

Linux Kernel Development

Greg Kroah-Hartman
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github.com/gregkh/kernel-development

48,000 files
19,100,000 lines

3,692 developers
448 companies

Kernel releases 3.14.0 – 3.19.0
January 2014 – February 2015

8,400 lines added

5,300 lines removed

2,100 lines modified

8,400 lines added

5,300 lines removed

2,100 lines modified

Every day

8.1 changes per hour

Kernel releases 3.14.0 – 3.19.0
January 2014 – February 2015

9.5 changes per hour

3.16 release

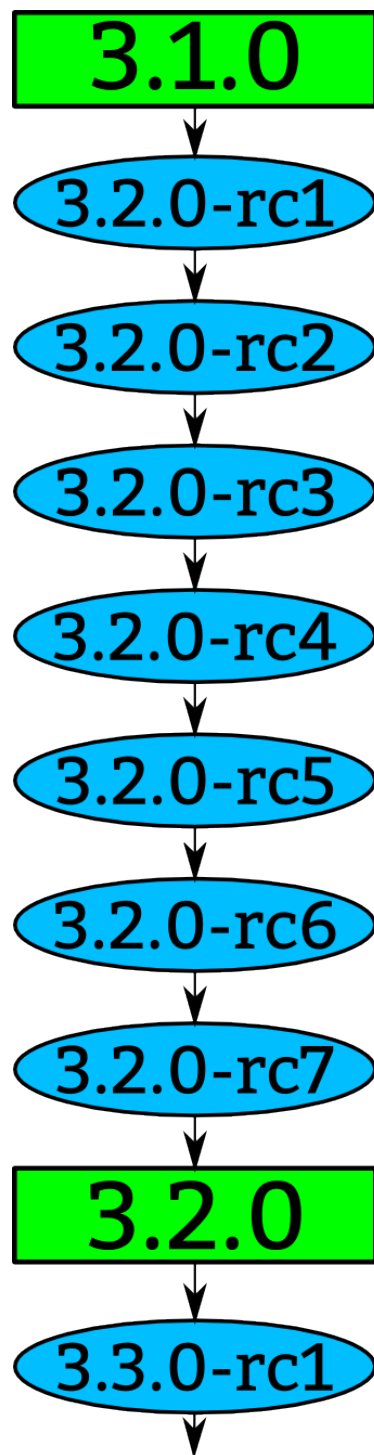
How we stay sane

Time based releases

Incremental changes



**New release every
2½ months**





“Longterm kernels”

