

The Linux Kernel

Who is developing it,
how they are doing it,
and why you should care

Greg Kroah-Hartman
SuSE Labs / Novell

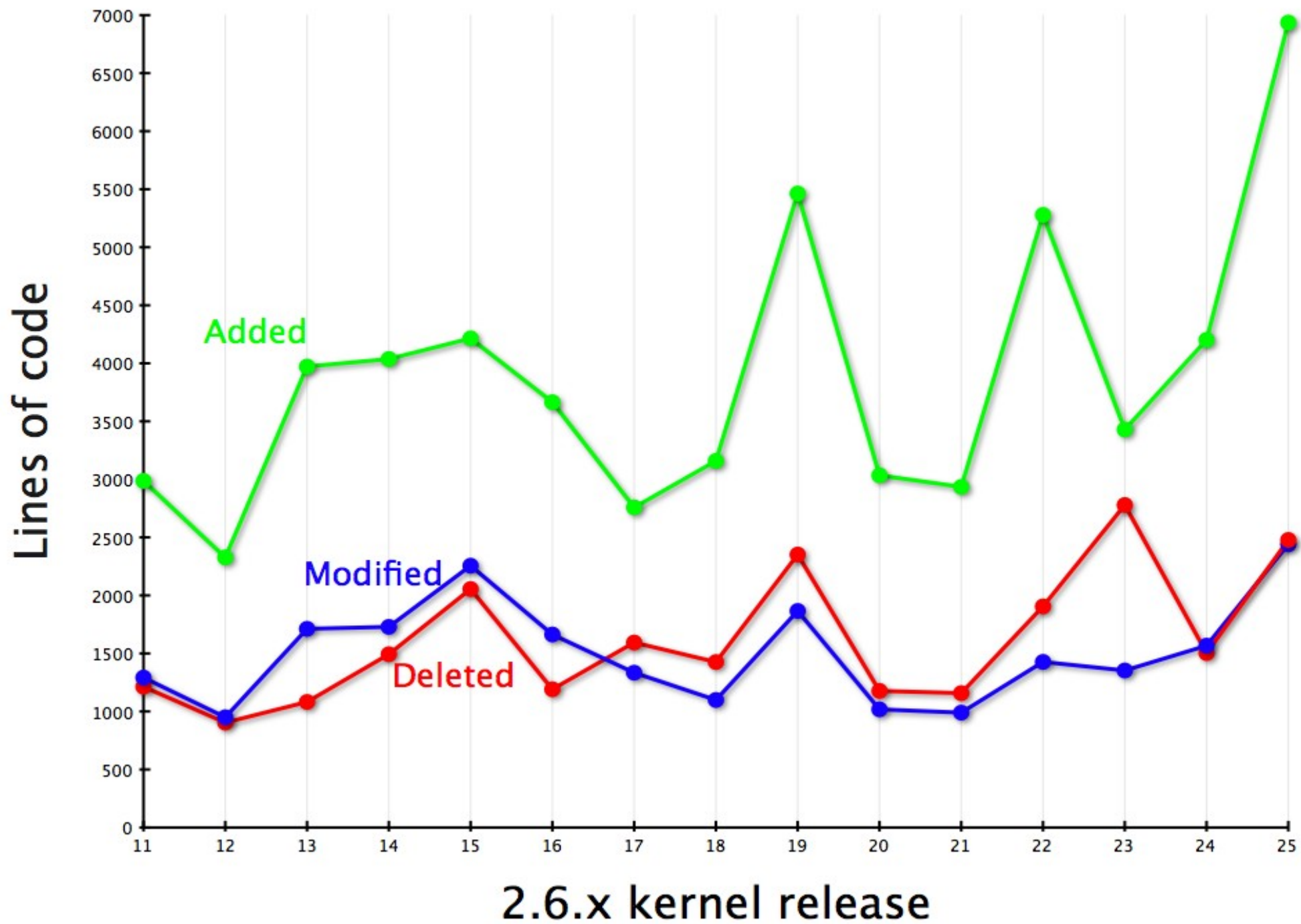
4,300 lines added

1,800 lines removed

1,500 lines modified

per day 2007 - 2008

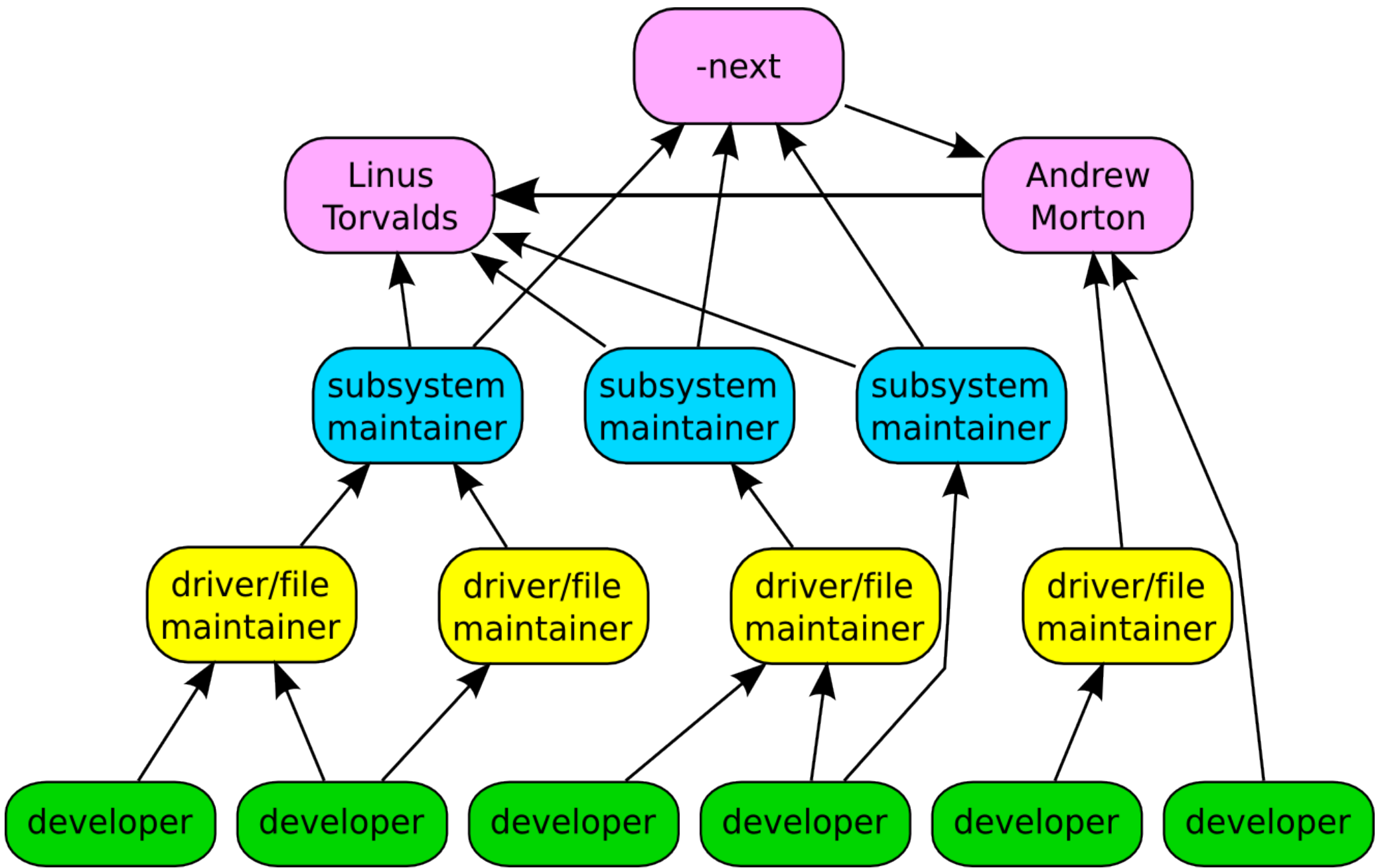
3.69 changes per hour

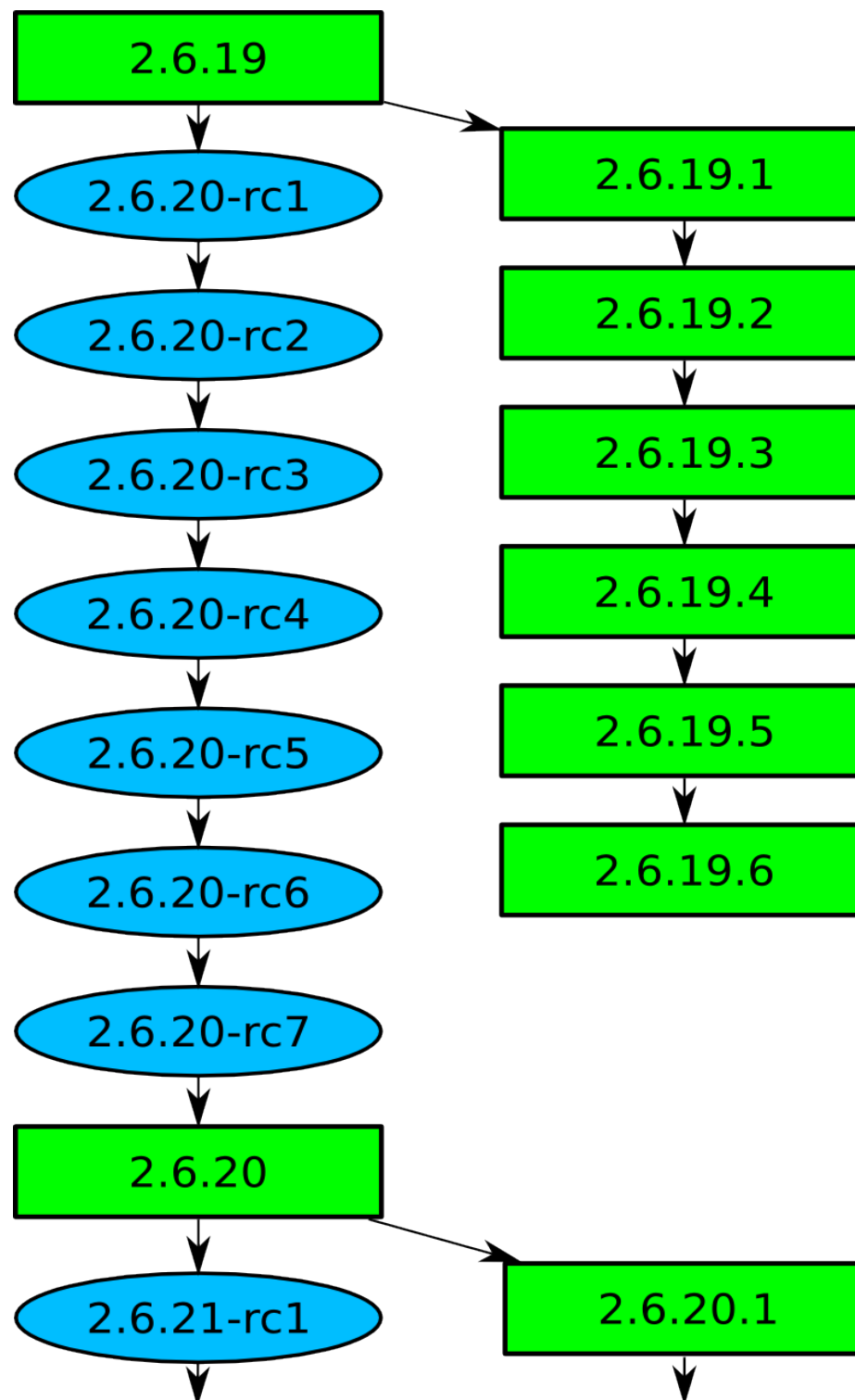


