Collabora

LibreOffice
The Document Foundation

SUSE

The history & pre-history of LibreOffice

Michael Meeks <*michael.meeks@collabora.com*>

General Manager at Collabora Office

@michael_meeks, mmeeks #libreoffice-dev irc.freenode.net

Collabora Office

OPENSUSE-LIBREOFFICE CONF'20

"Stand at the crossroads and look; ask for the ancient paths, ask where the good way is, and walk in it, and you will find rest for your souls..." - Jeremiah 6:16

Includes MySQL®
LINUX MAGAZINE
datto
ADMIN Network & Security
fedora
TUXEDO COMPUTERS
.riessapplications
Required Magic advanced technology

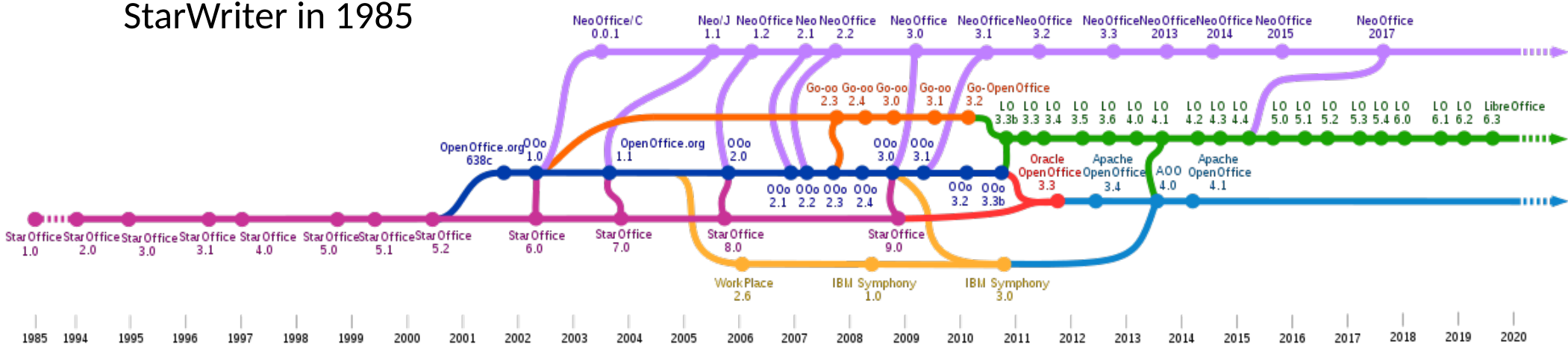
After ten years but really 20 years … or 35 …

Grown alongside FOSDEM:

20th year of OpenOffice.org too.

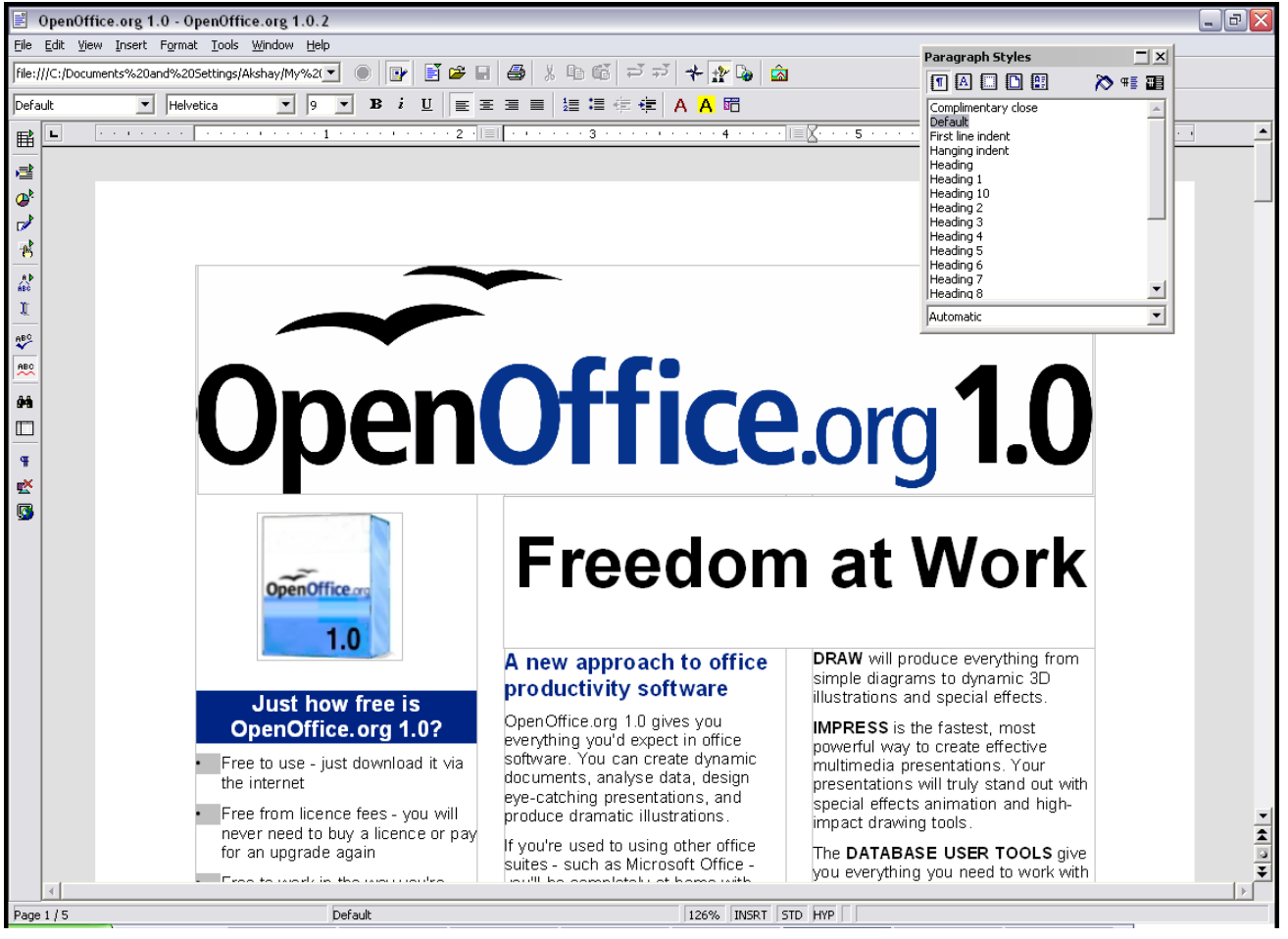
- Luckily we have a museum of old code so you can compare !

45th year since **Marco Börries** releases the first version of StarWriter in 1985



The heady days of FLOSS fixing everything !

- **1999:**
  - Sun buys StarDivision
- Marco **Open-Sources StarOffice** in **2000**
  - Dropping E-mail & the desktop for
  - GNOME + Evolution



