# Collabora & SeaDays 2023

Working together to make Open Source rock

### Michael Meeks

**General Manager** michael.meeks@collabora.com





This is what the Lord says: "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





### What is Collabora Online?

### **Documents + Spreadsheets + Slides + Drawings**

- Viewing and collaborative editing
- Feature rich

Interoperability with Microsoft formats - trillions of documents ...

docx, doc, rtf, xlsx, xls, pptx, ppt

Import filters and viewing for

PDF, Visio, Publisher and many more

Powerful WYSIWYG rendering

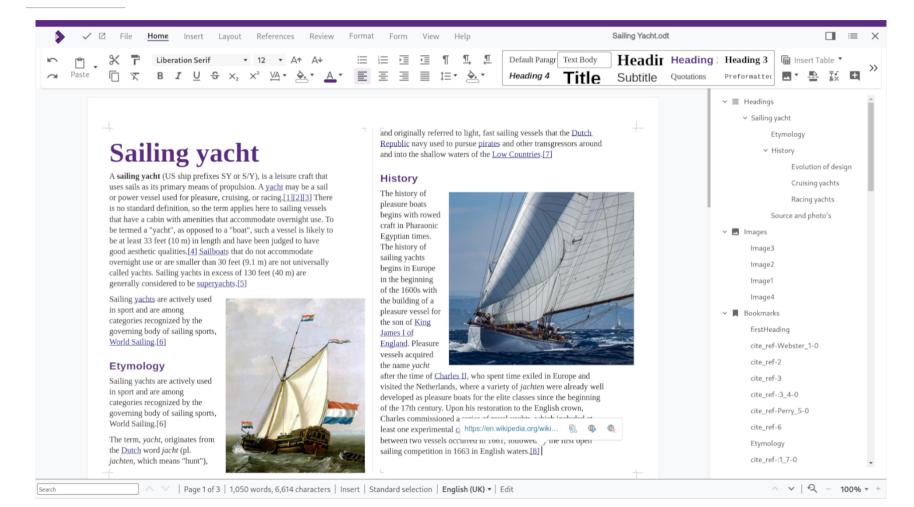
On-premise integration

Architecture - a bet on CPU threads and network





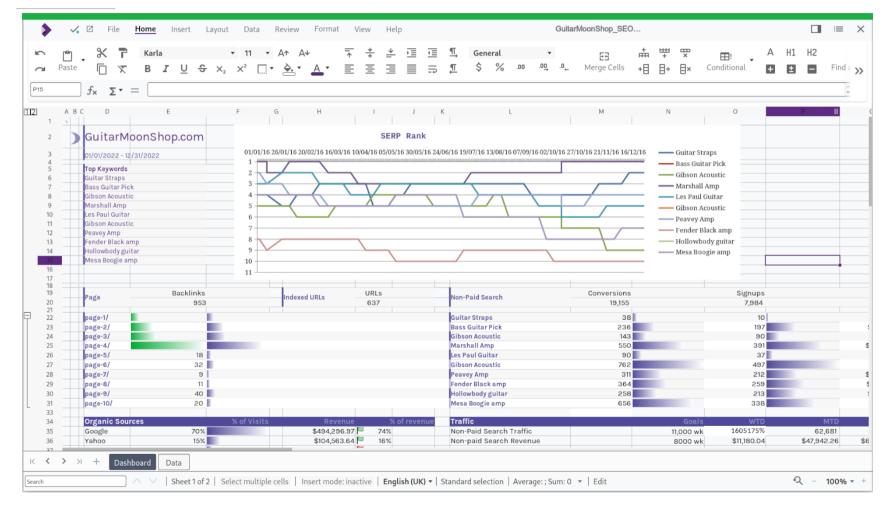
### **Collaborative Writer**







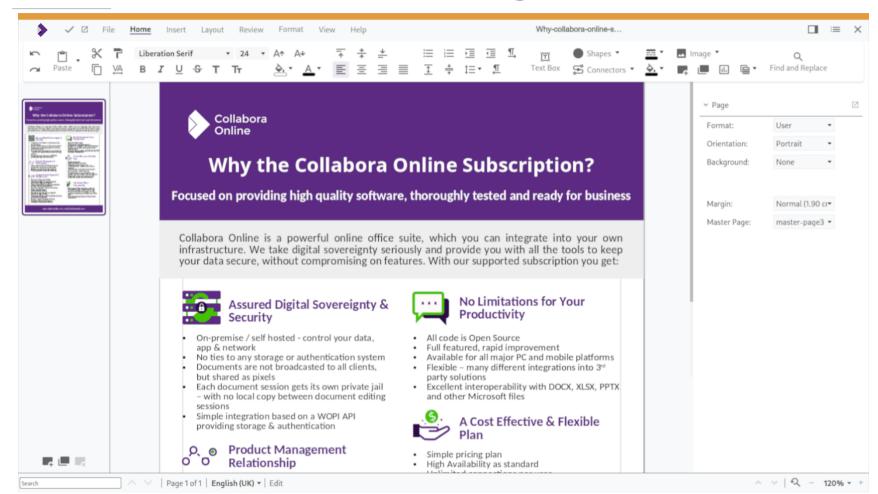
# **Collaborative Spreadsheets**







# **Collaborative Drawing**







### **Collaborative Presentations**

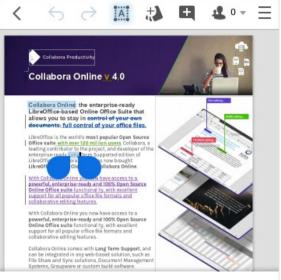
Enalish (UK) ▼

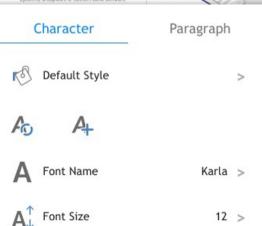






## Responsive mobile UI

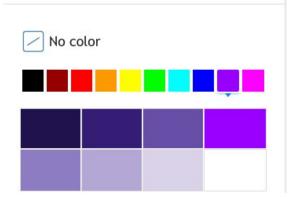








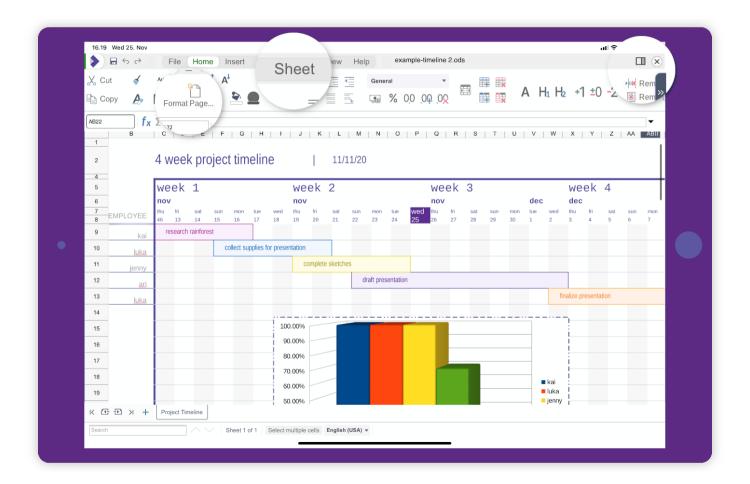








## **Tablet UI with desktop features**







## Rich ChromeBook support





### A bit about Collabora





### COLLABORA

- ~150 staff, Cambridge & Montreal
- our parent company 16 years old
- Leading Open Source Consultancy
- Parent company of:



- Spun out of SUSE in 2013
- ~48 staff
- 10 years old this month.
- Focused fully on Office / Online



