



Nürnberg

2017

curi: // up

# Welcome to curl://up!

The persons present

Code of conduct

Videos and recordings

Security and safety

Restrooms

Food and drinks

What to do and talk about these days

# Persons present

# Code of conduct

As contributors and maintainers of this project, we pledge to respect all people who contribute through reporting issues, posting feature requests, updating documentation, submitting pull requests or patches, and other activities.

We are committed to making participation in this project a harassment-free experience for everyone, regardless of level of experience, gender, gender identity and expression, sexual orientation, disability, personal appearance, body size, race, ethnicity, age, or religion.

Examples of unacceptable behavior by participants include the use of sexual language or imagery, derogatory comments or personal attacks, trolling, public or private harassment, insults, or other unprofessional conduct.

Project maintainers have the right and responsibility to remove, edit, or reject comments, commits, code, wiki edits, issues, and other contributions that are not aligned to this Code of Conduct. Project maintainers who do not follow the Code of Conduct may be removed from the project team.

This code of conduct applies both within project spaces and in public spaces when an individual is representing the project or its community.

Instances of abusive, harassing, or otherwise unacceptable behavior may be reported by opening an issue or contacting one or more of the project maintainers.

**<https://curl.haxx.se/docs/code-of-conduct.html>**

# Videos and recordings

# Security and safety

**Daniel Stenberg**

Phone: +46 70 5443177

Email: [daniel@haxx.se](mailto:daniel@haxx.se)

DM: @bagder

**Dan Fandrich** ...

# Restrooms

# Food and drinks



# Agenda for these two days

- Talks
- Lightning talks
- Discussions
-

cur1: //

First there was nothing





# INDEPENDENCE DAY



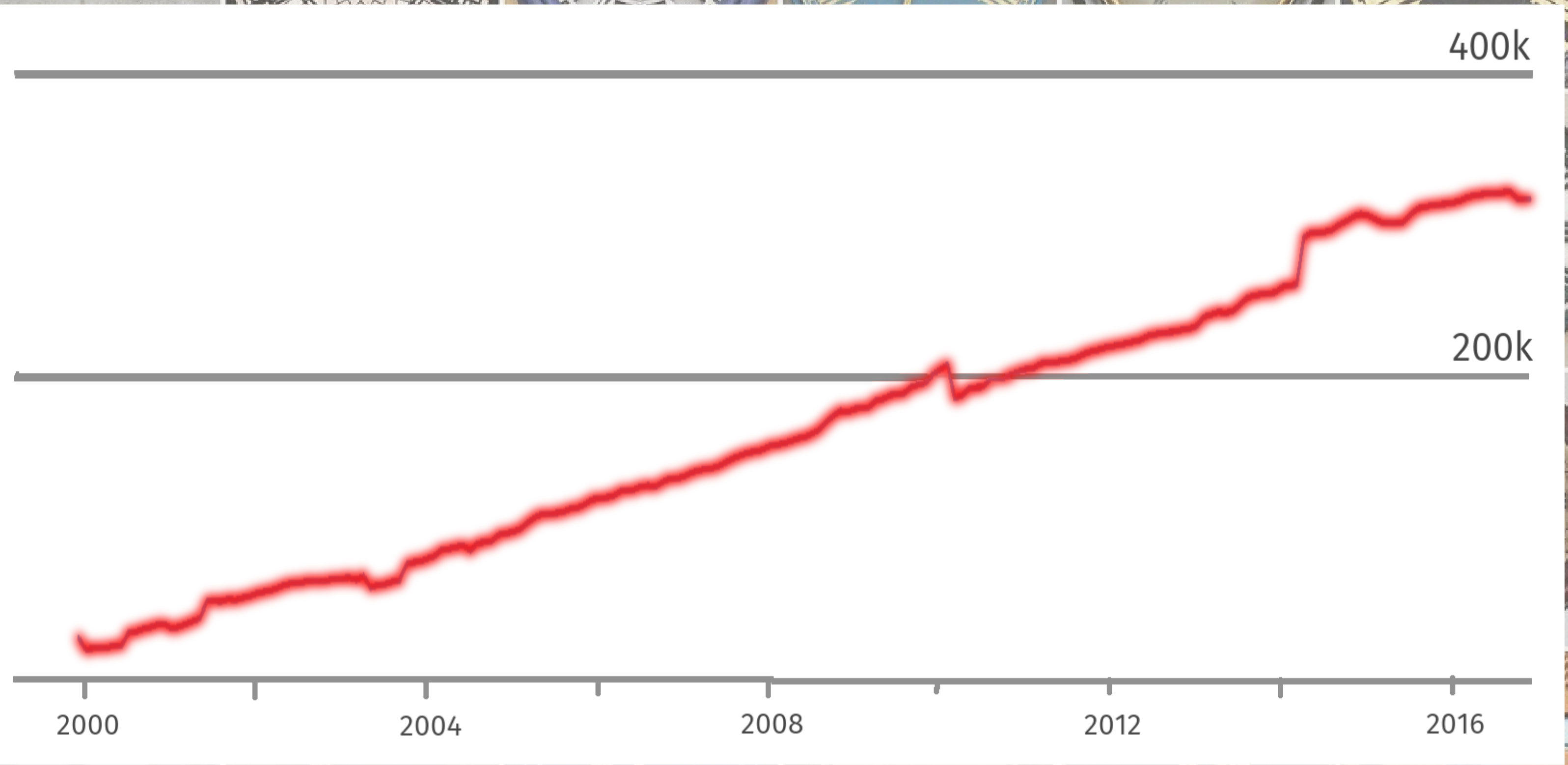
... became curl 1998

**HTTP**

**Gopher**

**FTP**

... and time passed...



# 2016

DICT, FILE, FTP, FTPS, Gopher, HTTP, HTTPS, IMAP, IMAPS, LDAP, LDAPS, POP3, POP3S, RTMP, RTSP, SCP, SFTP, SMB, SMBS, SMTP, SMTPS, Telnet and TFTP

TLS certificates, HTTP POST, HTTP PUT, FTP uploading, HTTP form based upload, proxies, cookies, authentication (Basic, Digest, NTLM, Negotiate, Kerberos), HTTP/2, happy eyeballs, file transfer resume, proxy tunneling and much more

16 Software, 1C Company, ACCESS, Actuate, Adara Networks, AddLive, Adobe, Aditiva, Adknowledge, alaTEST, Altera, Altova, Ananse Productions, AOL, Apple, Archivas, ATX, AT&T, Autodesk, Avaya, BBC, Bietfuchs, Biicode, Bitcartel, Blackberry, Blizzard, Bloglines.com, Blue Digits, Blue Security, BMW, Bosch, Broadcom, bwin, Candela Technologies, Canonical, Carestream Health, Cascade Data Systems, CatchFIRE Systems, CERN, CheckPoint, Chevrolet, Chronos, Cisco, Citrix, CLAAS Tractor SAS, Comcast, Contactor, CounterPath, Cybernetica, Datasphere, Datordax, Denon, DesignQuotes, Device Scape, Digium, EdelWeb, EFS Technology, Eiffel Software, Electronic Arts, Emsoft, Enigma Software, Euroling, Ergon Informatik, ESRI, etikett.de, www.expandtalk.se, Eye-Fi, E2E Technologies Ltd, F-Secure, Facebook, FalconView, Feitian Technologies, FriendFeed, FMWebschool, GeekDrop, GRIN, Groopex, Grooveshark, focuseek, Games Workshop, Garmin, GipsyMedia, Google, Haxx, HPC, Heynow Software, Hitachi, Honeywell, HP, Huawei, HTC, inSORS, IBM, ideelabor.ee, Idruna Software Inc, Id Software, Infomedia Business Systems Division, Informatica, Information Handling Services, Insignia, Instagram, Intel, Internet Security Systems, Intra2net AG, isee systems, Jajja Communications, Jawbone, JET, JLynx Software, Kajala Group Ltd., Kaleidescape, Karelia, Kaseya, kencast inc, Kerio Technologies, Kongsberg Spacetec, LassoSoft, lastpass, LG, LifeSize Software, Linden Lab, Machina Networks, Macromates, Macromedia, Magic TV, Matrix Science, Mandiant, MandrakeSoft, Marantz, Mazda, McAfee, MediaAnalys, Mellanox, Mercedes-Benz, Metaio, Micromuse Inc., Miniclip, Modio, MokaFive, Inc, Momento, Moodstocks, Motorola, Mozilla, Music FX Live, Nagarsoft, Neptune Labs, Nest, Netflix, Netgear, Netiq, Network Mail, Neuros, Nintendo, NoDesign, Nortel, Office2office Plc, OKTET Labs Ltd, One Laptop Per Child, Onkyo, On Technology, OpenLogic, opsmate, Optimsys, Oracle, Outrider, Palm, Panasonic, Pandigital, Parrot, Passiv Systems, Pelco, Philips, Pioneer, Plogue, Pocket Gems, Polaroid Corporation, Polycom, Pure Storage, Quest, QVD, QNX, RBS, Research in Motion, Retarus Network Services GmbH, Riverbed, ROBLOX, Rockstar Games, Rolltech, Inc, RSA Security Inc, RSSS, Samsung, SanDisk, SAP, SAS Institute, SEB, Sharp, Siemens, Silicon Landmark, Siphone, Slingbox, SmithMicro, Sony, Sophos, Source Remoting, Splunk, Spotify, Steambird, Sun, SurfEasy Inc, Swisscom, Symantec, System Garden, Tango, tasvideos, Tellabs, Telstra, Telvue, Thumbtack, Tilgin, Tomtom, ToolAware, Toshiba, Trend Micro, Tribalmedia, Trion Worlds, Tiempo de Espera, Unisys, UniPlot, Unity3d, ustream, Valve, VETport, Vivisimo, Vmware, Vodder, Volition Inc, Vuo, Wump Research, Xilinx, XonaSoftware, Yahoo, Yamaha, Yubico, Zimbra, Zixcorp, Zonar Systems, Zyxel, Z2,



Adobe, Altera, AOL, Apple, AT&T, BBC,  
Blackberry, BMW, Bosch, Broadcom,  
Chevrolet, Cisco, Comcast, Facebook,  
Google, Hitachi, Honeywell, HP, Huawei,  
HTC, IBM, Intel, LG, Mazda, Mercedes-  
Benz, Motorola, Netflix, Nintendo, Oracle,  
Panasonic, Philips, Pioneer, RBS,  
Samsung, SanDisk, SAP, SAS Institute,  
SEB, Sharp, Siemens, Sony, Spotify, Sun,  
Swisscom, Tomtom, Toshiba, VMware,  
Xilinx, Yahoo, Yamaha

In all these things!

