
Subject: Re: [PATCH] mark read_crX() asm code as volatile

Posted by [Andi Kleen](#) on Wed, 03 Oct 2007 08:45:05 GMT

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>

> How does the compiler know it doesn't depend on memory?

When it has no m (or equivalent like g) constrained argument
and no memory clobber.

> How do you say it depends on memory?

You add any of the above.

> You really need something as heavy as volatile?

You could do a memory clobber, but it would be heavier than the volatile
because the memory clobber clobbers all cached variables. volatile essentially
just says "don't remove; has side effects". Normally gcc does that automatically
for something without outputs, but this one has.

Besides a CRx access does not actually clobber memory.

-Andi
