

Educate and collaborate with Collabora Online and Moodle

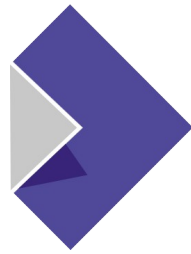
By Michael Meeks

General Manager, Collabora Productivity

@mmeeks @CollaboraOffice



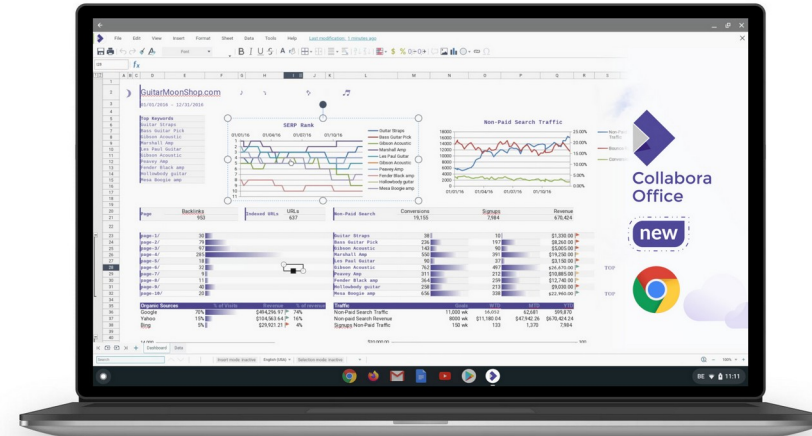
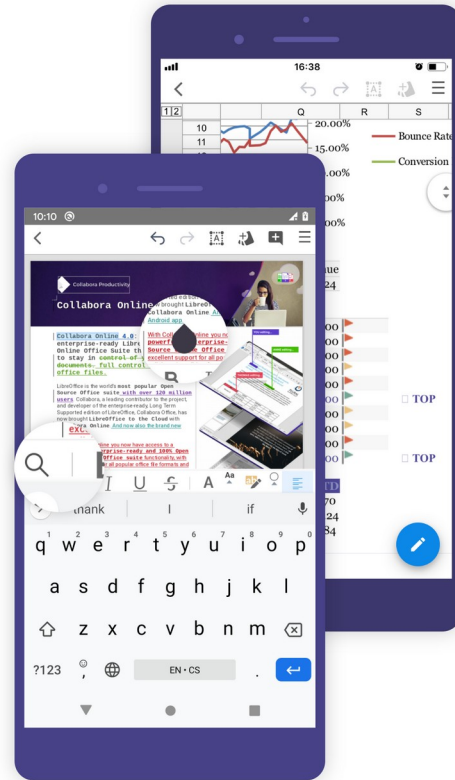
*"Stand at the crossroads and look; ask for the
ancient paths, ask where the good way is, and
walk in it, and you will find rest for your souls..." -
Jeremiah 6:16*



Collabora Online

Built with awesome LibreOffice Technology

Rich, secure, interoperable
collaborative documents





What is Collabora Online ?

Built on top of LibreOffice Technology:

→ **Excellent interop** with Microsoft

→ cf. Office 365 / Google Docs ...

On-premise Integration with your EFSS:

ownCloud, Nextcloud, Seafile, EGroupware
or LMS: **Moodle**, or chat: Mattermost

Freedom applied → FLOSS giving **Digital Sovereignty**

Pragmatism: *“The best line of code, is the one we didn’t have to write” x 10⁷ lines*

Architecture – a bet on CPU threads & network ... getting cheaper.

Over 50m

pulls from

CODE Collabora Online

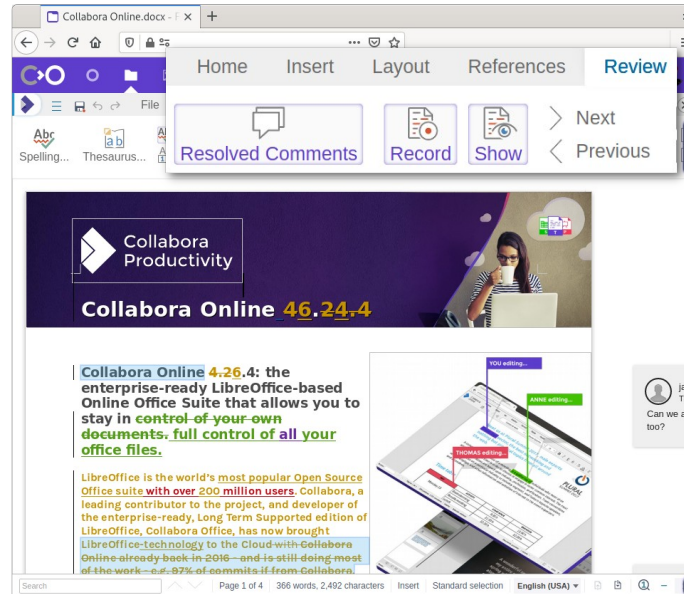
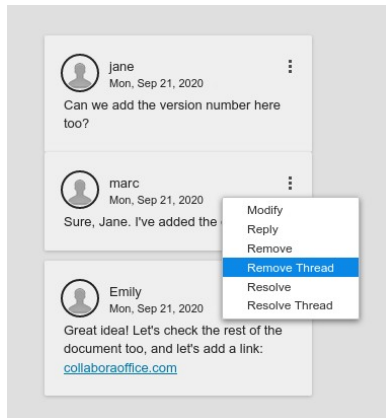
Development Edition

docker image

Collabora Online key features:

