

## Flaw in ide\_unregister()

**Source:** <http://linux.derkeiler.com/Mailing-Lists/Kernel/2004-12/6410.html>

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**Date:** 12/31/04

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I've been having some problems with calls to `ide_unregister()` (in `ide.c`).

This function is declared void which should mean it always succeeds and yet it can fail *\*silently\** under the following condition:

```
if (drive->usage || DRIVER(drive)->busy) goto abort;
```

(it also fails if `!hwif->present`) although that is not a problem)

The driver I've been having problems with is `ide-cs.c`. Specifically if a CF card is removed without ejecting and unmounting the card first. In this case, the hardware is gone so we want the `ide_unregister` call to succeed and yet the above code aborts the `unregister` (silently). This makes it an `ide` problem rather than an `ide-cs/pcmcia` problem.

There are several solutions:

1. Fix `ide_unregister` so it always succeeds. (Preferred Solution)
2. Add parameter to `ide_unregister` to state whether it should abort on `busy/usage` or not. (ugly)
3. Add a return value. What does `ide-cs.c` do with it though? The hardware is gone. (doesn't help)

Only a limited number of drivers use `ide_unregister()`:

```
drivers/ide/ide-pnp.c
drivers/ide/arm/rapide.c
drivers/ide/legacy/ide-cs.c
drivers/macintosh/mediabay.c
```

Of these, I can't see anything that would break if we make `ide_unregister` always succeed.

I've tried removing the `if` statement above and just letting `ide_unregister` succeed but the call then just deadlocks. I had to make some small changes to `ide.c` and `ide-disk.c` to stop it using interfaces we've marked as dead and allow deregistration of dead devices.

## Linux-Kernel: Flaw in ide\_unregister()

The bare minimum of code I needed to make ide\_unregister succeed when called from ide-cs.c is in the following patch:

<http://www.rpsys.net/openzaurus/ide.patch>

There are probably other places checks are needed. I would appreciate it if someone could comment on whether these changes can be made to the ide drivers, what else may need to be done or if there is an alternative solution I've overlooked.

Thanks,

Richard

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