Linux Kernel Development

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

cc BY NC SA

38,566 files

15,384,000 lines

Kernel release 3.4.0

2,833 developers
373 companies

Kernel releases 3.0.0 – 3.4.0
May 2011 – May 2012

10,500 lines added

8,400 lines removed

2,300 lines modified

Kernel releases 3.0.0 – 3.4.0
May 2011 – May 2012

10,500 lines added

8,400 lines removed

2,300 lines modified

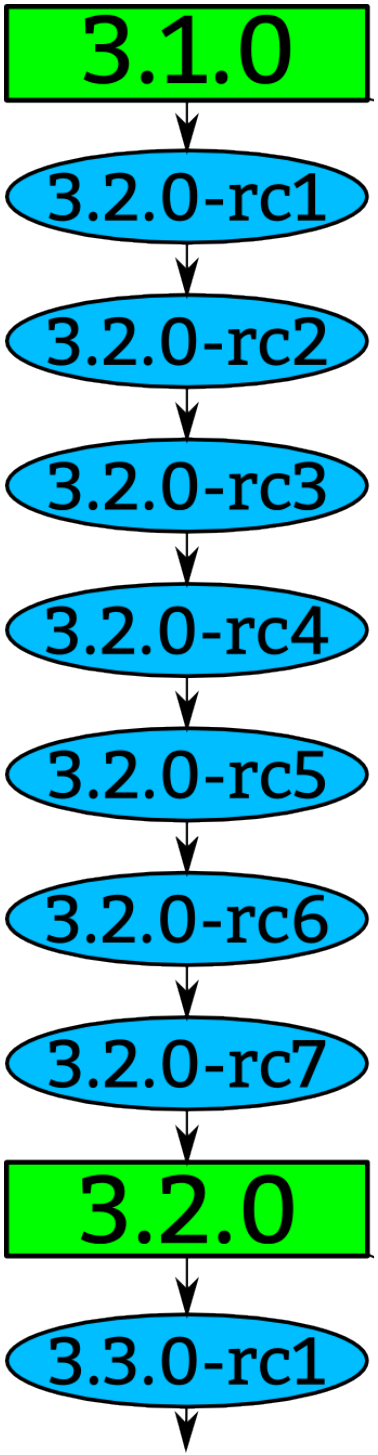
every day

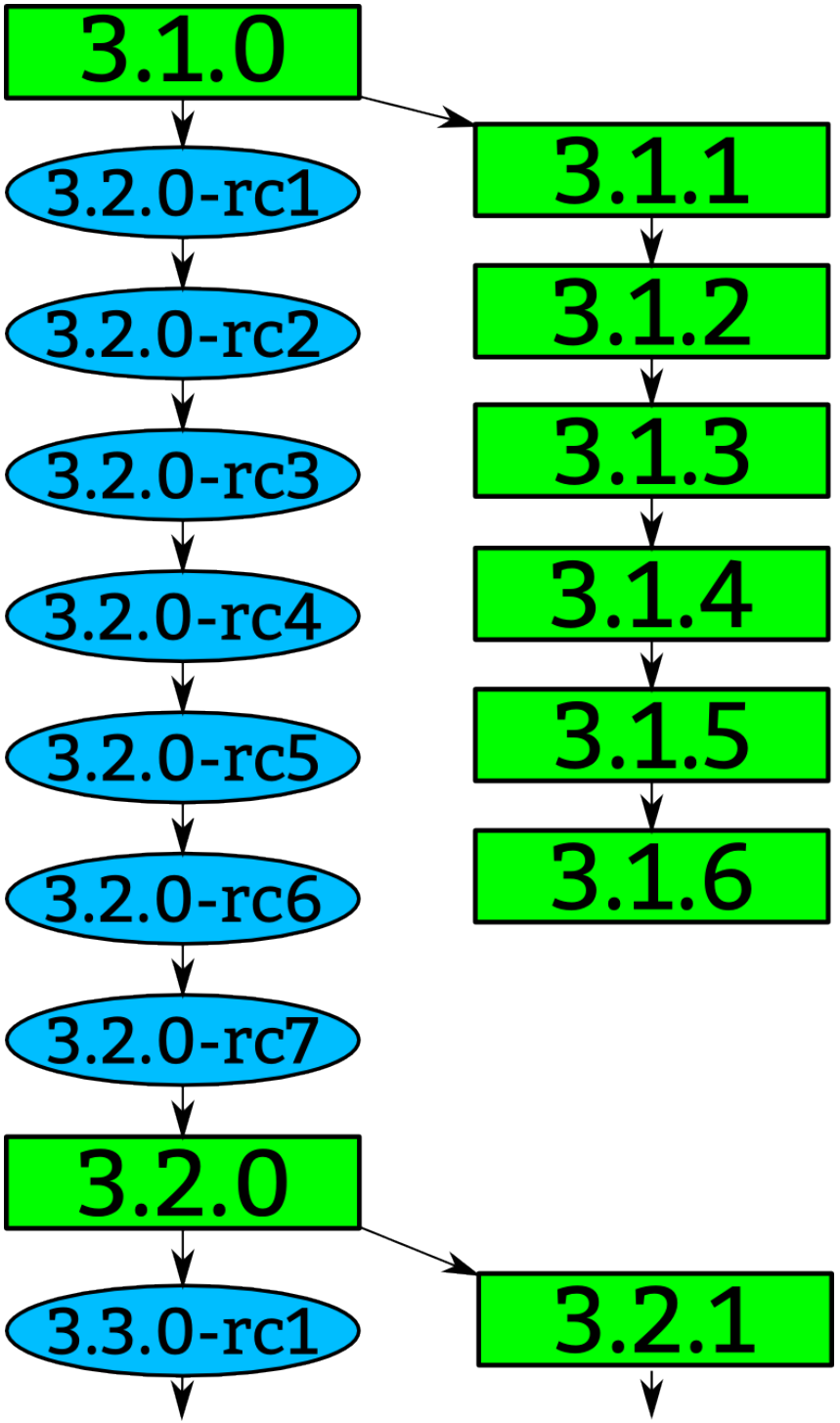
Kernel releases 3.0.0 – 3.4.0
May 2011 – May 2012

5.79 changes per hour

Kernel releases 3.0.0 – 3.4.0
May 2011 – May 2012

New release every
2¾ months
Kernel releases 2.6.20 – 3.4.0


3.1.0
3.2.0-rc1
3.2.0-rc2
3.2.0-rc3
3.2.0-rc4
3.2.0-rc5
3.2.0-rc6
3.2.0-rc7
3.2.0
3.3.0-rc1