Easy collaboration

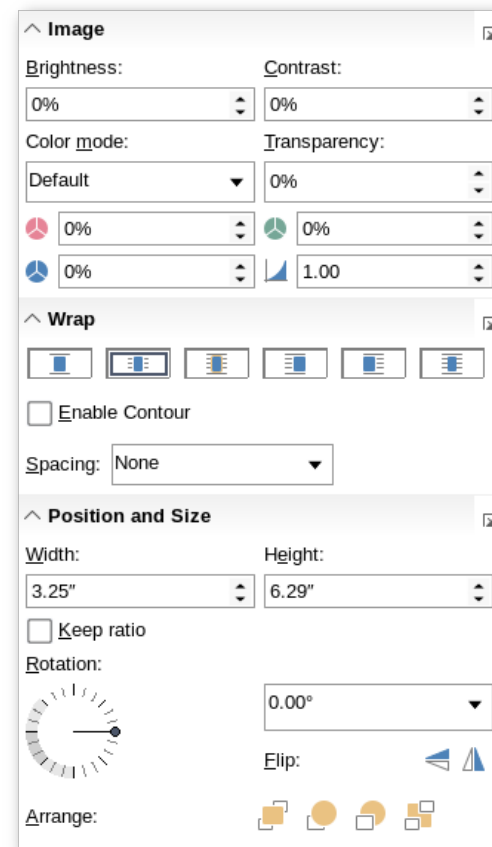
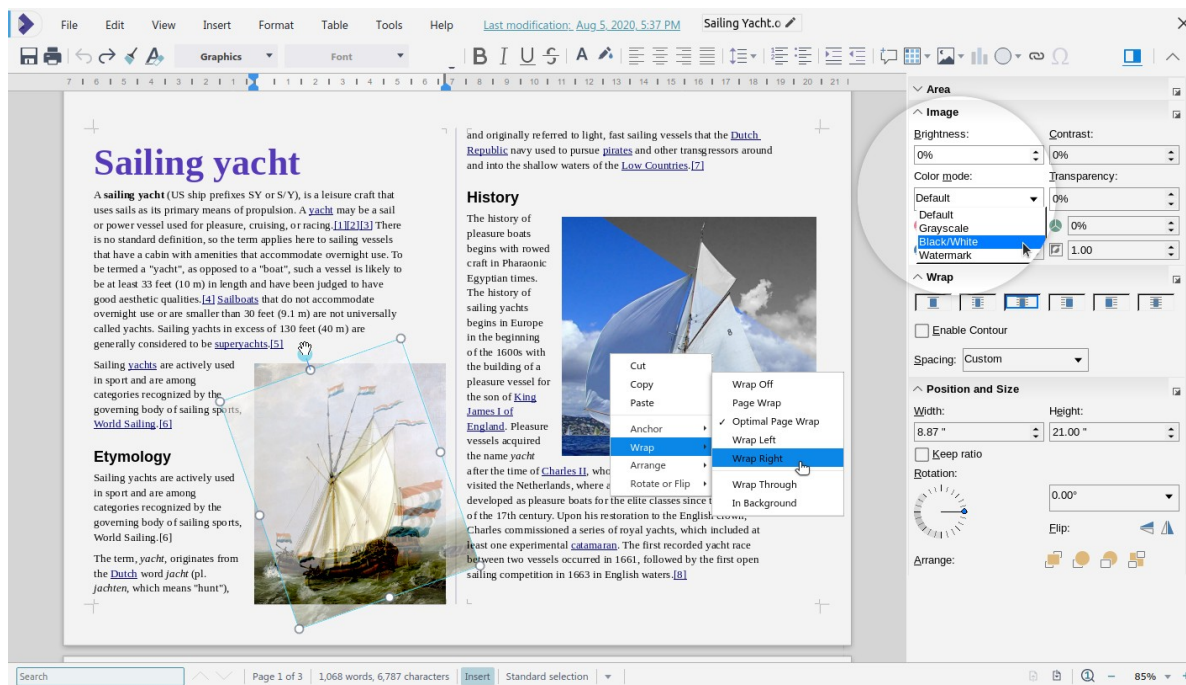
- Real time editing
- Commenting
- Change tracking





