LibreOffice Conference 2021

Collabora & LibreOffice

Working together to make Open Source rock

By Michael Meeks

General Manager Collabora Online

@michael_meeks michael.meeks@collabora.com

"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

COLLABORA

- >140 staff, Cambridge & Montreal
- our parent company – 16 years old
- Leading Open Source Consultancy
- Parent company of:

Collabora Productivity

— RECLAIM YOUR BUSINESS

- Spun out of SUSE in 2013
- 32 staff
- 8 years old
- Focused fully on Office

Collabora's mission:

Make Open Source ROCK

Shared mission / raison d'etre:

- Make Open Source rock
- This is the goal of our shareholders

What does that mean?

- We re-invest your support into FLOSS software, including LibreOffice, and into our partners
- All our code is open
- We do have to make money to re-invest

We are not for sale

Semiconductor

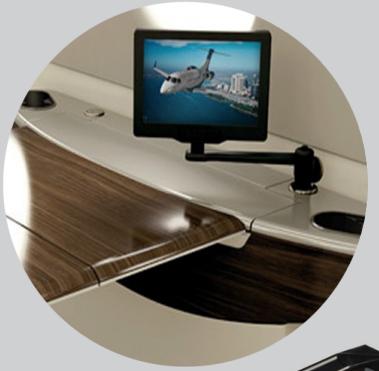
Automotive

Digital Signage

OEM

Examples:

VALVE



chromeOS

Collabora Online

Collabora's Productivity subsidiary ...

What we sell:

Collabora Online

Develop, support, maintain, sustain

- Built on LibreOffice Technology
- Highly scalable, interoperable, collaborative editing, in your browser
- Service Level Agreement, L3 support
- Product Management interaction
- Go-to market via partners

Collabora Office

Branded version of LibreOffice

- Foundation for Online
- Annual release eg. CO 2021.06
- PC / Mac / Linux

Collabora

Consultancy & Support services

- Bespoke consultancy or
- Pre-paid, fixed-price L3 bug-packs

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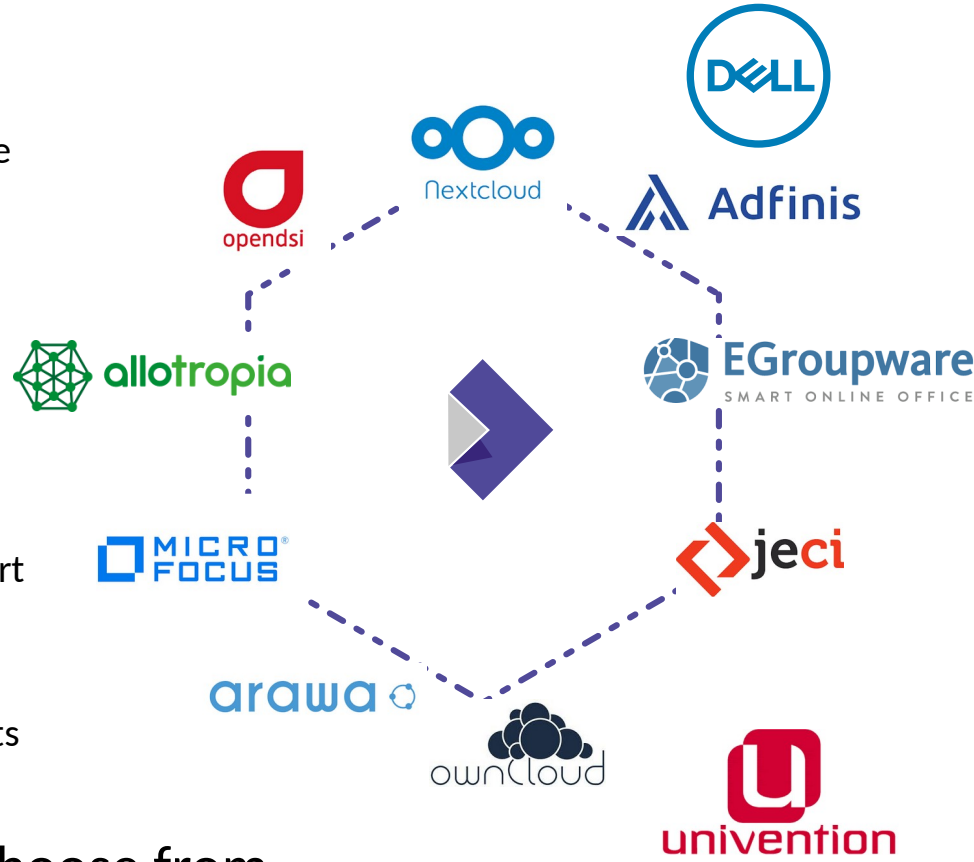
Partners, OEMs, hosters – to market

FLOSS

- Anyone can install a Docker image & claim to be an expert
- It's cheap to do this badly, many save by not contributing

Collabora Partners

- Committed to integrating COOL
- Committed to ensuring that users pay to support both the partner & up-stream development
- We work hard to enable smart people to integrate Document freedom into their products & offerings



And many more 230 partners to choose from

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Support in your language, near you

Integration
and commercial
support in
...
58
countries

Contact me to become a partner

Or checkout our Partner List if you're interested

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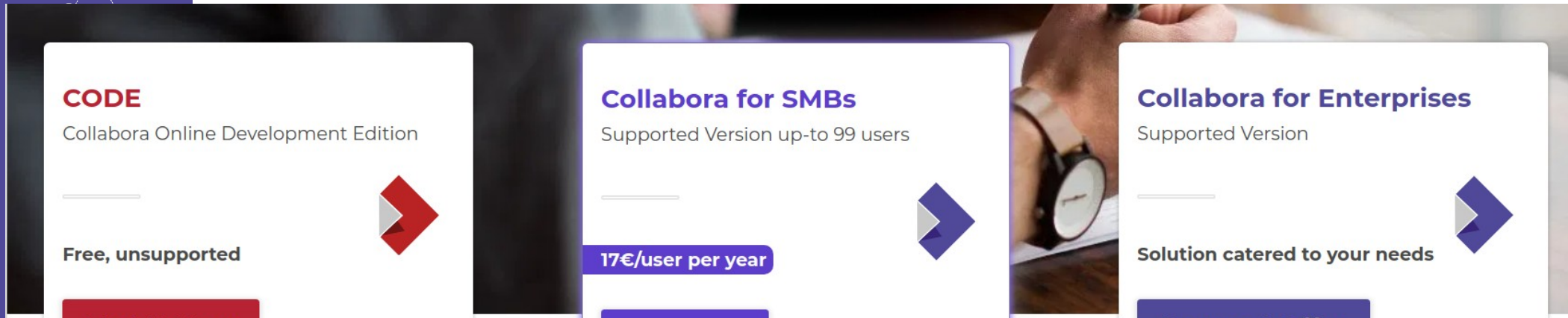
Online



CODE

Collabora Online Development Edition

Free, unsupported

Test It Now

- On-premise
- Rolling, unsupported
- For test/home users only (unstable)
- Price: Free

Education or NGO? Scroll down

Collabora for SMBs

Supported Version up-to 99 users

17€/user per year

Buy Now

- On-premise
- Up-to 99 users
- LTS
- SLA
- Signed Security Updates
- Maintenance – Fixes and improvements over lifetime
- Access to our Customer Portal (Documentation = Support)
- Price: 17€ or USD 18 per user/year

Collabora for Enterprises

Supported Version

Solution catered to your needs

Request Offer

- On-premise
- Volume discounts
- LTS
- SLA
- Signed Security Updates
- Maintenance – Fixes and improvements over lifetime
- Access to our Customer Portal (Documentation = Support)
- Roadmap: Product management interaction and input
- Complete support during integration process
- Customization
- Desktop Version
- Support for Mobile Devices
- Price: Personalized offer catered to your needs

https://www.collaboraoffice.com/subscriptions/

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Improving the awesome LibreOffice Technology

that we all build on - a few examples

pleased to contribute to core alongside the community

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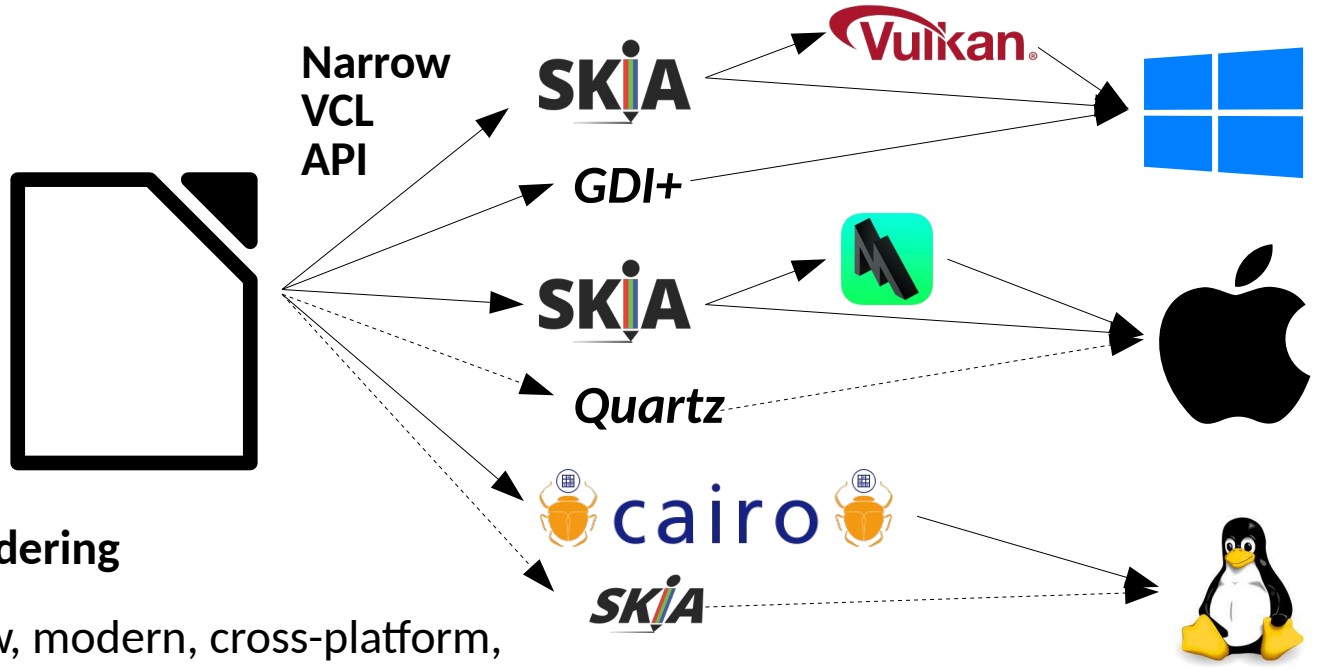
Improving Rendering & APIs ...