# Collabora's mission:

# Make Open Source ROCK



# Collabora the parent

### FLOSS upwards from the bottom of the stack



Semiconductor



Digital Signage



Automotive



**OEM** 























# eg. Open Source Arm Mali GPU

Panfrost: initially a reverse engineered driver, now main-line, multi-gen support

& now embraced by Arm too ...

Driving open-ness.



Mali, the world's most shipped GPU at **8 billion** units to date (2022)



# Collabora's Productivity subsidiary ...

Driving FLOSS goodness downwards from the top of the stack





### What we sell:



### Collabora Online

- Your Digital Sovereignty
  - "Your own private Office in the cloud"
- Develop, support, maintain, sustain
  - Built with LibreOffice technology
  - Highly scalable, interoperable, collaborative editing, in your browser
  - Service Level Agreement, L3 support
  - Product Management interaction
  - Go-to market via partners



- Branded version of LibreOffice
  - Foundation for Online
  - Annual release eg. CO 2023.05
  - PC / Mac / Linux



- Consultancy & Support services
  - Bespoke consultancy or
  - Pre-paid, fixed-price L3 bugpacks





### Seafile & Collabora ...

- We love to serve users through partners
  - Gives a single company to buy through.
  - Gives a single support contact
  - Gives a unified Product Management experience
- We have staff in 20+ countries but
  - A partner that speaks your language is invaluable
- Please buy your Collabora Online via Seafile.