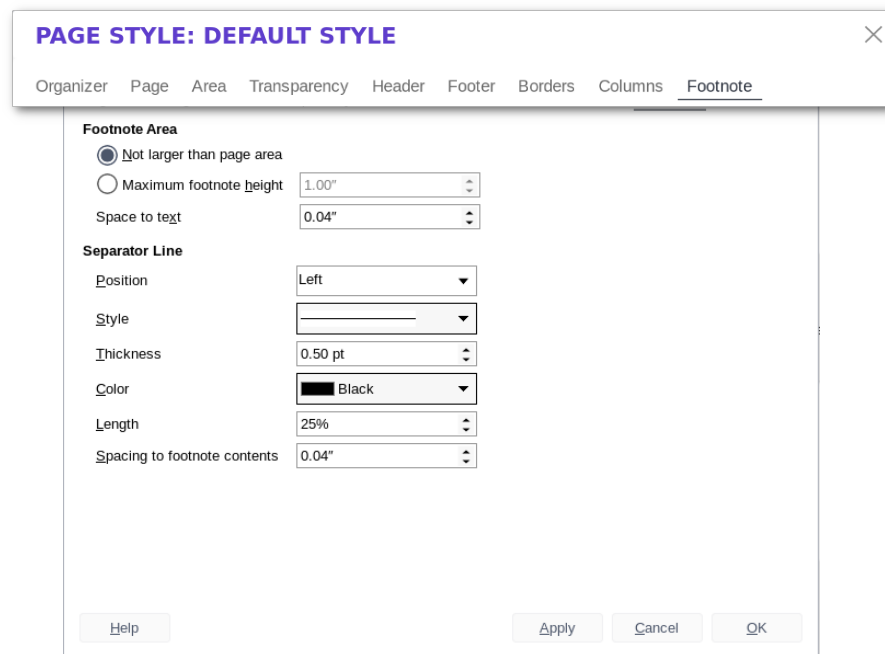
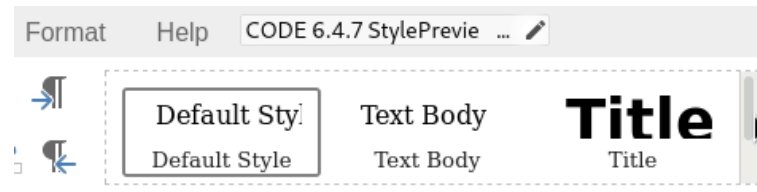
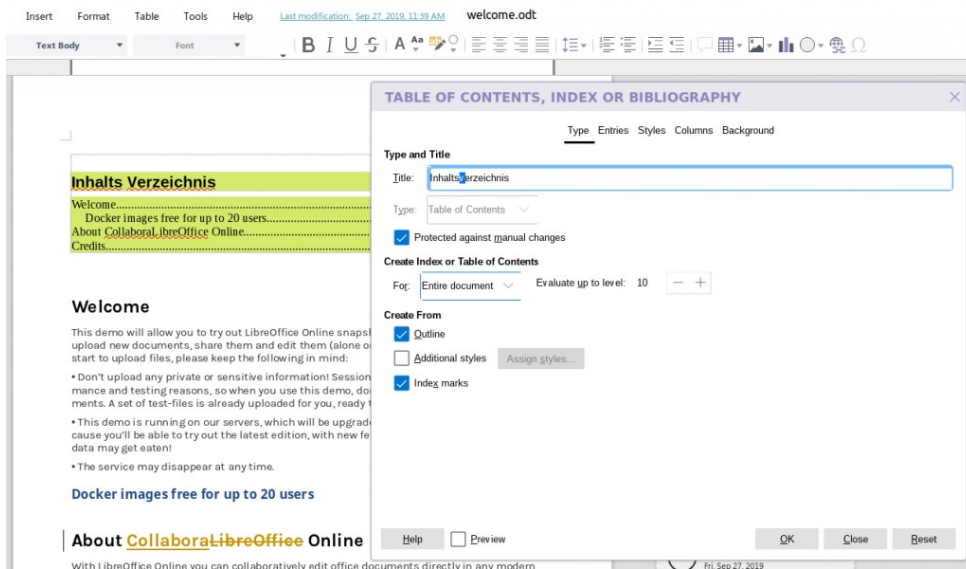
Collabora Online key features:

Easy handling of images & drawings



Collabora Online key features:

Rich formatting of pages and more



Collabora Online key features:

full WYSIWYG experience

Collabora Online 6.4

Collabora Online 6.4: the enterprise-ready LibreOffice-based Online Office Suite that allows you to stay in full control of all your office files.

LibreOffice is the world's **most popular Open Source Office suite** with over 200 million users. Collabora, a leading contributor to the project, and developer of the enterprise-ready, Long Term Supported edition of LibreOffice, Collabora Office, has now brought **LibreOffice-technology to the Cloud**.

With Collabora Online you now have access to a **powerful, enterprise-ready and 100% Open Source Online Office suite** functionality, with excellent support for all popular office file formats and collaborative editing features.

With Collabora Online you now have access to a **powerful, enterprise-ready and 100% Open Source Online Office suite** functionality, with excellent support for all popular office file formats and collaborative editing features.