One picked per year

Maintained for two years

3.10 3.14

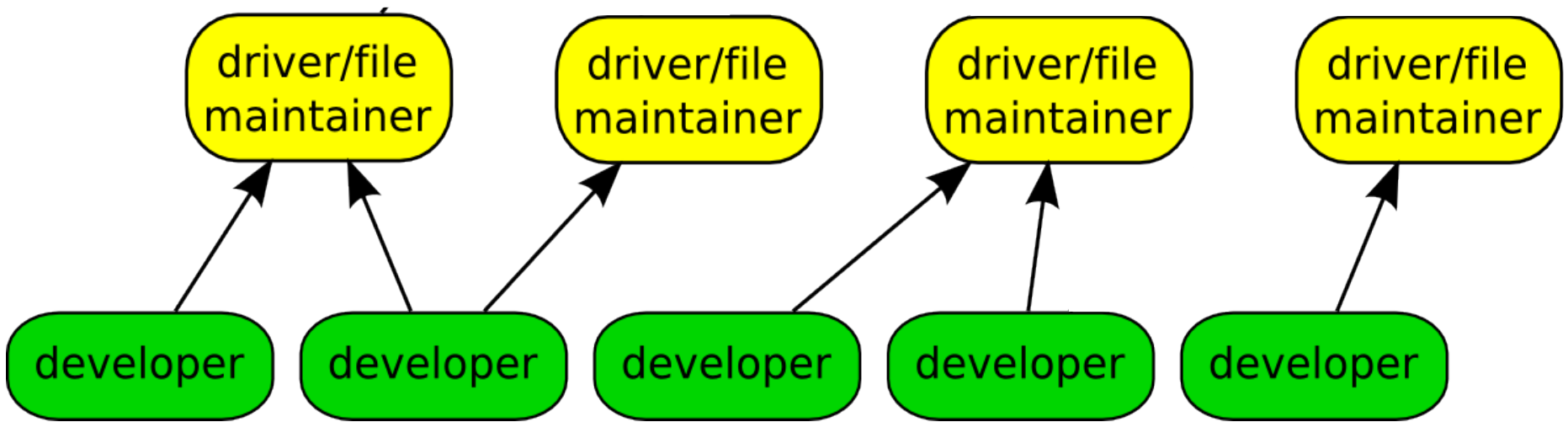
developer

developer

developer

developer

developer



```
commit ecf85e481a716cfe07406439fdc7ba9526bbfaeb
Author:      Robert Jarzmik <robert.jarzmik@free.fr>
AuthorDate:  Tue Apr 21 20:33:10 2009 -0700
Commit:      Greg Kroah-Hartman <gregkh@suse.de>
CommitDate:  Thu Apr 23 14:15:31 2009 -0700
```

USB: otg: Fix bug on remove path without transceiver

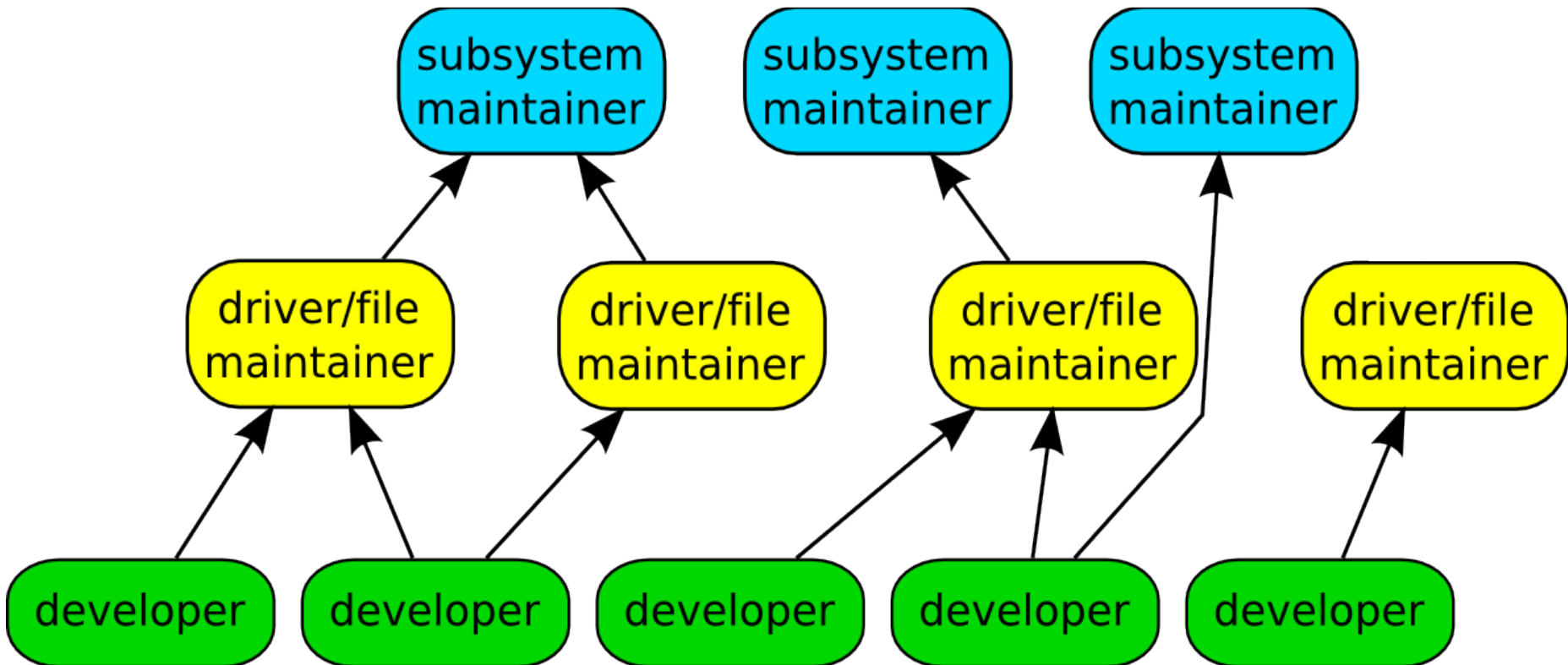
In the case where a gadget driver is removed while no transceiver was found at probe time, a bug in `otg_put_transceiver()` will trigger.