Mac OS X

TVs

Iphones and I pads

Other phones

Linux

Games

Version control  
systems

Cars

PHP sites

Set-top boxes

Audio equipment

Bluray players

Printers

Firefox crash  
reporter

Sites: Facebook,  
Yahoo, ...

Your next device

*Just curl it!*



**Every human in the  
connected world  
uses something  
running curl  
- every day**

Daniel Stenberg ( curl )

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Tatu Ylonen, et al. ( OpenSSH )

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As far as I am concerned, the code I have written fo purpose. Any derived versions of this software mu derived work is incompatible with the protocol des by a name other than "ssh" or "Secure Shell".

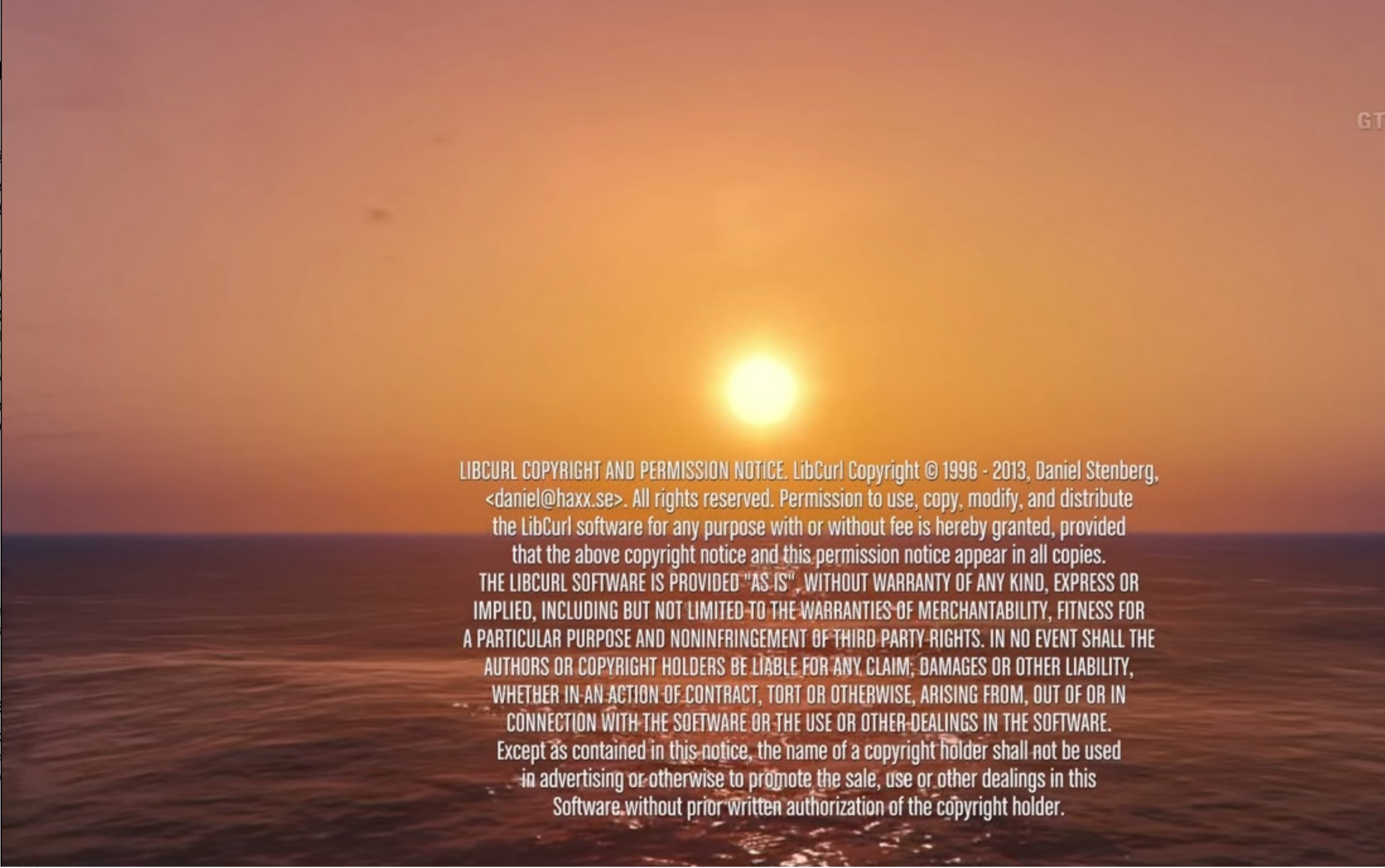
[Tatu continues]

However, I am not implying to give any licenses to parties, and the software includes parts that are not under my know, all included source code is used in accordance with the and can be used freely for any purpose (the GNU license bein below for details.

[However, none of that term is relevant at this point in time. Al software components which he talks about have been remove

- RSA is no longer included, found in the OpenSSL library
- IDEA is no longer included, its use is deprecated
- DES is now external, in the OpenSSL library
- GMP is no longer used, and instead we call BN code from Op
- Zlib is now external, in a library
- The make-ssh-known-hosts script is no longer included
- TSS has been removed
- MD5 is now external, in the OpenSSL library

RC4 support has been replaced with ARC4 support from Op



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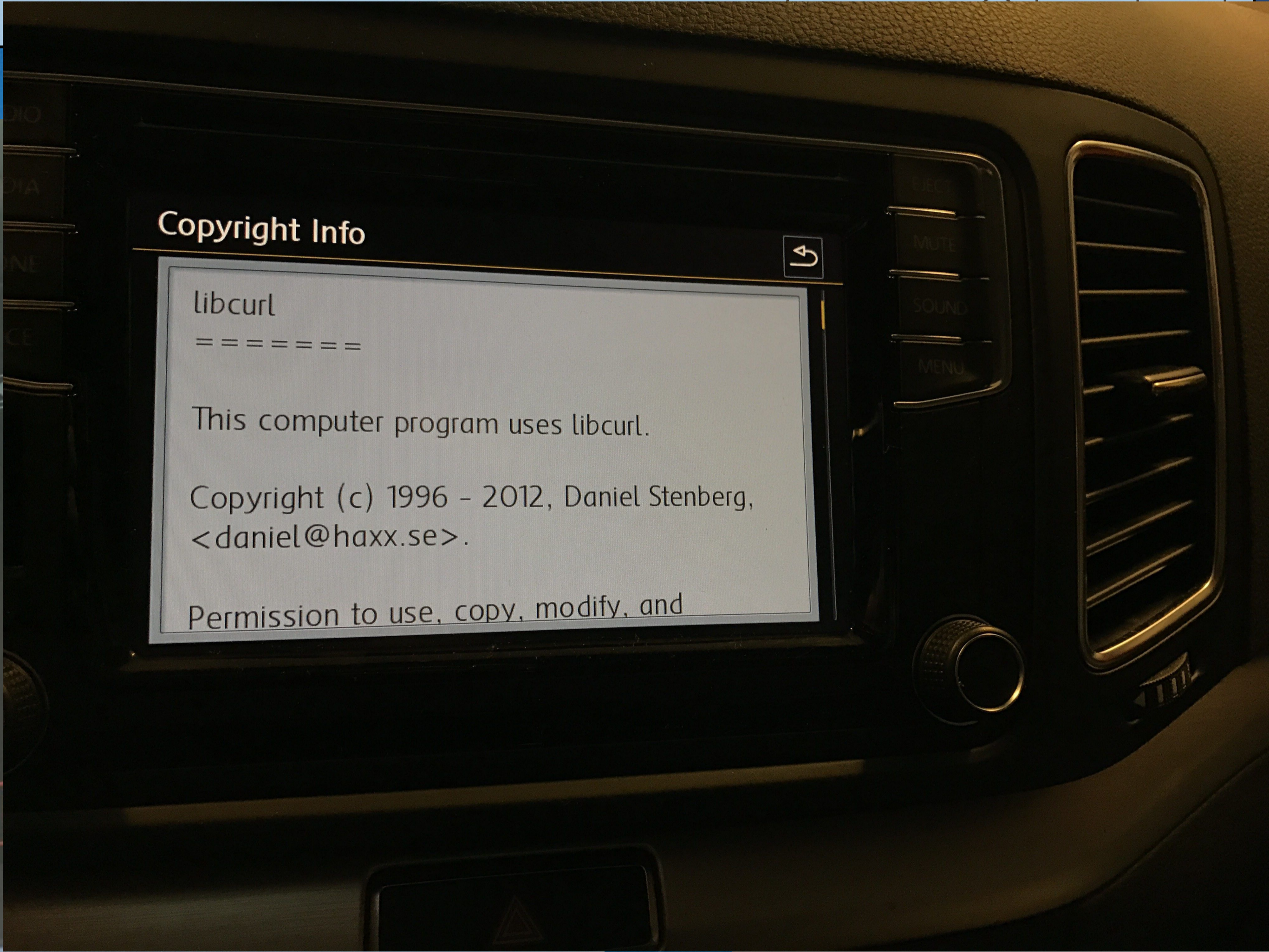
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The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software. THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE



*"Cool.. we're running with the patch reverted in production now and it's solved quite a number of latency issues for us."*



Software  
Information about  
software licence

# Open Sou

cURL

eglib

Ethe

Expa

Free

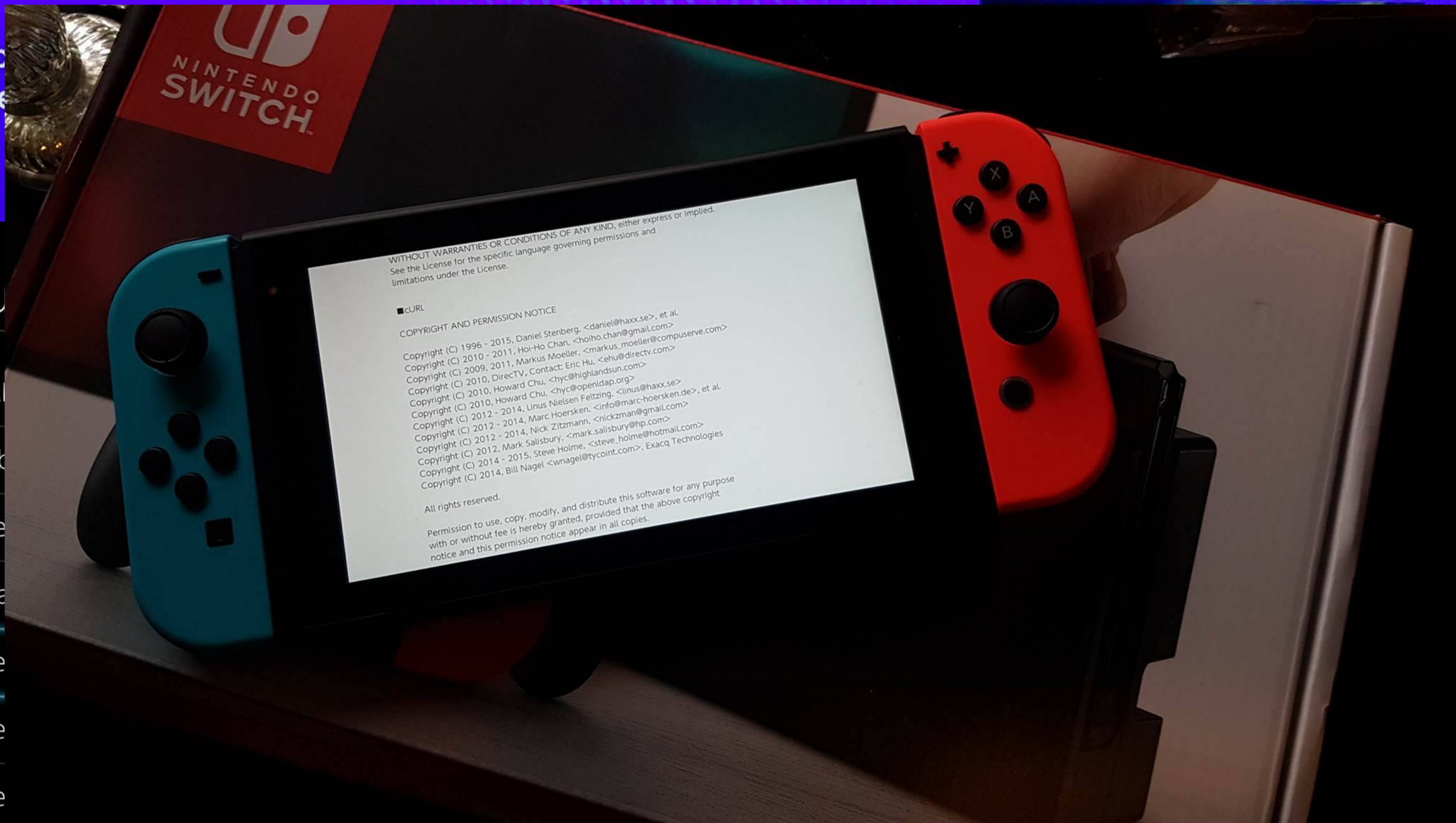
Free

Free

giflib

ICU

⊗ Enter   ⊙ Back



library,  
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asynchronously.  
This piece of software is made available under the terms and conditions of the c-

Keywords

Close

PHILIPS



# Master of many things?

**Subject: Multimedya isc-v:85**

I have toyota corola with multimedya system that you have its copyright.

I need a advice to know how to use the gps.



How?

A group of children are participating in a tug-of-war competition on a grassy field. They are wearing various colored shirts (orange, red, grey, blue) and are pulling on a thick rope. The children are leaning back, showing effort and determination. The background is slightly blurred, focusing attention on the participants.