Changes per Hour



2.6.x kernel release







**New release every
 $2\frac{3}{4}$ months**

9.2 million lines

```
if (error)
    goto Error;

/* first, register with generic layer */
kobj_set_name(&dev->kobj, "%s", dev->bus_id);
error = kobj_register_adapter(&dev->kobj, &dev->bus_id);
if (error)
    goto Error;

/* notify platform of device entry */
if (platform_notify)
    platform_notify(dev);

/* notify clients of device entry (new way) */
if (dev->bus)
    blocking_notifier_call_chain(&dev->bus->bus_notifier,
                                BUS_NOTIFY_ADD_DEVICE, dev);

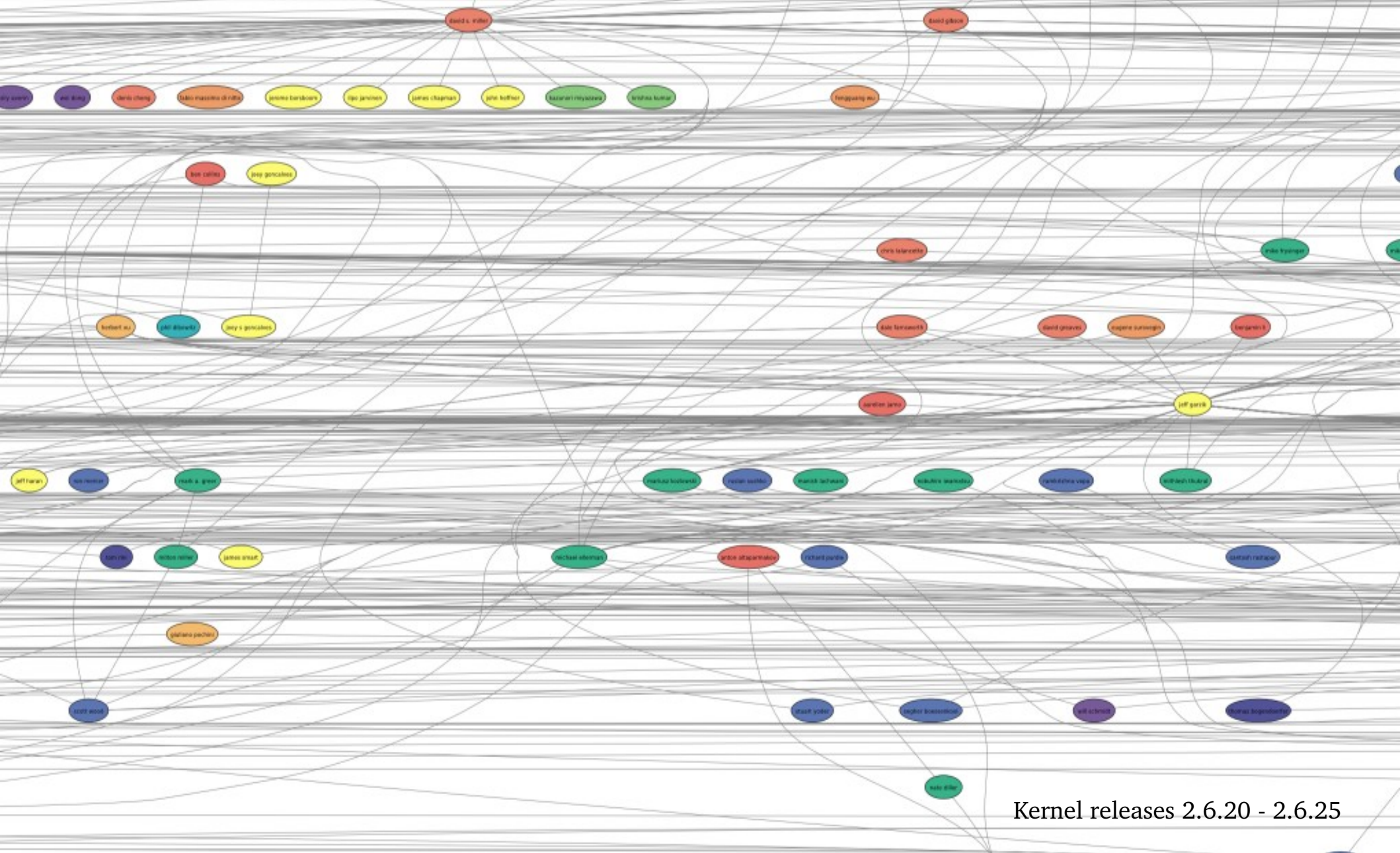
error = device_create_file(dev, &uevent_attr);
if (error)
    goto attrError;

if (MAJOR(dev->devt)) {
    error = device_create_file(dev, &devt_attr);
    if (error)
        goto ueventattrError;
}

if (dev->class) {
    sysfs_create_link(&dev->kobj, &dev->class->subsys.kobj,
                    "subsystem");
    /* If this is not a "fake" compatible device, then create the
     * symlink from the class to the device. */
    if (dev->kobj.parent != &dev->class->subsys.kobj)
```