Collabora Online comes with **Long Term Support**, and

[https://share.collabora.com/index.php/apps/files/?dir=/Productivity/Marketing/Products/Demo_Test_Docs/Collabora Online_DemoDocs_New&fileid=892885#](https://share.collabora.com/index.php/apps/files/?dir=/Productivity/Marketing/Products/Demo_Test_Docs/Collabora%20Online_DemoDocs_New&fileid=892885#)

Monday 13	ACTIVITY	START TIME	END TIME
	Breakfasting	8:30h	10:30h
	Health meeting	11:30h	12:30h
	Lunch	12:30h	1:30h

...meet us at Plural Summit 2017, main experts nothing but practical topics from all around the web

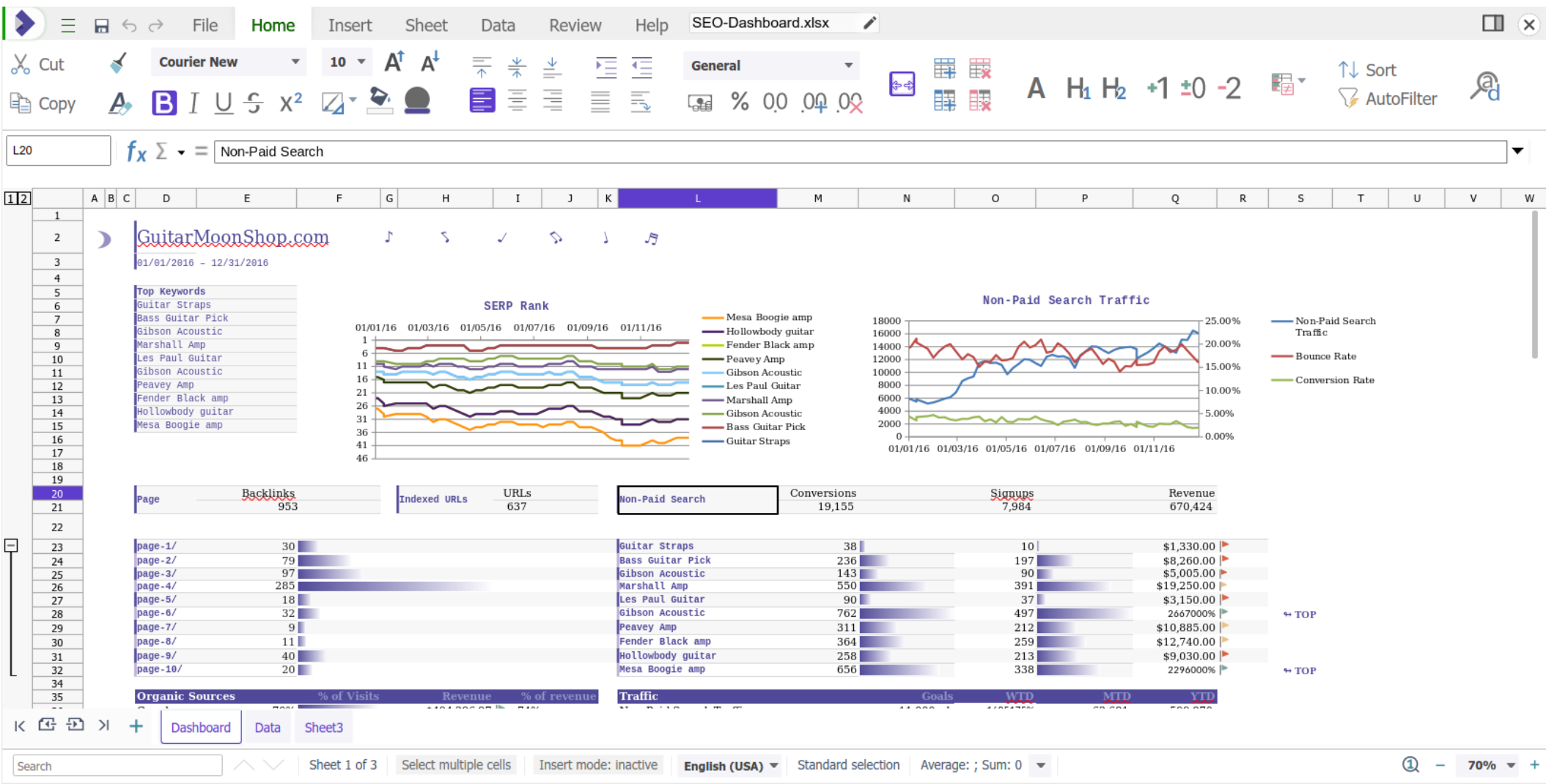
...time is spent to discuss or explore in this common interest, the most updates and other information and activities of interest to the event organizers

...individuals who meet at an event, common interest, the most updates and other information and activities of interest to the event organizers

...A wonderful serenity has taken possession of my entire soul, like these sweet mornings of spring which I enjoy with my whole heart; I am alone, and feel the charm of existence in this spot, which was created for the bliss of souls like mine.

...I agree Emmy that this c/s should be stated more clearly





The image shows a screenshot of the Collabora Online web interface. The main window displays a presentation slide titled "Click-to-rename The document". The slide content includes a screenshot of the Collabora Online editor interface, which shows a document titled "Collabora Online.odt". A green arrow points to the "File" menu in the editor's top bar. A circular callout highlights the "File" menu, showing options like "File", "Edit", "Save", "Print", "Undo", "Redo", and "Help". Another circular callout highlights the "Collabora Online.odt" title bar. The sidebar on the left contains navigation options: "New Page", "Copy", "Mobile device", and "Thank you". The bottom status bar shows "Slide 5 of 8" and a search bar.