Sun microsystems

col

CollabNet: FOSS Community Mgmt consultancy …

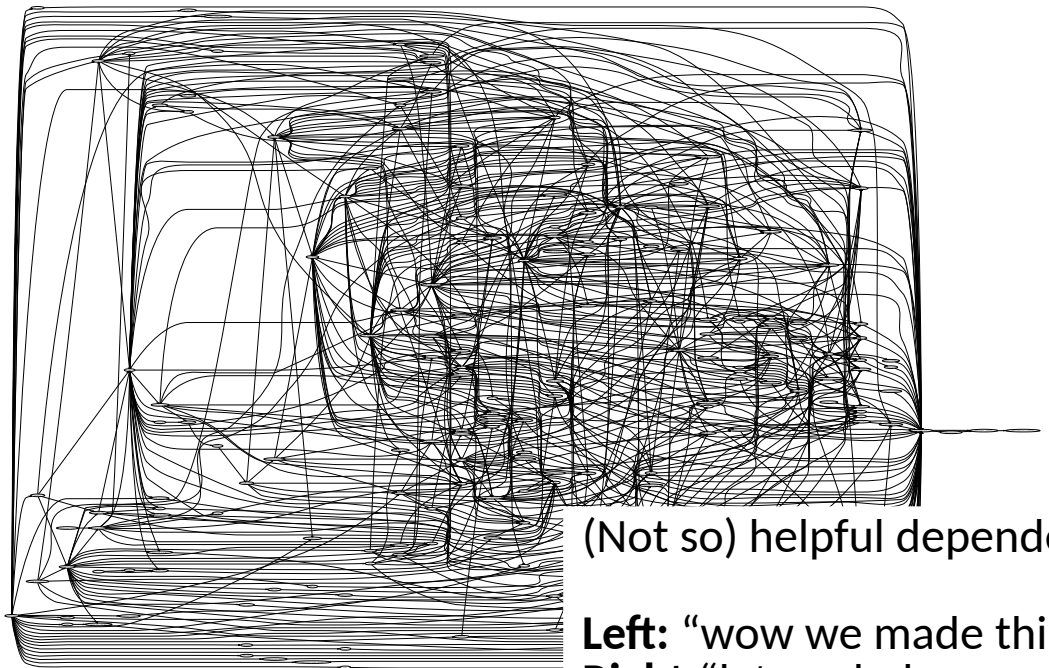
Louis Suarez-Potts

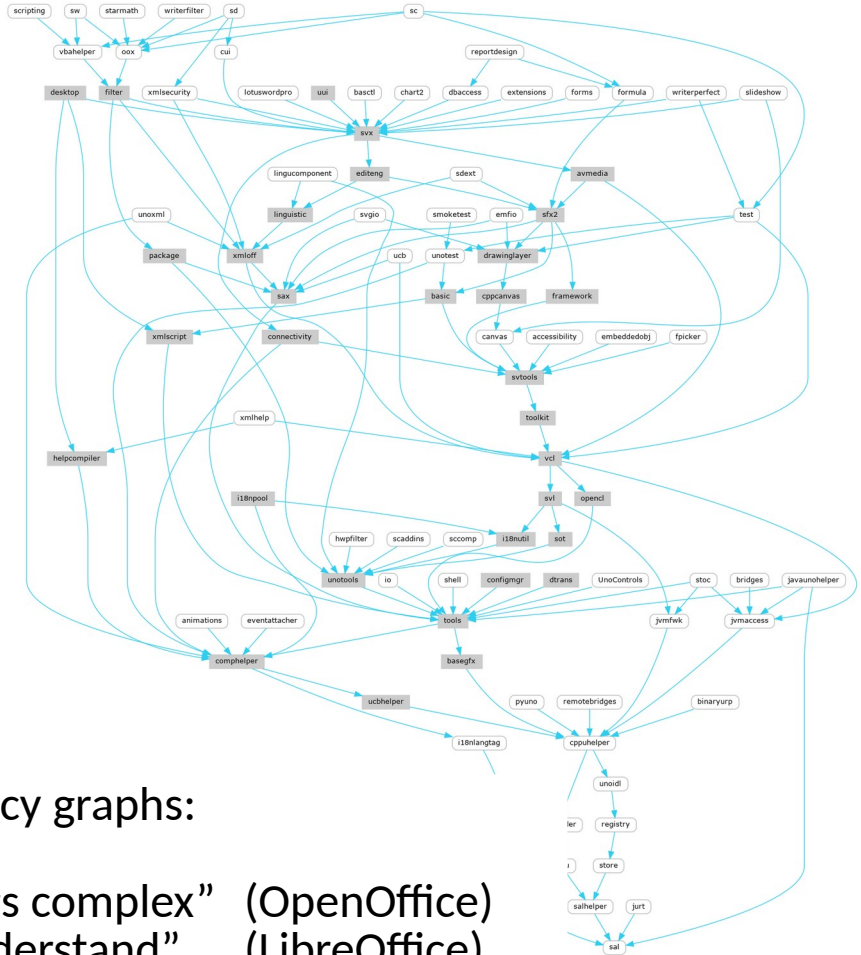
- Tough gig: paid by Sun, working for the Community …
- Social scientist, with at the time ~no FOSS experience.
- Taught StarDivision how FOSS works, inflated rhetoric, poor approach.
- LXF interview: *"The Linus Torvalds of OpenOffice" (!)*
- gerrymandered Governance setup on his watch.
- deep **'strategy' focus** – de-coupled from development / developers
  - eg. re-assured IBM in Koper: *no-one in the community thinks not-releasing your OO.o code-changes is anti-social*

vs. Linus Torvalds: "Talk is cheap. Show me the code."

Attracting developers:

Top tip: get a developer to write & even test your build instructions …





(Not so) helpful dependency graphs:

Left: “wow we made things complex” (OpenOffice)
Right: “let me help you understand” (LibreOffice)

Development Process ...

Crazy stuff

- Fundamental libraries – change API randomly
- Low-level library authors mail everyone:
  - *"I just re-ordered the parameters in:*

```
void copyFile(string src, string dest);
```

to

```
void copyFile(string dest, string src);
```

  - **"please update all your code !"**
- Before moving onto their next master-stroke.

Top tip:
Platform / API churn can rapidly overwhelm the ability of application authors to keep up.

But don't worry, re-writing in Java, C#, Haskell, Rust, will make everything better ...

Amazing !?

Build tree in a permanent state of brokenness

- Release engineering:
  - Would branch the tree
  - Try to make it build
  - Chase engineers to fix things
  - Merge all of that
  - After a week or so produce a binary snapshot
  - People would re-base their work on that and … life would continue.

Top commit counts in the world: StarDivision Releng

Getting a first build ... a month.

Incredibly pleased to have built OpenOffice !

- With aformentioned, un-tested build instructions

```
$ cvs update # … wait 10 minutes
```

- Weeks more work to get something working again

Created ooo-build

- Maintain a public set of patches & fixes necessary to compile the beast in the 1st instance.
  - Built on Frederic Crozat's work for Mandrake (RIP)
- ~Immediately adopted by ~all Linux distros.

Something you can actually package:

~immediately built a distro / packager community behind ooo-build:

- *+24 hours into the build – it is not supposed to suddenly fail …*

colla

Some historic snapshots

StarDivision / OpenOffice bits …

Visionary leader Marco Börries

- Open-sourced, and left the building … → **Joerg Heilig → Michael Bemmer**

2003-06 Ximian Desktop 2 …

- Pretty OpenOffice UX / changes, contribute back ! acquisition (in August) …

2004-12 SISSL license dropped

- IBM mis-behaving, not contributing back, → LGPLv2 + CLA

2005-01 StarDivision

- *Giving almost everything away has almost destroyed their revenue stream*
- Budget cuts; threatens Novell with a change in the license to GPL
  - → bad for plugins, but … what can we do ?

StarDivision - cuts staff …

Evangelism / new contributors

2005-03 Intel's Open-Source group

- Dhananjay Keskar, Mike Leibowitz
- On-site training in Cambridge, still friends …
- **Complement motivation (?)**
  - Did some performance work: I/O, CPU locking improvements

2006-01 Google starts hiring (Zaheda went from Sun → Google)

- Kai Backmann hired, on-site training/punting in Cambridge, still friends
- Started to do amazing work accelerating build times / VCS → SVN etc.

2006-03 Novell / Microsoft announcement → OOXML filters etc. → tough times.

Ongoing problems …

2006-05 Process burden

- iTeams, horrible RCS, QA barrier, poor release schedule, treacle like community discussion excluding developers … “Polluter Pays”, “Pro-active Engagement”, “Decisive Leadership needed”, “Who dares wins”.

2006-09 Intel leaves

2007-01 Google: +1 year

- Kai – moved to Hamburg, face-to-face with amazing conservatism, and stasis.
- Urged me to fork, then moved inside Google.

Distressing …

ODF Coalition

2007-03 IBM / OpenOffice Foundation talks

- IBM leans towards an OEM license instead.

2007-04-28 Kendal Meeting

- Novell meeting beforehand @ Legal Seafood / Kendall Sq.
  - *Oracle (Peter Lord)*, *RedHat (jrb)*, *Novell (me)*, *Google (Zaheda)*, *Michael Bemmer (Sun)*, *Kay Ramme (Sun)*, *Simon Phipps (Sun)*
  - Unequivocal support for Sun: “Show me the code”
- OpenOffice Foundation talks fall apart …

2007-0? IBM gets an OEM license … - non-fork provisions ?

- connected announcement: **Sun Solaris on IBM servers →** market feedback ….
- **Novell – investing in Sun’s IP → used to compete against us [!],** no open solution [!]

Preparation for the inevitable

2007-06 – Novell / TM searches & branding bootstrap

- Short-listing with Nat: *Fresh Office*, *Pure Office*, *Office Unbound*
- ooo-build / go-oo Windows builds …
- Pointing at the CLA / asymmetric license → contribute to the core, hold some back eg. Calc / Solver: cf. blog
- *“Very disappointed to read Kohei's blog. Sun re-writing a contributor's code because they refuse to accept the licensing terms they give to other people: the LGPL; saddening. Sun chooses the licensing for OO.o; why choose a license they won't accept themselves ?”*
- *“Clearly, we recognise & salute Sun's huge investment here over many years, and for all our changes to the core (> 50% of our work) we assign rights to Sun outright, and plan to carry on doing so as we labour to improve up-stream OO.o.”*

Unhappy to see Sun turn uneqivocal support of their IP practices to harm contributors, and still no code.

OpenOffice brand → Sun

OpenOffice brand – owned by Team OpenOffice ev.

- Good people in the (opaque) governance there eg. Cor.
- Bounced into voting to transfer it to Sun
- *It looks as if the previously fairly benign non-profit that owned the OpenOffice.org trademark has just transferred it to Sun – apparently with the intent to use it to clobber people into not using the go-oo / ooo-build version of OO.o.*
  - Prospect of not just using the code ownership against contribitors

    but also the Trademark.
- Lengthy TM guidelines discussion

Sun → never used the OpenOffice brand effectively for its business

IBM repeatedly joins and contributes ?

NB. Be careful of taking serious pain now for future promises of investment from non-contributors

2005-Koper – promoting a foundation; no code …

2007-09 press release "IBM joins the OpenOffice.org community to develop and promote OpenOffice.org technology"

- *"IBM will be making initial code contributions that it has been developing as part of its Lotus Notes product, including accessibility enhancements, and will be making ongoing contributions to the feature richness and code quality of OpenOffice.org"*
- Talk of a dedicated team of 35 programmers.

1k professional strategists ?

2008-11 – Beijing IBM: bad score-card, but *"we will be contributing"*

2011-07 press *"IBM Donates Lotus Symphony Source Code to the Apache OpenOffice Project"*,

- At this point → still no code released & contributed
- **Sets the stage for license choice …**

2012-05 source code actually arrives at Apache – **58 months later**

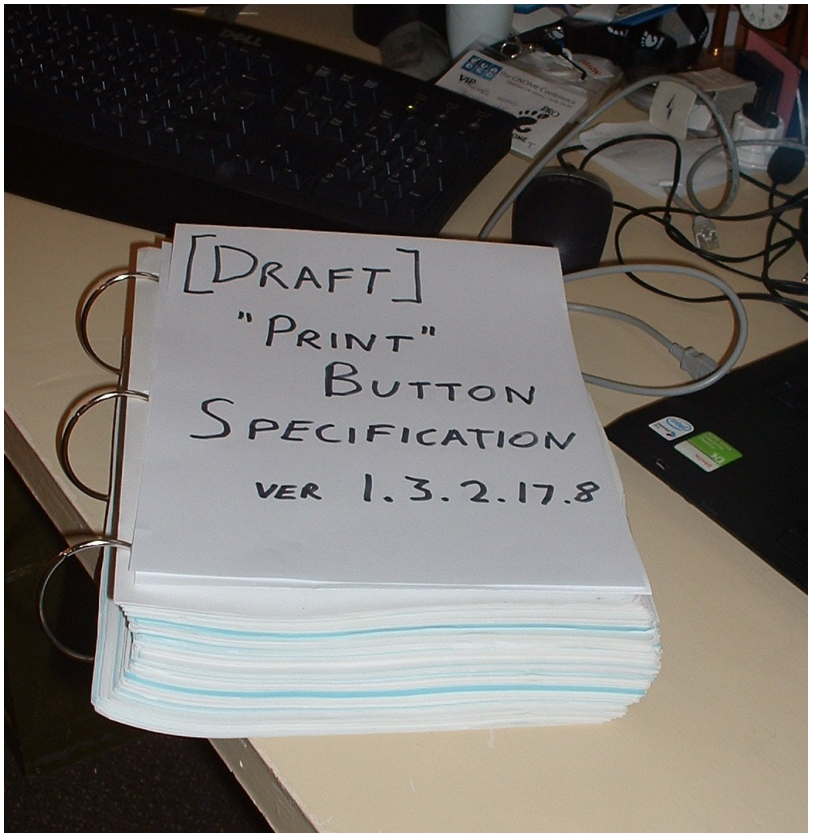
Worth noting that there were and are lots of other unhelpful non-contributors: RedFlag, and other Asian companies.