as of the 2.6.25 release

2399 Developers





Top developers by quantity

Adrian Bunk 754

Al Viro 698

Thomas Gleixner 656

David S. Miller 655

Bart Zolnierkiewicz 637

Paul Mundt 610

Ralf Baechle 604

Ingo Molnar 596

Patrick McHardy 554

Tejun Heo 530

Kernel releases 2.6.20 - 2.6.25

Top Signed-off-by:

Andrew Morton	9086
Linus Torvalds	8960
David S. Miller	4926
Jeff Garzik	2960
Ingo Molnar	2489
Greg Kroah-Hartman	2098
Thomas Gleixner	1098
Mauro Carvalho Chehab	1822
Paul Mackerras	1675
John Linville	1461

Who is funding this work?

- 1.
2. Red Hat 11.6%
3. IBM 7.5%
4. Novell 6.6%
- 5.
6. Intel 4.1%
7. Oracle 2.2%
8. Consultants 2.2%
9. Academia 1.5%
10. Renesas Technology 1.5%

Who is funding this work?



1. “Amateurs”	18.5%
2. Red Hat	11.6%
3. IBM	7.5%
4. Novell	6.6%
5. Unknown individuals	5.5%
6. Intel	4.1%
7. Oracle	2.2%
8. Consultants	2.2%
9. Academia	1.5%
10. Renesas Technology	1.5%

Who is funding this work?

...

13. Google

1.4%



Without Andrew

...