## Support in your language, near you



Integration and commercial support in

60 countries

- Contact me to become a partner
- Or checkout our Partner List if you're interested





- On-Premise
- Rolling Updates
- For testing and home use

# Collabora for Business Supported Version up-to 99 users €20,00 / \$22.29 / £17.60 per user/year Request a Quote

- On-Premise
- From 20 to 99 users
- Supported
- LTS
- SLA
- Signed Security Updates
- Lifetime Maintenance
- Customer Portal Access
- Price: €20,00 / \$22.29 / £17.60 per user, per year

# Collabora for Enterprise Supported Version for 100+ users Personalised volume discounts Request a Quote

- On-Premise
- 100+ users
- Supported
- LTS
- SLA
- Signed Security Updates
- Lifetime Maintenance
- Customer Portal Access
- Roadmap Input
- Integration Support
- Customisation
- Desktop Version
- Mobile Support
- Price: volume discounts, personalised to your requirements

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

# A year of improvement:

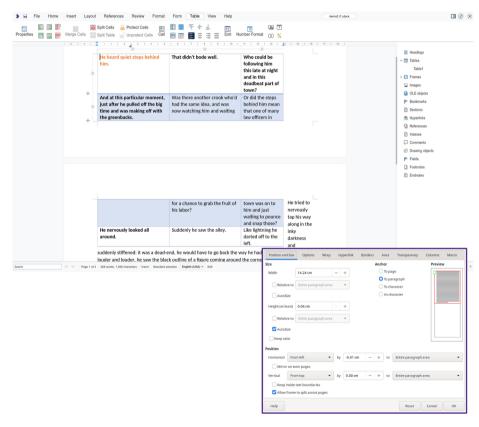
## Interoperability improvements

Bringing trillions of your documents into the light



# **Multi-page Floating Tables**

- The top Writer issue
  - 38 duplicates (or so)
    - many now fixed.
  - Many CC's
  - A huge problem
- Significantly improves interoperability with tables that have been accidentally floated by users, and that span multiple pages.
- Lots of mis-designed Government forms – where tables are used for rendering borders are improved, and rendered better.

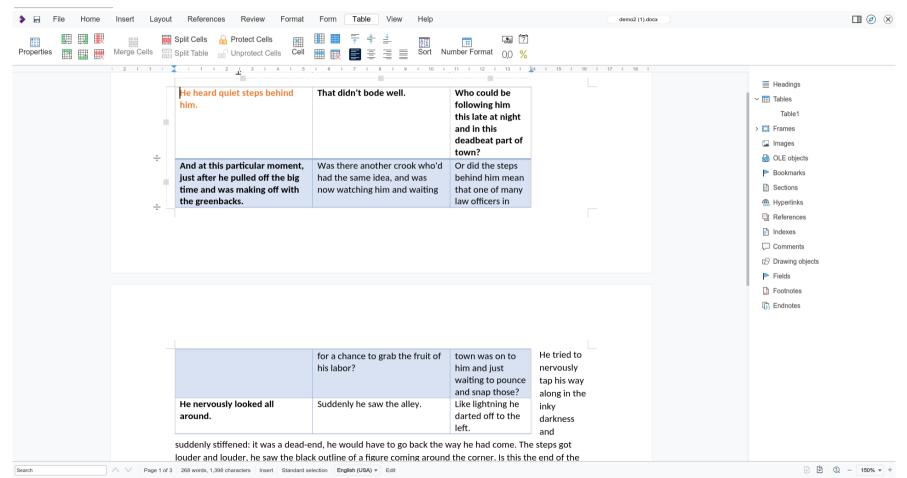






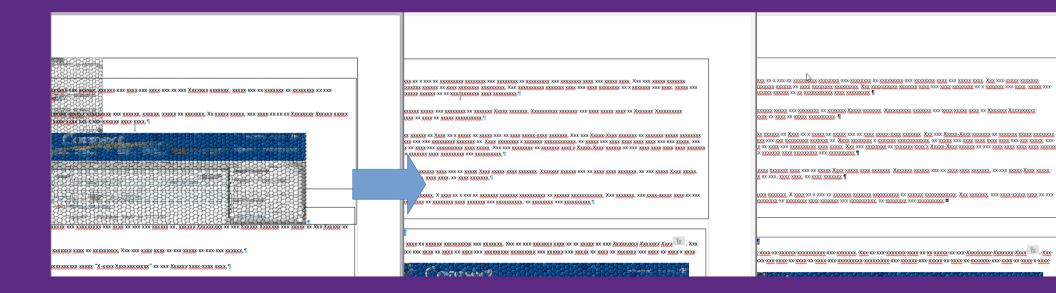


# **Multi-page Floating Tables**





# Complex DOCX document with several floating tables: bad, good and reference





## **Compact Pivot Tables**

### **Calc Spreadsheets**

 Preserve the compact view and layout of Pivot Tables created in Excel with a more compact layout avoiding the possibility of incorrect cell references.