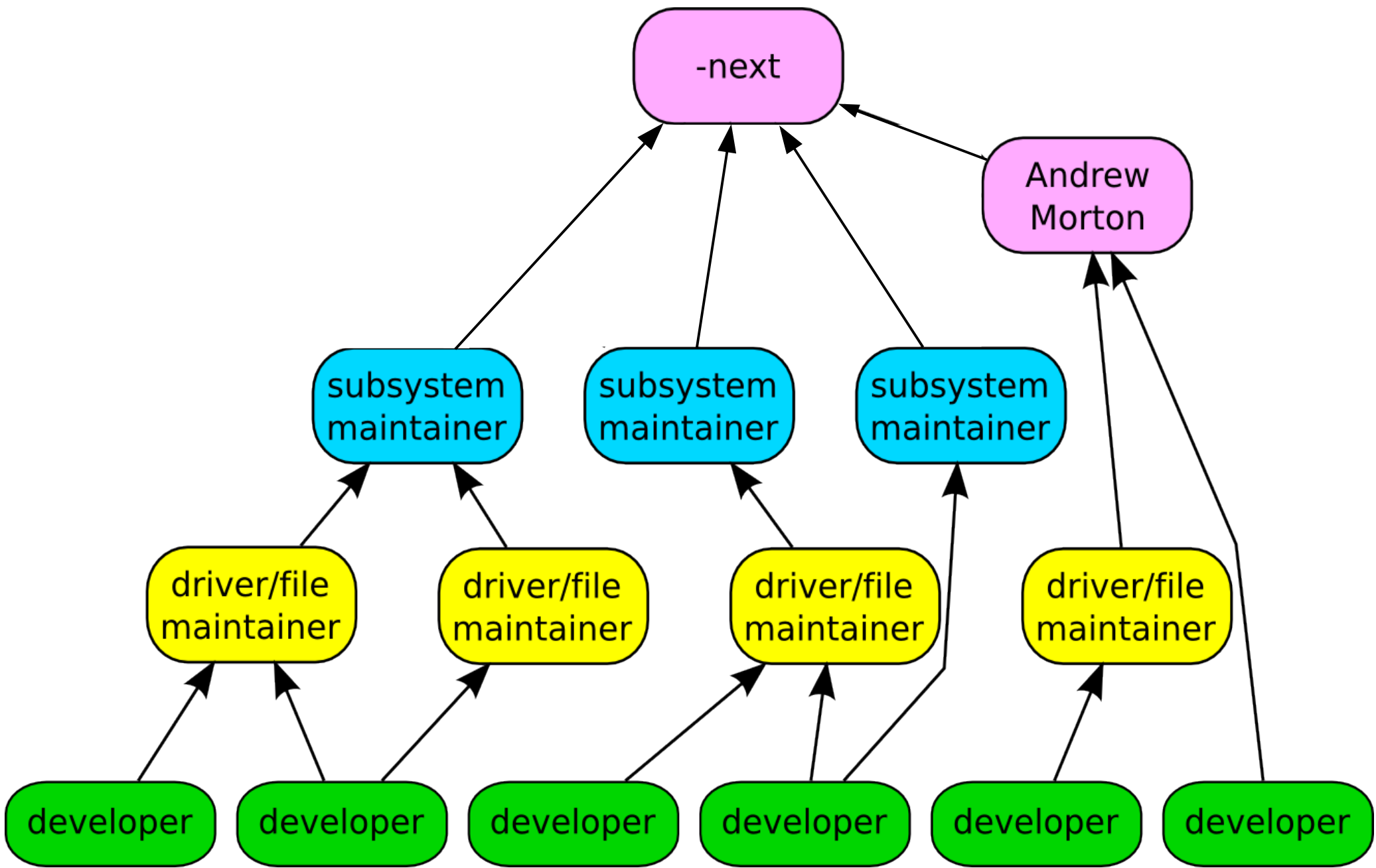
Signed-off-by: Robert Jarzmik <robert.jarzmik@free.fr>
Acked-by: David Brownell <dbrownell@users.sourceforge.net>
Signed-off-by: Greg Kroah-Hartman <gregkh@suse.de>