3.1.0
3.2.0-rc1
3.2.0-rc2
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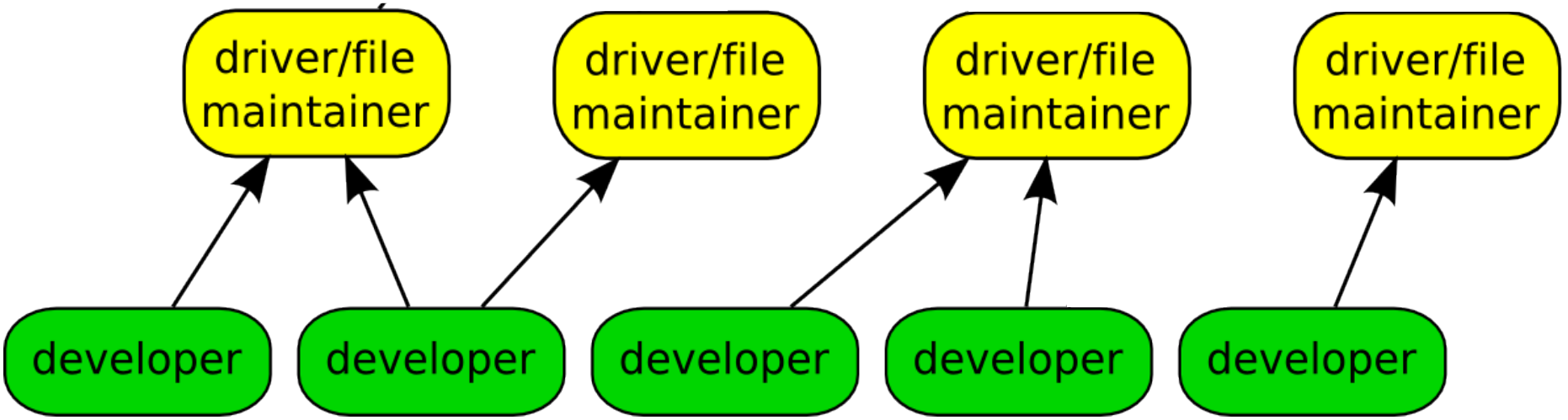