Skia rendering

- New, modern, cross-platform, accelerated rendering backend as default
- Mac: thanks to LibreOffice Vanilla / Mac buyers
- Windows: thanks to AMD & Luboš Luňák

Apple / ARM64 / M1 port ...

Porting

- Bought the dev-kit (rental), set it up for Tor

A new ARM64 ABI to bridge

- built on Stephan @ RedHat's ARM64 work

Lots of dependencies to patch

- Still no Java - write once, run?

Thanks to

- Tor Lillqvist for the work
- LibreOffice Vanilla buyers in Apple App-store
  - our only serious Mac customers

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Selling convenience … a debate.

All sides agree we should always provide LibreOffice for free download @ TDF

We should (somehow):

Ship LibreOffice for ~10 $ in app-stores

- DRM stops users from sharing S/W but
- We can charge a sin tax (an app price)
- This gives ~15% to the DRM/App-store owner but …
- This gives us 70% to **invest in creating improved feature/function,** and 15% as cash donated to TDF
- Improved feature/function will drive adoption goals and meet our development goals.

Or Ship LibreOffice for zero $ in app-stores

- TDF's goals around user adoption overrides our goals around development for this
- Better to have **less income** & development as a project in order to **drive increased adoption** & convenience for users
  - A small part of that comes back via **donations**.
- Convenient DRM **app-store updates** may cut into TDF's visits & donations – but worthwhile for adoption.
- Non-paying users become future community members who will improve feature/function which will drive our development goals.

Currently ~1 million users / developer

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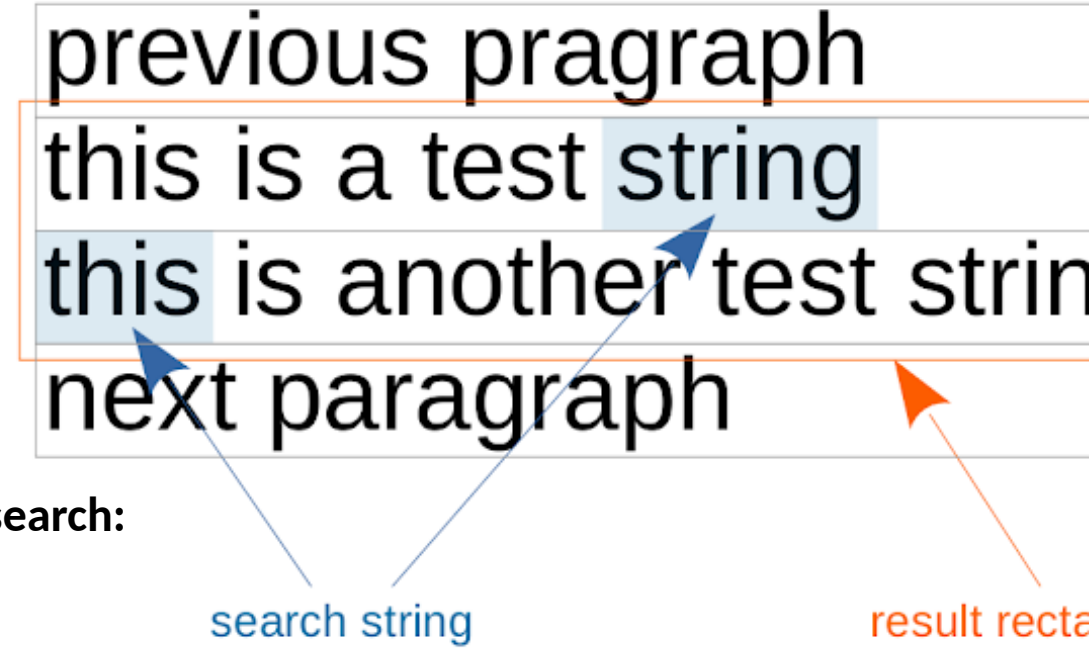
New indexing exporter

Writer.IndexingExporterFilter

- Generates XML with source annotations
- Allows locating search results in the document easily.
- Easy to connect to Apache Solr



Provide rich document contextual search:

- Thanks to:

nlnet FOUNDATION

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Performance

The necessity of time

- Online provides a real, economic incentive to optimize the software
  - Can make it faster better & more beautiful

Lots of goodness – from Online

- Cached sidebar panels for fast switch
- Fast dashed line rendering
- Faster image scaling & caching
- Faster writer invalidation & render
- Calc – faster positioning / layout

Lots of core optimization

- Improved font caching to speed up text rendering
- Improved swapping & memory consumption of graphics
- Faster slide-rendering by image pre-fetching
- Faster opening times of XLSX, DOCX, anything zipped
- And many many more …

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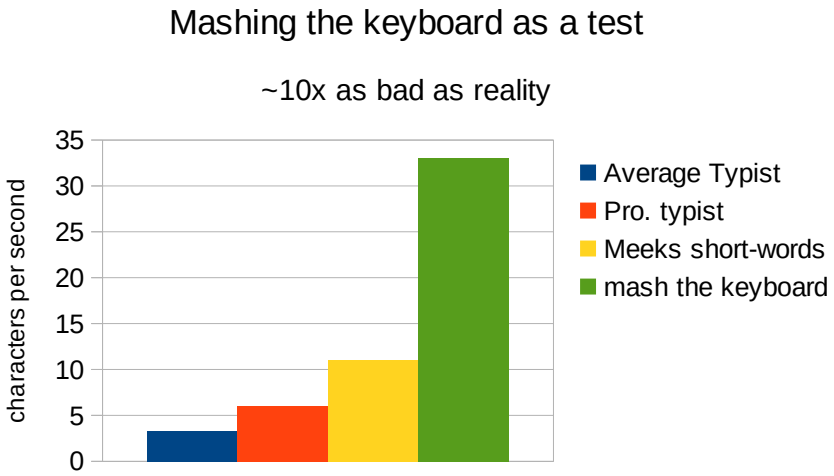
Performance: typing fast …

- Customer: *"we tested it with eight people doing random typing"*
- Profiled this use-case; it is/was slow
  - The mis-spelling squiggly-line (cf. wrong language setting?) …
    - an unfeasible amount of CPU ~90% of rendering time
    - A most beautiful sub-divided, AA b-spline but … ~2 pixels high mostly

- Mashing the keyboard a pathological case: we're still working on improving
  - *Test your speed here*

- Consider Calc with lots of mis-spelling

- Sdf sadf kjh lksdhfk slkdfhkasdh flksjdh



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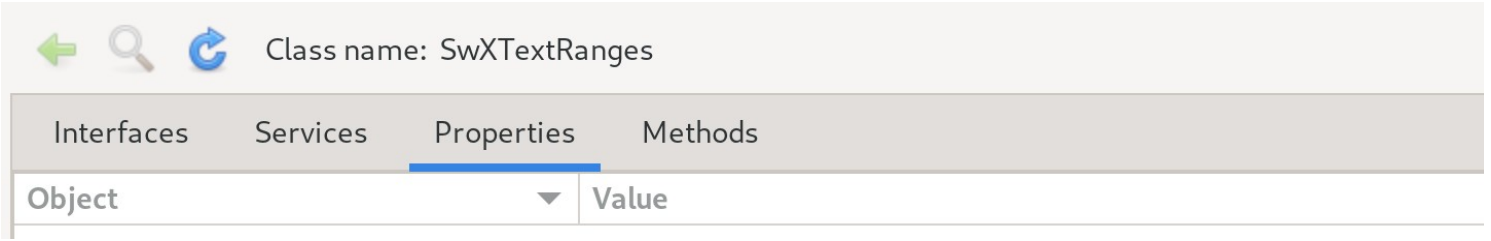
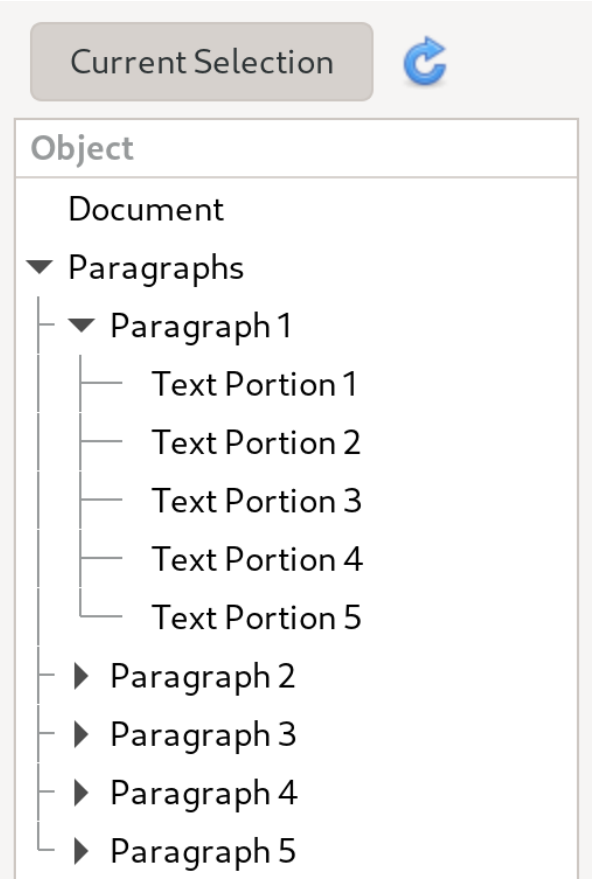
X-ray