40. Google



27 Google employees contributed to the kernel in 2007-2008

2	N	May 30	Robert P. J. Da	(1.4K)	should "createproc_read_entry" enforce read-only semantics?
3	N	May 30	Jules Colding	(3.8K)	LSI MegaRAID problems
4	N	May 30	Thomas Klein	(1.3K)	[PATCH 2.6.22-rc3] ehea: Fixed multi queue RX bug
5	N	May 30	Geller Sandor	(1.2K)	HPT374 IDE problem with 2.6.21.* kernels
6	N	May 30	Hagen Paul Pfei	(3.5K)	[PATCH] INTERNODE_CACHE_SHIFT redefinition for hot spot structur
7	N	May 30	Zoltan Boszorme	(0.9K)	Re: Kernel 2.6.21.3 does not work with 8GB of RAM on Intel 965WH
8	N	May 30	Justin Piszcz	(1.8K)	↳
9	Ns	May 30	Martin Steigerw	(2.6K)	[PATCH] Re: [5k] inline kernel driver /proc/uid/: use init_proc_read_entry()
10	N	May 30	Matthias Kaenic	(2.4K)	↳
11	N	May 30	Matthias Kaenic	(2.4K)	↳
12	N	May 30	Rankle_	(3.1K)	[PATCH] merge dst_discard in & out into one, removed a duplicate
13	N	May 30	Zoltan Boszorme	(8.6K)	MCP55 NCR problem?
14	N	May 30	Stefan Richter	(1.0K)	[PATCH] [MFC] csa2xx: fix memory in i2c2.c? -> i2c2.c
15	N	May 30	Stefan Richter	(1.4K)	↳
16	N	May 30	Bill Nottingham	(4.5K)	[PATCH] drivers/infiniband: fix comparsion between unsigned and
17	N	May 30	Bill Nottingham	(5.1K)	[PATCH] drivers/video: Fix comparisons between negative and unsi
18	N	May 30	Bill Nottingham	(2.4K)	[PATCH] drivers/net: fix comparisons of unsigned < 0
19	N	May 30	Bill Nottingham	(2.8K)	[PATCH] net: fix comparisons of unsigned < 0
20	N	May 30	Bill Nottingham	(1.9K)	[PATCH] mtd: fix comparisons against unsigned
21	N	May 30	Bill Nottingham	(3.4K)	[PATCH] alsa: fix comparison of unsigned < 0
22	N	May 30	Takashi Iwai	(3.6K)	↳
23	N	May 30	Jiri Slaby	(1.4K)	↳
24	N	May 30	Stefan Richter	(1.7K)	[PATCH 2.6.21.3] ieee1394: eth1394: bring back a parent device
25	N	May 30	Oleg Verych	(110)	Re: Jiffies wraparound is not treated in the schedstats
26	N	May 29	Robert Hancock	(4.0K)	[PATCH -mm] 2/2: PCI: disable decode of IO/memory during BAR siz
27	N	May 29	Robert Hancock	(8.8K)	[PATCH -mm] 1/2: MMCONFIG: validate against ACPI motherboard res
28	N	May 29	Linus Torvalds	(3.2K)	↳
29	N	May 30	Matt Keenan	(1.6K)	↳
30	N	May 29	Robert Hancock	(1.0K)	[PATCH -mm] 0/2: PCI MMCONFIG-related updates
31	N	May 29	Yinghai Lu	(0.4K)	kexec and aacraid broken
32	N	May 29	Andrew Morton	(2.9K)	↳
33	N	May 30	Salyzyn, Mark	(9.4K)	↳
34	N	May 29	Yinghai Lu	(18K)	[PATCH 4/5] serial: convert early_uart to earlycon for 8250
35	N	May 29	Yinghai Lu	(1.4K)	[PATCH 5/5] serial: set DTR in uart for kernel serial console
36	N	May 29	Yinghai Lu	(2.3K)	[PATCH 3/5] x86: initial fixmap support
37	N	May 29	Yinghai Lu	(1.0K)	[PATCH 2/5] console: console handover to preferred console
38	N	May 29	Yinghai Lu	(2.2K)	[PATCH 1/5] console: more buf for index parsing
39	N	May 30	Wang Zhenyu	(12K)	[resend] [AGPGART] intel_agp: use table for device probe
40	N	May 30	Wang Zhenyu	(19K)	[resend] [AGPGART] intel_agp: cleanup intel private data
41	N	May 30	Dave Airlie	(2.0K)	[git pull] drm fixes for 2.6.22-rc3
42	N	May 29	Matt Helsley	(8.2K)	[RFC][PATCH] Replacing the /proc/<pid/self>/exe symlink code

Google employee contributions		
11.	Andrew Morton	507
149.	David Rientjes	67
324.	Paul Menage	24
398.	Ken Chen	18
658.	Matt LaPlante	7
770.	Aaron Durbin	5
770.	Oleg Ryjkov	5
852.	Tim Hockin	4
958.	Martin Bligh	3
958.	Suleiman Souhlal	3