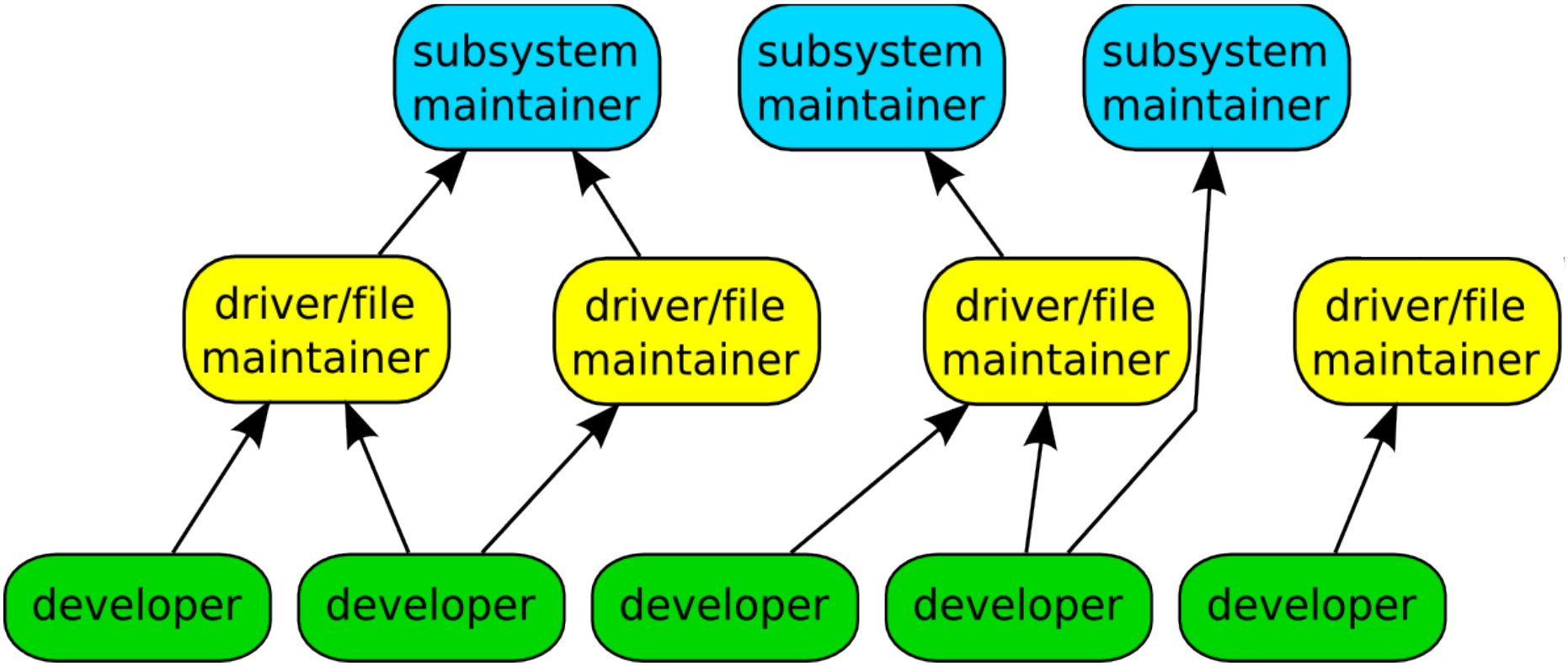
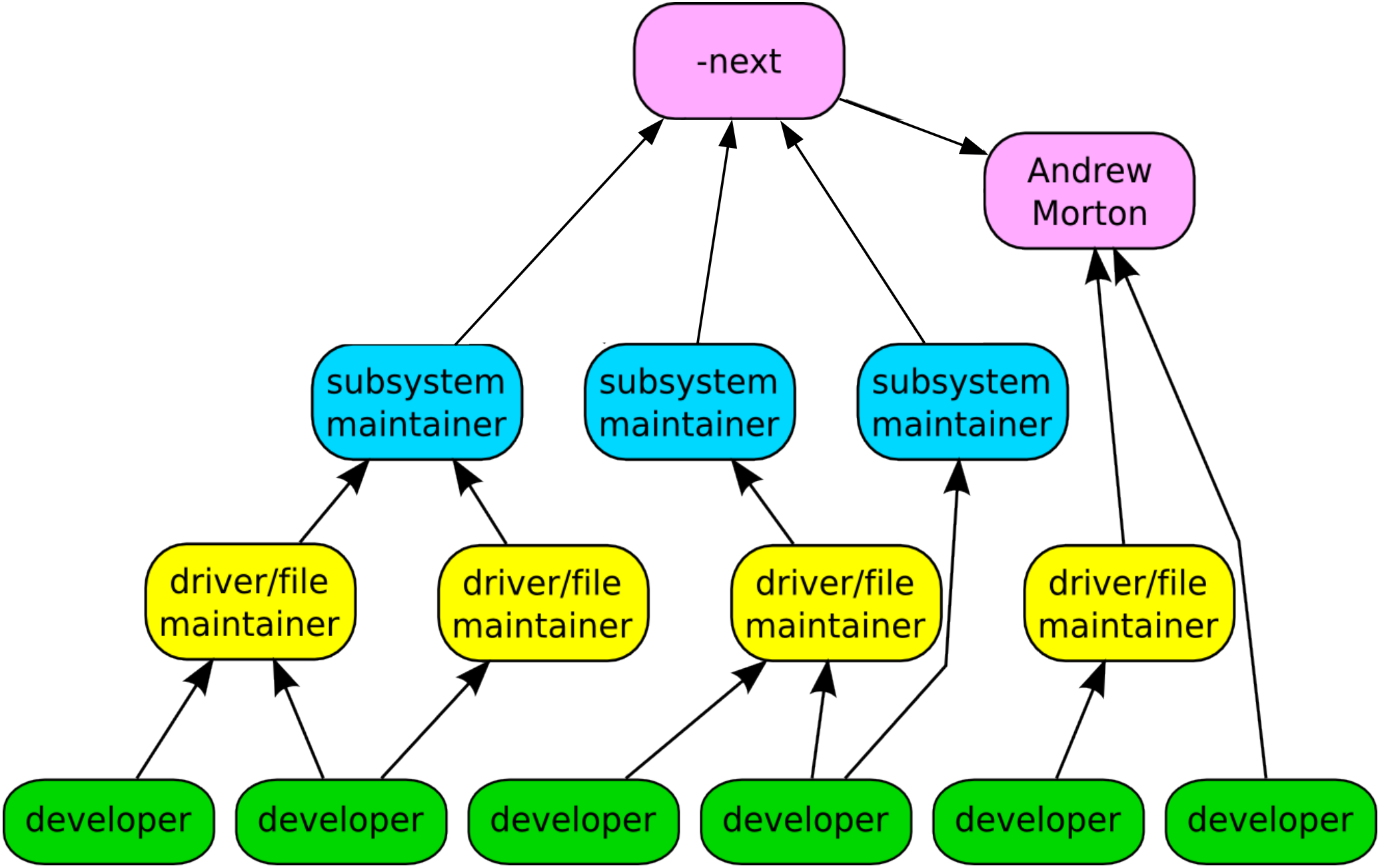