Built-in X-ray like document inspection

- Shipping in LibreOffice 7.2
- Learn the extensive UNO API & see how your document is structured
  - Easily write & debug your UNO scripts



Thanks to:

- **TDF donors for funding this!**
- TDF Board & Exec. – for getting tendering ~unstuck
- *Tomaž Vajngerl and Gülşah Köse for implementing it.*

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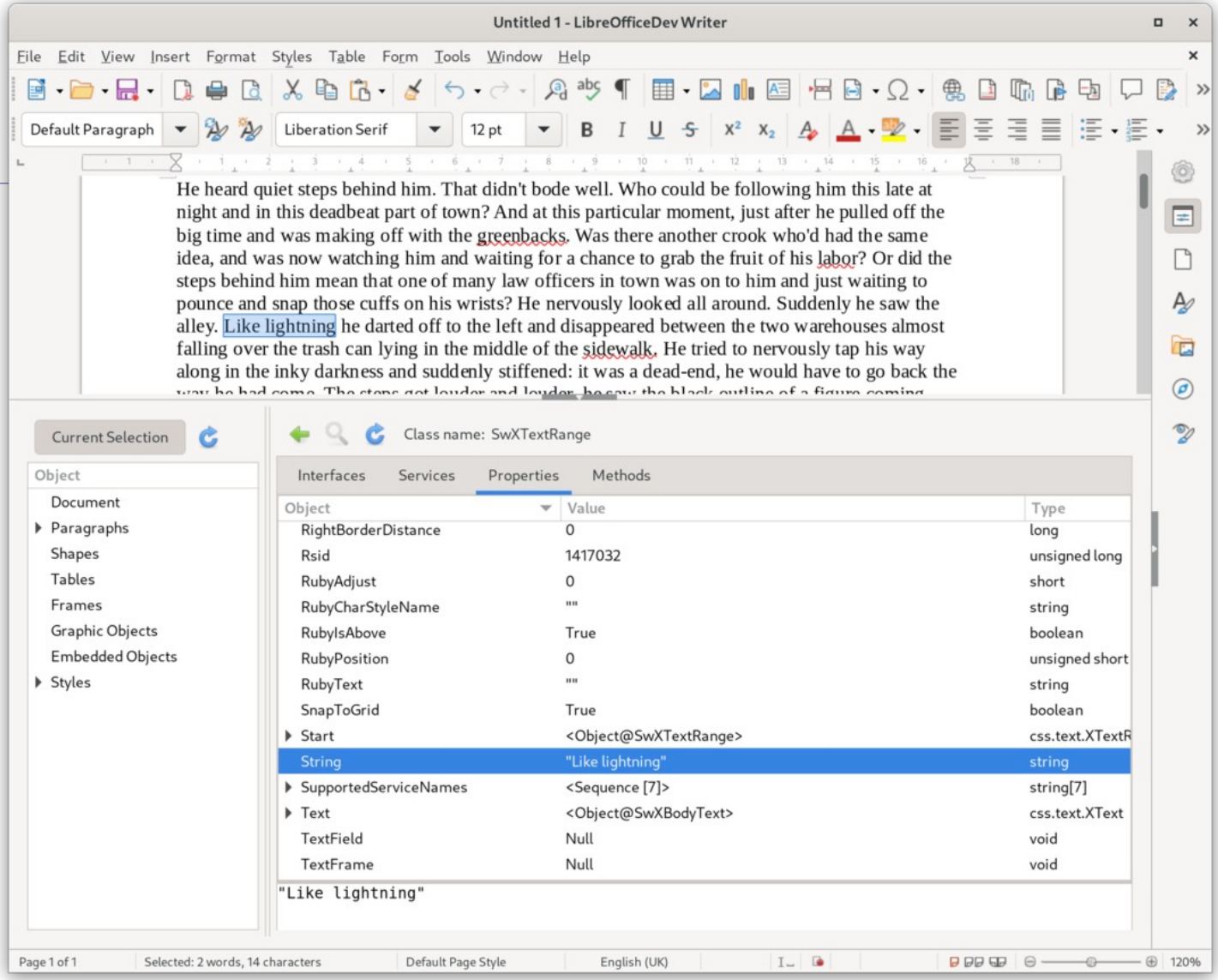
Untitled 1 - LibreOfficeDev Writer
File Edit View Insert Format Styles Table Form Tools Window Help
Default Paragraph
Liberation Serif
12 pt
He heard quiet steps behind him. That didn't bode well. Who could be following him this late at night and in this deadbeat part of town? And at this particular moment, just after he pulled off the big time and was making off with the greenbacks. Was there another crook who'd had the same idea, and was now watching him and waiting for a chance to grab the fruit of his labor? Or did the steps behind him mean that one of many law officers in town was on to him and just waiting to pounce and snap those cuffs on his wrists? He nervously looked all around. Suddenly he saw the alley. Like lightning he darted off to the left and disappeared between the two warehouses almost falling over the trash can lying in the middle of the sidewalk. He tried to nervously tap his way along in the inky darkness and suddenly stiffened: it was a dead-end, he would have to go back the
Current Selection
Object
Document
Paragraphs
Shapes
Tables
Frames
Graphic Objects
Embedded Objects
Styles
Class name: SwXTextRange
Interfaces Services Properties Methods
Object Value Type
RightBorderDistance 0 long
Rsid 1417032 unsigned long
RubyAdjust 0 short
RubyCharStyleName "" string
RubyIsAbove True boolean
RubyPosition 0 unsigned short
RubyText "" string
SnapToGrid True boolean
Start <Object@SwXTextRange> css.text.XTextR
String "Like lightning" string
SupportedServiceNames <Sequence [7]> string[7]
Text <Object@SwXBodyText> css.text.XText
TextField Null void
TextFrame Null void
"Like lightning"
Page 1 of 1
Selected: 2 words, 14 characters
Default Page Style
English (UK)
120%

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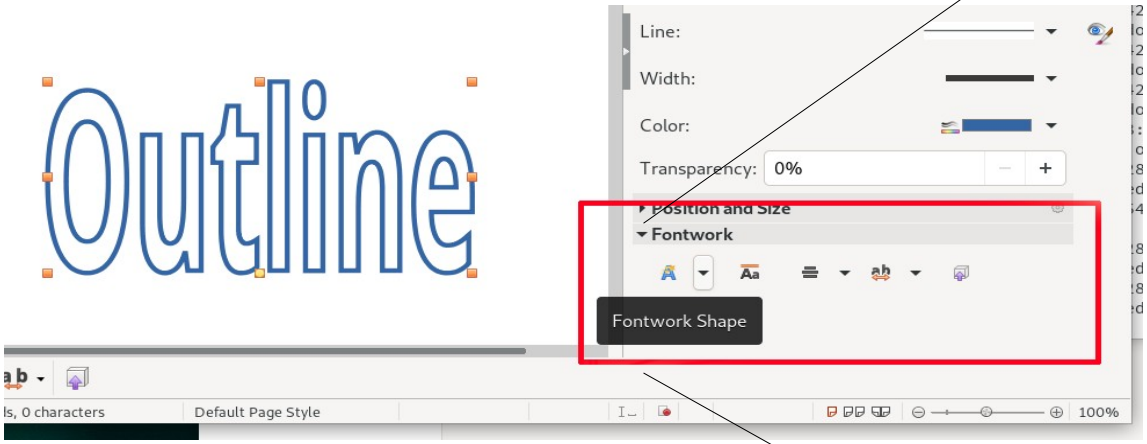
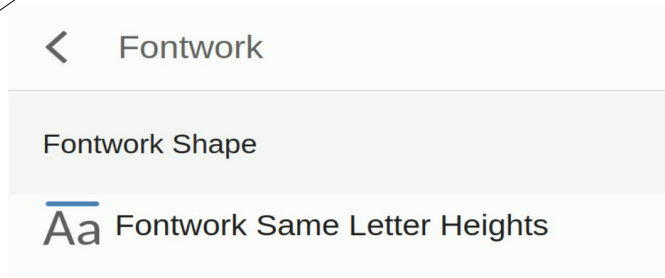
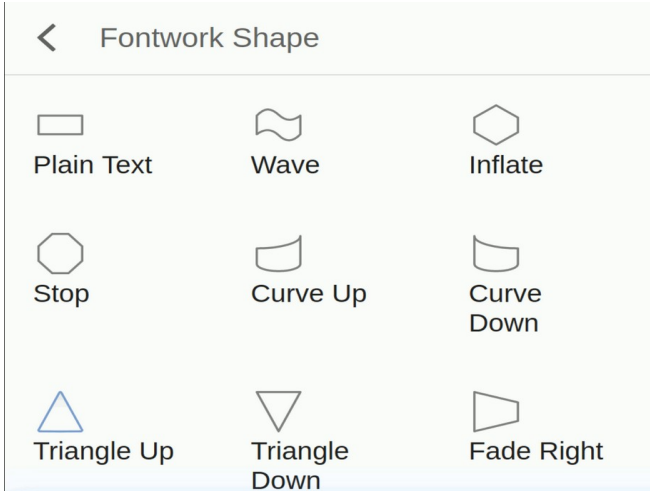
User Experience: prettier & easier ...

