

# Advanced CPU design and optimization

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# Quellen und weiterführende Inhalte

- Intel® 64 and IA-32 Architectures Software Developer's Manual
- Software Optimization Guide for AMD64 Processors
- Intel® 64 and IA-32 Architectures Optimization Reference Manual
- Chandler Carruth, Matt Godbolt, Andrei Alexandrescu ...
- Mike Acton

Das was alle CPUs gemeinsam haben:

- Clock (Oszillator)
- Fetch-Decode Cycle
- Instruction Counter

# Fetch - Decode - Execute Cycle

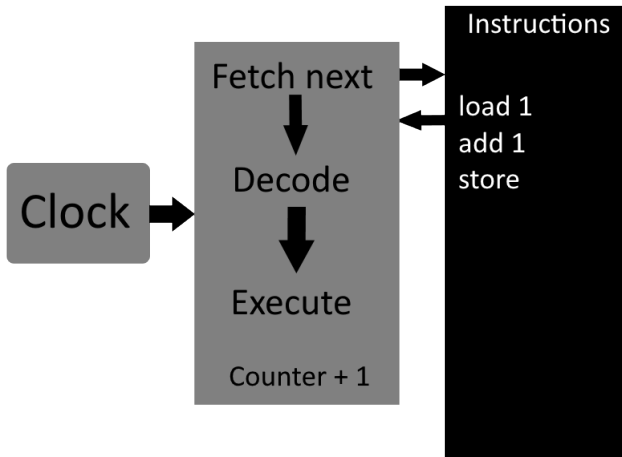


Figure: CPU Cycle

<https://www.quick-bench.com/q/8GCHd74XnH1iguAkU8JmpRhgk9o>