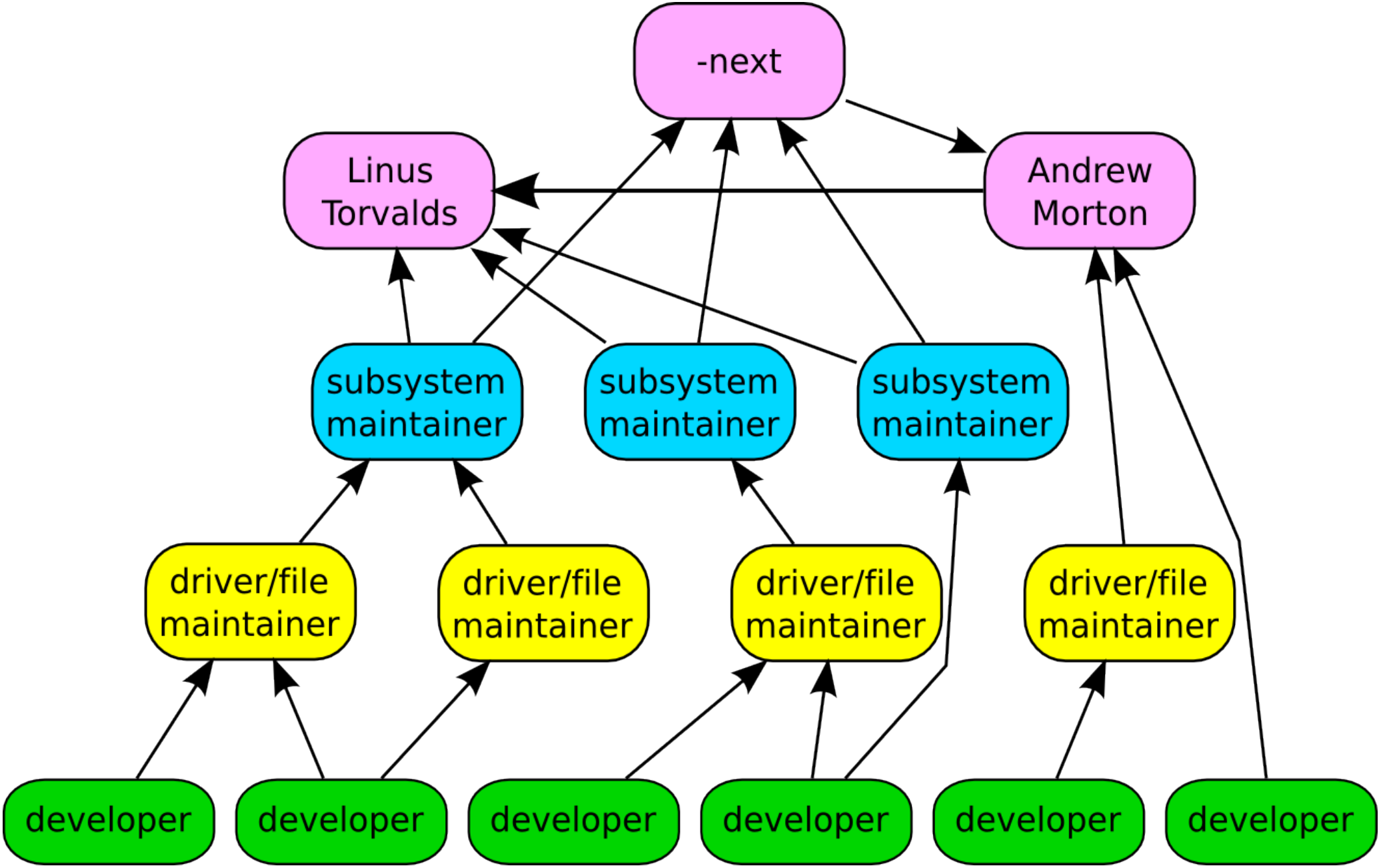
3.2.0-rc5
3.2.0-rc6
3.2.0-rc7
3.2.0
3.3.0-rc1
3.1.1
3.1.2
3.1.3
3.1.4
3.1.5
3.1.6
3.2.1