Mapped to mobile

Shared underlying fontwork sidebar technology







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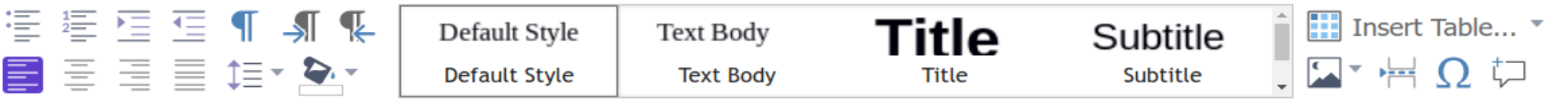
UX: style previews in notebookbar

Familiar style previews in writer

Sharing code with COOL's notebookbar



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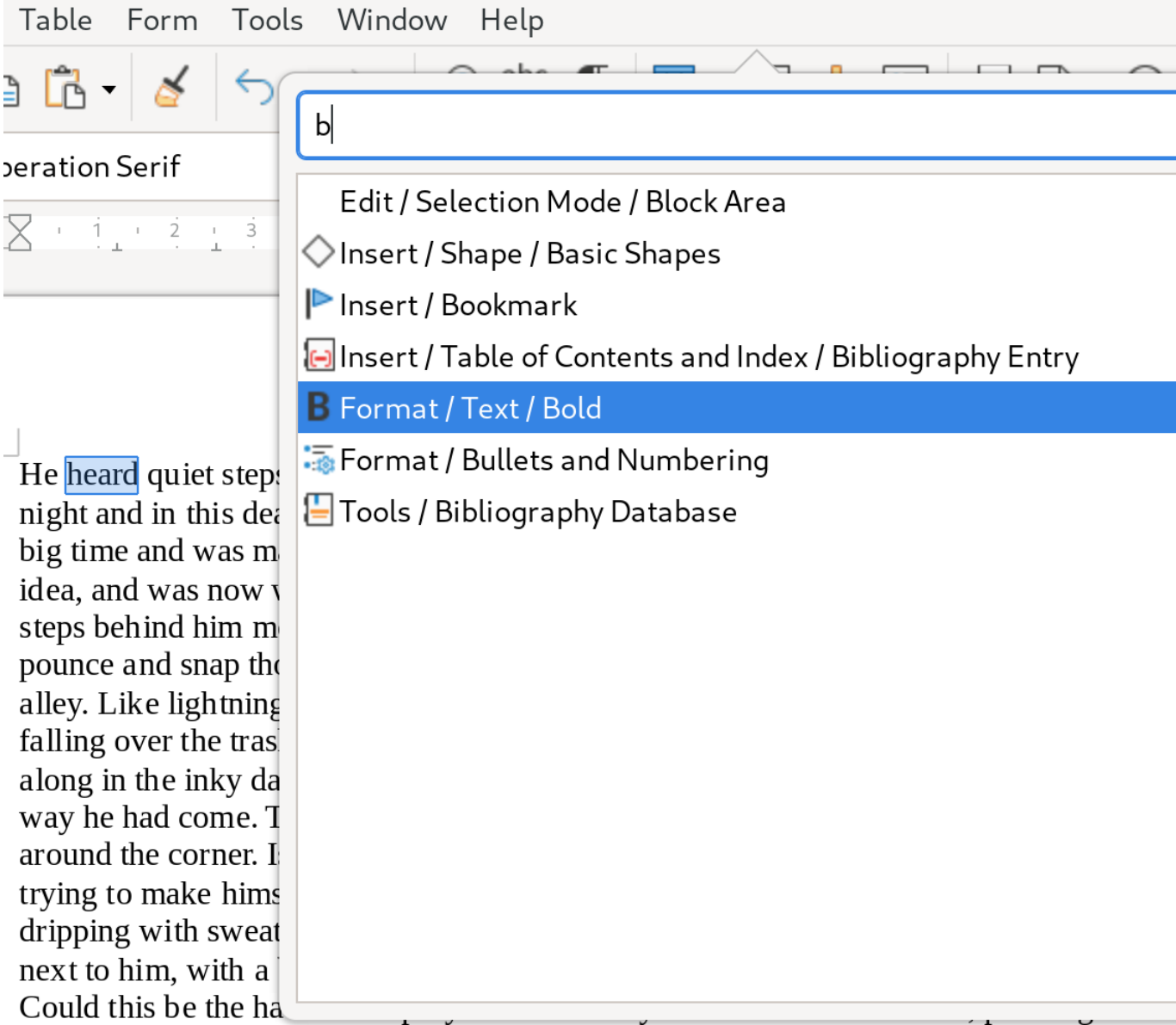
HUD

Heads Up Display

- Quikee's hack-week project.
- <shift>-<esc>



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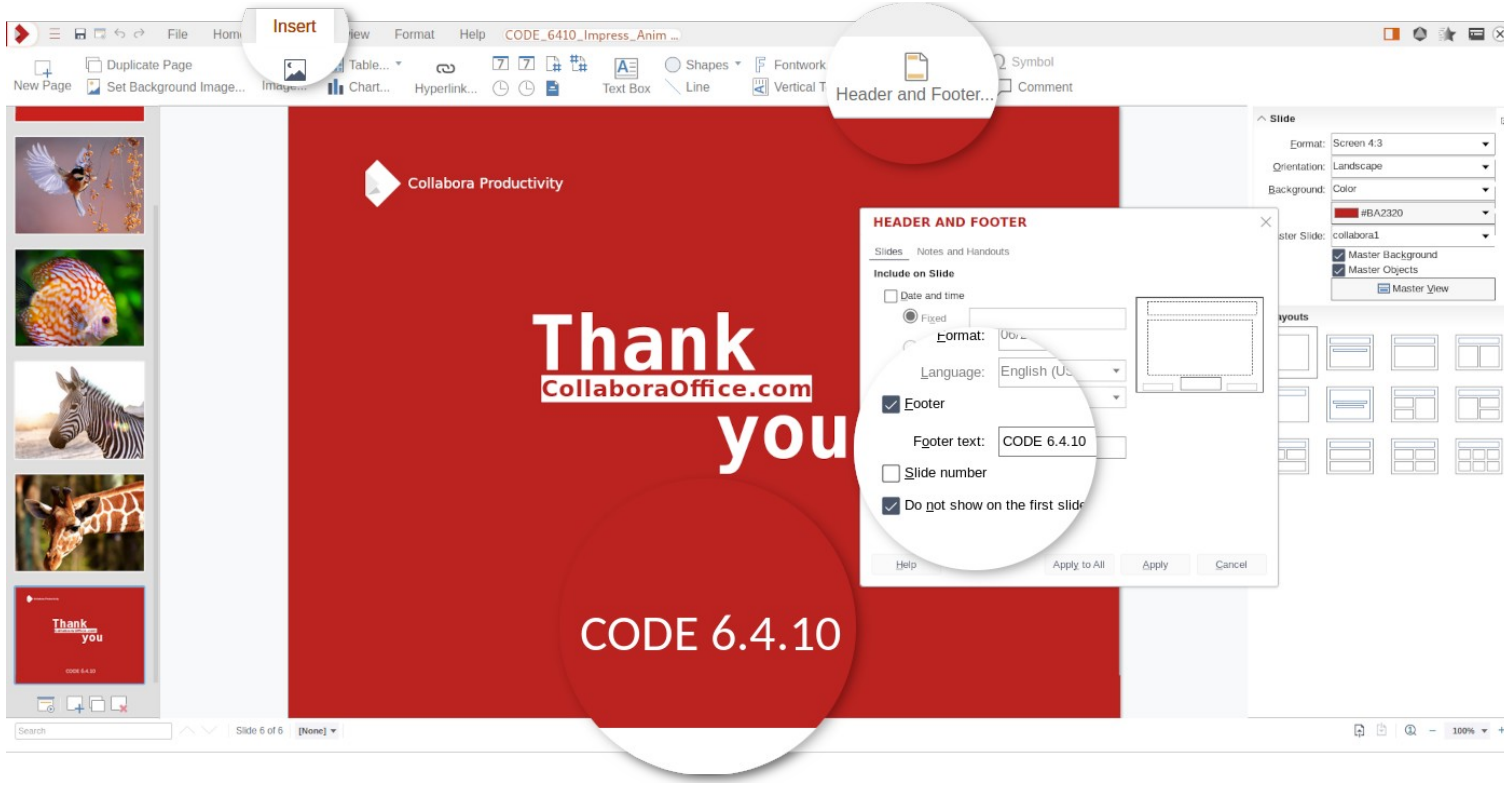
PPTX interop. wins

Headers / footers and various fields round-tripping nicely

(for a large science org. in Geneva)