Pre-LibreOffice

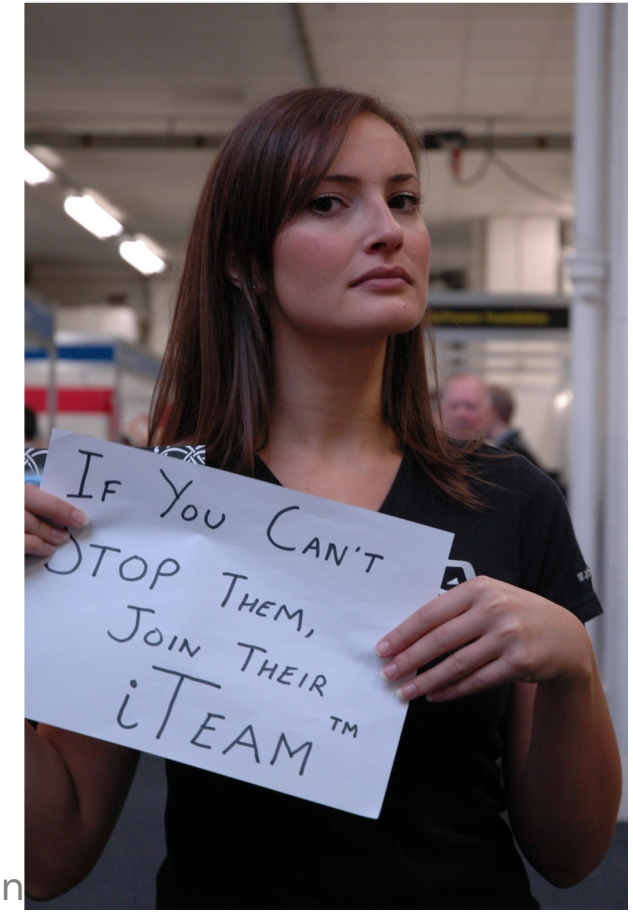
I visited a UK conference,

everywhere I went I found frustration ...

Heavy duty / run-away Process ...



Heavy duty / run-away Process ... #2

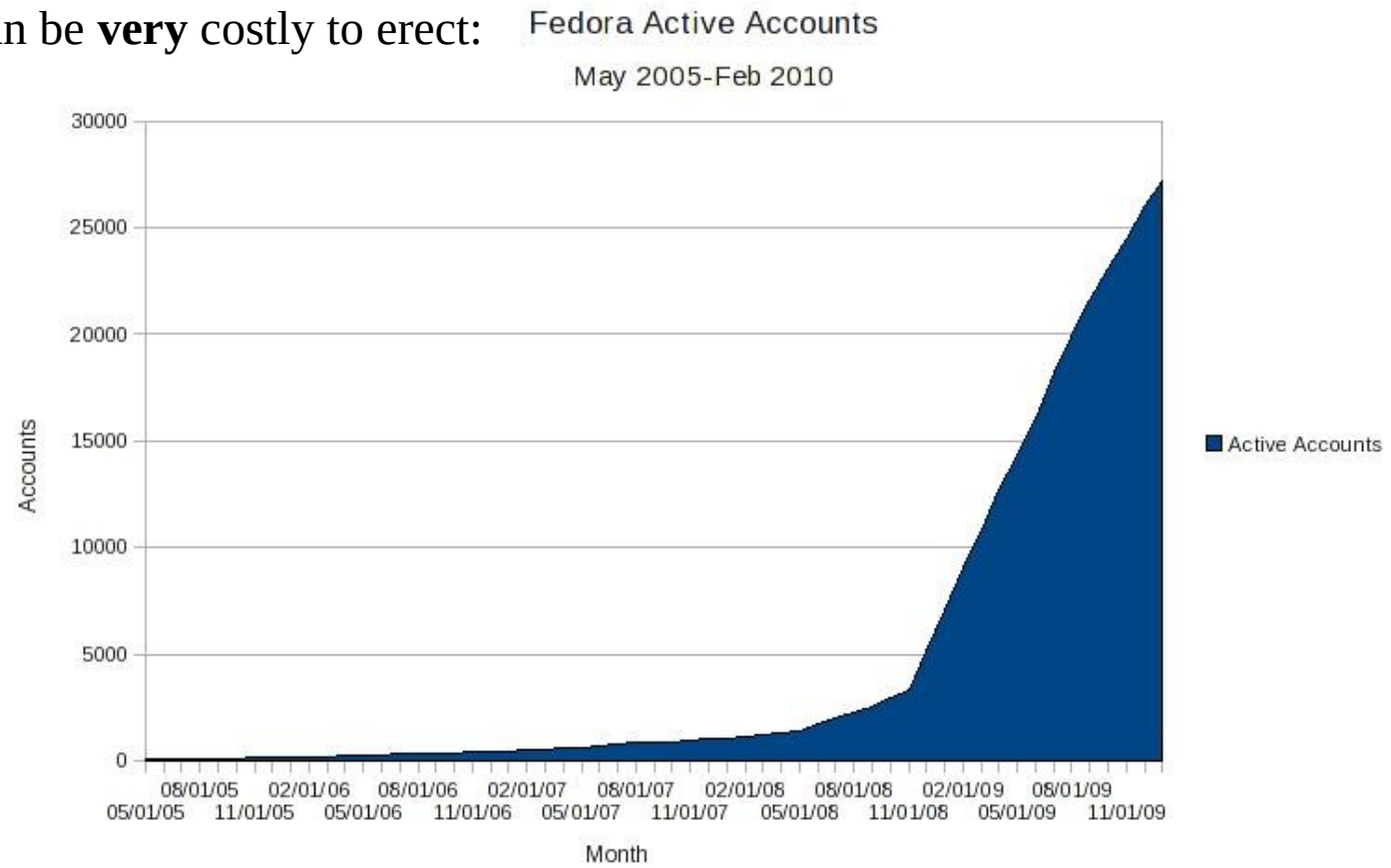


Lots of things not getting fixed ...

On Contributor License Agreements ...

Why barriers to entry can be **very** costly to erect:

When do you think Fedora dropped their CLA requirement ?



No Single Vendor Dominance

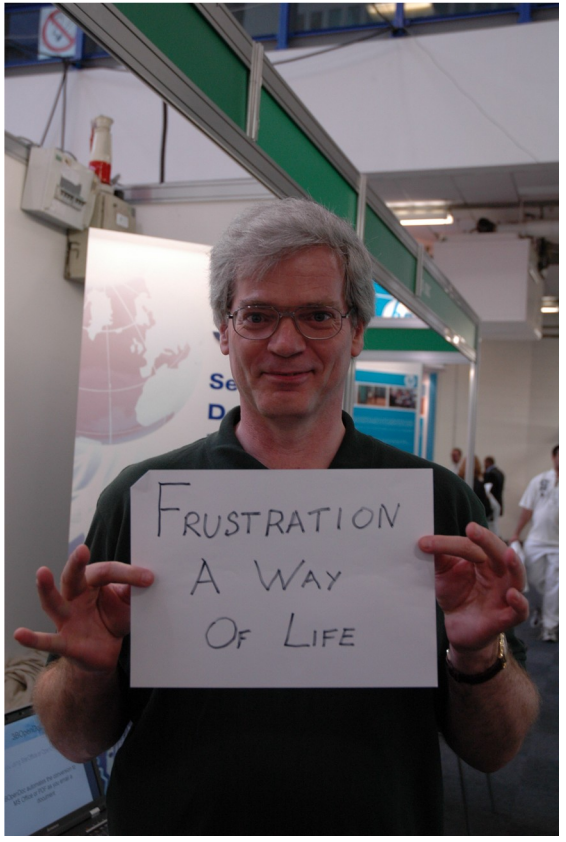
"No one can control more
Than 30% of the votes in
any statutory body of TDF!"

though often actually max ~10% eg. MC

- Turns out – it would be more useful to focus on actual diversity of participants – and solid ecosystem economics & get this for free.

- Marketing – useful, SUSE by far the largest contributor initially .

Cumulative Frustration & Missed Opportunities …

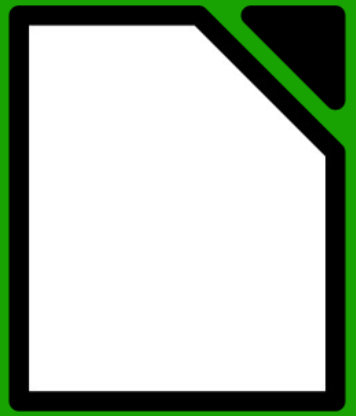


And yet – some wonderful individuals ...

Many heroic StarDivision **individuals** went beyond the call of duty to work with, mentor, and try to ease their own internal process pain for 'external' developers.

