

Re: [BUG] x86 kernel won't boot under Virtual PC

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2008-09/msg02737.html>

- *From:* david@xxxxxxx
 - *Date:* Mon, 8 Sep 2008 09:34:15 -0700 (PDT)
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On Mon, 8 Sep 2008, Linus Torvalds wrote:

On Mon, 8 Sep 2008, H. Peter Anvin wrote:

And yes, it should be the default. The patch I have makes it "default y" as well as change the help text.

It sounds like it shouldn't be a default at all, it should just `_always_` be on, if there really are gcc's that care that much. Most of our optimizations have historically really been about `_optimizing_`, not about "it won't work", even if we have had exceptions (but as mentioned, I think those exceptions have been way more important than NOPL).

Would it make you happier if this option was forced enabled unless `CONFIG_EMBEDDED` was on?

Yes, putting it behind `EMBEDDED` will certainly fix the issue. Anybody who actually enables `EMBEDDED` and does all his choices by hand should no longer expect to not have to know `_exactly_` what he is doing.

So if it's behind `EMBEDDED`, and defaults to "on", then I have no problem with changing the help text to say "If you do this, we'll statically do things that really `_require_` you to have a CPU that looks `_exactly_` like the CPU you claimed".

I always understood the CPU selection to be "this CPU and ones compatible with it will work, others won't" unless generic was enabled. The fact that only a few CPU's wouldn't work and the rest was optimization is true, but the details of what chips would and wouldn't work were never that clear. The difference between a kernel compiled for generic and once compiled for a specific CPU can be very significant. (I ran into 30% differences back in the 2.4 days between generic and Athlon) This is why all the distros don't enable the generic cpu option on their kernels nowadays. I'd hate to see all the distros enabling embedded just to get this performance boost

Re: [BUG] x86 kenel won't boot under Virtual PC

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