q:Quit d:Del u:Undel s:Save m:Mail r:Reply g:Group ?:Help				
1 N C May 30 Jan Cliburn (1.5K) Re: Problem with atl1 and msi in kernel 2.6.22-rc7				
2 N C May 30 J. B. P. (1.4K) Re: Problem with atl1 and msi in kernel 2.6.22-rc7				
3 N C May 30 Jules Goldberg (3.8K) Re: [PATCH] Negative ID problems				
4 N C May 30 Thomas Klein (1.3K) [PATCH 2.6.22-rc3] ehea: Fixed multi queue RX bug				
5 N C May 30 Geller Sandor (1.2K) HPT374 IDE problem with 2.6.21.* kernels				
6 N C May 30 Hagen Paul Pfei (3.5K) [PATCH] INTERNODE_CACHE_SHIFT redefinition for hot spot structure				
1	127.	Arve Hjønnevåg		
2				
8 N C May 30 Justip Sz (1.8K) Re: Kernel 2.6.21.3 does not work with 8GB RAM on Intel 965WH	2			
9 N C May 30 Martin Steigerw (2.6K) Re: [ck] Mainline plans				
10 N C May 30 Matthias Kaehlc (2.4K) [PATCH] drivers/block/ub.c: use list_for_each_entry()	2			
11 N C May 30 Matthias Kaehlc (2.4K) [PATCH] drivers/block/ub.c: use list_for_each_entry()				
12 N C May 30 Rangk (1.3K) [PATCH] ata_piix: discard in & out into one removed a duplicate	2			
13 N C May 30 Zoltan Boszorme (8.6K) MCP55 NCQ problem?				
14 N C May 30 Bill Nottingham (1.0K) [PATCH RFC] qla2xxx: fix timeout in qla2x00_down_timeout	2			
15 N C May 30 Geokmann (1.0K) [PATCH] qla2xxx: fix timeout in qla2x00_down_timeout				
16 N C May 30 Bill Nottingham (1.0K) [PATCH] drivers/net/usb: fix comparsion between unsigned and n	2			
17 N C May 30 Bill Nottingham (5.1K) [PATCH] drivers/video: Fix comparisons between negative and unsig				
18 N C May 30 Bill Nottingham (2.4K) [PATCH] drivers/net: fix comparisons of unsigned < 0	1			
19 N C May 30 Bill Nottingham (1.3K) [PATCH] drivers/net: fix comparisons of unsigned < 0				
20 N C May 30 Bill Nottingham (1.9K) [PATCH] mm: fix comparisons against unsigned	1			
21 N C May 30 Bill Nottingham (3.4K) [PATCH] alsa: fix comparison of unsigned < 0				
22 N C May 30 Takashi Iwai (1.6K) [PATCH] alsa: fix comparison of unsigned < 0	1			
23 N C May 30 Jiri (1.4K) [PATCH] alsa: fix comparison of unsigned < 0				
24 N C May 30 Stefan Richter (1.7K) [PATCH 2.6.21.3] ieee1394: eth1394: bring back a parent device	1			
25 N C May 30 Oleg Veruch (110) Re: Jiffies wraparound is not treated in the schedstats				
26 N C May 29 Robert Hancock (1.0K) [PATCH] PCI: disable decode of IO/memory during BAR siz	1			
27 N C May 29 Robert Hancock (1.0K) [PATCH] PCI: disable decode of IO/memory during BAR siz				
28 N C May 29 Linus Torvalds (3.2K) [PATCH] PCI: validate against ACPI motherboard reso	1			
29 N C May 30 Matt Krause (1.6K) [PATCH] PCI: validate against ACPI motherboard reso				
30 N C May 29 Robert Hancock (1.0K) [PATCH] PCI: validate against ACPI motherboard reso	1			
31 N C May 29 Yinghai Lu (0.4K) Re: [PATCH] PCI: validate against ACPI motherboard reso				
32 N C May 29 Andrew Morton (2.9K) [PATCH] PCI: validate against ACPI motherboard reso	1			
33 N C May 30 Galyzyn (2.4K) [PATCH] PCI: validate against ACPI motherboard reso				
34 N C May 29 Yinghai Lu (1.4K) [PATCH 5/5] serial: convert early_uart to earlycon for 8250	1			
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41 N C May 30 Dave Airlie (2.0K) [git pull] drm fixes for 2.6.22-rc3				
42 N C May 29 Matt Helsley (8.2K) [RFC][PATCH] Replacing the /proc/<pid self>/exe symlink code	1			
---Mutt: =linux-kernel [Msgs:7969 New:7550 Inc:8 48M]---(threads/reverse-date-received)----- (0%)---				
Kernel releases 2.6.20 - 2.6.25				

q:Quit d:Del u:Undel s:Save m:Mail r:Reply g:Group ?:Help

1 N C May 30 Ja Cliburn (1.5K) R: Problem with atl1 and msi in kernel 2.6.22-rc3

2 N C May 30 Cliburn P. (1.4K) R: Problem with atl1 and msi in kernel 2.6.22-rc3

3 N C May 30 Cliburn P. (1.4K) R: Problem with atl1 and msi in kernel 2.6.22-rc3

4 N May 30 Thomas Klein (1.3K) [PATCH 2.6.22-rc3] ehea: Fixed multi queue RX bug

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6 N May 30 Hagen Paul Pfei (3.5K) [PATCH] INTERNODE_CACHE_SHIFT redefinition for hot spot structure