developer
developer
developer
developer
developer


driver/file maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
developer
developer
developer
developer
developer


subsystem maintainer
subsystem maintainer
subsystem maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
developer
developer
developer
developer
developer


-next
Andrew Morton
subsystem maintainer
subsystem maintainer
subsystem maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
developer
developer
developer
developer
developer
developer


-next
Linus Torvalds
Andrew Morton
subsystem maintainer
subsystem maintainer
subsystem maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
developer
developer
developer
developer
developer
developer

Top developers by quantity

Mark Brown	1026
Alxel Lin	723
K. Y. Srinivasan	626
Al Viro	607
Takashi Iwai	517
Mauro Chehab	507
Russell King	419
Johannes Berg	469
Ben Skeggs	405
Jonathan Cameron	396

Kernel releases 3.0.0 – 3.4.0

QCA developers by quantity

62.	Rajkumar Manoharan	177
74.	Luis Rodriguez	162
82.	Vasanthakumar Thiagarajan	151
123.	Sujith Manoharan	113
163.	Mohammed Shajakhan	87
225.	Jouni Malinen	66
256.	Kalle Valo	57
398.	Senthil Balasubramanian	35
426.	Vivek Natarajan	31
524.	Vipin Mehta	23
909.	Naveen Singh	9
1658.	Ruiyi Zhang	2
1658.	Bala Shanmugam	2
1658.	Suraj Sumangala	2
2030.	Haijun Lui	1

Kernel releases 3.0.0 – 3.4.0

Top Signed-off-by:

Greg Kroah-Hartman	4767
David S. Miller	3857
John Linville	3252
Mauro Carvalho Chehab	2412
Mark Brown	2230
Linus Torvalds	1984
Andrew Morton	1573
James Bottomley	1089
Takashi Iwai	953
Russell King	930

Kernel releases 3.0.0 – 3.4.0

Who is funding this work?

1. “Amateurs”	14.2%
2. Red Hat	10.1%
3. Intel	8.6%
4. Unknown Individuals	5.2%
5. Novell	4.0%
6. IBM	3.7%
7. Texas Instruments	3.6%
8. Broadcom	3.0%
9. Consultants	2.3%
10. Wolfson Micro	2.1%

Kernel releases 3.0.0 – 3.4.0

Who is funding this work?

11. Samsung	1.9%
12. Google	1.8%
13. Oracle	1.7%
14. Freescale	1.5%
15. MiTAC	1.4%
16. Qualcomm	1.4%
17. Microsoft	1.3%
18. Linaro	1.2%
19. Nokia	1.2%
20. AMD	1.1%

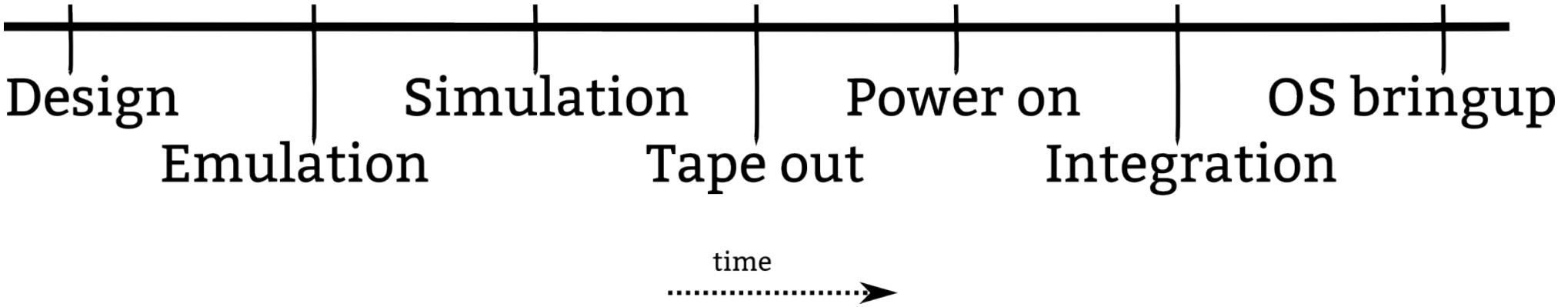
Kernel releases 3.0.0 – 3.4.0

Who is funding this work?