Collabora Presentation.odp

Home Insert Review Format Help

Cut New Page Copy

Carlito 18 A A

Start from First Slide

Click-to-rename
The document

Collabora Online

File Edit View Insert Format Table Tools Help

Default Style Montserrat 22 B I U S

Collabora Online.odt

File Edit View Insert Format Table Tools Help Last modification: 20 hours ago

Default Style Montserrat 22 B I U S

Collabora Online v3.2

Revision history at 1st glance

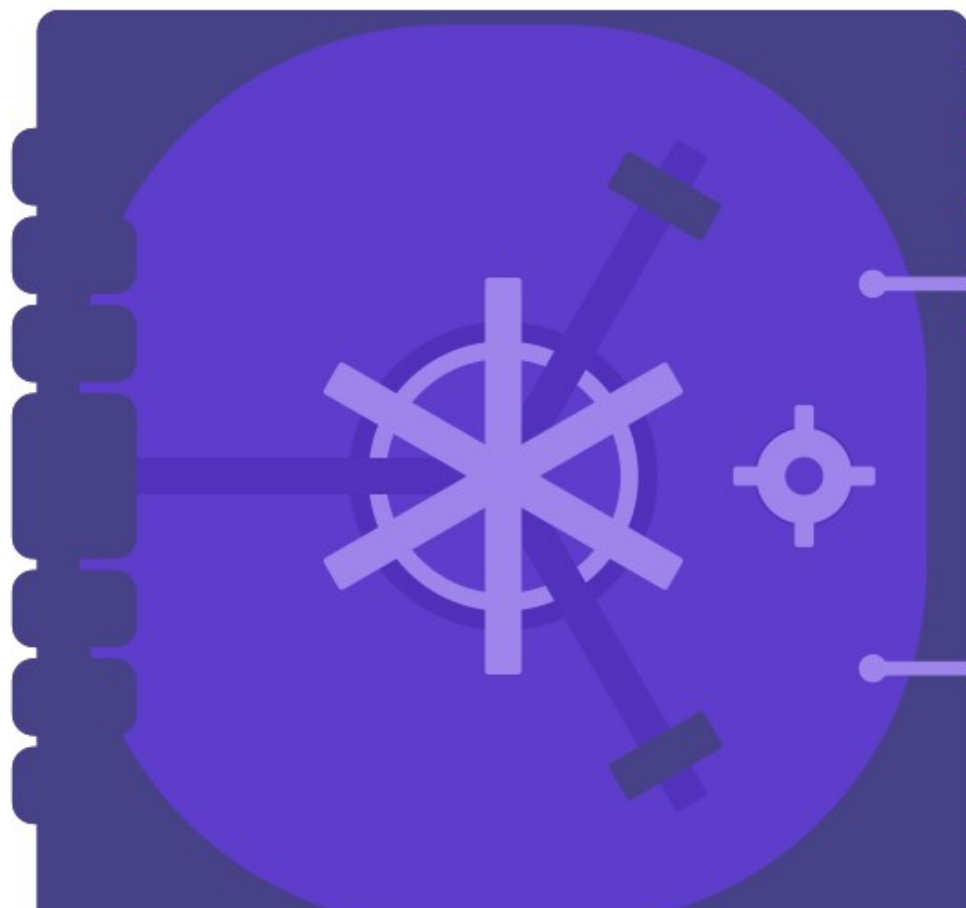
Search

Slide 5 of 8 [None]

120%

Digital Sovereignty

or: don't let your document data out of your site [sic]



on your premise / Private network

Virtual machine / Docker container

Seccomp-bpf ~no sys-calls

Extremely sparse filesystem

Chroot per document

Systematic load crash testing

Industry beating coverity score

LibreOfficeKit

rendering instance

Document data is held in your server room.

Not sent to every single device to be controlled by the browser + JS + local debugger.

C'bra sends pixels to clients.

