

Cyrix Technical Connection



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In the interest of timely advice and communication, we have decided to use the avenue of a weekly on-line news letter to keep you, our very important customers, informed of what is going on within our company and what good things are happening here at Cyrix. We also want to offer a few helpful hints and suggestions in order to make your Cyrix experience as positive as possible.

Games and More Games

http://www.cyrix.com/html/software/games_index.htm is the Games Multimedia area of the Cyrix WEB site. This page shows how far Cyrix has come in testing computer game compatibility. We stay in touch with all game vendors and test the latest as well as beta versions of all games to make sure that everything functions as it should. There has been "talk" out there about how games do not run on Cyrix processors. At the introduction of the 6x86, several years ago, Windows 95 could not identify our part correctly and identified it as a 486. This would present two scenarios.

1. The game would "warn you that your processor was not fast enough. However, you could install it and it would play just fine.
2. The game would warn you that your processor was not fast enough and not allow you to install at all.

As of today, CPUid issues have been resolved and current Cyrix processors can play all games including those requiring MMX. There are occasional updates (sometimes known as patches) that are produced to correct problems with some games. These are noted on our Games and Multimedia WEB page and point to where these updates can be found.

3DNow!TM technology* is not supported in current shipping product. Our next processor to be out later this year will be 3DNow!TM compatible. Stay connected to the URL referenced above for all future titles and other game and multimedia information.

*3DNow!TM technology is a Superscalar SIMD (single instruction multipledata) instruction set for improving 3D graphics, sound and or imaging within your PC. 3DNow! technology enables new levels of realism on your PC with lifelike visuals, big-screen sound, and more realistic 3D imaging.

Upgrading with Old Hardware

I suppose that one of the procedures that ends up causing a lot of computer users substantial grief is "upgrading." It is time to make your computer bigger, faster and meaner than ever. Of course, we all want to spend as little money as possible on the upgrade, so we elect to keep as much of the old hardware as possible – because, after all, it is still working fine.

In considering upgrading, let's mention motherboard considerations if you are wanting a faster processor. All processors have certain specifications that must be met on the motherboard if it is to run at the rated speed, which is why you bought it.

The first item to consider is the bus speed (sometimes called host bus speed or Front Side Bus in processors that have an on board L2 cache). If your new processor requires a 100 MHz bus for optimum performance and your motherboard only supports a maximum bus speed of 75 MHz, then you are not going to be getting all of the performance that you want. The second item is the clock setting or clock multiplier that is specified for your processor. The clock multiplier is a number that when multiplied by the bus speed results in the MHz rating of the processor. For example a processor running on a 66 MHz bus with a clock multiplier of 3x is a 200 MHz processor. The "core of the processor is running at 198.9 (200) MHz. But if your motherboard will only support a maximum clock multiplier of 2.5x, then you will not get the maximum performance from the microprocessor (2.5 x 66 = 165 (166MHz)).

A third consideration is that some motherboards supporting a slower processor, might not support the voltage required for the new/faster chip. This is something the user must check out. If the core voltage is under driven, then the processor will not run at its rated performance level. If the core voltage is over driven, more heat will build up than can be dissipated, and the processor will lock up or freeze.

From where I sit, if you are making a significant increase in the speed of your processor, then I would recommend upgrading your motherboard at the same time. Of course, if you are going from a Socket 7 part to a Slot 1 or socket 370 part, then you have no choice. More next time.

Tech Tip: The Right Motherboard

When using Cyrix processors, it is always a good idea to consult our Motherboard list on the WEB. These have been through our lab and passed all kinds of tests. Remember a solid motherboard is the foundation of a stable computer.