

## [patch] spinlock-debug fix

**Source:** <http://linux.derkeiler.com/Mailing-Lists/Kernel/2005-06/6944.html>

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**Date:** 06/27/05

Date: Mon, 27 Jun 2005 11:48:44 +0200

To: Andrew Morton <[akpm@osdl.org](mailto:akpm@osdl.org)>

\* Andrew Morton <[akpm@osdl.org](mailto:akpm@osdl.org)> wrote:

> *Reuben Farrelly* <[reuben-lkml@reub.net](mailto:reuben-lkml@reub.net)> wrote:  
> >  
> > > *Anyway, scary trace. It look like some spinlock is thought to be in the*  
> > > *wrong state in schedule(). Send the .config, please.*  
> >  
> > *Now online at <http://www.reub.net/kernel/.config>*  
>  
> *Me too.*  
>  
> *BUG: spinlock recursion on CPU#0, swapper/0, c120d520*  
> [[c01039ed](#)] *dump\_stack+0x19/0x20*  
> [[c01d9af2](#)] *spin\_bug+0x42/0x54*  
> [[c01d9bfa](#)] *\_raw\_spin\_lock+0x3e/0x84*  
> [[c031d0ad](#)] *\_spin\_lock+0x9/0x10*  
> [[c031b9e9](#)] *schedule+0x479/0xbc8*  
> [[c0100cb4](#)] *cpu\_idle+0x88/0x8c*  
> [[c01002c1](#)] *rest\_init+0x21/0x28*  
> [[c0442899](#)] *start\_kernel+0x151/0x158*  
> [[c010020f](#)] *0xc010020f*  
> *Kernel panic – not syncing: bad locking*  
>  
> *The bug is in the new spinlock debugging code itself. Ingo, can you*  
> *test that .config please?*

couldnt reproduce it on an UP box, nor on an SMP/HT 2/4-way box, but it finally triggered on a 2-way SMP box.

the bug is that `current->pid` is not a unique identifier on SMP (doh!).

The patch below fixes the bug – which also happens to be a speedup for the debugging code, as the `->pid` dereferencing does not have to be done anymore. Also, i've disabled the panicing for now.

Ingo

## Linux-Kernel: [patch] spinlock-debug fix

- change owner\_pid to owner, to fix bad pid uniqueness assumption on SMP
- some more debug output printed
- dont panic for now

Signed-off-by: Ingo Molnar <mingo@elte.hu>

```
include/linux/spinlock_types.h | 16 ++++++++-----  
kernel/sched.c | 2 +-  
lib/spinlock_debug.c | 30 ++++++++-----  
3 files changed, 30 insertions(+), 18 deletions(-)
```

Index: linux/includ