Collabora Online & Moodle plug-in



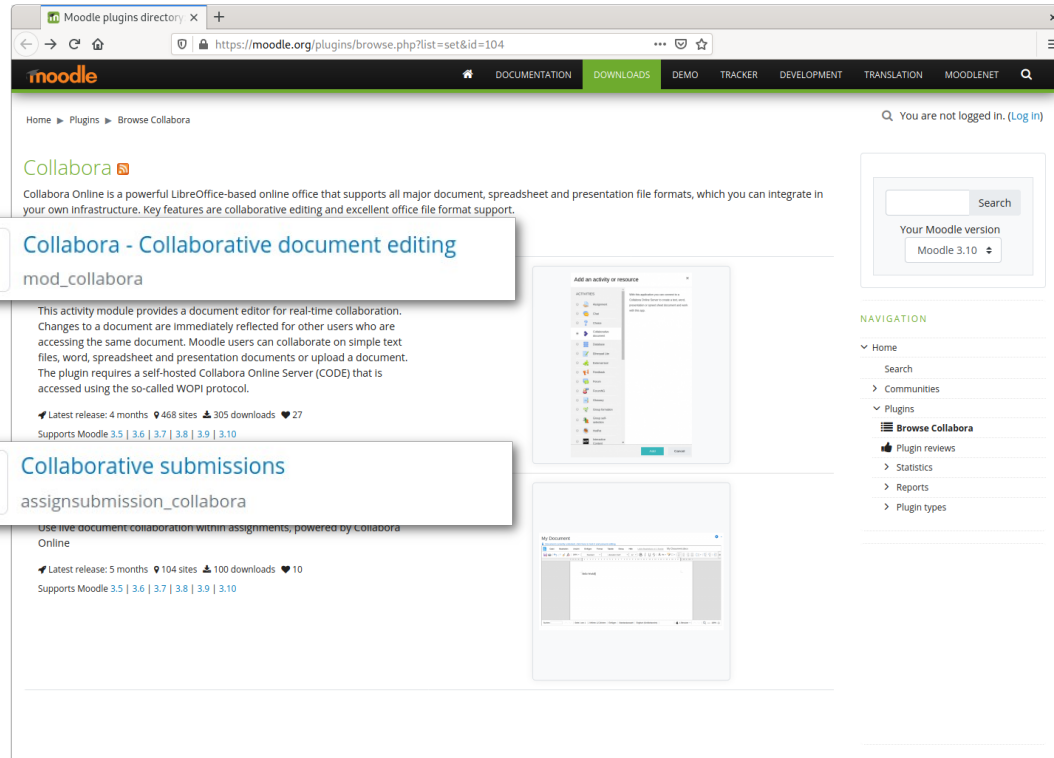
Collaborative editing on text documents, presentations & spreadsheets in Moodle

The collage displays four different collaborative editing interfaces within a Moodle course environment:

- Spreadsheet:** A screenshot of a spreadsheet titled "Experiences in Close Relationships Scale". The interface shows a grid of data with a user named "James Student" editing a cell. The spreadsheet is part of a course titled "Psychology" under the category "Cognitive Psychology".
- Text Document:** A screenshot of a text document titled "Description and debate". The interface shows a rich text editor with a user named "Carito" editing the document. The document is part of a course titled "Psychology" under the category "Cognitive Psychology".
- Presentation:** A screenshot of a presentation slide titled "Modern Perspectives on COGNITIVE PSYCHOLOGY". The interface shows a slide with a network diagram and a user named "Carito" editing the slide. The presentation is part of a course titled "Psychology" under the category "Cognitive Psychology".
- Another Presentation:** A screenshot of another presentation slide titled "Modern Perspectives on COGNITIVE PSYCHOLOGY". The interface shows a slide with a network diagram and a user named "Carito" editing the slide. The presentation is part of a course titled "Psychology" under the category "Cognitive Psychology".



Two plug-ins integrating collaborative documents to Moodle...



Plug-in 1: *mod_collabora*

Activity module providing a document editor for real-time collaboration.

Plug-in 2:
assignsubmission_collabora

Use live document collaboration within assignments, powered by Collabora Online



CODE-Install and Test

CODE is a continuously updated, rolling release where we try out our latest feature work. So it allows you to work with the latest and greatest features in online collaboration earlier than the supported version Collabora Online. Of course, we love to hear about your experiences. Please leave your feedback on CODE in the [community forum](#) or report any possible issues on [GitHub](#).

Find details on the latest update in the [release notes](#).

Getting Collabora Online Development Edition set up

Get it at the Univention App Center

The easiest way to install CODE for a quick tryout is to download it as a [virtual appliance from the Univention App Center](#). This appliance contains the Collabora Online Development Edition, and the additional software you need to get you up and running in minutes. You can choose between two types of integration, **CODE + Nextcloud** or **CODE + ownCloud**. Each appliance is available in four formats: **KVM**, **VirtualBox**, **VMware Workstation** and **VMware ESXi**.

Grab CODE docker image from Docker Hub

The collabora/code Docker image can be installed to any x86-64 or arm64 host (e.g. on Linux and Windows 10), and it is fully configurable. For more information about setup and configuration for deployment, please read the [CODE Docker page](#). If you want to try it out quickly, you can set up CODE docker image with file sharing integration in less than 5 minutes in a very basic way, following these instructions: [quick tryout with ownCloud](#) or [quick tryout with Nextcloud](#).

Packages for Linux

As an alternative to Docker image, Collabora provide native Linux packages for selected Linux distributions. If you have Debian 9, Debian 10, Ubuntu 16.04, Ubuntu 18.04, Ubuntu 20.04, CentOS 7, CentOS 8, SLE 15.x, openSUSE Leap 15.x or ARM64 – Ubuntu 18.04, please read the [CODE Linux packages page](#).

Source code ... get involved

Grab the source and get involved with [CODE Development](#).