Contributors

**1500 in total**  
**30-40 per release**  
**Increasing**  
**Small core team**  
**Volunteers**

# Who pays



Spare time hackers

Company paid contributors

Company paid feature development



**I'm a maintainer**

# This is my primary hobby

On average, I work two hours on curl per day

Every day of the week, every week of the year

Since 1998

Part time paid by Mozilla since 2014

14,000 spare time hours and counting

24,000 emails sent

15,000 commits

# What's maintaining?

Security issues

Debugging

Release management

Patch merging

Web site admin

Feature development

Mailing list admin

Write documentation

Patch reviewing

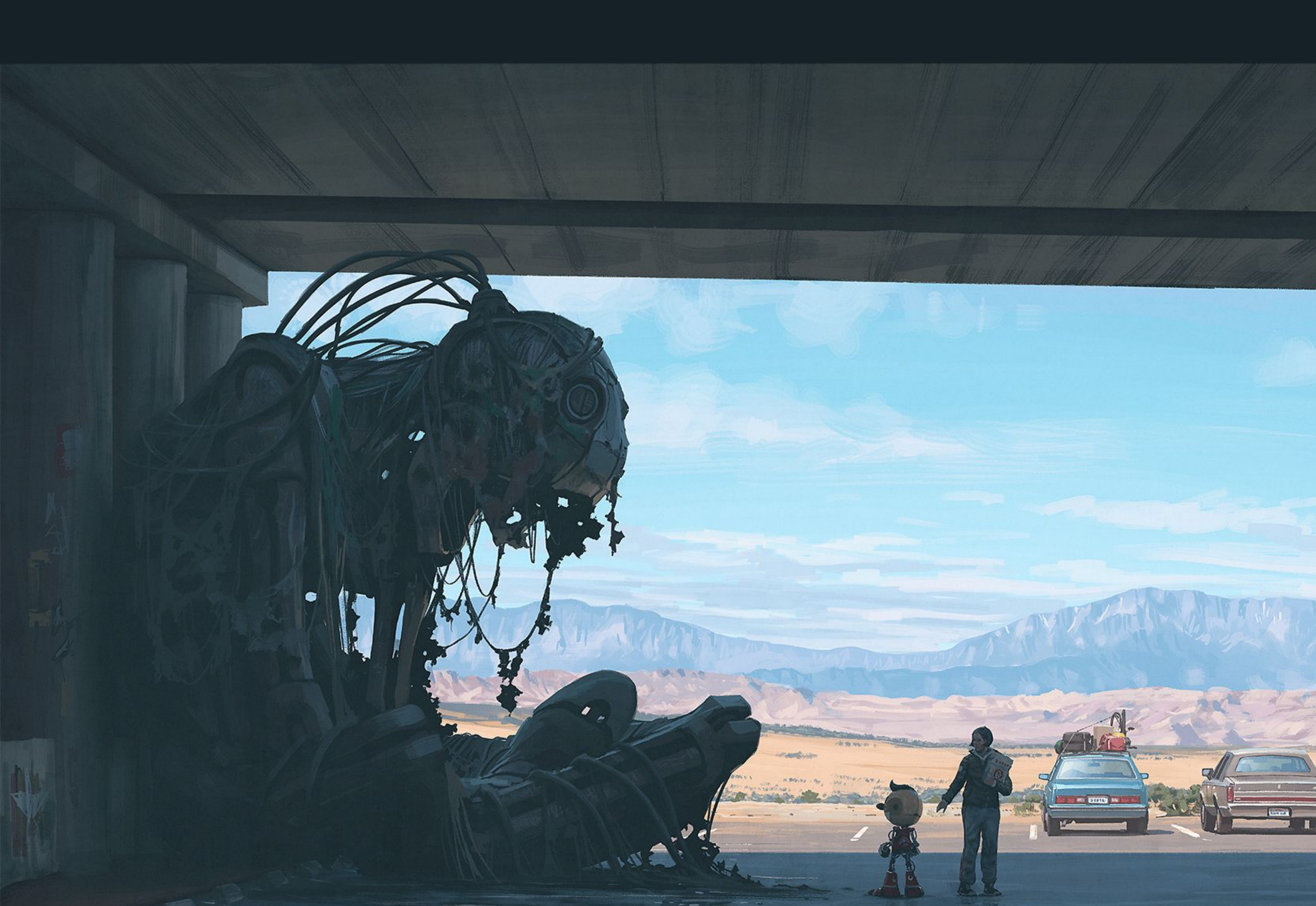
Event planning

User support

Getting stickers

Blogging about it

Doing talks



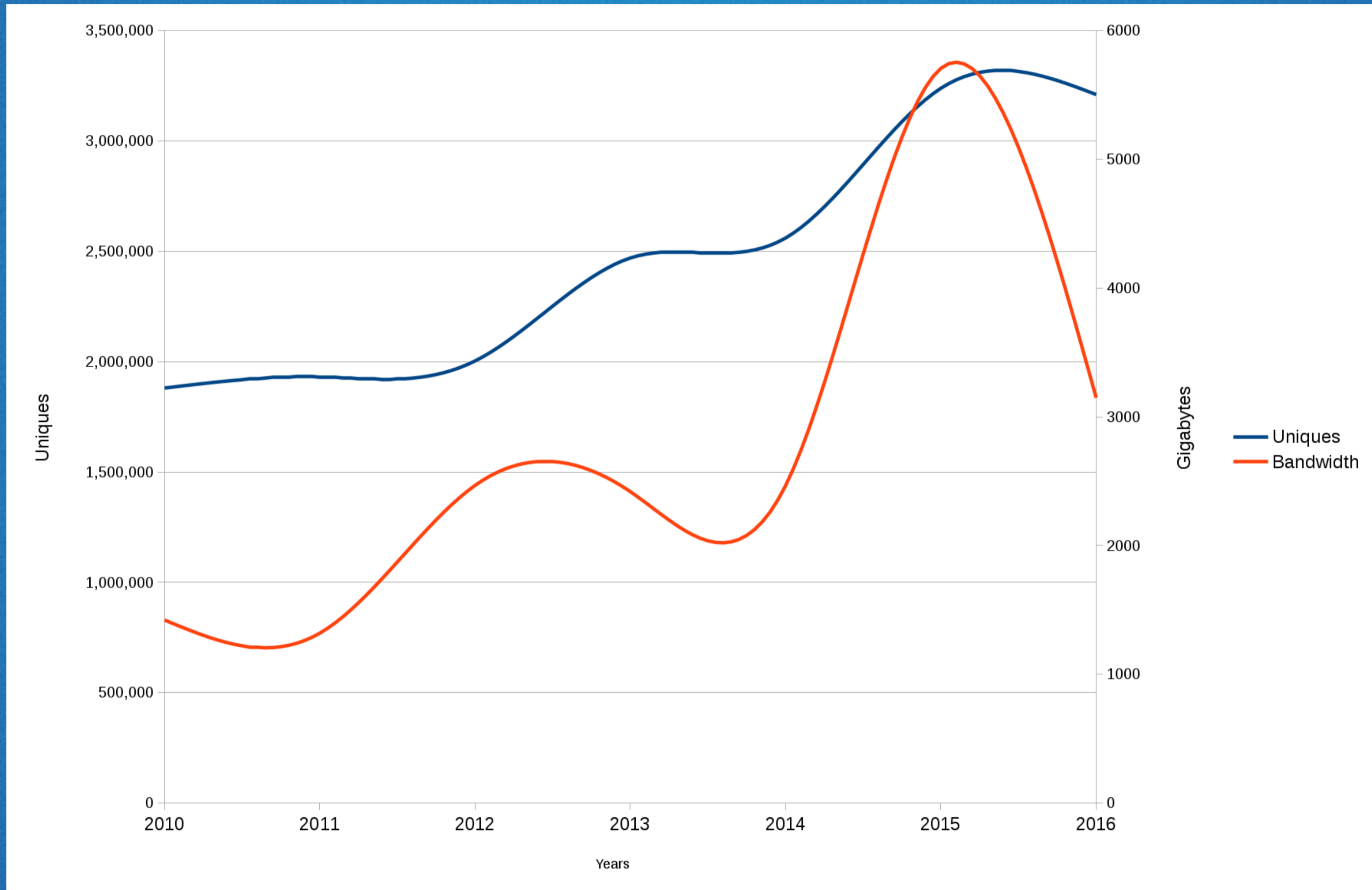
Health check



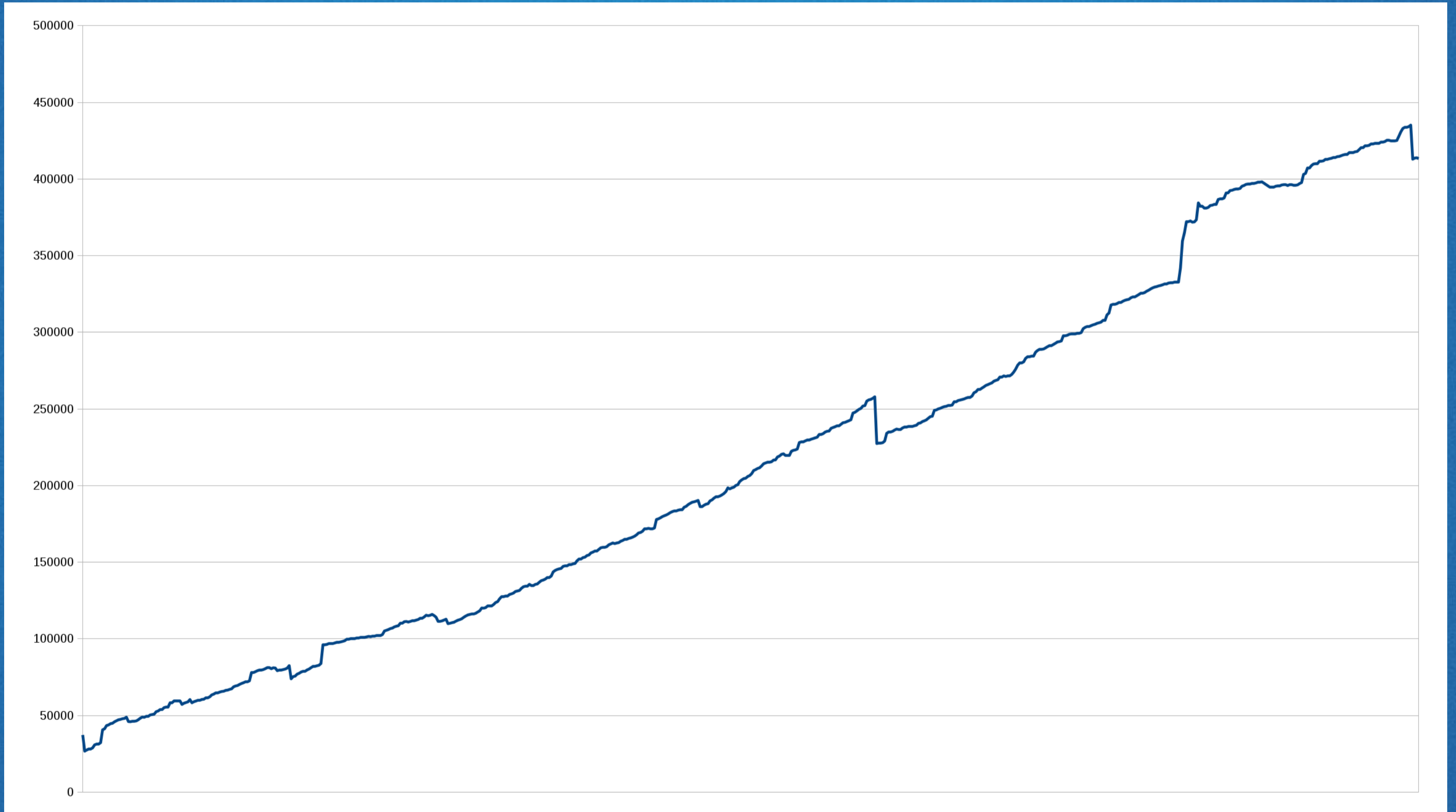
# Stats

- ~~Amount of data on the Internet curl handles~~
- ~~Number of curl users~~
- ~~Number of issues experienced~~
- ~~Which parts of curl are being exercised~~

