Architecture Transitions

1989 — i486

1993 — Intel Inside Pentium

1996 — Intel Inside Pentium Pro, Intel Inside Pentium II, Intel Inside Pentium III

2000 — Intel Inside Pentium 4, Intel Inside Xeon

Netburst® Microarchitecture

2006

SHIFT to PERFORMANCE/ WATT

2003 — Intel Inside Pentium M — 90nm

2006 — Intel® Core™ Microarchitecture — 65nm

2008 — Nehalem New microarchitecture — 45nm

2010 — Gesher New microarchitecture — 32nm

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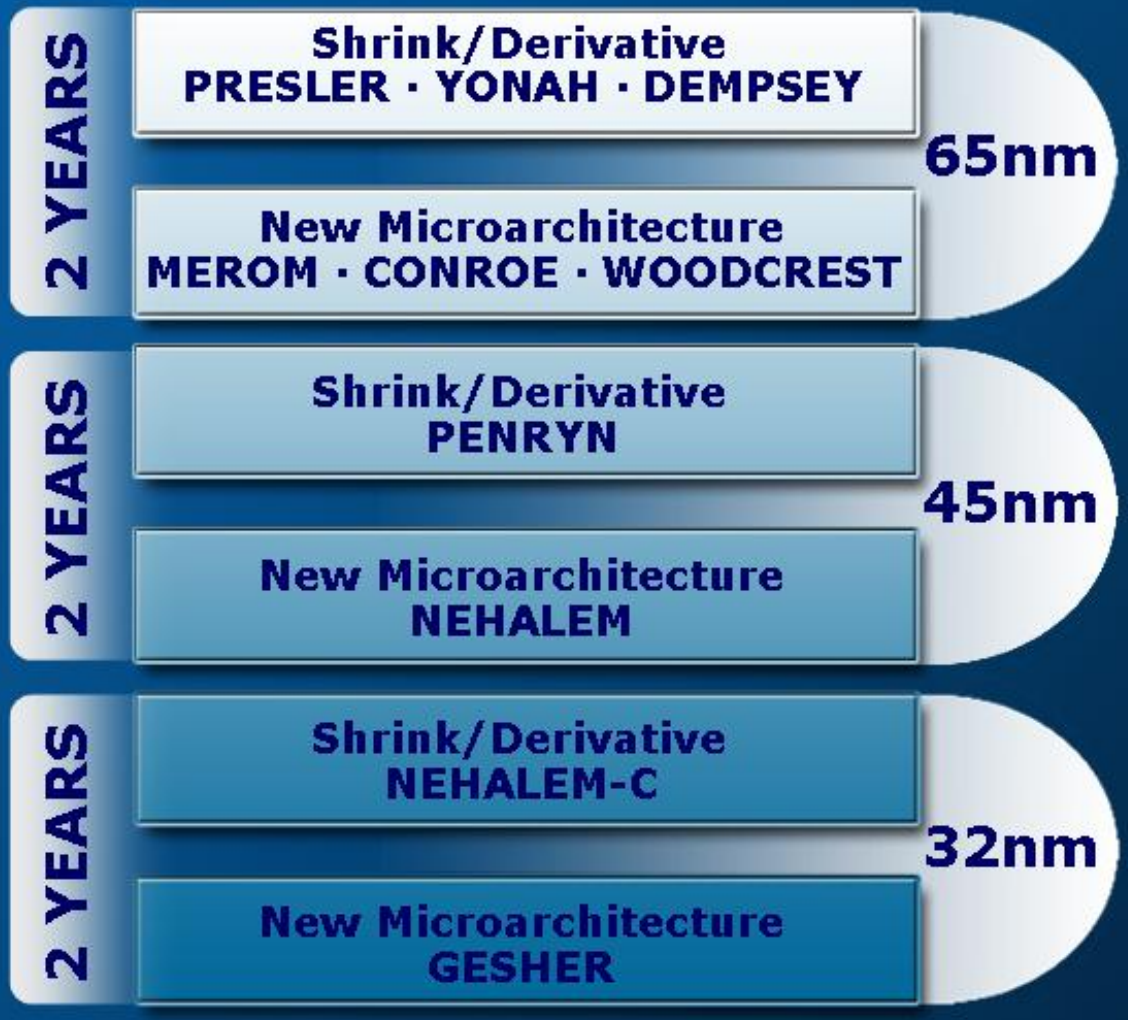
Microprocessor Design Model



PRINCIPLES

1. One micro-architecture for all high volume market segments
2. Optimized for performance/watt
3. Parallel design teams
4. No waiting on new process technology
5. Chipset cadence offset for fast ramp

OBJECTIVE: Sustained Technology Leadership

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