

## The CPU Market

Intel and AMD are probably the best known Central Processing Unit (CPU) manufacturers on the market. In fact these two companies alone account for 97% of all new computer CPU's sold today. There is however other CPU manufacturers that are presenting innovative ideas that are not being addressed by either Intel or AMD. These other manufacturers include Apple, Transmeta, and VIA.

Intel holds the largest market share of all new CPU's sold at 76%. Intel sells two major CPU types, the Intel P4 and the Intel Celeron. However, there are many models of the Intel chips in the P4 and Celeron family. Each time Intel improves a processor beyond a simple Mhz boost the processor receives a new code name. The newest code name in the Intel family is Prescott. Prescott is built on a smaller 90-nm die, which allows more room for increased cache memory and 11 more data paths over the older Northwood processor core. Intel differentiates between the two classes of chips by putting an E at the end of the Prescott's Mhz speed.

AMD's market share accounts for just 21% of all new computers sold in the world, but AMD seems to increase market share on an almost yearly basis. Intel and AMD have been at war with each other ever since the release of AMD's first x86 processor. AMD recently beat Intel by releasing a 64-bit processor before Intel. Apple however, released the first desktop 64-bit processor using an IBM PowerPC 970 chip about a week before AMD. Unlike Apple computers, Windows based computer cannot take advantage of the faster capabilities of the 64-bit architecture. Microsoft is due to release a newer 64-bit version of its Windows XP operating system this fall.

As I mentioned earlier Apple became the first to release a 64-bit processor this past fall. Also Apple has an advantage over Windows based computers because they control the hardware and software. Apple's newest software version, Mac OS 10.3 is not a true 64-bit operating system, but does have support for the newer technology.

Via Technologies is a well-known chipset and motherboard manufacturer that bought the ailing Cyrix processor a few years ago. Via has revamped that chip and focuses on the budget PC market. This market is geared toward folks that want a simple machine for E-mail and web surfing. Via's newest chip is code named Nehemiah and is marketed under the Via C3 model name. This chip performs at a whopping 1.2 Ghz; however, the chip produces very little heat, which is great for smaller PC's.

The last processor I will explore in this article is the Transmeta processor. This company released its first processor named Crusoe a couple of years ago. Their focus markets are small and ultra portable notebooks. Transmeta's current CPU is named Efficeon and is not actually based on x86 architecture. This processor consumes very little energy making it well suited for ultra portable laptops that require longer run times.

The processor market is an ever-changing market with new accomplishments on an almost monthly basis. These are five great processor companies that are in constant competition with each other to release the next big breakthrough first. When buying your next PC I suggest that you purchase it from someone with a technical background as opposed to a sales background so that they can better explain the differences in the processors on the market. If you need someone to examine your needs and pick the right processor for you give Thomas or Roger a call at the Computer Depot or e-mail us at [computerdepotonline@att.net](mailto:computerdepotonline@att.net).