# Web site traffic

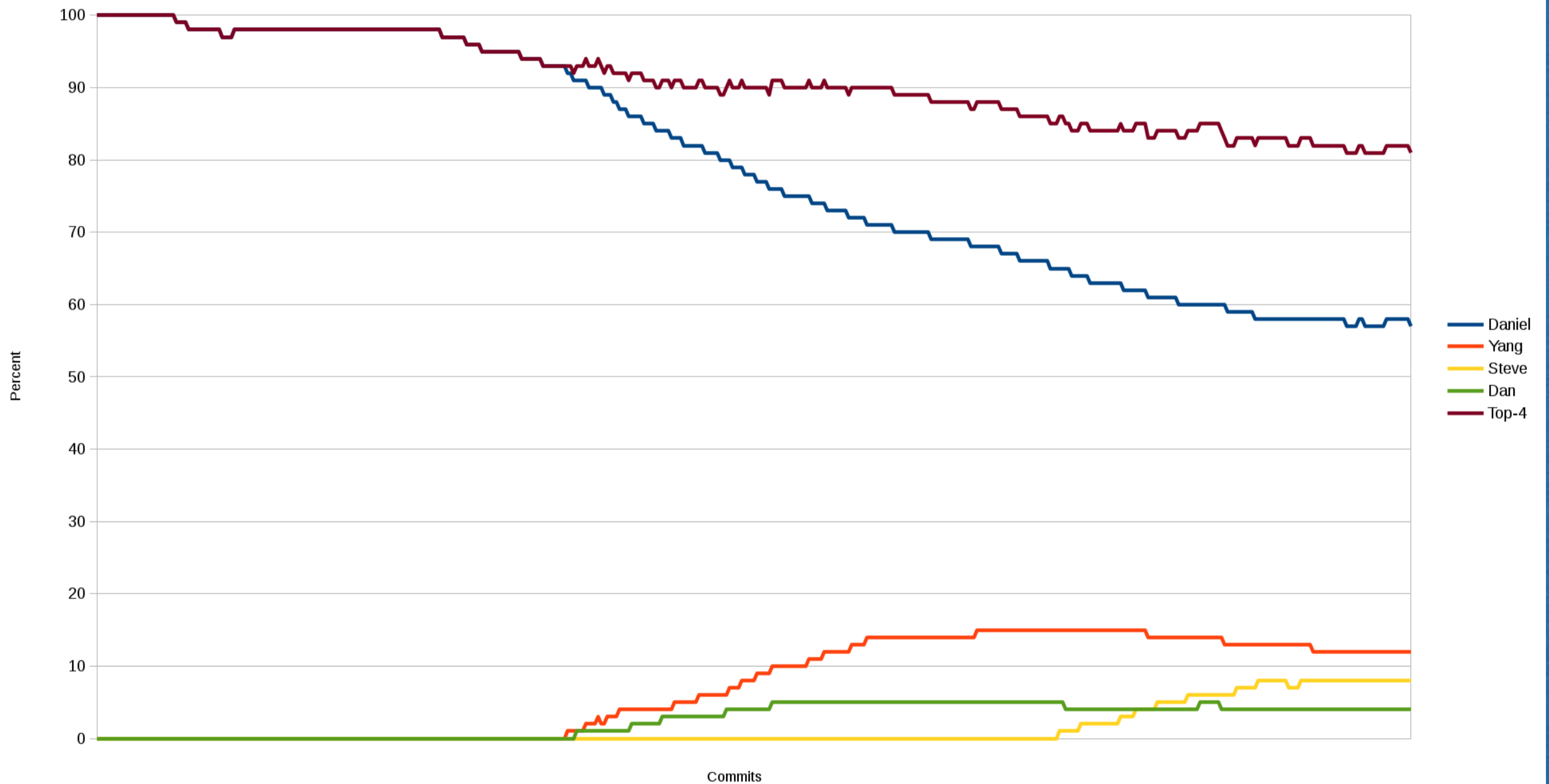


# Number of lines in git

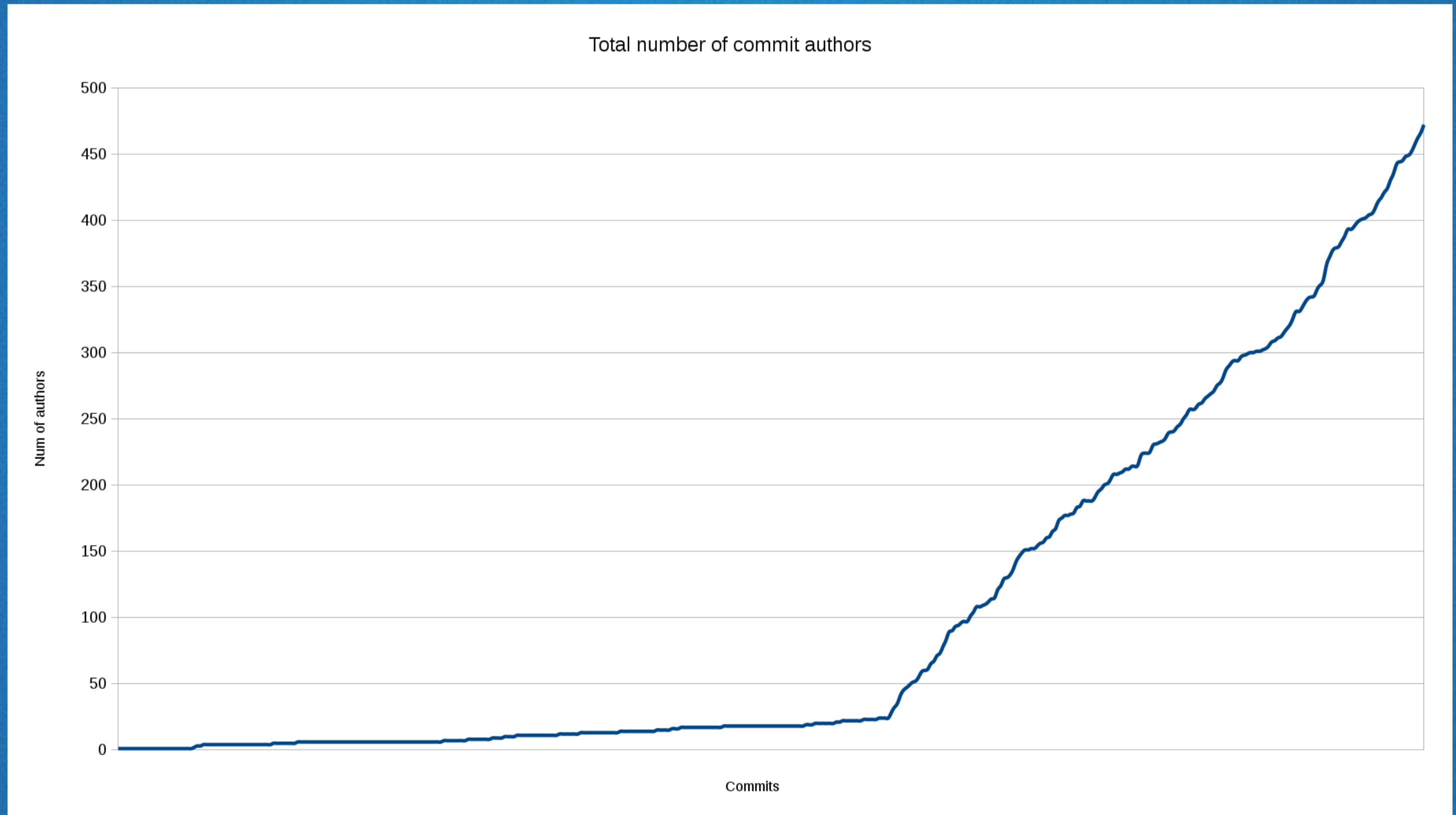


# Top-4 authors' share

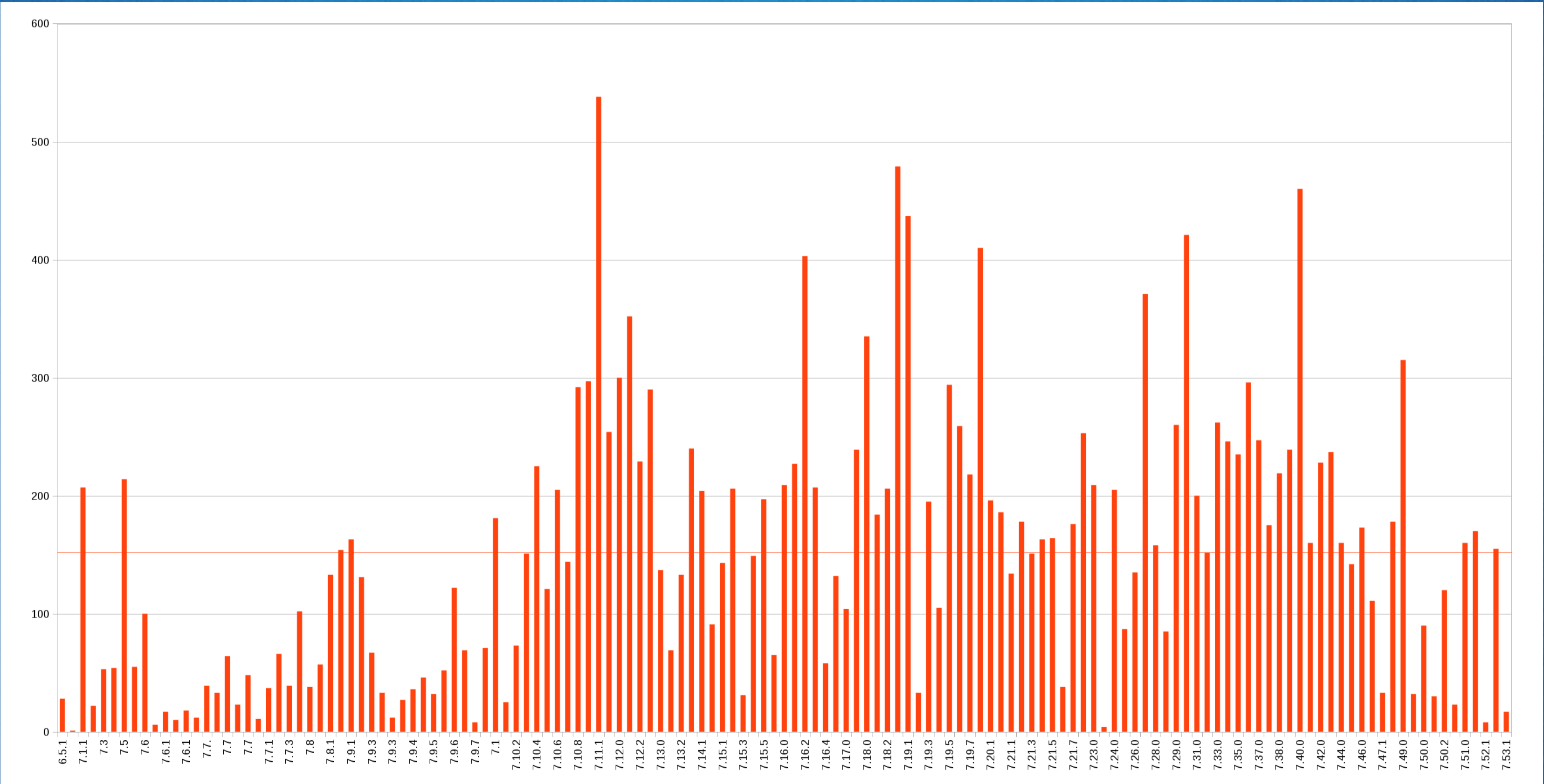
Authored commits