| K            | L   |    | М   | N            |
|--------------|-----|----|-----|--------------|
| Sum of Val   | D   | ~  |     |              |
| Row Label ▼  | ddd |    | ddx | Total Result |
| ⊟aaa         |     | 13 | 18  | 31           |
| ⊟bbb         |     | 10 |     | 10           |
| ccc          |     | 10 |     | 10           |
| ⊟bbx         |     | 3  | 9   | 12           |
| ссс          |     | 3  |     | 3            |
| ссх          |     |    | 9   | 9            |
| ⊟bxx         |     |    | 9   | 9            |
| ссх          |     |    | 9   | 9            |
| ⊟аах         |     | 15 | 11  | 26           |
| ⊟bbb         |     | 10 | 4   | 14           |
| ссс          |     | 8  | 4   | 12           |
| ссх          |     | 2  |     | 2            |
| ⊟bbx         |     | 5  |     | 5<br>5<br>7  |
| ссс          |     | 5  |     | 5            |
| ⊟bxx         |     |    | 7   | 7            |
| ссх          |     |    | 7   | 7            |
| ⊟ахх         |     | 12 | 12  | 24           |
| ⊟bbb         |     |    | 5   | 5<br>5       |
| ссх          |     |    | 5   | 5            |
| ⊟bbx         |     | 9  | 7   | 16           |
| ссх          |     | 9  | 7   | 16           |
| ⊟bxx         |     | 3  |     | 3            |
| ccc          |     | 3  |     | 3            |
| Total Result |     | 40 | 41  | 81           |





# **Compact Pivot Tables**

### Thanks to Dennis Francis

| K            | l   | _ | М   | N   |    | 0   | Р            |
|--------------|-----|---|-----|-----|----|-----|--------------|
| Sum of Val   |     |   |     | D   | ₩  |     |              |
| A ▼          | В   | ₩ | C ₹ | ddd |    | ddx | Total Result |
| aaa          |     |   |     |     | 13 | 18  | 31           |
|              | bbb |   |     |     | 10 |     | 10           |
|              |     |   | ccc |     | 10 |     | 10           |
|              | bbx |   |     |     | 3  | 9   | 12           |
|              |     |   | ccc |     | 3  |     | 3            |
|              |     |   | ссх |     |    | 9   | 9            |
|              | bxx |   |     |     |    | 9   | 9            |
|              |     |   | ссх |     |    | 9   | 9            |
| aax          |     |   |     |     | 15 | 11  | 26           |
|              | bbb |   |     |     | 10 | 4   | 14           |
|              |     |   | ccc |     | 8  | 4   | 12           |
|              |     |   | ссх |     | 2  |     | 2            |
|              | bbx |   |     |     | 5  |     | 5            |
|              |     |   | ccc |     | 5  |     | 5            |
|              | bxx |   |     |     |    | 7   | 7            |
|              |     |   | ссх |     |    | 7   | 7            |
| axx          |     |   |     |     | 12 | 12  | 24           |
|              | bbb |   |     |     |    | 5   | 5            |
|              |     |   | ссх |     |    | 5   | 5            |
|              | bbx |   |     |     | 9  | 7   | 16           |
|              |     |   | ссх |     | 9  | 7   | 16           |
|              | bxx |   |     |     | 3  |     | 3            |
|              |     |   | ссс |     | 3  |     | 3            |
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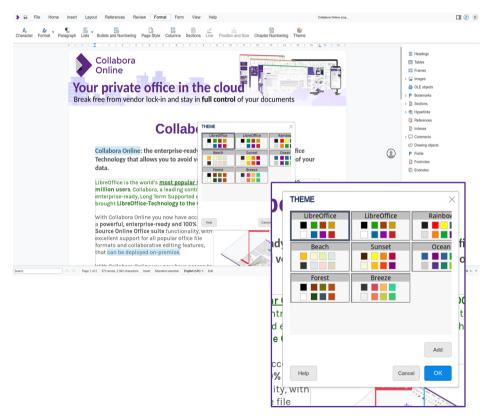


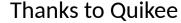


### **Document Themes**

### **Controlling branding**

 Document themes can be configured and applied to a whole document to easily change and re-purpose the appearance, giving it a consistent style and branding.







# Title Subtitle

### Title

Subtitle

#### 1. Heading 1 - 1 / Paragraph Color

<u>Podcasting</u> operational change management inside of <u>workflows</u> to establish a framework. Taking seamless key performance indicators <u>offing</u> to <u>maximise</u> the long tail. Keeping your eye on the ball while performing a deep dive on the start-up mentality to derive convergence on cross-platform integration.

#### 1.1 Heading 2 - 1

Leverage agile frameworks to provide a robust synopsis for high level overviews. Iterative approaches to corporate strategy foster collaborative thinking to further the overall value proposition. Organically grow the holistic world view of disruptive innovation via workplace diversity and empowerment.

#### 1.1.1 Heading 3

Bring to the table win-win survival strategies to ensure proactive domination. At the end of the day, going forward, a new normal that has evolved from generation X is on the runway heading towards a streamlined cloud solution. User generated content in real-time will have multiple touchpoints for offshoring.

#### 1.2 Heading 2 - 2

Capitalize on low hanging fruit to identify a ballpark value-added activity to beta test. Override the digital divide with additional glighthrough from DexQDB, Nanotechnology immersion along the information highway will close the loop on focusing solely on the bottom line.

What?