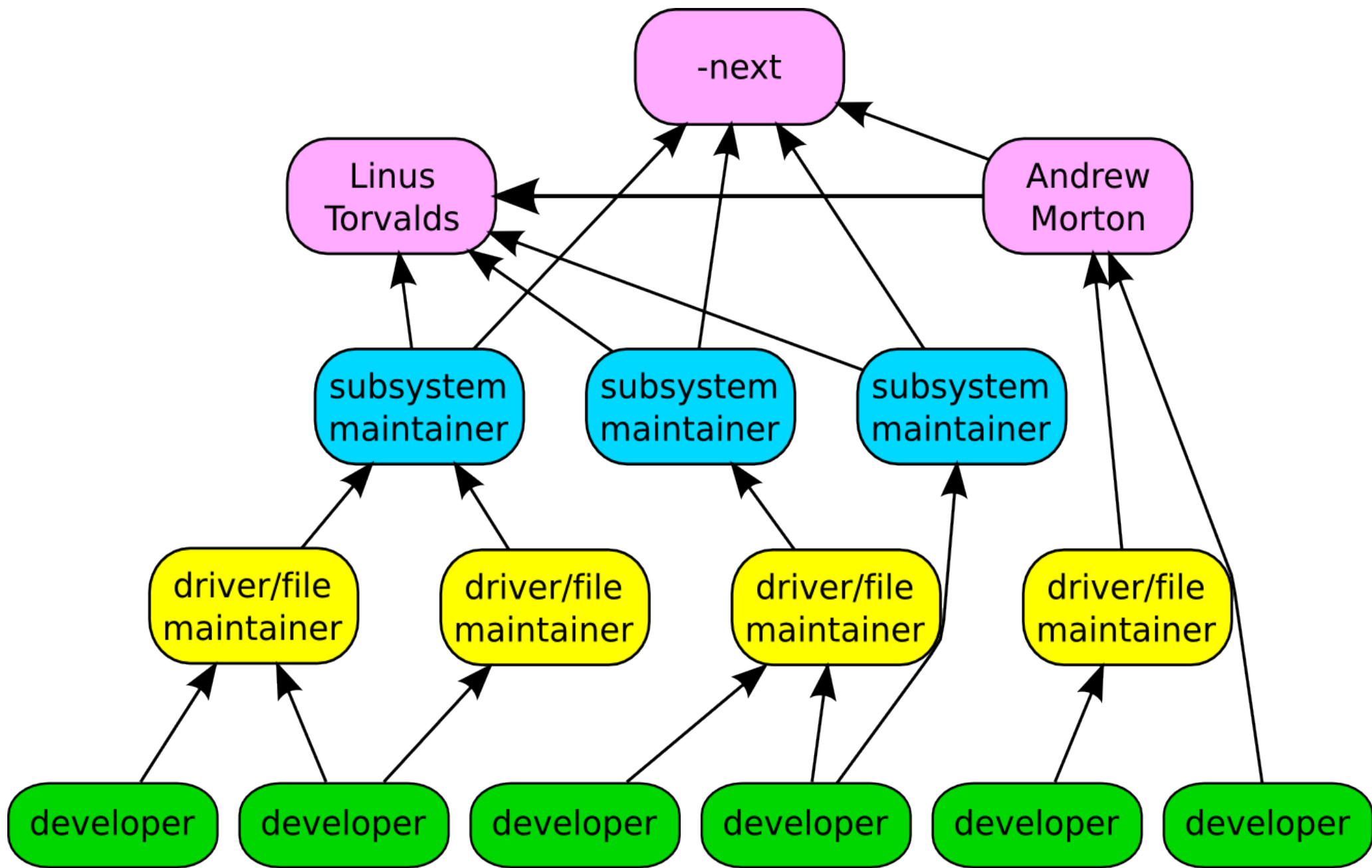
```
--- a/drivers/usb/otg/otg.c
+++ b/drivers/usb/otg/otg.c
@@ -43,7 +43,8 @@ EXPORT_SYMBOL(otg_get_transceiver);
 void otg_put_transceiver(struct otg_transceiver *x)
 {
-    put_device(x->dev);
+    if (x)
+        put_device(x->dev);
 }
```