7 N May 30 Zoltan Boszorme (0.9K) Re: Kernel 2.6.21.3 does not work with 8GB of RAM on Intel 965WH

8 N May 30 Justin Piszcz (1.8K) L>

9 N May 30 Martin Steigerw (2.6K) Re: [ck] Mainline plr

10 N May 30 Matthias Koenig (2.4K) [PATCH] MCP555 NCQ problem?

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12 N May 30 Rankle_ (3.1K) [PATCH] merge dst_discard in & out into one, removed a duplicate

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42 N May 30 Rankle_ (3.1K) [PATCH] merge dst_discard in & out into one, removed a duplicate

1417. Masoud Asgharifard Sharbiani 1

1417. Mike Chan 1

1417. Ollie Wild 1

1417. Priyanka Gupta 1

1417. Ranjit Manomohan 1

1417. Rohit Seth 1

1417. Sam Jansen 1

1417. Warren Turkal 1

---Mutt: =linux-kernel [Msgs:7969 New:7550 Inc:8 48M]---(threads/reverse-date-received)------(0%)---

Kernel releases 2.6.20 - 2.6.25

New stuff in 2.6.26

Korina driver	ns_to_ktime()	virtual files in /proc/pid/mountinfo
superH MX-G	struct class_device removed	/proc/vmallocinfo
SH-MobileR2 CPU support	SEQ_SKIP allowed from show()	NUMA for SPARC Niagra
Solution Engine SH7721	Wolfson WM9713 codecs	Xen balloon driver
ARM YL9200	TI DAVINCI AC97	/dev/mem support removed
Kwikbyte KB9260	Emagic Audiowerk 2	KVM for s390
Olimex SAM9-L9260	x86 PC speakers	KVM for PowerPC 440
emQbit ECB_AT91	Asus AV100 (Xonar DX)	KVM for ia64
Digi ns921x processor	Micron MT9M001	perprocess secure bits
Nias SMX crypto	Micron MT9V022	getrusage() RUSAGE_THREAD
AMCC PPC460EX	PXA27x Quick Capture	partions with NBD
Emerson KSI8560	Kworld ATSC 120 tuners	audit open file tests
WindRiver SBC8641D	cx23417 MPEG encoders	/sys/class/bdi
Logitech Rumblepad 2	Integrant ITD1000 tuners	shared writable mappings for FUSE
Renesas SH7760 I2c	Philips TDA10048HN demodulators	ioremap() always uncached on x86
SuperH Mobile I2C	Philips SAA7171/3/4 a/v decoders	/sys/kernel/slab/NAME/order
PCI Express ASPM	Auvitek AU8522 demodulators	WARN_ON taints kernel
security= boot option	Samsung S5H1411-based tuners	get_info() for /proc removed
NAT for SCTP, SCCP and UDP-lite	Xen framebuffer	proc_create_data()
network window scaling w/ syncookies	Xen keyboard	object debugging infrastructure
network namespace work	Xen mouse	Solarflare Comm Solarstorm SFC4000
mesh networking for mac80211	Wolfson Microelectronics touchscreens	Hauppauge HVR-1600 TV tuner card
SELinux permissive types	wireless Xbox 360 controller	WTF are you doing reading this
realtime group scheduler work	Zhen Hua PPM-4CH transmitters	ISP 1760 USB host controller
SunOS binary support removed	SPCP8x5 USB to serial	Cypress c67x00 OTG controller
read-only bind mounts	NCR 53c9x SCSI controller	Intel PXA 27x USB controller
kdbb	Freescale 8610 and 5121 display	DEFINE_KLIST()
PAT for x86	Intel 965G/965GM	KLIST_INIT()
inode_getsecid()	TI OMAP sound controller	klist_add_after()
ipc_getsecid()	Eee PC function keys	klist_add_before()
ieee80211 MAC removed	Intel IXP4xx Ethernet	div_u64 and friends
generic semaphores	basic braille screen reader support	sysfs_streq
ata_port_operations inheritance	OLPC XO architecture support	MODULE_FORCE_LOAD