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Just a rectangle

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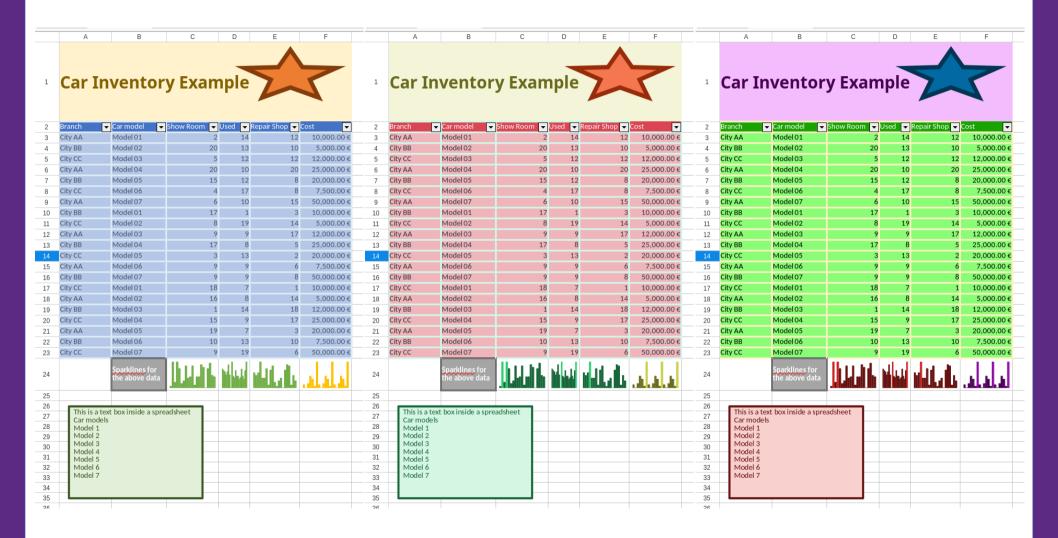
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### Title of the presentation

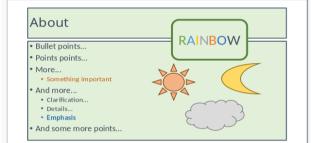
Subtitle of the presentation

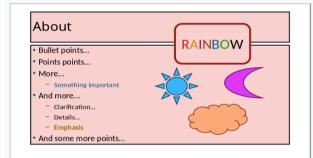
### Title of the presentation

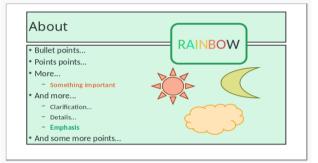
Subtitle of the presentation

### Title of the presentation

Subtitle of the presentation







#### Lorem ipsum

#### Part 1

- Lorem ipsum dolor sit amet, consectetuer adipiscing elit.
- Maecenas porttitor congue massa.
- Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero, sit amet commodo magna eros quis urna.

#### Dort 2

- Nunc viverra imperdiet enim. Fusce est. Vivamus a tellus.
- Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas.
- Proin pharetra nonummy pede.
  Mauris et orci.

### Lorem ipsum

#### Dort

- Lorem ipsum dolor sit amet, consectetuer adipiscing elit.
- Maecenas porttitor congue massa.
- Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero, sit amet commodo magna eros quis urna.

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#### Lorem ipsum

#### Part

- Lorem ipsum dolor sit amet, consectetuer adipiscing elit.
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#### Part 2

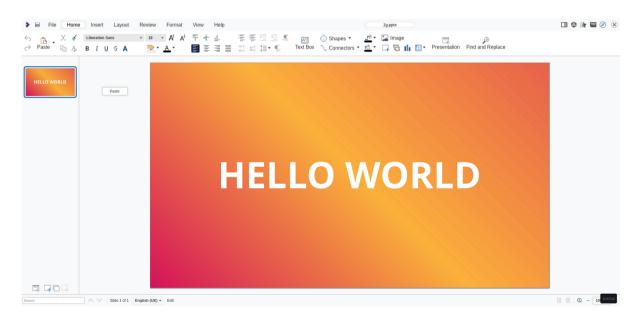
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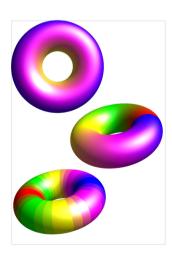


# **Multi-Stop Gradients**

### Improved Rendering with thanks to Armin & allotropia

 The renderer has been enhanced and can now handle even more complex gradients. You can now turn up the visual appeal of your document by incorporating multi-stop gradients into shapes, borders, and other elements.







### Other sample improvements

Just a few examples of wins



## Other misc. improvements

**Improved Default Numbering - Justin** 

Multi-page TIFF import - Rashesh

Improved frame anchoring / positioning

Auto-fitting algorithmic improvements - Quikee

64bit Zip Support - Attila

**Cropped video in impress - Miklos** 

 The Zip64 standard extends numerous internal limitations in the XLSX and ODS formats used to compress documents.