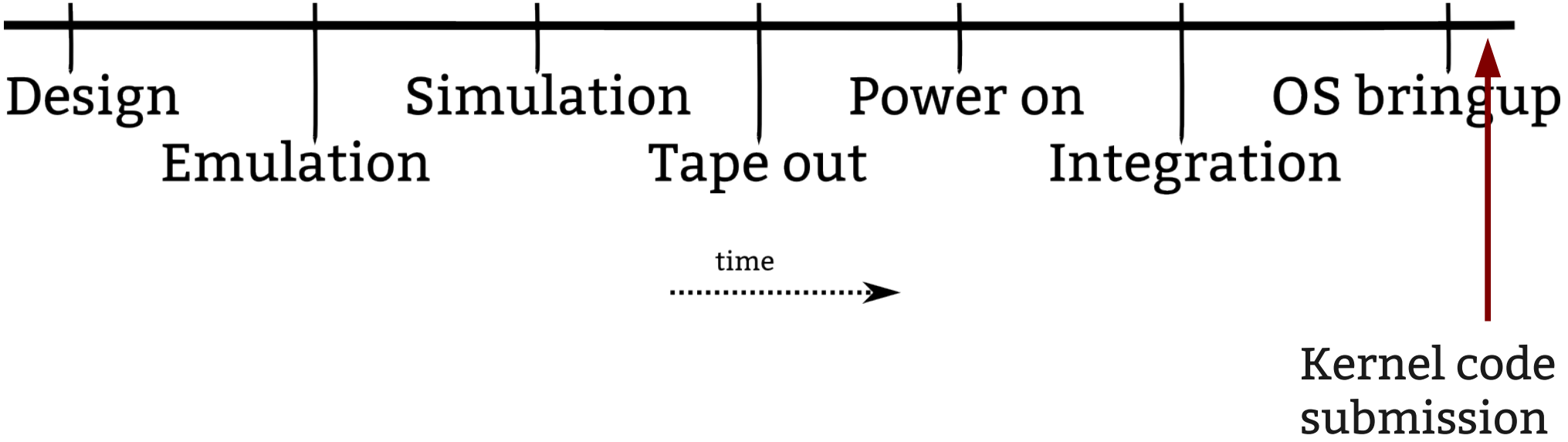
...	
27. Marvell	369
28. Renesas	364
29. Nvidia	344
...	
38. Atheros	259
...	
42. Code Aurora Forum	208

Kernel releases 3.0.0 – 3.4.0

Chip Development Process



Chip Development Process



Today

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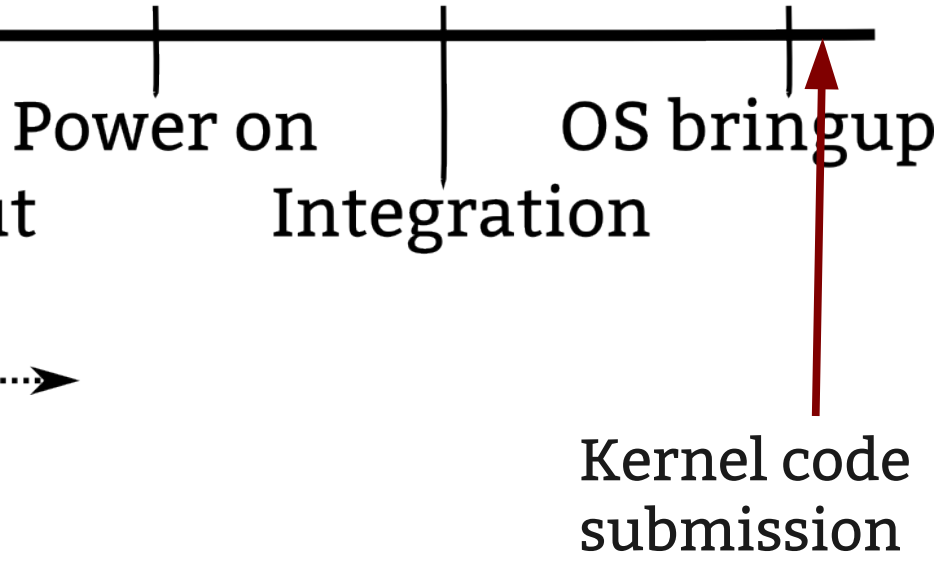
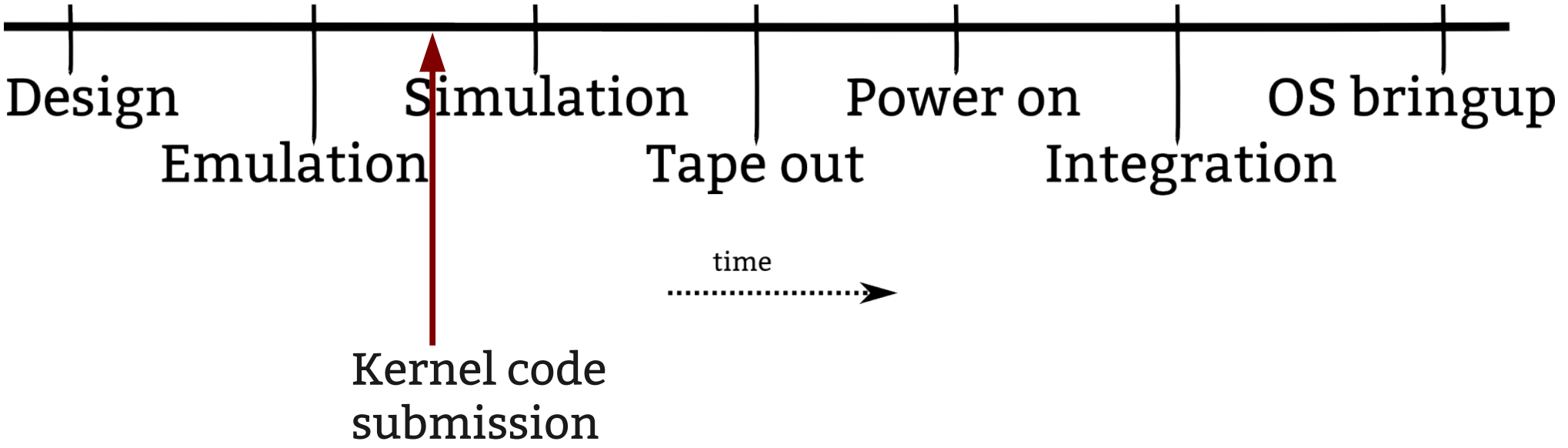