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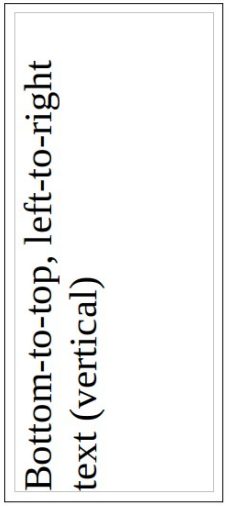
Shape text interop. wins

eg. multi-column text layout in impress

btLr text frame supporti



Thanks to Miklos Vajna's ***hack-week***

Thanks to co-investment from

SUSE

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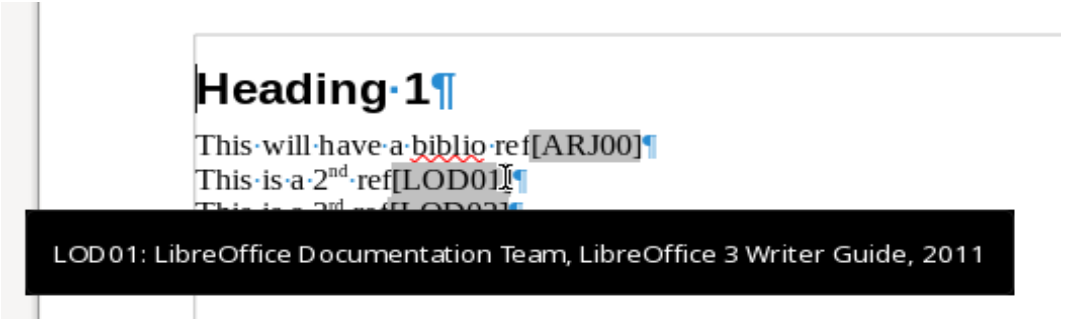
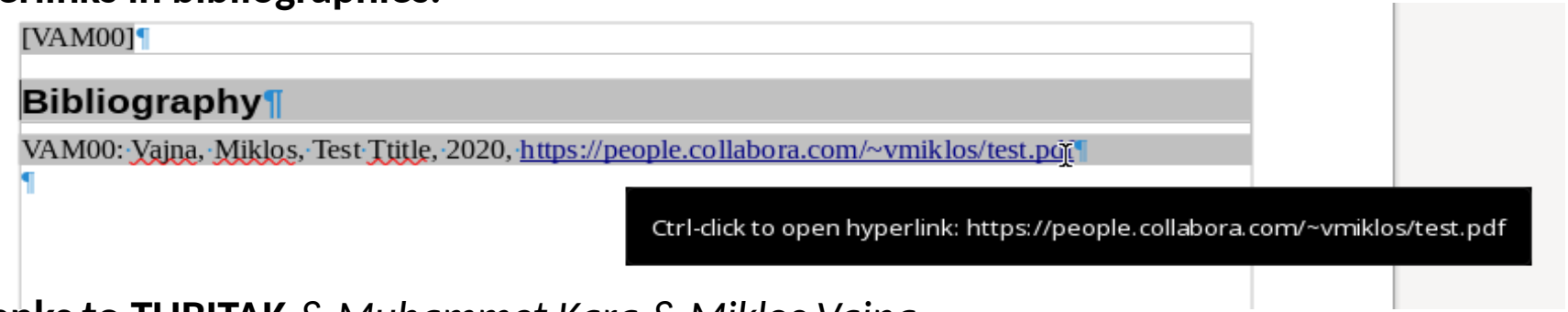
Bibliography Improvements

Tooltips on bibliography references:



Hyperlinks in bibliographies:



Thanks to TUBITAK *& Muhammet Kara & Miklos Vajna*

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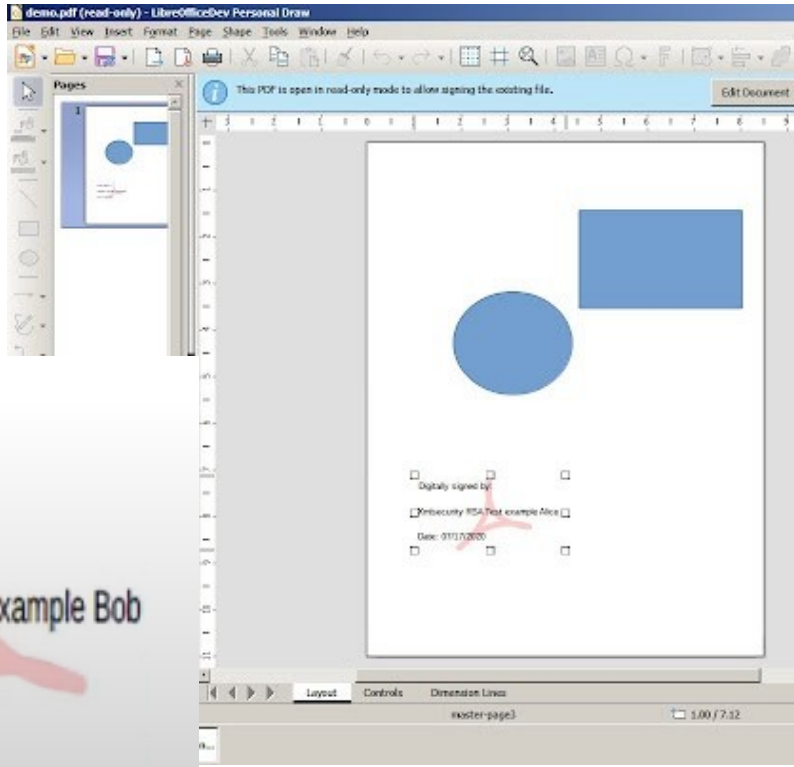
Visible digital PDF signatures in draw

Thanks to:

Ministerie van Defensie

NOU & FF



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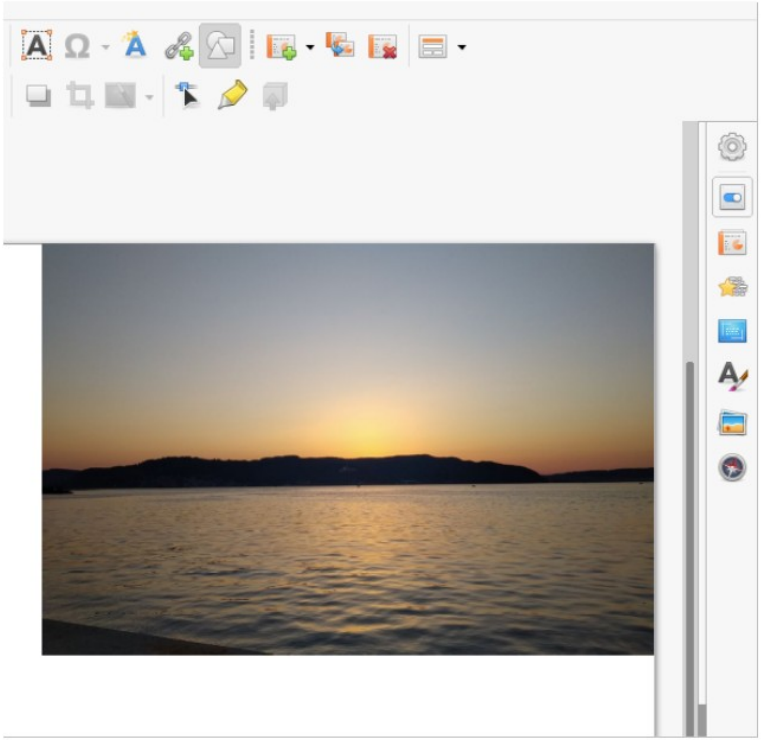
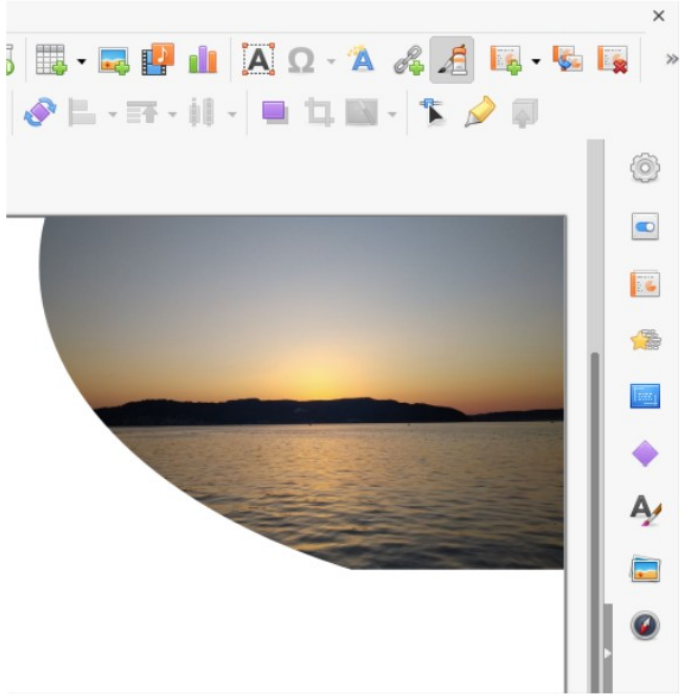
Custom Geometry & image effects

Before



After



Thanks to Gülşah Köse

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SUSE

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Interop: cached field results

Ensuring your field contents (in grey) stick

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
				1	2
					12AM-4AM Alice birthday
4	5	6	7	8	9
		1AM-5AM Bob birthday			
11	12	13	14	15	16
		12:30AM-2:30AM Cecil birthday			