Simpler Sidebar Glade XML

 Editing and working with huge spreadsheets is now possible  slimmer, semantic IDs etc. fixed alignment bugs ... thanks to Szymon, Andreas K, Pedro



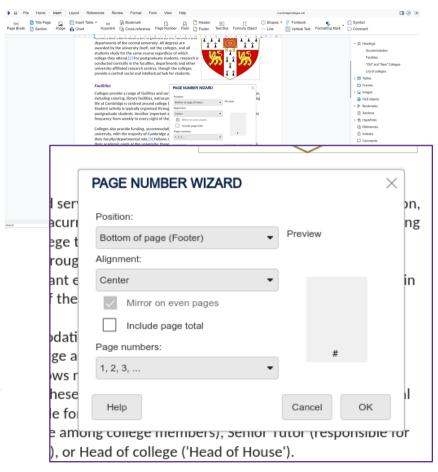


## **Page Number Insertion**

### Familiar, Simplified Pop Up

- Combining inserting the required headers, footers, and page number fields into a single, easy to use, familiar dialog for users.
- Featuring all the common alignment options, support for a variety of languages, and a preview.

Thanks to Justin Luth







### **Performance**

Writer - Ctrl-A & Cut - 10x faster

**Faster EPUB export** 

Faster large writer table handling

### **Various Calc large find & replace speedups**

minutes → seconds

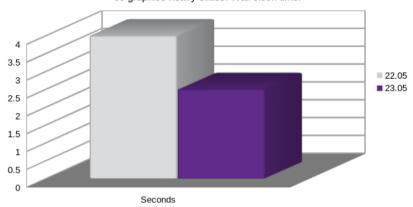
### **COUNTIFS/SUMIFS etc. caching**

Minutes → seconds etc.

Thanks to Noel, Caolan, Lubos ...

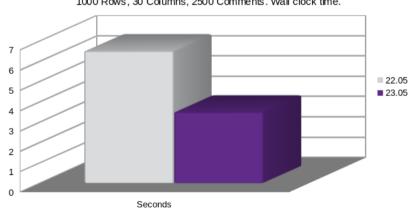
Impress Full Screen Presentation Generation

60 graphics heavy slides. Wall clock time.



Calc XLSX Comments Load

1000 Rows, 30 Columns, 2500 Comments. Wall clock time.





## Collabora Online

Some of last year's improvement

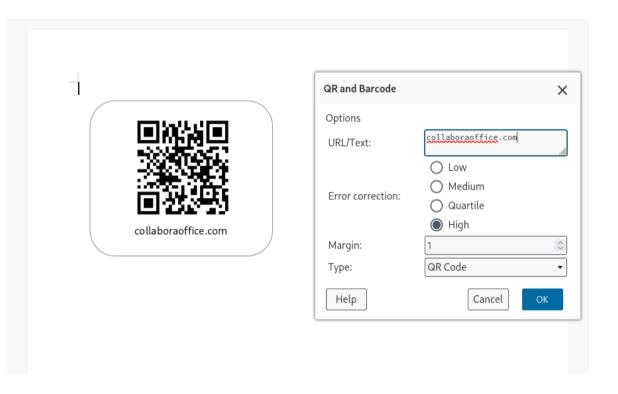


#### QR code generation

Bringing more LibreOffice technology to your browser:

now 'async'

Thanks to Shubham Goyal and GSOC for the feature, and Darshan-Upadhyay







#### Zotero

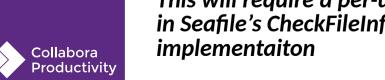
#### Reference Management & **Bibliographic Data with Zotero**

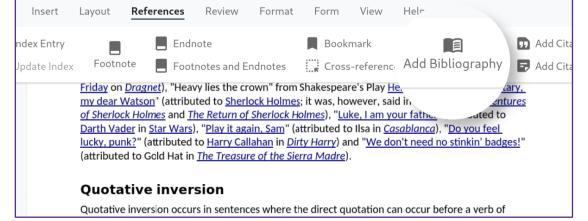
Browse all the existing records of your Zotero library - insert, remove, and refresh references,

citations, and notes, or automatically generate bibliographies.