Many StarDivision guys were **friendly**, helpful, respectful, understanding, encouraging and pleasant.

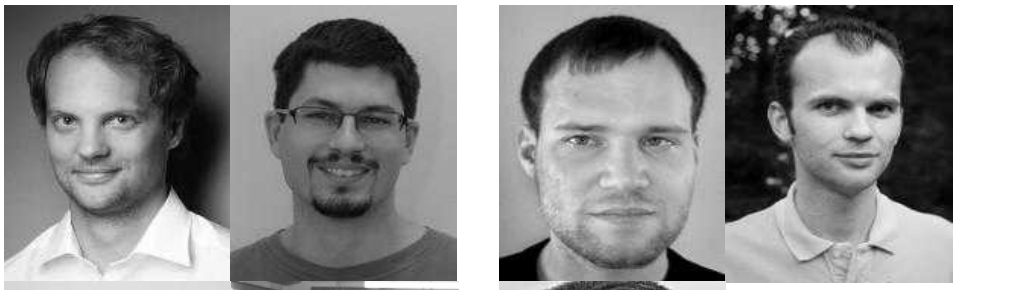
However, there were significant issues of **corporate** / divisional **culture**. It's hard to be the first to open up a huge project.



TDF / LibreOffice launch.

Wonderful logo thanks to Christophe Noack.

LibreOffice: planning it … 26 days to launch



Budapest, Sep 2, 2010

Launching is tough … call in our collective favours …

Management from RedHat

Bryan Stevens
EVP & CTO

Jonathan Blandford,
Sr. Eng. Mgr

Jan Wildeboer
Evangelist.

Caolan McNamara,
Hacker & Hero

```
Re: ooofuture

ok, we're finally green over
here in … land, I've now (9pm
Wed) got the formal go-ahead
that … involvement in
LibreOffice … is approved,
something we've been *cough*
actually lacking until now, so
my ass is now covered again.
```

```
One quirk however is:
"RE: press release, we'll do
it if google does it"
```

“After you” …
“no after you …” …

Management from Novell /SUSE

Dr Jeff Jaffe,
Novell CTO

Markus Rex
SVP & GM OPS

Carlos Montero-Luque,
VP Product Mmgt

Guy Lunardi,
Awesome PM

Two professional PR agencies: Italo Vignoli + SitPub

Un-blocking the magic ... ~10 days to launch

Hi Chris & Jeremy,

The **slight downer** is that to get a ... supporting press release, they **require one from Google** too
[**out sourcing** your **due diligence** is great like that ? ;-] - is that something that can fly ?
we go live 28th September; it seems you're the **press release king makers**. ...

We have RedHat and Novell management on-board (jrb being CC'd), and are trying to grow that corporate base. We are driving towards a press release [of the form: "we plan to create a real foundation, and here is our source code & Beta binaries"] ...

With such an aggressive timeline, anything that can be done is appreciated. Even without a supporting Google press release, it would be much appreciated to have a Chris DiBona quote, and/or one from Jeremy - who is more acquainted with the details.

Anything with **(double) rainbows and ponies** mentioned is **good** I guess and as yet - **just some vague commitment** to support the growth of the project (as you already do with GSOC) would be **great**.

... Thanks guys, Michael.

THE FUTURE BELONGS
TO THE FEW OF US
STILL WILLING TO GET
OUR HANDS DIRTY.

Google came up trumps: 7 days to launch

Michael and Charles,

It turns out Google can move very quickly when we want to. Here is an **approved quote** from Google you can attribute to: **"Chris DiBona, Open Source Programs Manager, Google Inc.":**

"The **creation** of the **Document Foundation** is a **great step forward** in encouraging further development of open source office suites. Having a **level playing field** for all contributors is **fundamental** in creating a **broad and active community** around an open source software project.

Google is proud to be a supporter of the Document Foundation and participate in the project."

Thanks a lot, let us know how we can help with the Foundation in future.

Cheers,

Jeremy.

Chris DiBona

Jeremy Allison

Bingo ... unlocked everything.

Have a name – but no logo! 6 days to launch

Beautiful in its simplicity cf. Wikipedia's Logo page example

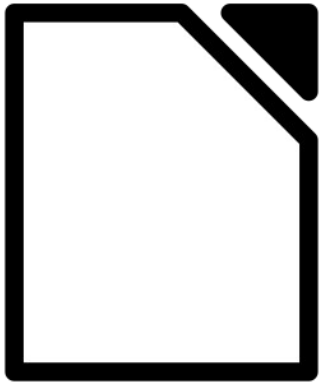
Thanks to Christophe Noack

[ooofuture] Proposal Christoph1 (was: Re: Artwork)

This evening I tried a lot of different designs, e.g. using the current "dove" (see the Wiki), … Well, I ended up with **something different** that **might be weird** - but **I like it** and it seems to fit to our naming and mission statement (but don't trust me at the moment, because I am really tired).

…

Question to all: Do you think its suitable in general? If it just requires some tiny changes … then this can be easily achieved. And if you want to add some critique, then please feel free to **help me to improve it**. I'm **not experienced in graphics design**, although I know some requirements / pitfalls due to my day job.



Website / Domain Names / Builds ...

Windows & Linux Builds produced by SUSE

- Petr Mladek, Fridrich Strba, Thorsten Behrens

Synchronized secretly to MirrorBrain network

- Thanks to Dr. Peter Pöml & friends

Infra setup / Domain registrations etc.