Easy to install



Dashboard



Site home



Calendar



Private files



Content bank



Site administration

Collabora Moodle

[Dashboard](#) / [Site administration](#) / [Plugins](#) / [Activity modules](#) / [Collaborative document](#)

Blocks editing on

Collaborative document

Collabora URL Default: Empty
mod_collabora | url

Default format Default: Wordprocessor document
mod_collabora | defaultformat

Default display Default: Current tab
mod_collabora | defaultdisplay

Default display Default: Yes
name
mod_collabora | defaultdisplayname

Default display Default: Yes
description
mod_collabora | defaultdisplaydescription

[Save changes](#)

Admin bookmarks

[Bookmark this page](#)

**Easy to configure:
one mandatory setting.**



Thank you for the work:

The source code is available on GitHub

https://github.com/learnweb/moodle-mod_collabora

https://github.com/learnweb/moodle-assignsubmission_collabora

The heroic team of visionaries:

Michael Wuttke of the University of Applied Sciences Berlin,

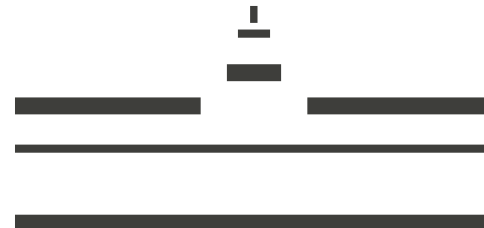
Jan Dageförde of University of Münster,

Davo Smith from Synergy Learning and

Andreas Grabs from Grabs EDV-Beratung.