This will require a per-user key in Seafile's CheckFileInfo implementaiton

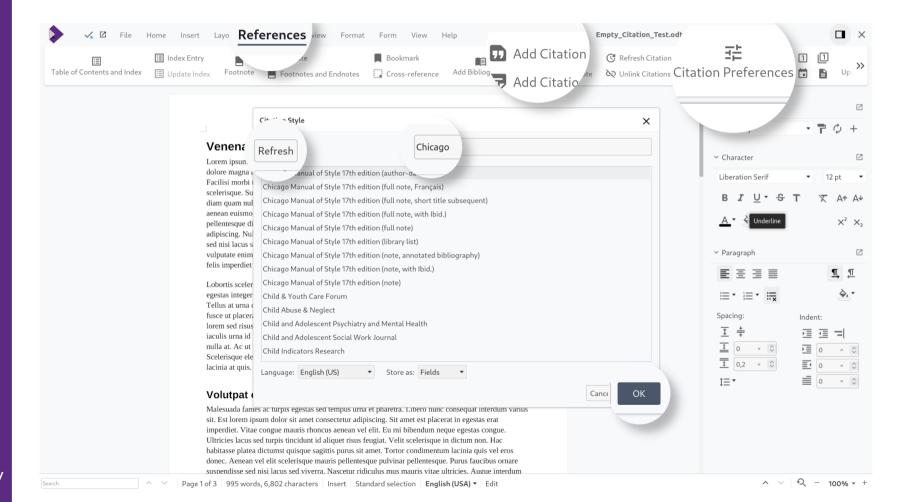








#### **Zotero**



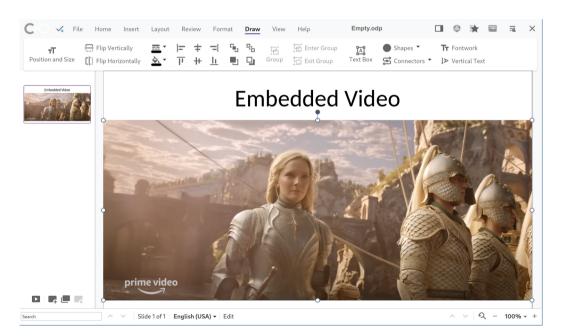




#### **Video Embedding**

#### Include videos in your Impress slides

• Embedding the content of your videos, ensures a smooth, advert-free presentation at the right time.



Thanks to Ashod Nakashian





#### Font previews in drop-downs

Pick your preferred font with confidence

Home Insert Lavout References Review Format Form Liberation Serif Latin Modern Roman Latin Modern Roman Caps 14 | 15 | 16 | 17 Latin Modern Roman Demi Latin Modern Roman Dunhill and originally refer Latin Modern Roman Slanted Republic navy used Latin Modern Roman Unslanted and into the shallov Latin Modern Sans A sailing yacht (US History uses sails as its prima Latin Modern Sans Demi Cond The history of or power vessel used Latin Modern Sans Quotation pleasure boats is no standard definit begins with rowed that have a cabin wit Liberation Mono craft in Pharaonic be termed a "yacht", Liberation Sans Egyptian times. be at least 33 feet (10 The history of good aesthetic qualiti Liberation Sans Narrow overnight use or are Liberation Serif sailing yachts begins in Europe called vachts. Sailing in the beginning Linux Biolinum G Search Standard selection



Thanks to Szymon Kłos

# Memory Optimization

Less memory used effectively.

Run-length encoding delta cache makes it far smaller and faster to use. Compressed image data swapping to reduce footprint. Trimming caches & allocators on idle. Larger compressed browser-side tile cache. Monotonic timestamp cache synchronization & expiry.





# **CPU Optimization**

Saving power, and going faster.

Reduced invalidation & re-rendering. Improved user prediction & pre-loading for better latency. Accelerated style previewing & thumbnailing. Optimized pixel manipulation & un-pre-multiplication. Accelerated scrolling & Javascript rendering.



Thanks to Caolan McNamara



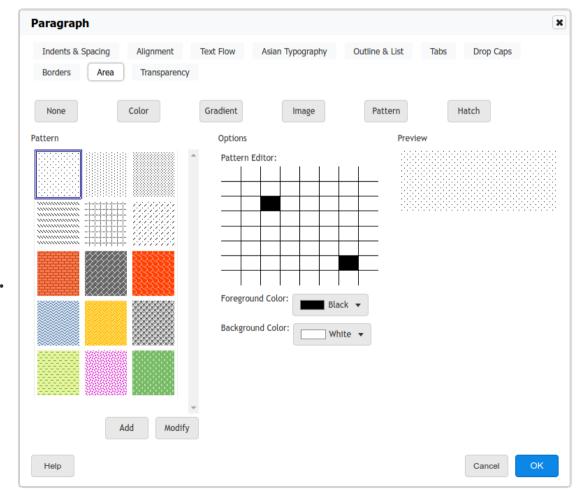


#### **UX:** Javascript / welded dialogs

# Near complete move to JS Dialogs

- Accessible
- Theme-able
- Crisper text
- Easier to Cypress test.

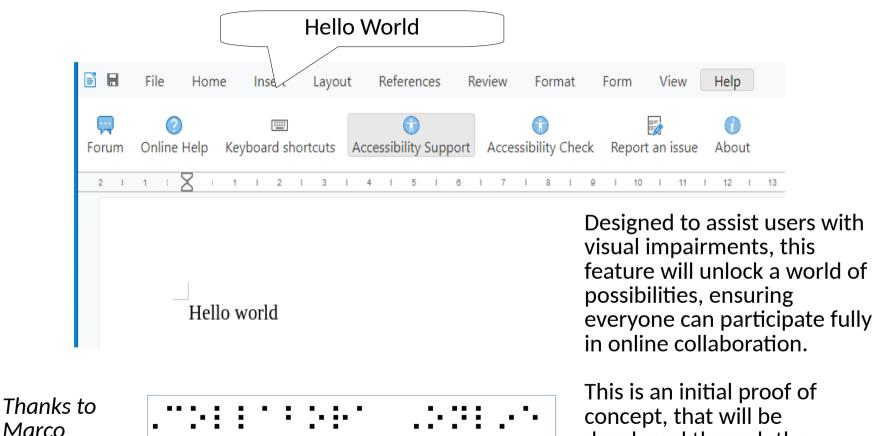
Thanks to Szymon Kłos & team[!]