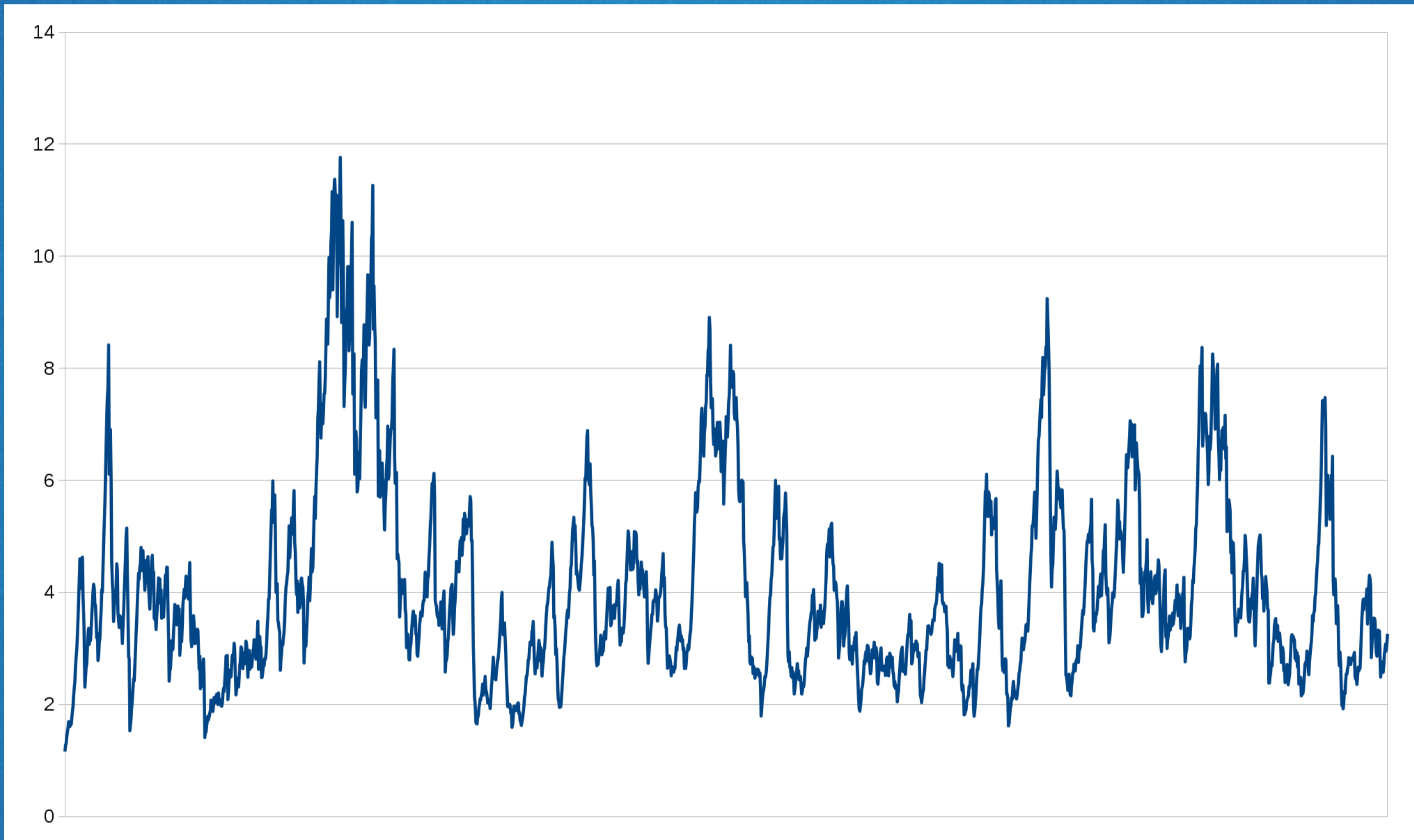
# Number of authors over time



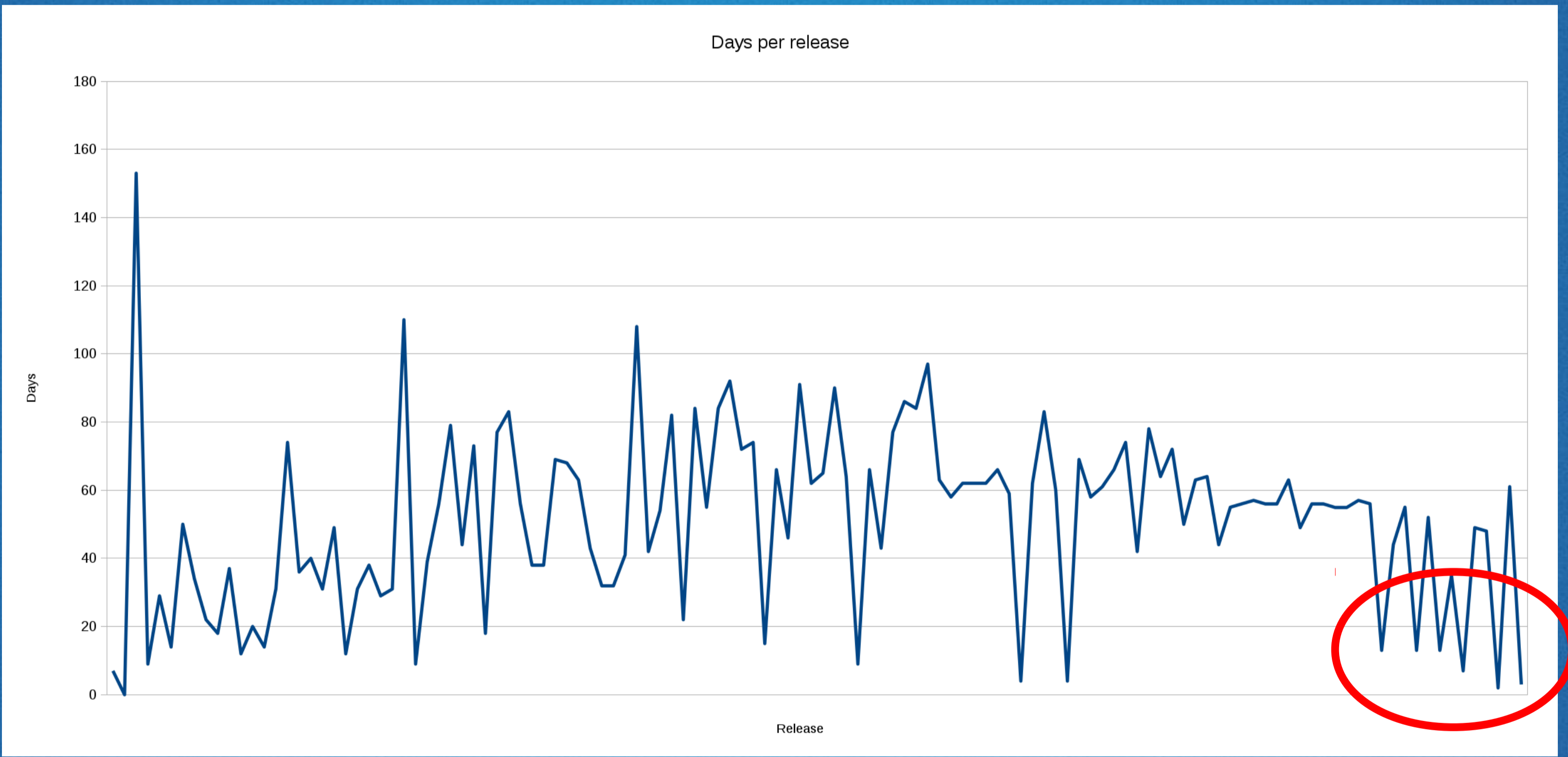
# Commits per release



# Commits per day

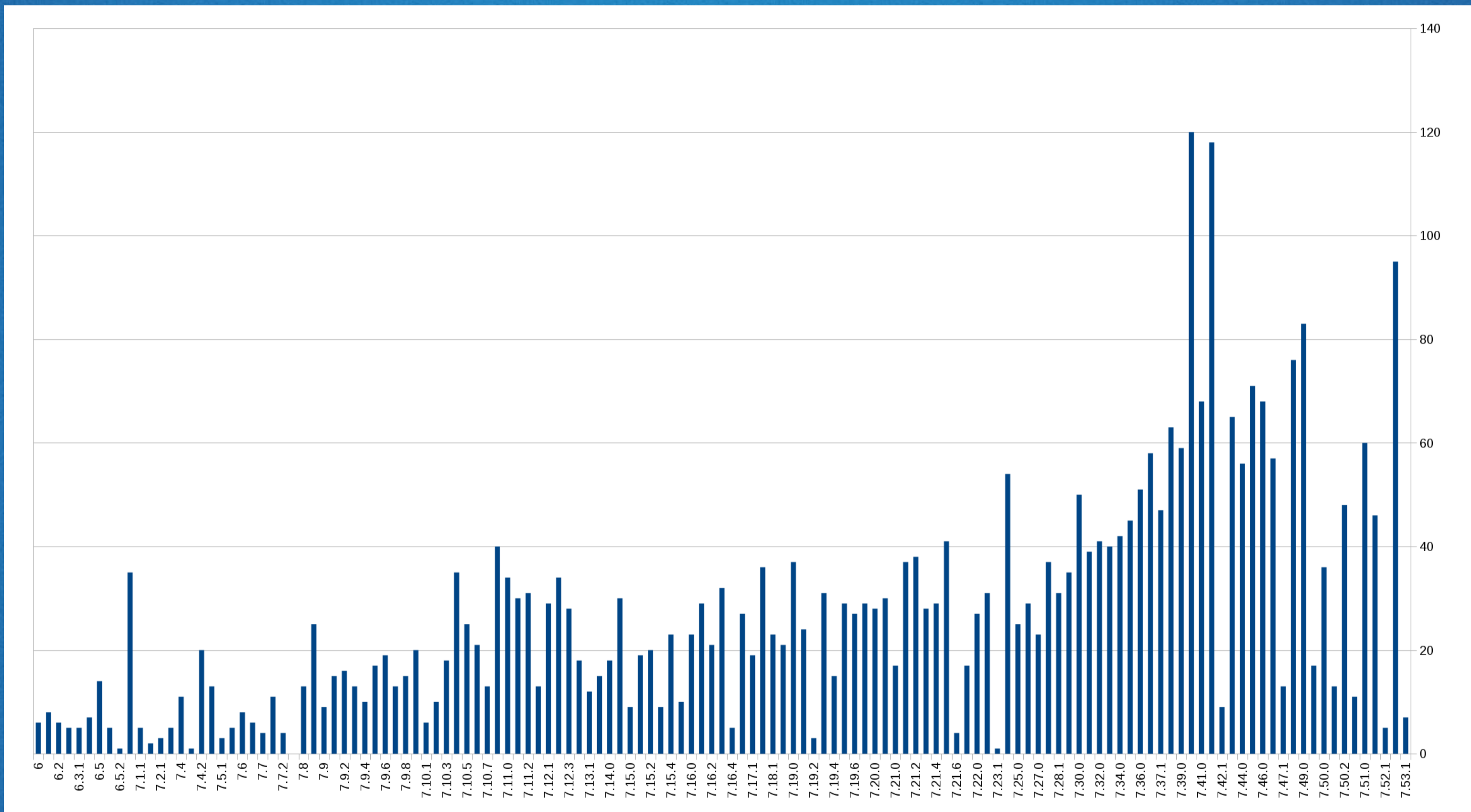


