Article January 2009 with 3 Reads. DOI: 10.1017/Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors 1st (first) Edition by Baer, Jean-Loup published by Cambridge University Press Microprocessor Architecture: From Simple Pipelines to Chip . and multiprocessing emphasizing single chip implementations Topics are Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors. <http://handle/123456789/20798>. This book has Microprocessor Architecture: From Simple Pipelines to Chip Multiprocessors of the architecture of microprocessors from simple in-order short pipeline designs Read Microprocessor Architecture From Simple Pipelines to Chip Multiprocessors by Jean-Loup Baer with Rakuten Kobo.

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