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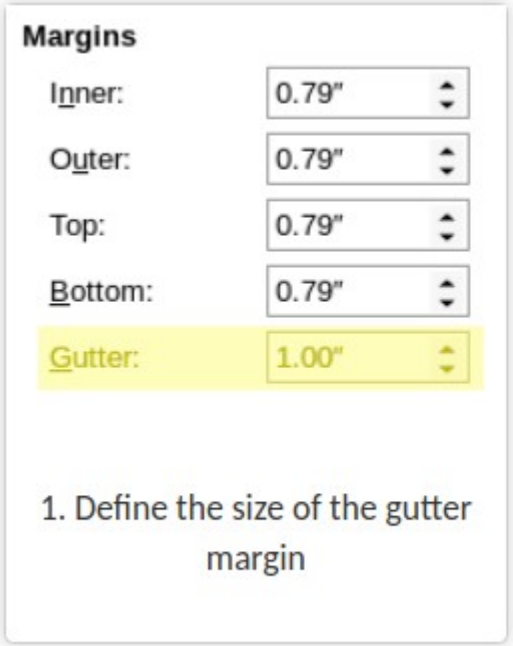
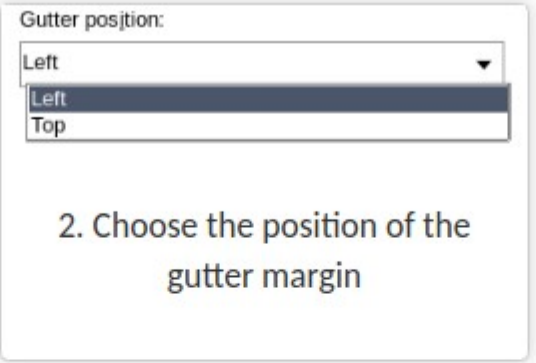
Gutter Margins – for Taiwan and others

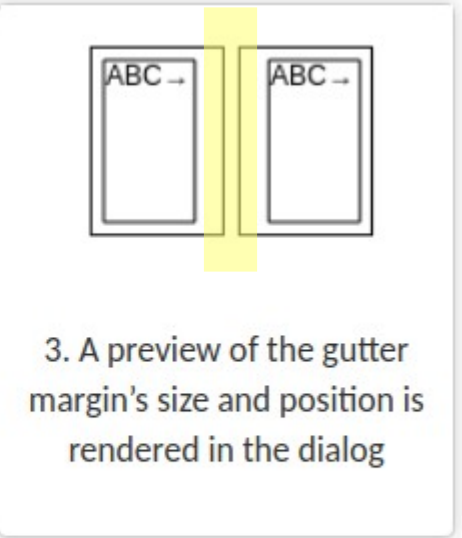
Very useful for Government binding standards



1. Define the size of the gutter margin



2. Choose the position of the gutter margin



3. A preview of the gutter margin's size and position is rendered in the dialog

Pick a supplier that contributes

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Why show contributions?

clearly many contribute to LibreOffice, volunteers do a amazing things

Some differentiate from competitors with proprietary value adds

- *We want to encourage customers to select a supplier based on competence proven by contribution*

As TDF wrestles to work out who pays & for what..

- *helpful to remember how paying customers drive our mission*

MIMO – a clean bespoke office

Five supported branches for French Ministries

- All now in public git
  - distro/mimo/mimo-<version>
- based on one of:
  - 5.4.7.2, 6.1, 6.2, 6.4 & 7.0
- Large volume of security fix back-porting to bring up-to-scratch: up to ~160 patches to the oldest branch
- Several fixes: eg. utf-8 in xml names (liborcus)

Thanks for choosing a contributor for support

- And to community for making the case

Collabora

arawa

Atos

MUTUALISATION INTER-MINISTERIELLE

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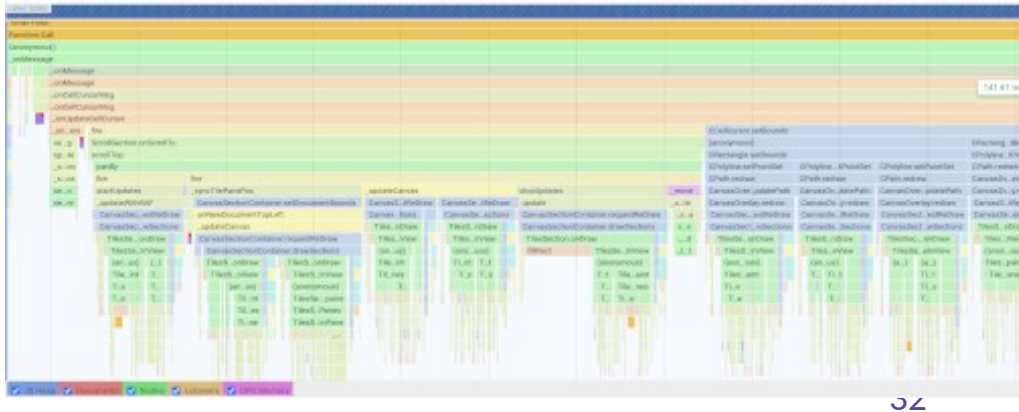
LibreOffice's in-browser collaboration
Last year's improvements

LibreOffice Conference 2021

Performance & Profiling / Support & Debugging

Performance → just getting started: 30 minute talk on Friday in 1 slide

- More client-side rendering & lower CPU / network bandwidth
- Javascript madness calmed down
  - Batch processing of websocket messages
    - Don’t reender a frame for many messages: tile at a time [!]
  - Much improved tile encoding – reducing client GC hangs
  - JS / faster grid-line rendering
- Async save → don’t wait for EFSS / object-store to store the file
- Building out our end-to-end profiling framework
  - JS ↔ Server ↔ Document in a single view.



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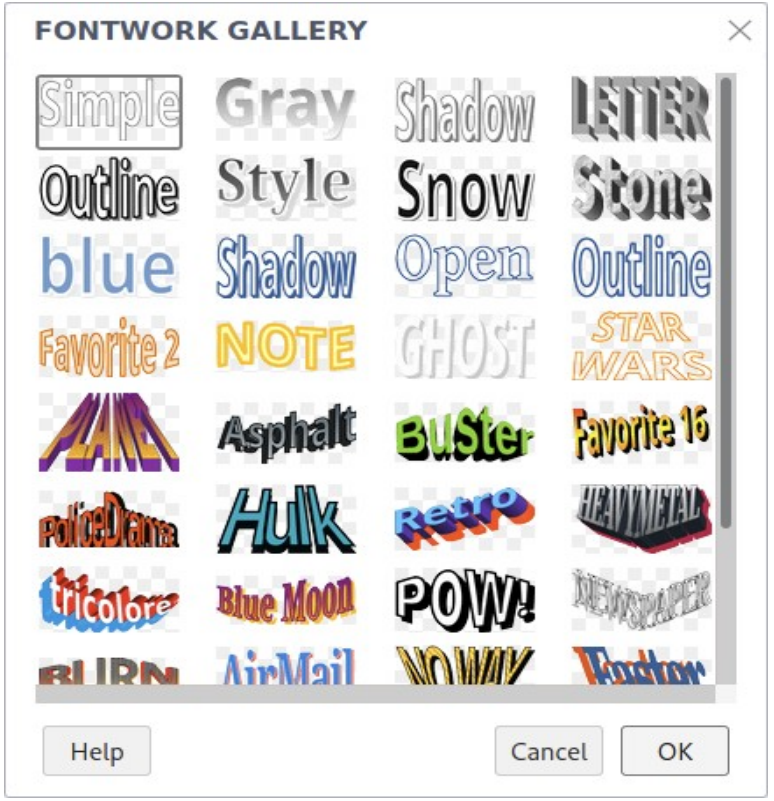
Bringing Draw to Online: Fontwork



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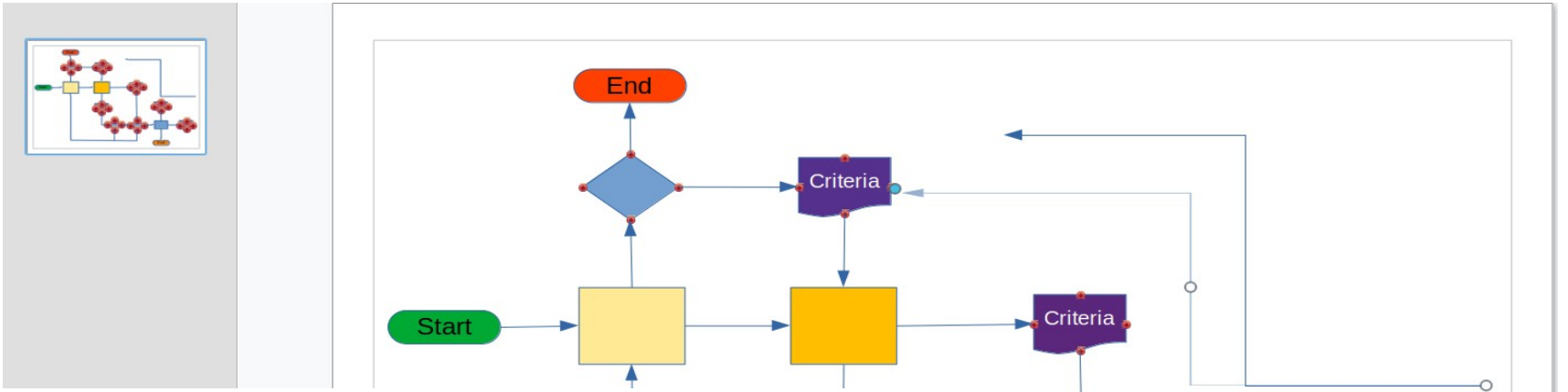
Bringing Draw to Online: Connectors ...