- Thanks to Alex Werner & Florian Effenberger

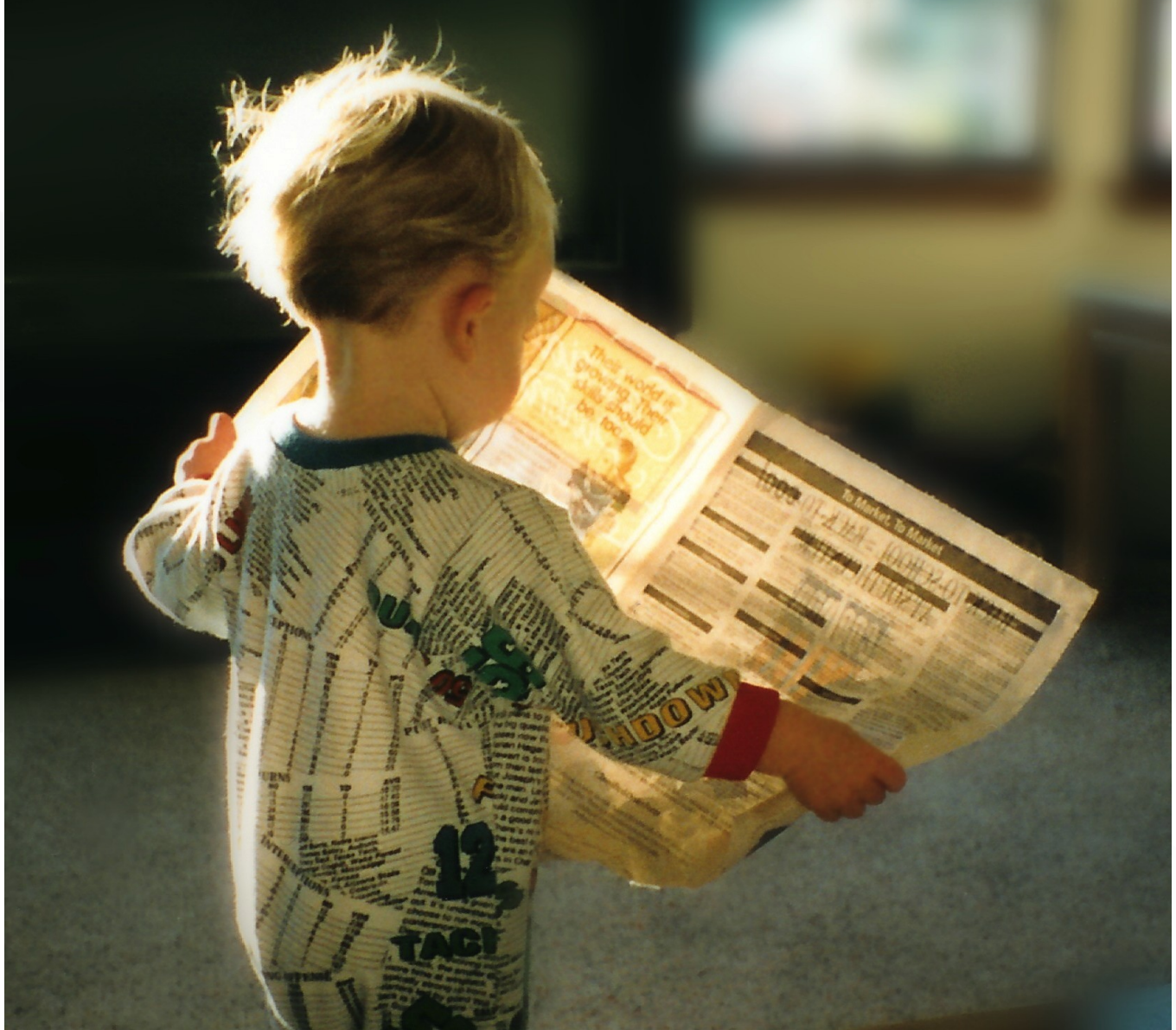
Website & PR / Marketing

- Guy Lunardi, Michael, Charles Schultz, Italo +++

Petr Mladek

Fridrich Strba

Peter Pöml


TACT

OpenOffice.org community members launch the Document Foundation

Other Supporters

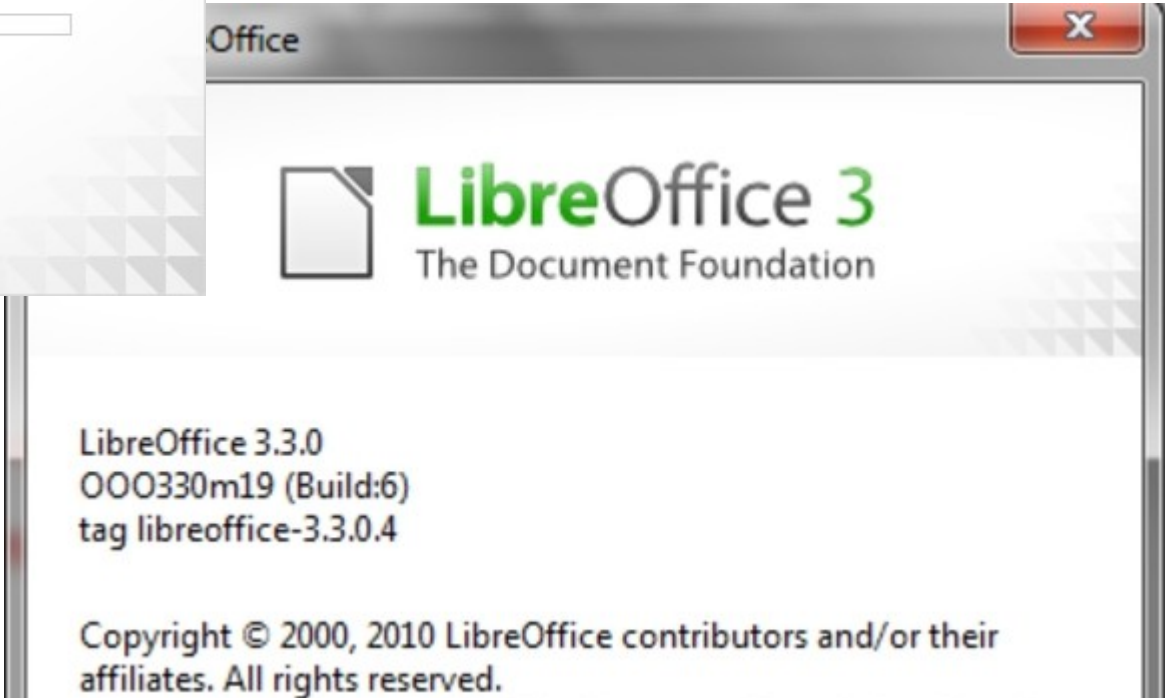
- **FSF President** Richard Stallman welcomed LibreOffice release ...
- "Viva la LibreOffice", said Guy Lunardi, product management Director at **Novell**
- Jan Wildeboer ... **Red Hat** is proud to join this effort".
- Mark Shuttleworth ... the **Ubuntu** Project will be pleased to ship LibreOffice ... in future releases

More lined up goodwill:

Other supporters:

- Simon Phipps, a Director of the **Open Source Initiative**. *"We welcome The Document Foundation initiative and look forward to the innovation it is able to drive …*
- *“We welcome the LibreOffice project to the free software community …”* says Stormy Peters, Executive Director of the **GNOME Foundation**.
- Patrick Luby, of **NeoOffice** says *"I am happy to see a new, independent LibreOffice foundation*
- *“… **BrOffice.org** and The Document Foundation share the same values and objectives and we are more than happy to be part of it.", says Claudio Filho*
    - Tons more … collected a vast page listing supporters …

Looks familiar ? ...



Technical wins:

under the hood

Engineering Steering Committee … - Peace

Talking & ensure everyone is heard

Many large FLOSS projects fight tooth & nail

- Module ‘maintainers’ Rampant waste & re-writing
- Bickering, and passive aggression.

Whole team are peers … no-one ‘owns’ modules

- Respect input from local experts: of course !

Calls live transcribed to reduce English listening needs

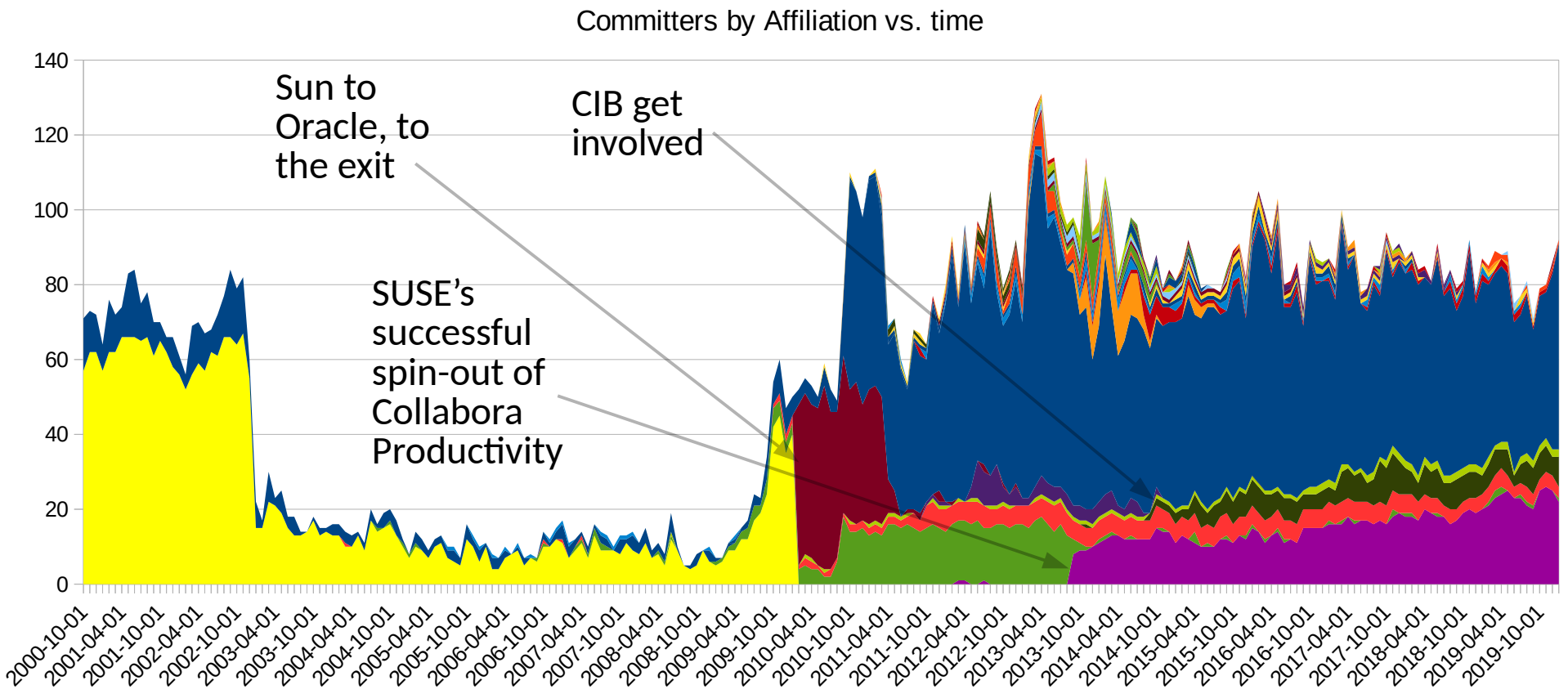
- Avoids the “Confused IRC wait-fest” problem.

Magic conflict reduction tool

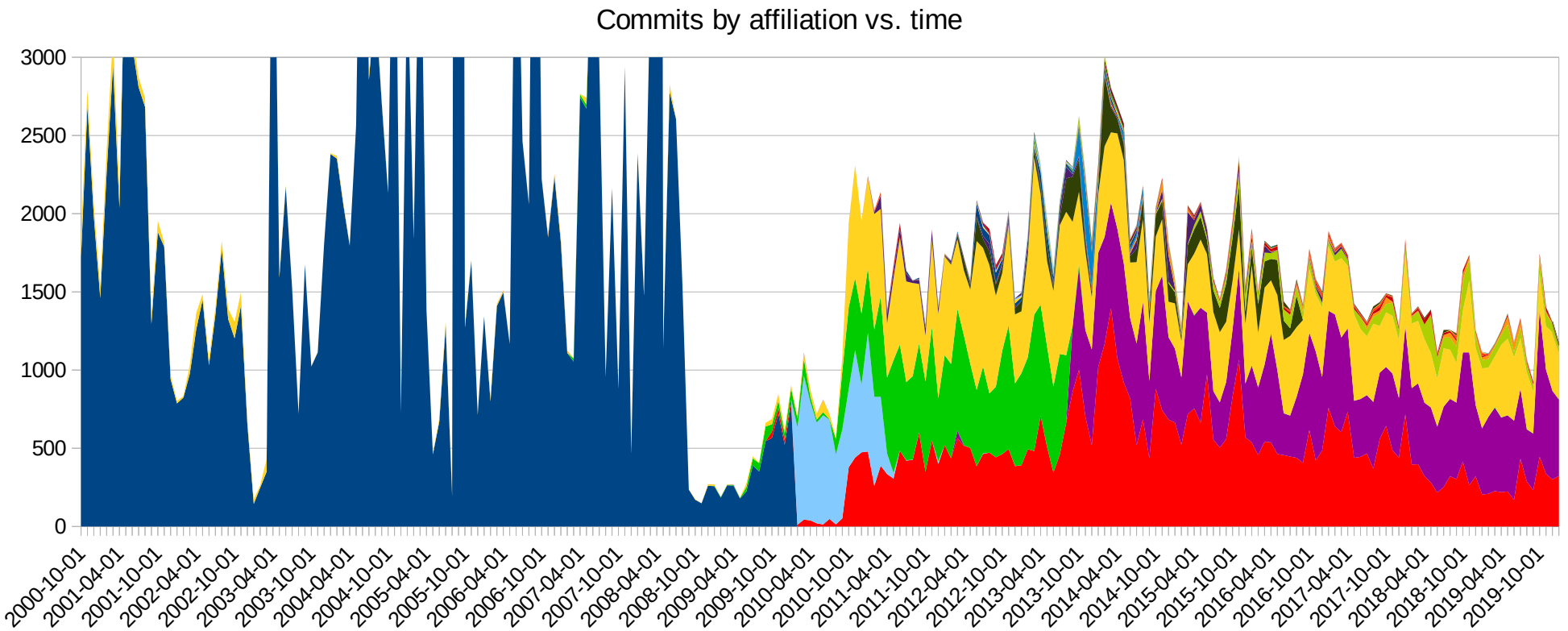
Using Email to Resolve Conflicts Is a Reliable Way of Making Everything Worse

Volunteers!