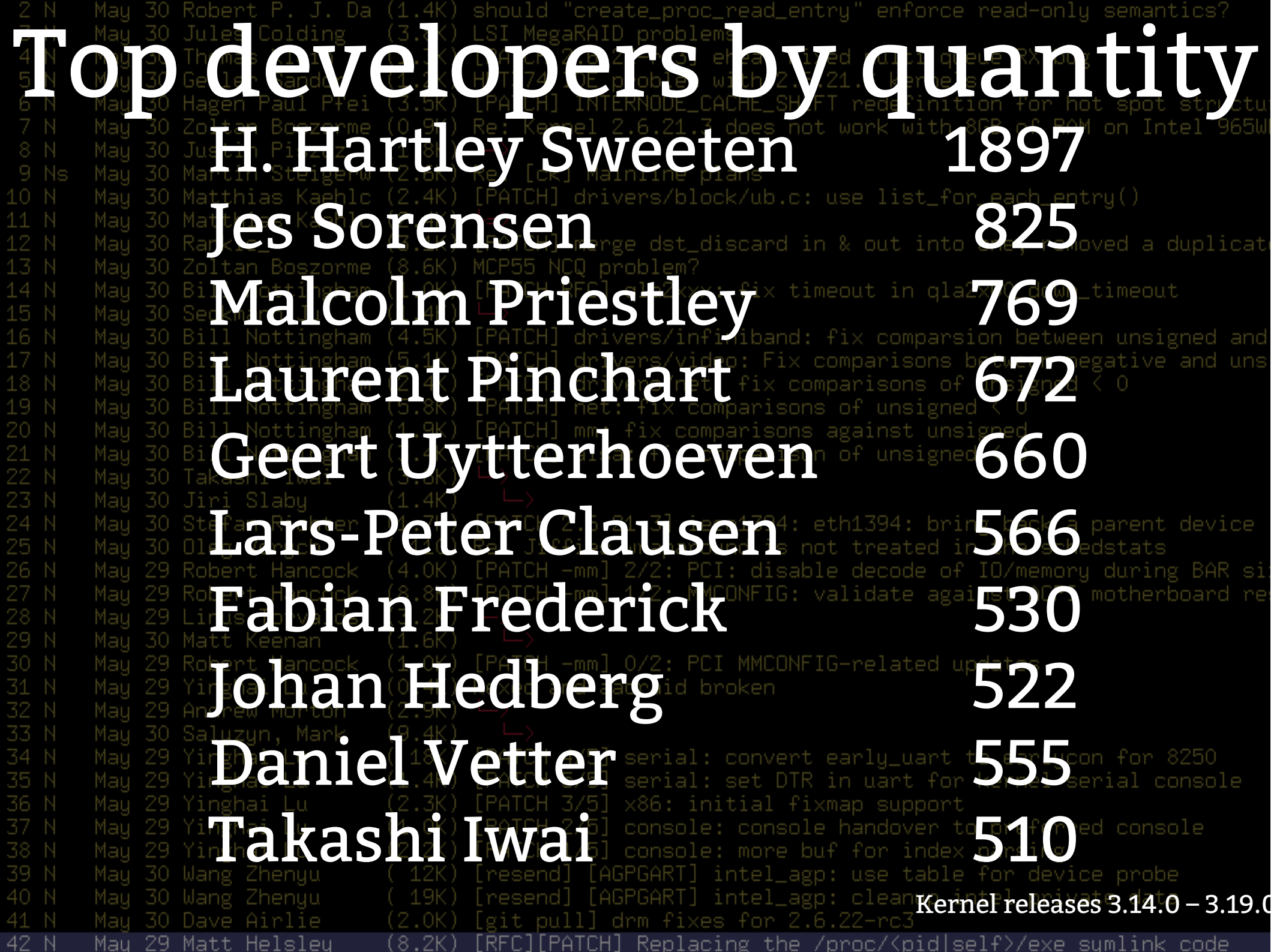
Developer's Certificate of Origin

- (a) I created this change; or
- (b) Based this on a previous work with a compatible license; or
- (c) Provided to me by (a), (b), or (c) and not modified
- (d) This contribution is public.









Top Signed-off-by:

Greg Kroah-Hartman 11054

David S. Miller 6031

Mark Brown 3200

Linus Torvalds 2717

Andrew Morton 2582

Mauro Carvalho Chehab 2270

Daniel Vetter 1968

John Linville 1711

Rafael Wysocki 1021

Marcel Holtmann 958

Who is funding this work?