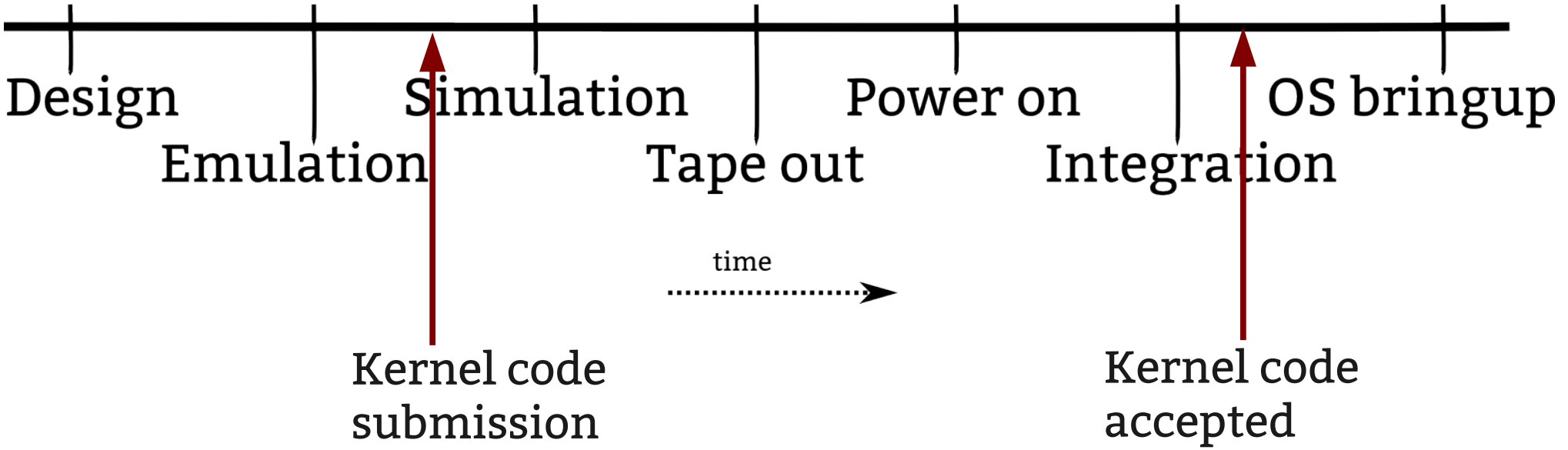
Today

Chip Development Process



Ideal

Chip Development Process



Ideal

“Working upstream saves time and money”

Dan Frye – VP Open Systems, IBM
Dirk Hohndel – Chief Technologist, Intel

How to change

How to change

Submit code early and often

How to change

Send small pieces

How to change

Ask community for feedback

How to change

Act on it

How to change

Ignore it, you will be ignored

How to change

Support your developers

How to change

Remove legal hurdles

How to change

Force them to work in public

How to change

Allow them to be the community

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