# Days per release

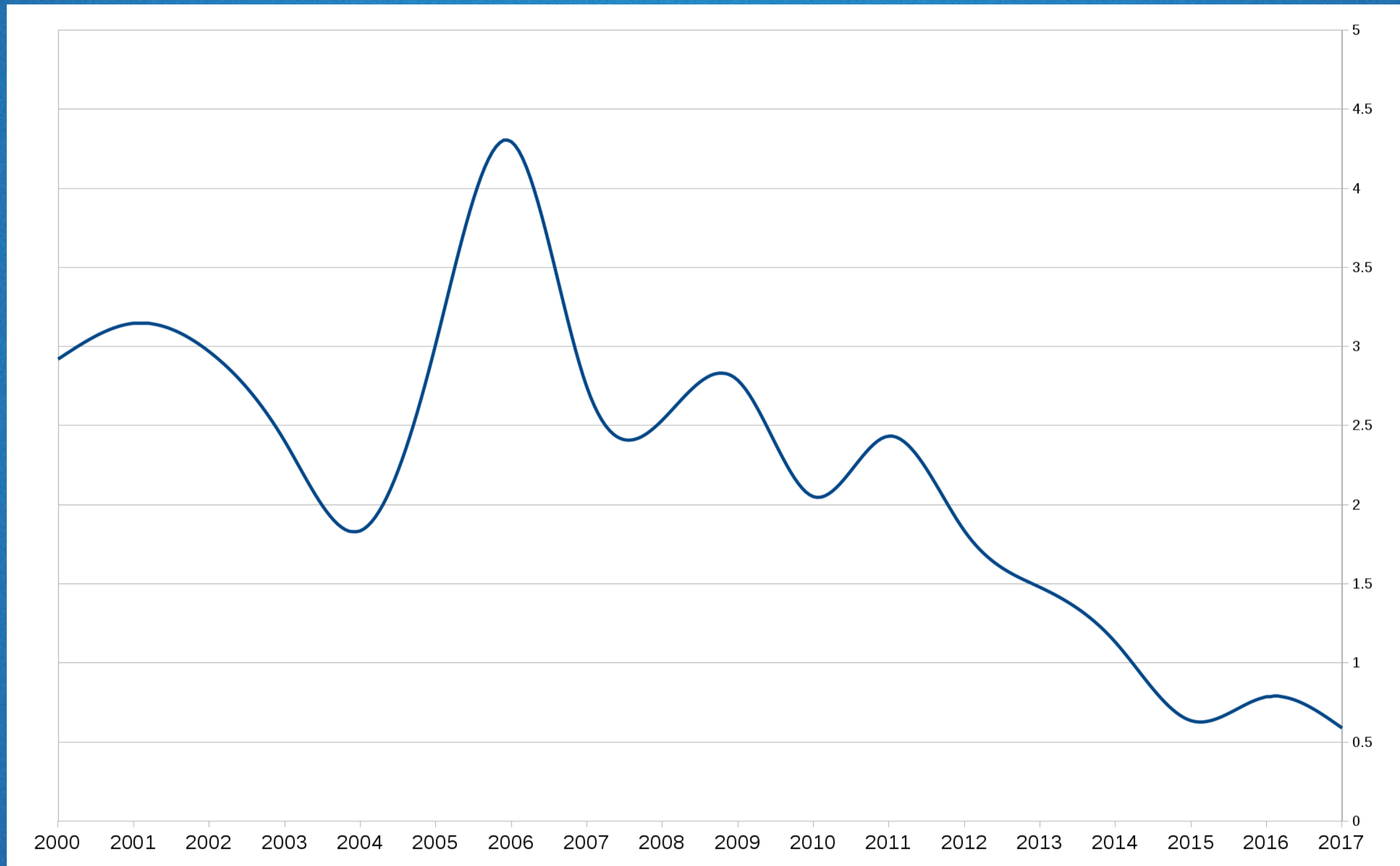




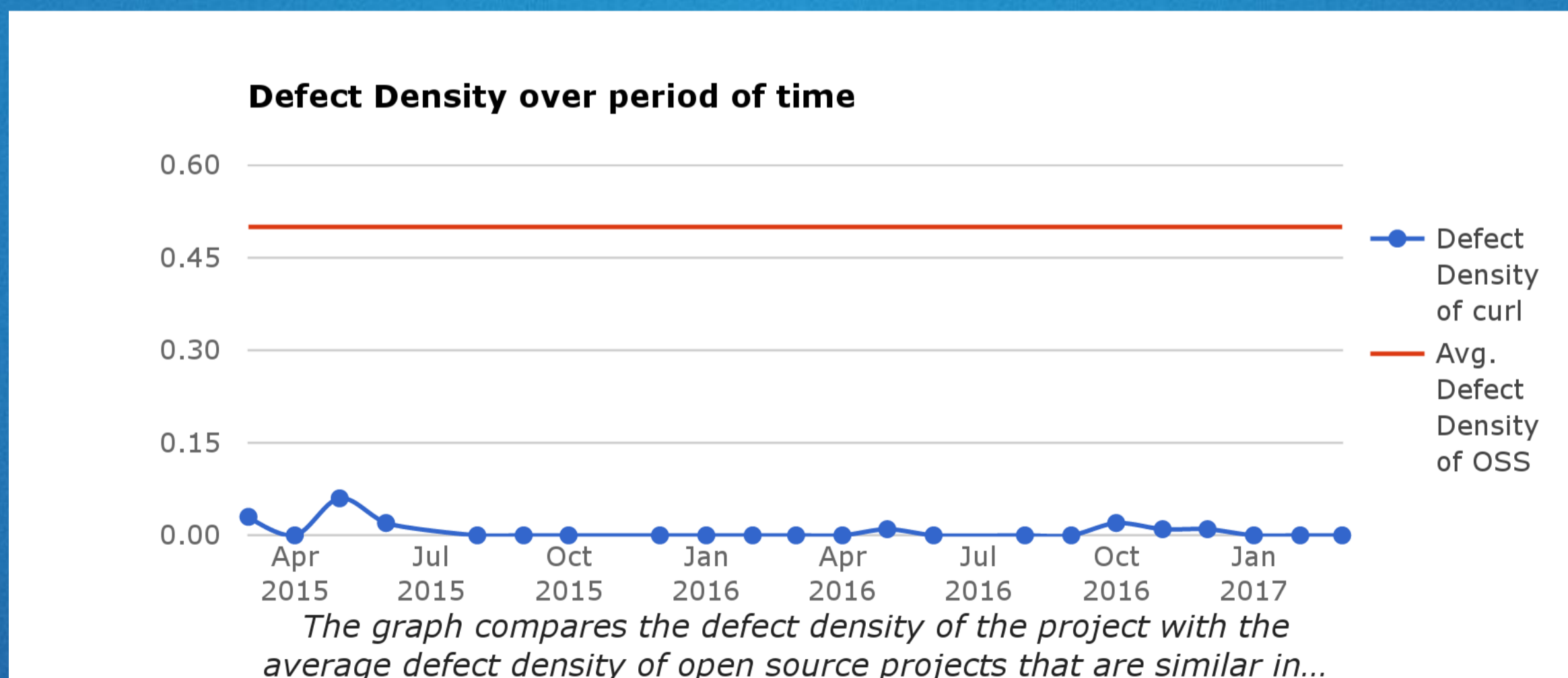
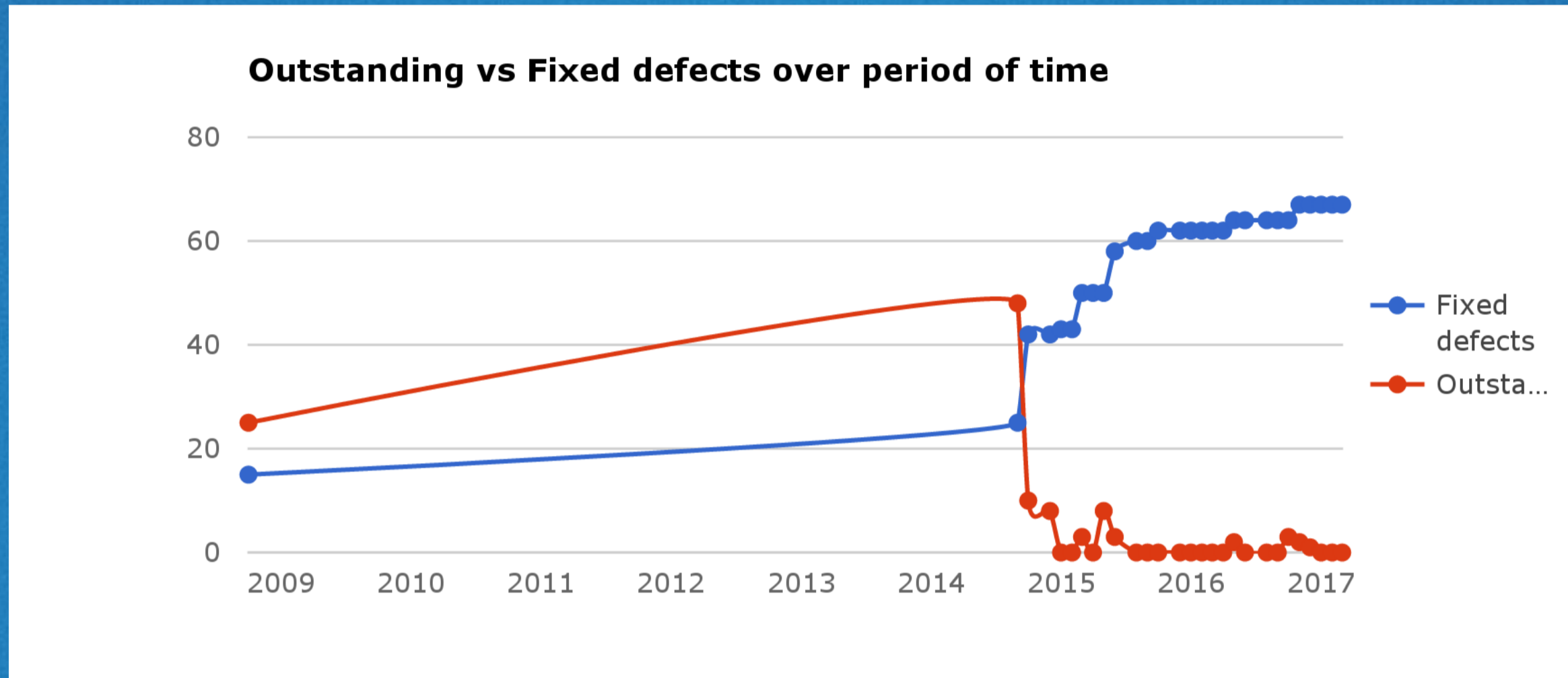
# Bugfixes per release



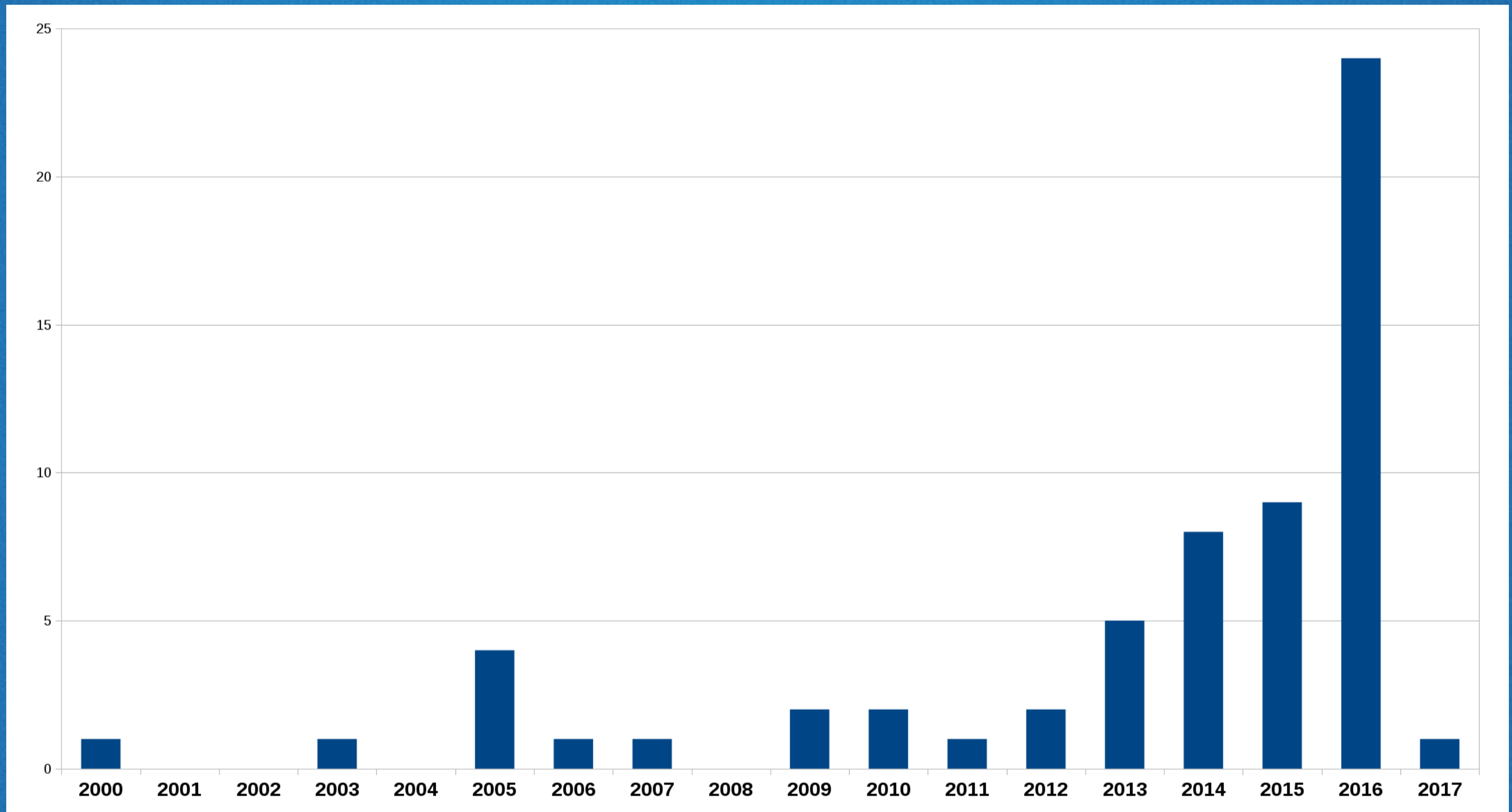
# Days spent per bugfix



# Coverity scans



# Vulnerability reports



# Future



# Things to consider

QUIC

TLS early data

TLS 0RTT

Brotli compression

... whatever *you* want to work on!

# Finally

Thanks Dan Fandrich!

Now let's have fun.