Shapes, Glue points, Connectors



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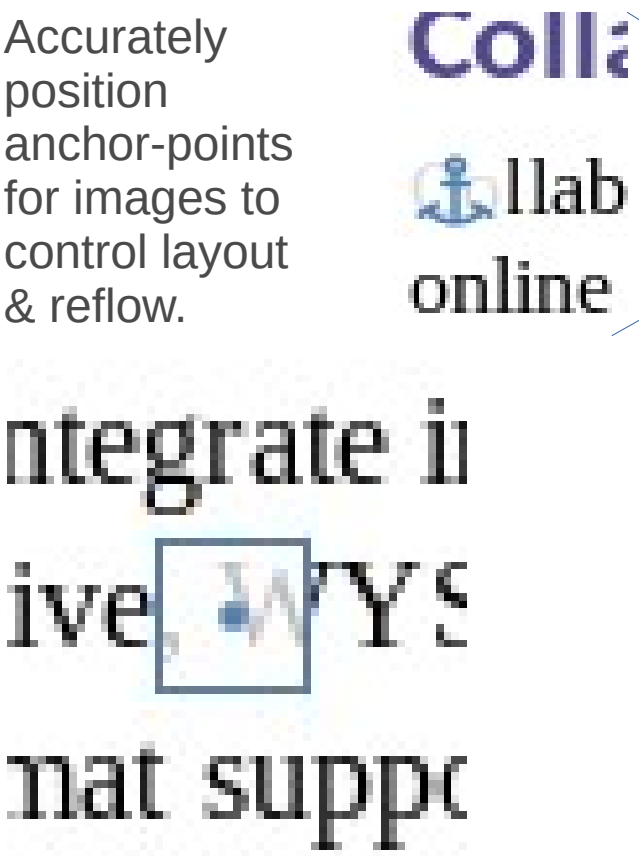
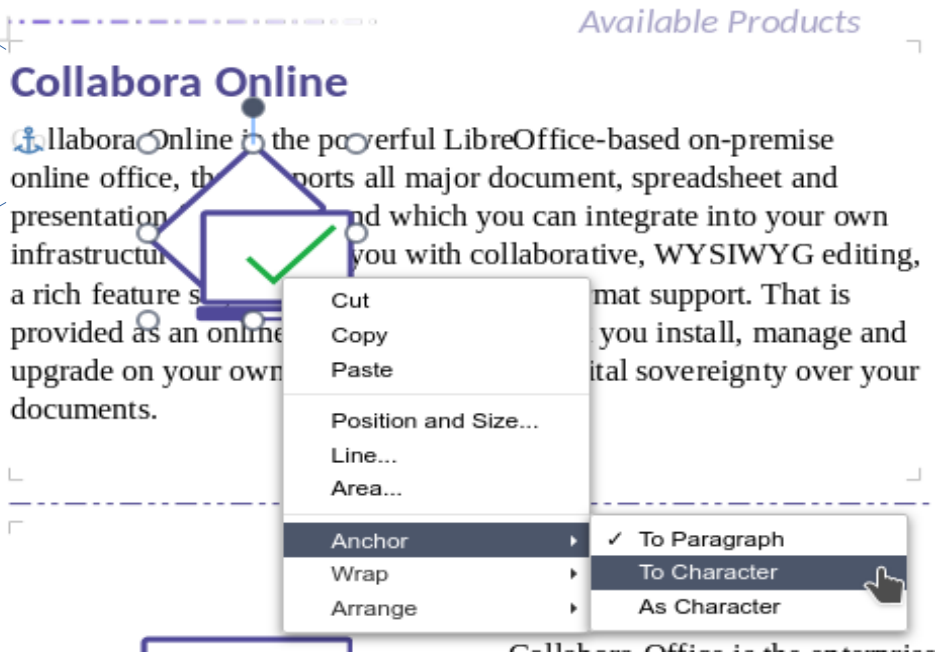
Precise control of anchoring & text flow vs. images

Accurately position anchor-points for images to control layout & reflow.





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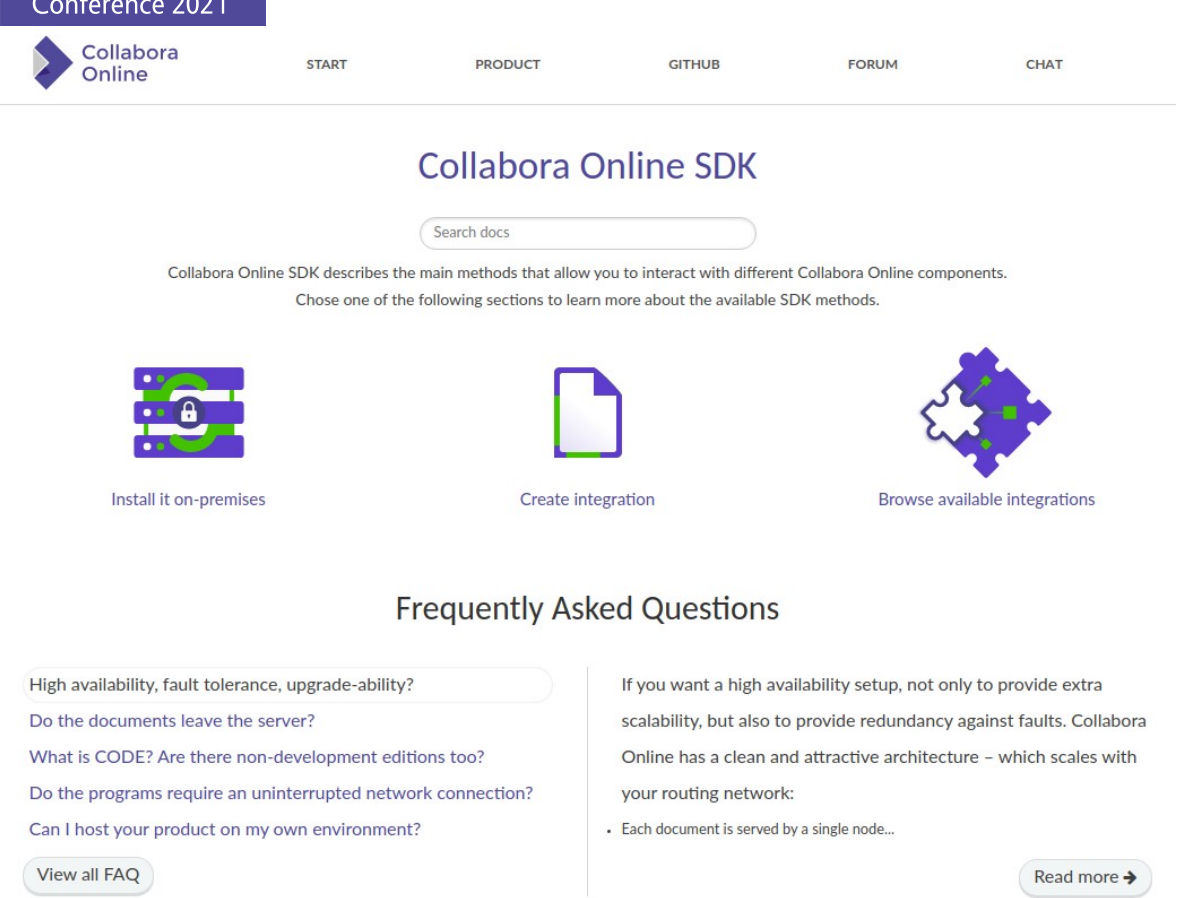
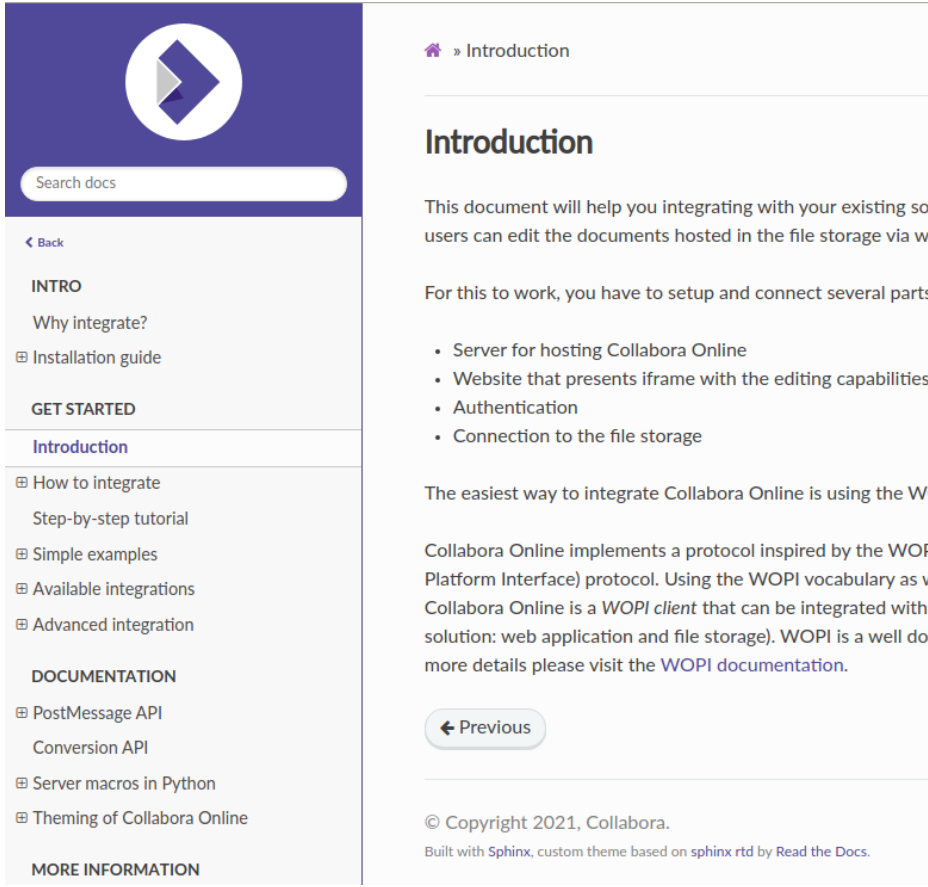
http://sdk.collaboraonline.com – opened up our docs





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Hacker Heroes – thank you!