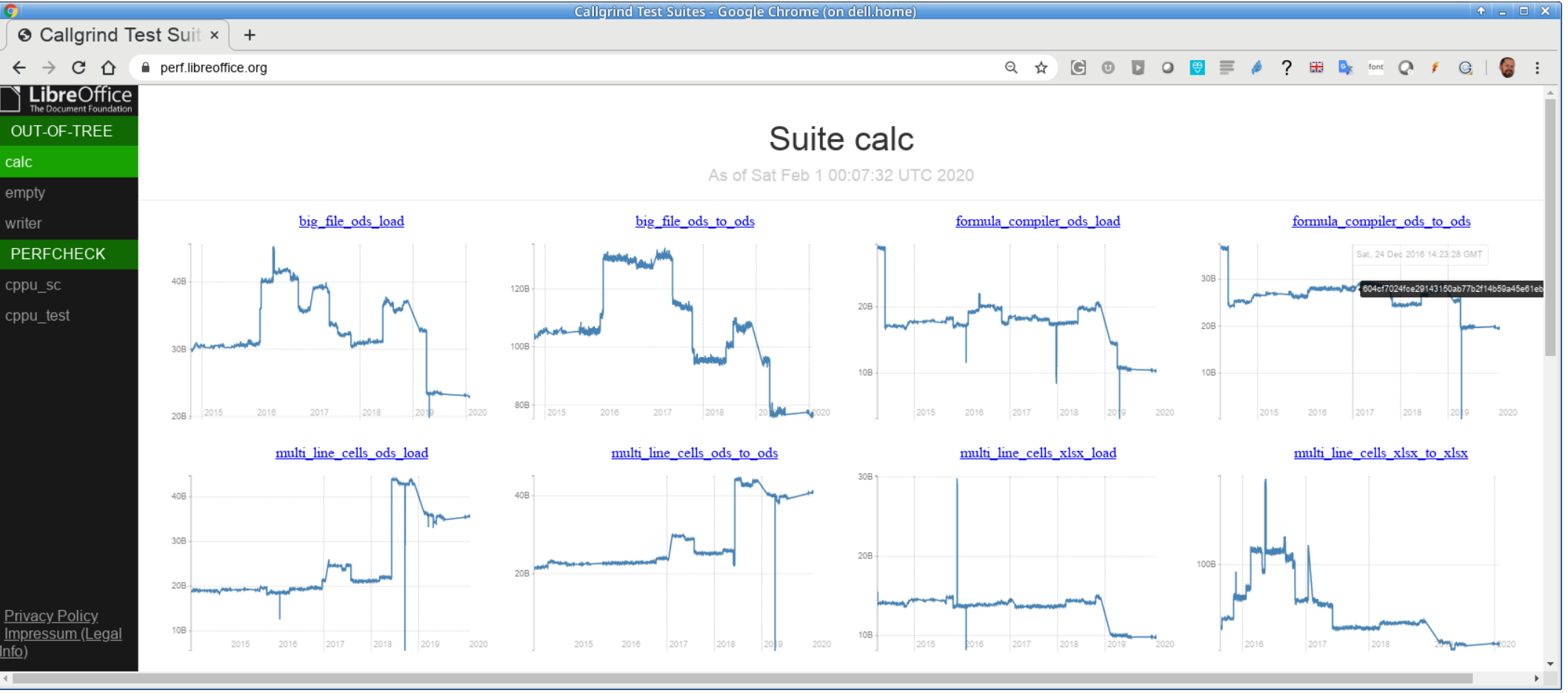
Active code committer count per month …



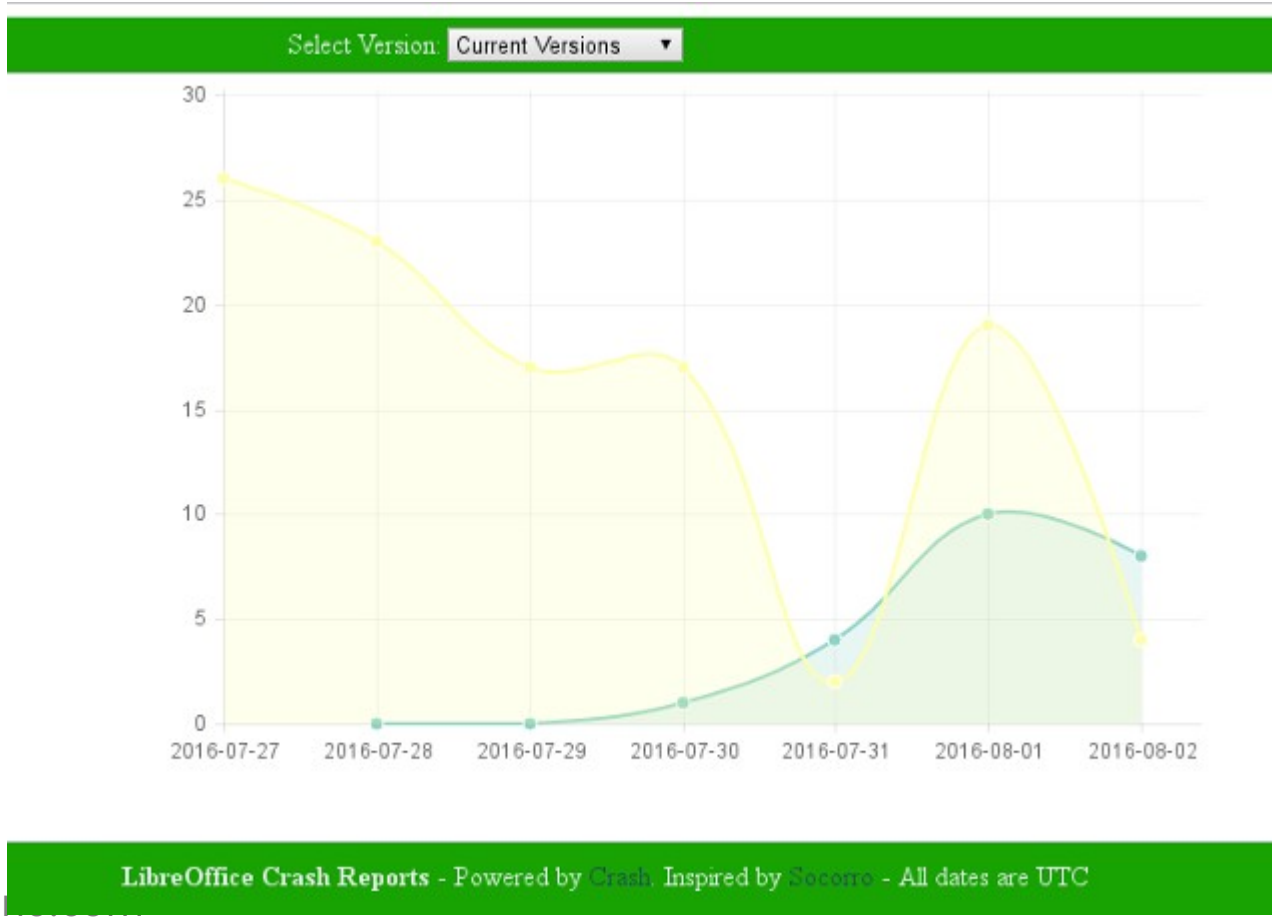
Commits (pre-git in 2010 ~unreliable)



Callgrind based automated performance testing.



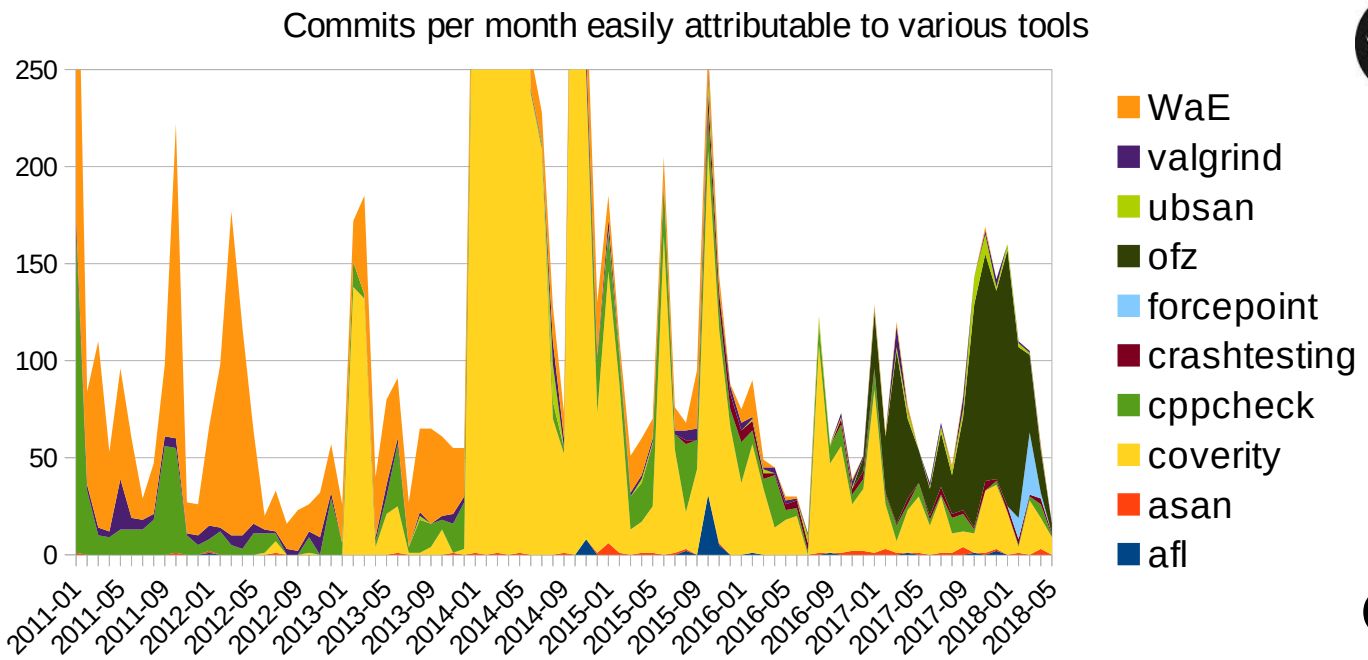
Built-in crash-reporting: nailing the worst bugs ...



