

freebsd-questions: Re: Overheating attributed to Freebsd --sysctl variables not available--

## Re: Overheating attributed to Freebsd --sysctl variables not available--

**Source:** <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/questions/2003-11/0447.html>

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**From:** Jud ([judmarc\\_at\\_fastmail.fm](mailto:judmarc_at_fastmail.fm))

**Date:** 11/05/03

To: nwl <[network101@covad.net](mailto:network101@covad.net)>, [freebsd-questions@freebsd.org](mailto:freebsd-questions@freebsd.org)

Date: Tue, 04 Nov 2003 19:55:08 -0500

On Tue, 4 Nov 2003 19:01:00 -0500, nwl <[network101@covad.net](mailto:network101@covad.net)> wrote:

[snip]

>> *"Why mother board vendors release their products with such BIOS*

*>> settings?*

>

> *What's the reason? <nothing here>*

Not sure if this is what you were asking, but the reason is explained in the quoted lines just below:

>> *Well, there is a reason: There is a possibility to get the system*

*>> unstable*

*>> and/or even to hang or crash the system."*

[snip]

> *What I've understood from this particular posting is this:*

> *the motherboards used for the AMD Athlon/Duron(s) have a default BIOS*

*> setting --not*

*> allowing the processors to go into 'Power Saving Mode' --while intel*

*> based --default BIOS*

*> settings: \*do allow 'Power Saving Mode' for the processor(s). y/n?*

I don't know enough to be able to tell you whether Intel-based mobos are configured by default to allow a "power saving mode," or if the fact that Intel CPUs run cooler (I remember reading a memorable description of the Athlon Thunderbird as a "blowtorch on the head of a pin") means "power saving mode" never becomes an issue.

> *That seems to be just a bit disturbing. If we could for the purposes of*  
> *this paragraph*

> *alone, suspend the notion of \*over heating while idling\*... As someone*

> *stated earlier in*

> *the thread, what about these cpu's under heavy load within FreeBSD? <--*

> *in our case,*

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- > *without the air-conditioner on; --> will overheat and shutdown I have*
- > *put these cpu's*
- > *under heavy load in a non FreeBSD environment and the hardware refuses*
- > *to break down,*
- > *overheat or shutdown*
- >
- > *-- Unsuspend the notion of \*over heating while idling\*... --*
- >
- > *Should we turn our air-conditioner off and set:*
- > *machdep.apm\_suspend\_delay: 1*
- > *machdep.apm\_standby\_delay: 1*
- > *and let this dual AMD idle, the machine will overheat and shutdown in a*
- > *matter of hours.*
- > *Once the room is at a temperature warm enough to make the machine*
- > *shutdown, the only way*
- > *to keep that machine on for more than five (5) to Twenty (20) minutes is*
- > *to turn the*
- > *air-conditioner on and leave it on.*
- >
- >
- > *Should we turn our air-conditioner off and set:*
- > *machdep.apm\_suspend\_delay: 0*
- > *machdep.apm\_standby\_delay: 0*
- >
- > *Run a script to loop:*
- > *make buildworld && make buildkernel KERNCONF=<MY\_KERN>*
- > *The machine seems to run like a champ without overheating/shutting down.*
- >
- > *SUMMARY:*
- >
- > *I hear all of what you're saying here, however, if we leave apm out of*
- > *this altogether,*
- > *whether inTel, AMD or any other processor, shouldn't the processor(s),*
- > *dual or not, be*
- > *able to run full-throttle or, idle without overheating/ shutting down?*

Yes, but: Let's say for some reason (e.g., heat conducting cement/paste interface not quite so nicely done on this particular unit) that this unit runs hot in the first place. I don't know if the Other OS is tuned to the CPU, or has hooks into low-level functions in the CPU, or the CPU is tuned by the manufacturer to the Other OS, so that it remains just *\*this\** side of shutdown with the Other OS, and goes just *\*that\** side of shutdown with FreeBSD. (We're way beyond my level of knowledge here, so if any of this really is correct I just got lucky.:)

Jud

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freebsd-questions@freebsd.org mailing list

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