Non-Collabora people who have contributed code

Alan Verdugo, Alexandru Vlăduţu, Andrea Gelmini, andreas kainz, Ayhan Yalçınsoy, Bayram Çiçek, bgbenzer, Buğra Kurt, Çağrı Gökçe, codewithvk, corleone77, dilaverdemirel, Emil Velikov, Gabriel Masei, Gleb Popov, Gökhan Karabulut, Guy Lunardi, Hannah Meeks, ihristova11, Jan Dageförde, Jerzy Drozdz, Jetsadakorn, Kandarp Patel, Martin Hoffmann, Michael Weghorn, M.-Kupriyanov, Mücahid Aydin, NickWingate, Nicolas Christener, Pelin Kuran, Serkan Danışan, Shubham Goyal, Siddharth, Thomas Koch, umutbayramoglu, Yunus Bulut, Yusuf Keten, 22shubh22

LibreOffice Conference 2021

The l10n Heroes – thank you!

People who have contributed Collabora Online translations

abidin toumi, Adolfo Jayme Barrientos, Akhlak Ahmad, Alexandre Brochand, Allan Nordhøy, Andika Triwidada, Àngels Giménez, Artem, Besnik Bleta, bruh, ButterflyOfFire, Cor Nouws, Daniel de Souza Melo, doanmanhduy75, Eugenia Russell, Flávio José de Siqueira Cavalc, george kitsoukakis, Gontzal Manuel Pujana Onaindia, HelaBasa, Hirae, Ihor Hordiichuk, Jeff Huang, J. Lavoie, Joan Montané, Jörn Liebau, K. Herbert, koffevar, kuesji koesnu, liimee, LL Magical, Lukáš Jelínek, Luna Jernberg, Martin Srebotnjak, Masa Murakami, Matthaiks, Mehmet Sait Gülmez, Michalis, Mike Kaganski, Milo Ivir, Miloš Šrámek, Nathan, Naveen, Nguyen Trung Kien, Nguyen Tuan Anh, Nikita Epifanov, Oğuz Ersen, Oymate, PhD. Ayhan YALÇINSOY, phlostically, Piotr Rudzki, Quentin PAGÈS, Reza Almanda, Rizal Muttaqin, Rob Pearson, Ron Stephen Mathew, SC, sebastiaanveld, Sérgio Morais, ssantos, Stanislav Horáček, Stratos Kostidis, Sveinn í Felli, tamer dab, Tymofii Lytvynenko, Unihuppio,

wxf26054, Yaron Shahrabani, Zhou Nan, لمير محمد العمري غدة الذياب, 日陰のコスモス

Collabora Online

LibreOffice Conference 2021

COOL days ... replacing our annual partner event

Developer / community day

- All about CODE & how to get involved
- Updates from integrations etc.
- Open to all

Business day

- Case studies of use in the real-world
- Digital Sovereignty for enterprises
- Partner / Customer / invite ...

September 30th

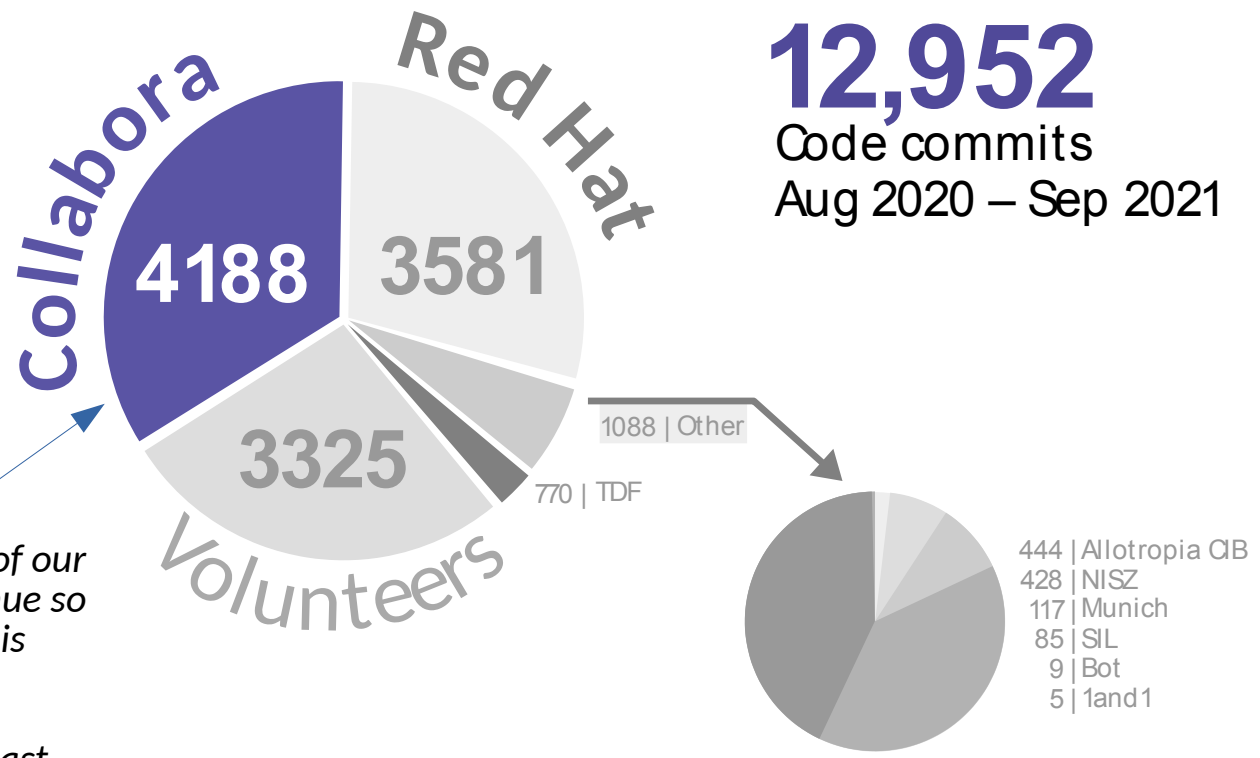
October 1st

Collabora Online

Eight years of
Collabora Productivity
Open Source,
Open First

LibreOffice Conference 2021

Commits by Affiliation – last year



12,952
Code commits
Aug 2020 – Sep 2021

TDF:

~5% *of our revenue so far this year*

~1% *last year*

We need to continue to improve our ecosystem diversity-wise,

Lets ensure that people can build businesses around it

Also celebrate, encourage & credit all contributors

Collabora Online

Other ways we serve you & contribute …

Governance

- 2x Board members
- ~1 Membership Committee
- Serve on the ESC

More work – funding time

- Mentoring / GSOC
  - 5/11 mentors this year, 4/7 projects
  - newbie mentoring & review
- Patch review of gerrit commits
- conference content

Funding with cash

- Conference Sponsorship
- Cash from Apple App-store sales ~Eur 8k in last year

Paying for things TDF cannot

- eg. buying community meals at conferences (in normal years)
- Thank-you presents etc.

Every day we tell people about LibreOffice Technology

LibreOffice Conference 2021

Thanks to our team(s)

*who have worked **so** hard:*

Collabora Committers - last 12 months (37)

- Noel Grandin, Szymon Kłos, **Miklos Vajna**, Ashod Nakashian, Mike Kaganski, Tor Lillqvist, Tamás Zolnai, Tomaž Vajngerl, Luboš Luňák, Pedro Pinto Silva, Gokay Satir, Dennis Francis, **Andras Timar**, Henry Castro, Michael Meeks, Pranam Lashkari, Mert Tumer, Justin Luth, Rashesh Padia, **Jan Holesovsky**, Gülşah Köse, Ezinne Nnamani, Muhammet Kara, Marco Cecchetti, Aron Budea, Sarper Akdemir, Nick Wingate, Thais Vieira, Marc Rodriguez, Cor Nouws, Gopi Krishna Menon, Yunusemre Şentürk, Ivan Stefanenko, Eloy Crespo, Guy Lunardo, Hannah Meeks, William Gathoye

Management / Marketing / Support

- Eloy Crespo → **Sales**
- Cor Nouws, Marc Rodriguez, Elisa de Castro Guerra, William Gathoye → **Marketing**
- Tracie Fabb, Julie Wilder, Hannah++… → **Biz support**
- Philippe Kalaf → **applied experience**

In bold (left)

- managed to manage a team as well (!)

Please do encourage them.

Consider joining us: Collabora Careers

Collabora Online

(some of) the awesome team serving you.

Sorry we can't be with you this year

Conclusions

- Our FOSS mission applied:
  - make LibreOffice Technology rock.
  - Liberating people's Documents
- All paid for by our ***Customers*** & ***Partners***
  - can't do anything without them,
- All done by our staff
- All done alongside the **community**
  - **Thank you for making it fun.**
- **Branding** is one of our only assets:
  - Leads (& credit) funds the fun.
- **A pleasure** to be able to sponsor the LibreOffice conference.
  - really missing people in person.

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