Code quality improvement …

Use lots of different fuzzers / checkers !

New tools find new bugs – and over time that reduces



coverity®
A Synopsys Company

FORCEPOINT

C++

Google: OSS-Fuzz

Native-language communities

l10n teams are growing, we have currently (Weblate stats)

- 145 used languages - ~119 shipping.
- **4605** users
- 404532 translations made

Many thanks to so many for their hard work translating !

Technical leadership:

in a fashion based industry

Getting an early lead:

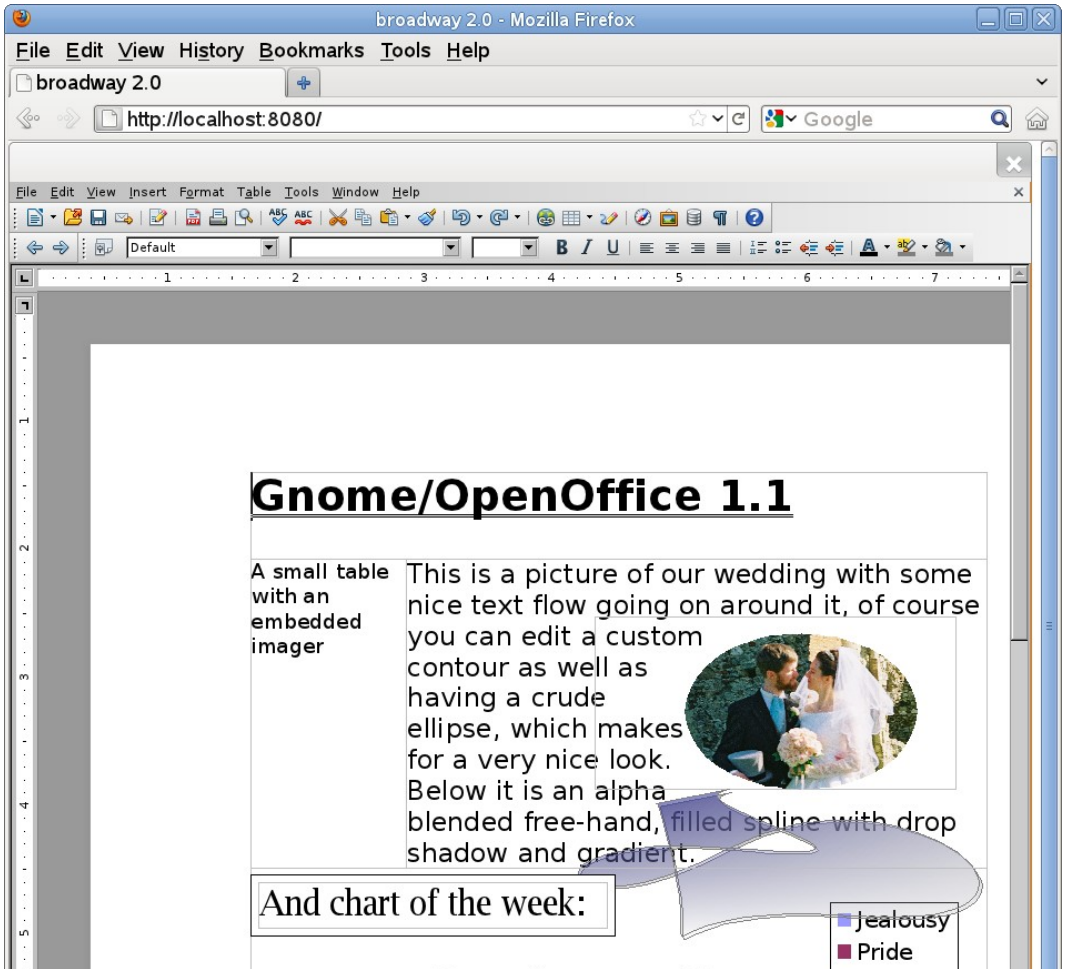
2011-07 Browser Version:

- Based on Alex Laarson's GDK-Broadway
- Demo'd at our 1st Paris Conference
- Sun's StarPortal was first [!]

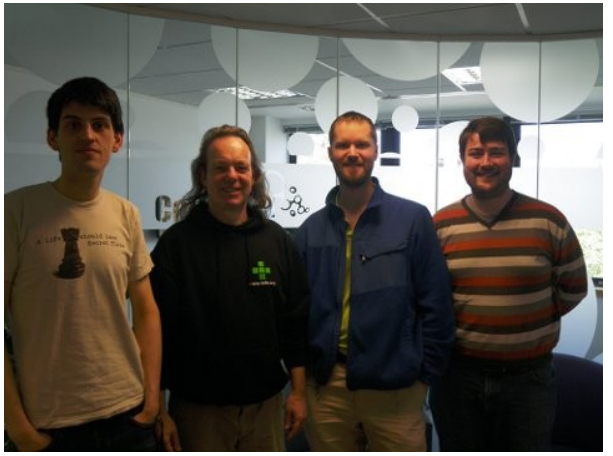
2015-03 Finally funded:

- IceWarp, then Collabora investment in making it real.
- Plus ~8 years → we have it

Get ahead of the narrative



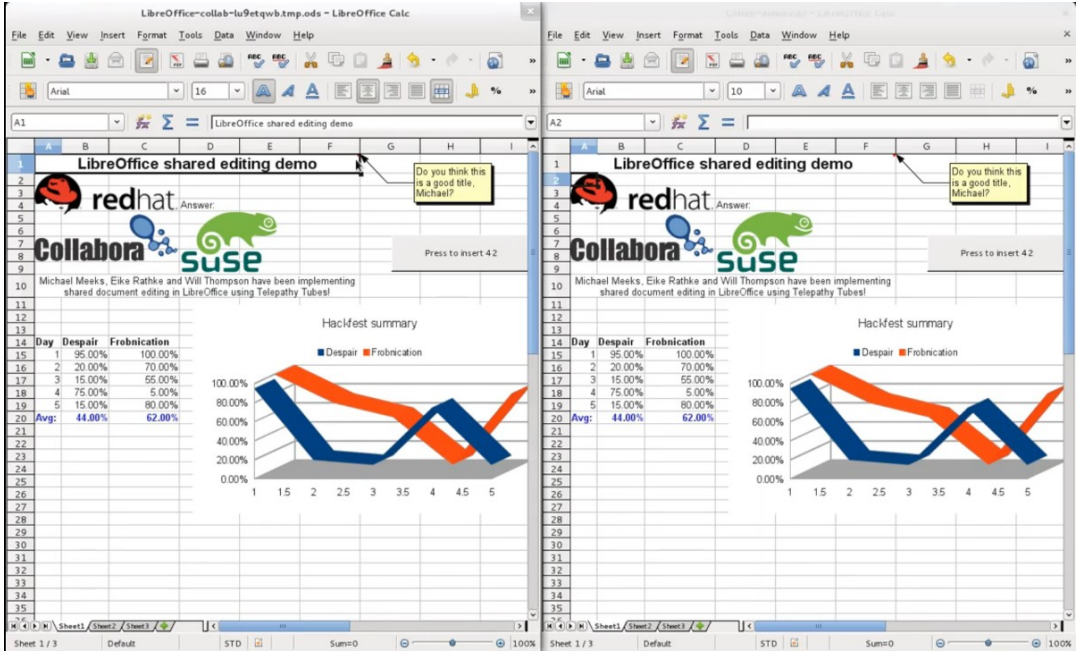
Ahead of the narrative:



2012-03 Collaborative Editing

- 1st Collabora contributions … + RedHat/SUSE
- Telepathy ‘Tubes’, D-Bus, Bootstrapped over IM
- Will Thompson, Rob McQueen, Eike Rathke, Yours truly.

Svante: still trying to sell it to investors …



Another early lead:

2012-07 Android:

- Lots of people responsible, see full credits
- Not quite there:

+7-8 years before we could get the investment to productize.

Android: interesting ...

2013 – CloudOn - funds tiled rendering infra iOS app

2014 – Smoose / Collabora - fund viewer

2015 – TDF – funds base framework for Android with basic editing

2016 – hope for community work, Cloph battles bit-rot nobly.

2017 – hope some more – Collabora invests in GSOC initiatives

2018 – stagnant development

- TDF community – video evangelism / call for developers
- more GSOC mentoring from Collabora

4 year gap here ...

Hard problems, not fixed by hope and marketing de-coupled from investment ?

2019/20 – Collabora & Adfinis invest in a re-write for iOS & Android based on Online

What is a Foundation ?

What did we mean by a foundation:

28 September 2010 (announced)

- Meeks' take: *"Finally we have a project that will be fun to hack on, and not beset with keep out signs (many sadly still invisible to the existing owner)."*
- Press release: "*After **ten years'** successful … the project launches an **autonomous independent foundation called "The Document Foundation"**. The **foundation** will be the cornerstone of a new ecosystem where individuals and organisations can contribute to and benefit from the availability of a truly free office suite."*

What is a foundation ? And where ?