#### **Initial Online screen reading support**





Cecchetti

developed through the 23.05 lifetime.

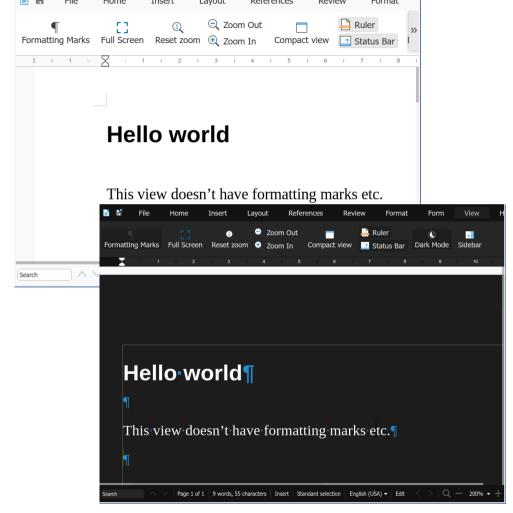


#### **Dark Mode**

### Building on the LibreOffice technology core dark-mode

- Rendering views differently also allows per-view settings
  - non-printing characters
  - spelling underlines.
  - etc.

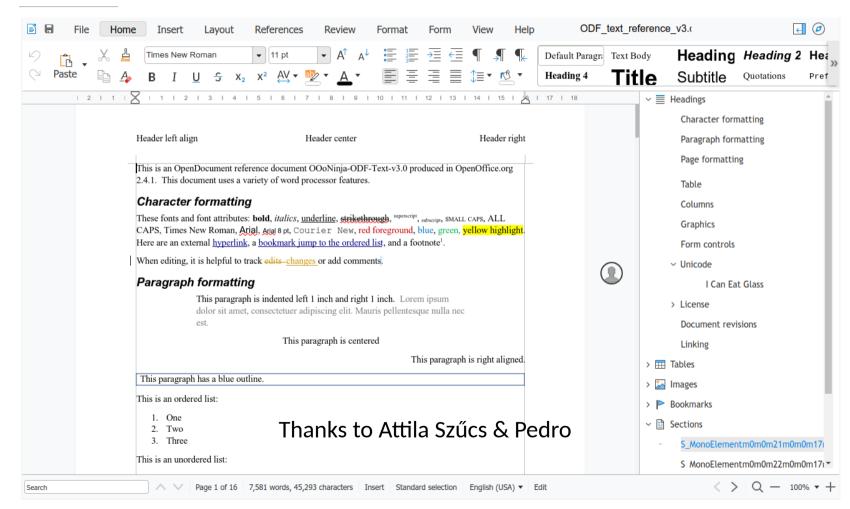
Thanks to Paris Oplopoios







#### Navigator - new in the last year ...







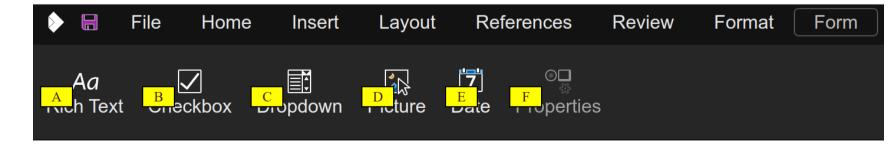
#### **Accessibility: Interface**

Thanks to Gökay Şatır

#### **Full function keybindings**

- Focused on the notebookbar, multi-character bindings
- Coupled to dialog key-navigation across the UI







# COOL: Built with LibreOffice technology

Rich, interoperable, collaborative editing, everywhere.





# Simple Deployment

 Balancing based on document identifier in **URL** parameter: WOPISRC **Super Simple**  K8s & helmcharts ... Setup HA balancer of choice: ha-proxy, F5, etc. Collabora Online Workers https:// http:// Monitor gets notifications of Users document load, save, statechange, users etc. Prometheus ...









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Kontoret som följer dig

Collabora Online bygger på

LibreOffice-teknik och kan

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Kalkyl













# Conclusions

- Collabora
  - Our FOSS mission applied:
  - Genuine open-ness protects our customers' choice
  - Liberates your documents
- Office Productivity for the Free World

- Thanks to all of our Customers and Partners
  - For funding our work
  - And giving us great product feedback.
- Questions / Feedback?

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