1. “Amateurs”	13.0%
2. Intel	10.8%
3. Red Hat	8.5%
4. Unknown Individuals	5.0%
5. Samsung	4.1%
6. Linaro	4.0%
7. SuSE	3.3%
8. Consultants	3.0%
9. IBM	2.8%
10. Vision Engraving	2.5%

Who is funding this work?

11. Texas Instruments	2.5%
12. Google	2.3%
13. Renesas	2.2%
14. Freescale	1.7%
15. Free Electrons	1.6%
16. FOSS OPFW	1.3%
17. Oracle	1.1%
16. Nvidia	1.1%
19. AMD	1.0%
20. Broadcom	1.0%

“Working upstream saves time and money”

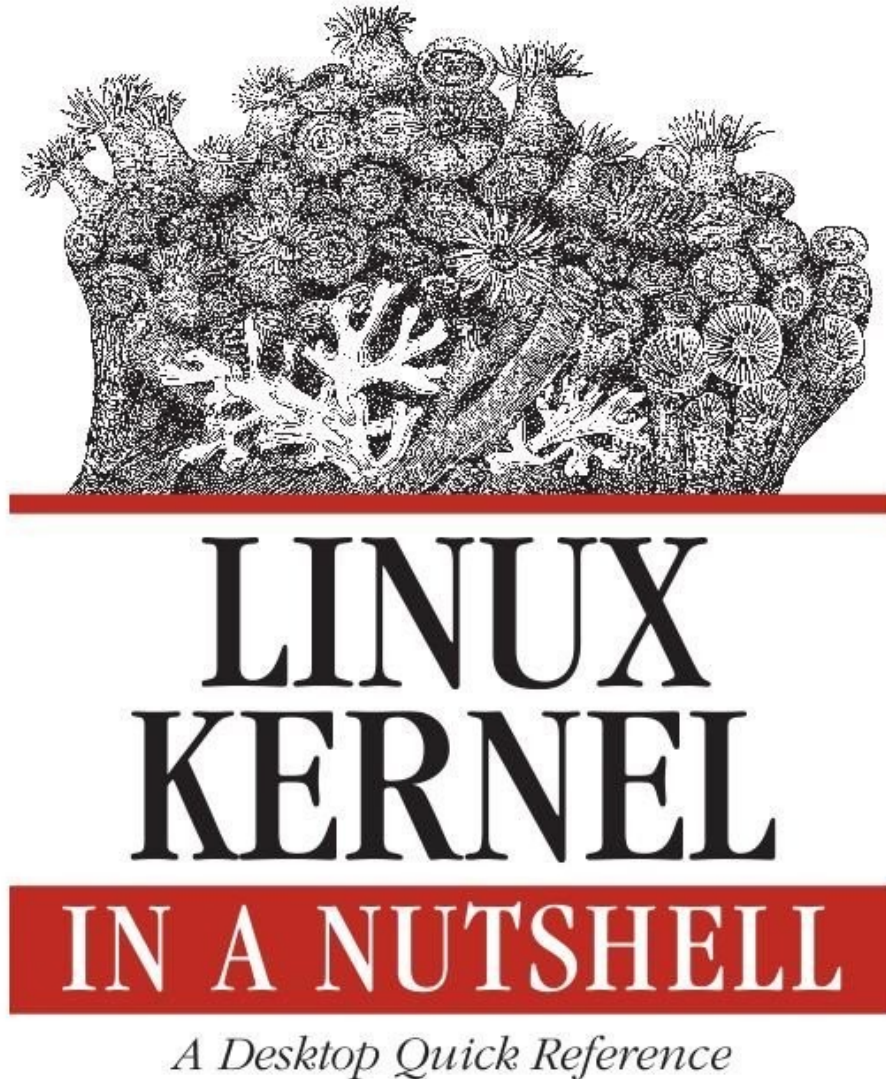
Dan Frye – VP Open Systems, IBM

Dirk Hohndel – Chief Technologist, Intel

Getting involved

Run the kernel.org release on your machine

Getting involved



Getting involved

Documentation/HOWTO

Documentation/development-process

Getting involved

kernelnewbies.org



Getting involved

Google “write your first kernel patch”

Getting involved

kernelnewbies.org/KernelJanitors/ToDo

Getting involved

Eudyptula Challenge
(little penguin)

<http://eudyptula-challenge.org/>

Getting involved

Linux Driver Project

`drivers/staging/*/TODO`



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