- **USA, UK, Germany, Italy, etc.** … lots investigation & proposals → 16 months of work ...
- **FSF, GNOME Foundation → 501c)3), Associations:**
  - *"No, a Stiftung in Germany, or I quit."*

17 February 2012 (legally established)

- Lots of consequences: **writing our statutes in stone at speed.**

The world changed since 2010, so did we

2010 - Linux Desktop is the future

- Expectation of ~50 Sun/Oracle Developers, and ~10 IBM developers
- 2010 - The future! - 20 – 25 devs
- Economics is someone else's problem – all is well …

2012 – Becomes clear: Linux Desktop economics suck

- Routes to market, aggressive competition, subsidised drivers / enablement
- **The Ubuntu effect:** guts desktop teams: Marketing ~without Engineering.

2013 – SUSE → spins out half its 15 dev team → Collabora

2017 → Canonical → 1 to 0 devs.

2018 → Redhat → 5 to ~2 devs

Meeting up to plot the future !

FOSDEM – firm but gentle community steerage:

Doing the right thing.

Cakes, Hack-fests, a 1st joint conf. with SUSE

LibreOffice Conferences: Paris 2011

Thanks to La Cantine and IRILL

LibreOffice Conferences: Berlin 2012

Thanks to German Federal Ministry of Economics and Technology.

LibreOffice Conferences: Milan 2013

Thanks to The University of Milan

LibreOffice Conferences: Bern 2014

Thanks to University of Bern & Matthias Stürmer

LibreOffice Conferences: Aarhus 2015

Thanks to: Leif Lohdahl & the Aarhus municipality

LibreOffice Conferences: Brno 2016

BRNO 2016 CONFERENCE

Thanks to: RedHat, OpenAlt & Brno University of Technology

LibreOffice Conferences: Rome 2017

Thanks to: Italo Vignoli, Sonia Montegiove & team, and the City of Rome

collal

LibreOffice Conferences: Tirana 2018

Thanks to: Jona Azizaj & team, and OFICINA

LibreOffice Conferences: Almería 2019

Thanks to: Víctor Suárez, Ismael Olea & University of Almería

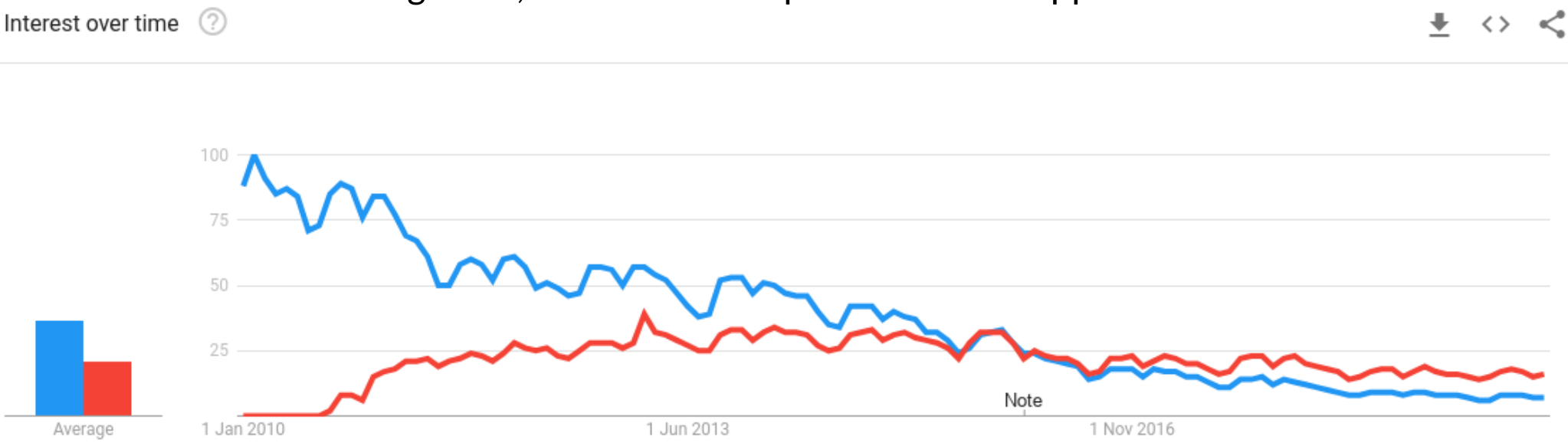
Virtual conference: Nuremberg 2020

Features: too many to list ...

Trademarks / Brands / Marketing – important …

Took 5 years to overtake OpenOffice.org's Google Trend

- Software Features, Quality, UX, all hugely better but …
- Still serving ~250,000 downloads per week to disappointed users.



The Future … ?

Need smart people to help us create the future

- An **Artificial Intelligence**

  of stunning subtlety,

  of conversational brilliance
- That can understand what you're doing
- And can suggest cool new things to do.
- "Trained on Documents" (TM)

Investment needed:

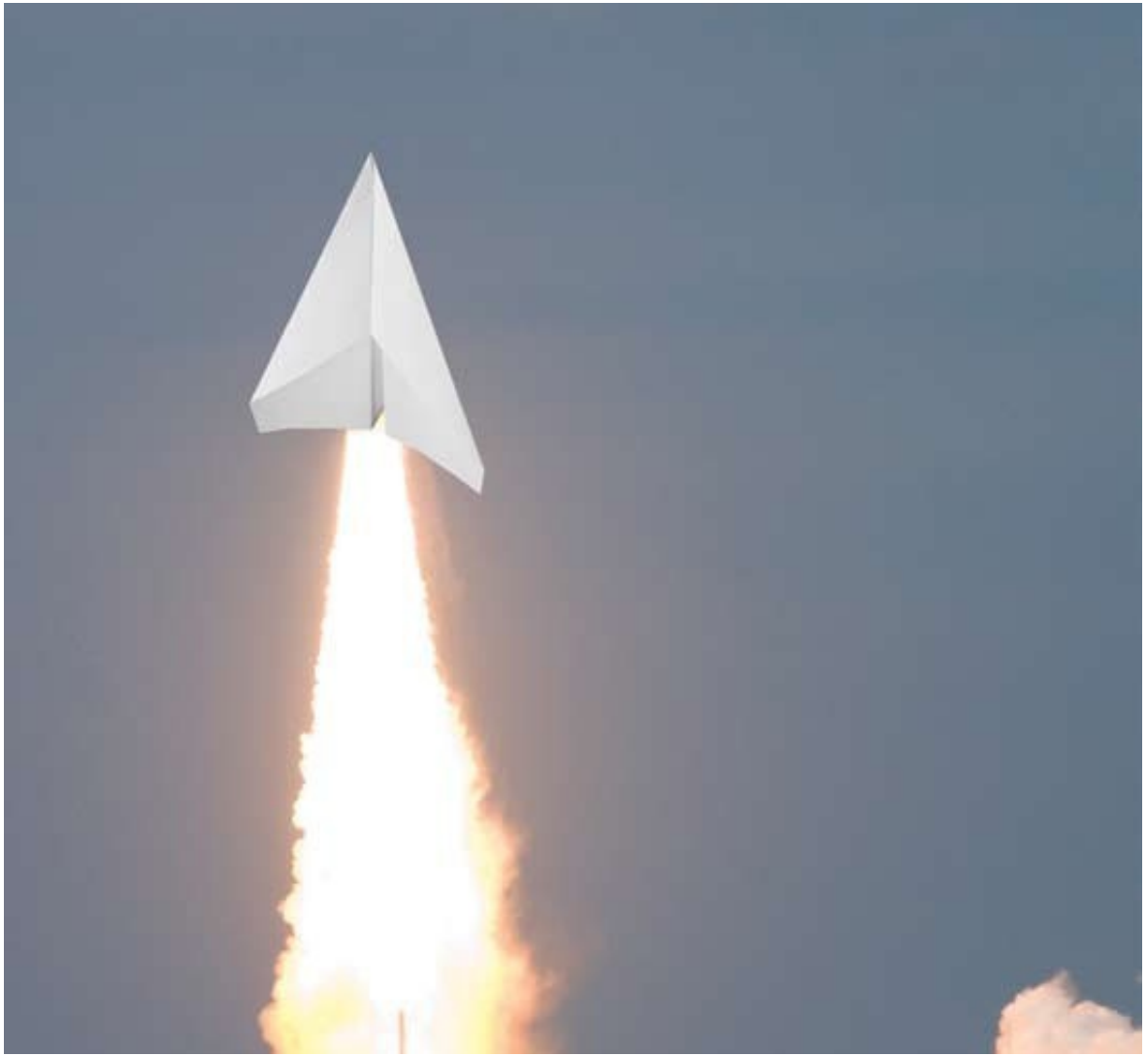
What's next ? - my advice:

Focus the community on development

- Everything we market, translate, document, etc.
- All: flows from a strong technical focus, technical leadership etc.
- TDF: has to invest in development mentoring / education
- TDF: has to revitalize the fun of contribution.
- Focus on primary production, not tertiary strategy
  - Unless that strategy drives primary production: more investment etc.

Improve User Experience

- -Still- tons of paper-cuts, significant wins & good things to do
- Also – Documentation: to keep up with that !



Conclusions & Questions …

- Did what we had to to make this code-base survive & thrive.
- Thank you to all the many, many people I didn't name for their amazing contributions.
- Economics bites:
  - Beware of incredible promises of future contribution.
  - Beware of 'its all free' lunch.
  - Investment shapes the future.
- Be careful how you use collectively created assets
  - Trademarks, Code-licensing etc.
- Professional strategies can fall foul of development realities.

Oh, that my words were recorded, that they were written on a scroll, that they were inscribed with an iron tool on lead, or engraved in rock for ever! I know that my Redeemer lives, and that in the end he will stand upon the earth. And though this body has been destroyed yet in my flesh I will see God, I myself will see him, with my own eyes - I and not another. How my heart yearns within me. - Job 19: 23-27