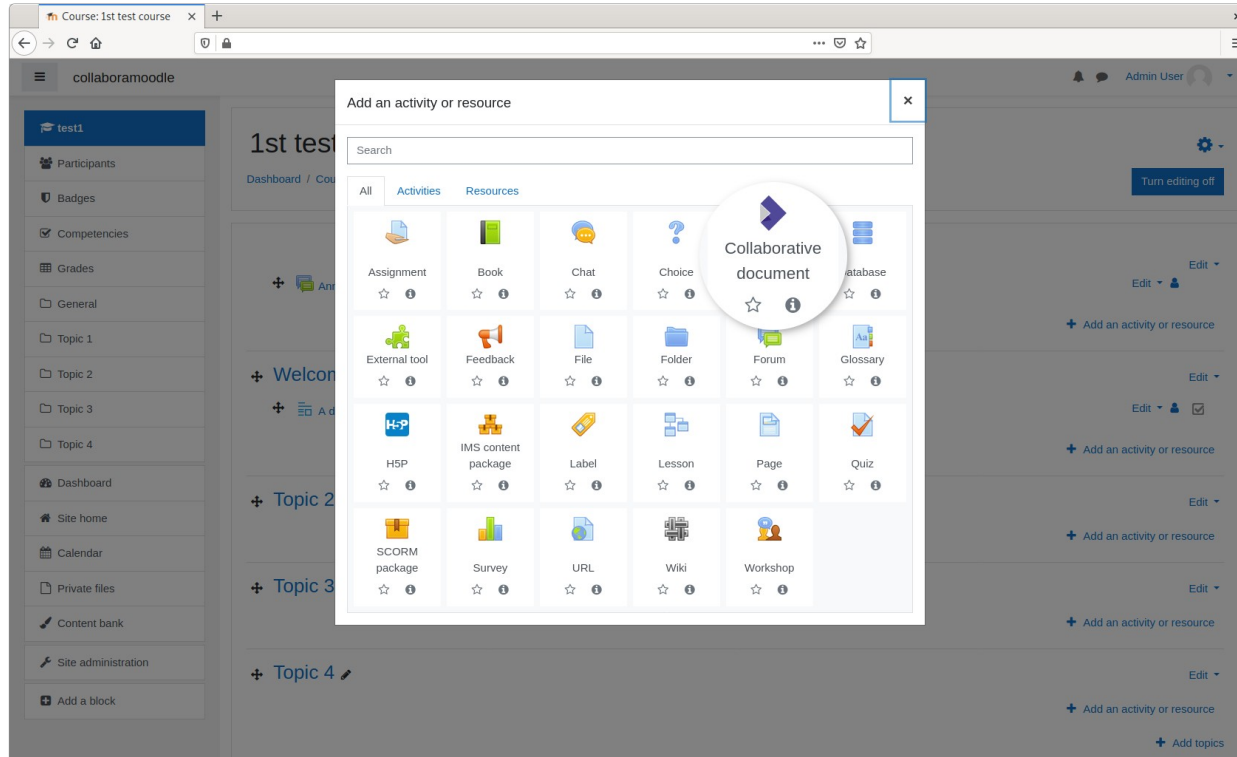


BEUTH HOCHSCHULE FÜR TECHNIK BERLIN
University of Applied Sciences



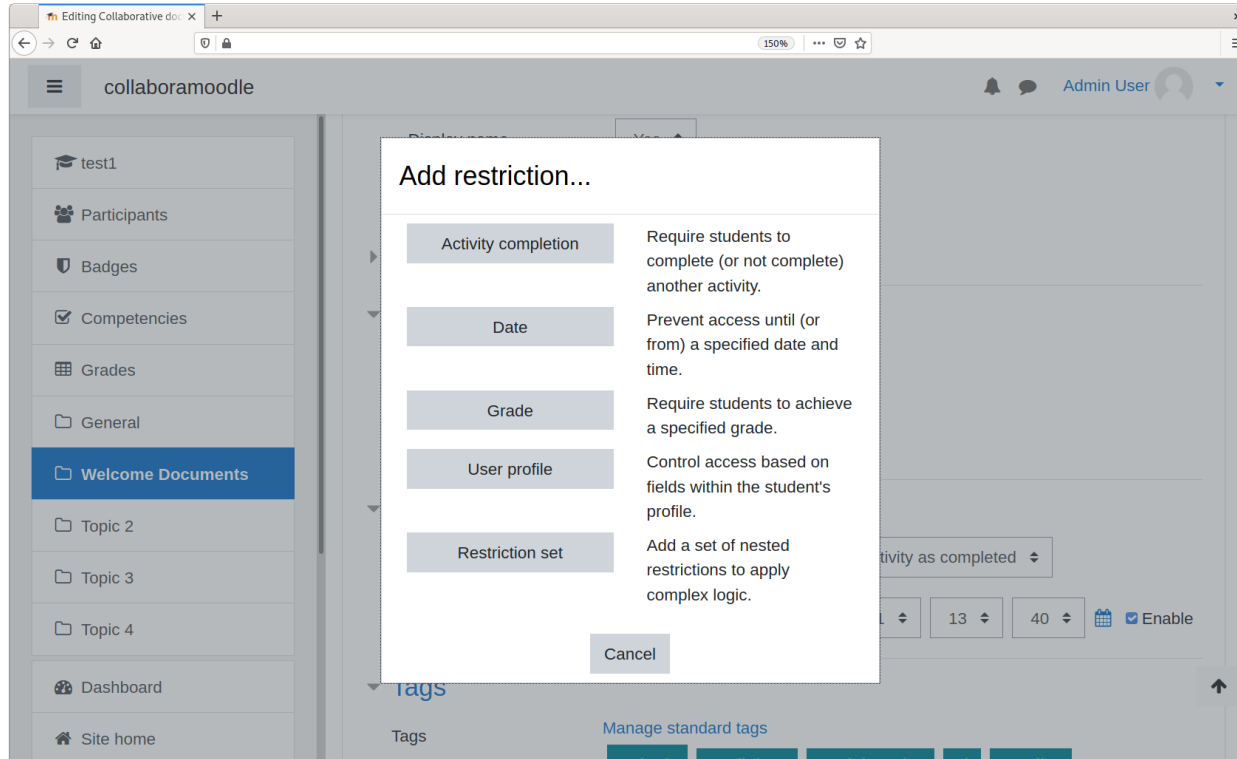
WWU
MÜNSTER

mod_collabora: Add collaborative document as activity...



Add collaborative documents as easy as you would add any other activity to your course

mod_collabora: Add restrictions to collaborative documents



Restrictions for activity completion, date, grades or fields of the students profile can be added to collaborative documents

mod_collabora: Locking collaborative documents

The screenshot displays the Collabora Online web interface. On the left is a sidebar with navigation options like PSYC, Participants, Badges, Competencies, Grades, General, and Cognitive Psychology. The main area shows a document titled 'Psychology' with a breadcrumb trail: Dashboard / My courses / PSYC / Cognitive Psychology / Description and debate. A callout box with a blue lock icon and the text 'Document currently unlocked, click here to lock it and prevent editing' points to a small lock icon in the top-left corner of the document editor. The editor itself shows a document titled 'Cognitive psychology' with text from Wikipedia. The right sidebar contains formatting tools for Style, Character, Paragraph, and Spacing. The bottom status bar indicates 'Page 1 of 2', '464 words, 3,123 characters', and 'English (UK)'.

Collaborative documents can also be locked by admins & teachers to prevent editing.

assignsubmission_collabora: Adding collaborative documents to assignments

The screenshot shows the 'Editing Assignment' page in Moodle. The 'Submission types' section is expanded, showing the 'Collaborative submissions' checkbox checked. The 'Format (Collabora)' dropdown is set to 'Wordprocessor document'. A modal window titled 'Accepted file types' is open, showing a list of file types with checkboxes. The 'Document files' checkbox is checked, and the 'Presentation files' and 'Spreadsheet files' checkboxes are also checked. The 'Save changes' button is highlighted.

Availability

Allow submissions from: 8 April 2021 00:00 ☒ Enable

Due date: 15 April 2021 00:00 ☒ Enable

Cut-off date: 8 April 2021 20:35 ☐ Enable

Remind me to grade by: 22 April 2021 00:00 ☒ Enable

☒ Always show description

Submission types

Submission types: ☒ Collaborative submissions ☒ File submissions ☐ Online text

Format (Collabora): Wordprocessor document

Width (Collabora) (0 for automatic): 0

Height (Collabora) (0 for automatic): 0

Maximum number of uploaded files: 20

Maximum submission size: Site upload limit (50MB)

Accepted file types: Choose No selection

Feedback types

Feedback types: ☒ Feedback comments ☒ Annotate PDF ☐ Offline grading worksheet ☐ Feedback files

Accepted file types

☐ Audio files .aac .aif .aiff .aifc .au .flac .m3u .mp3 .m4a .oga .ogg .ra .ram .rm .wav .wma [Expand](#)

☐ Audio files natively supported by browsers .aac .flac .mp3 .m4a .oga .ogg .wav [Expand](#)

☐ Audio files used on the web .aac .flac .mp3 .m4a .oga .ogg .ra .wav [Expand](#)

☒ Document files .doc .docx .epub .gdoc .odt .ott .oth .pdf .rtf [Expand](#)

☐ HTML track files .vtt [Expand](#)

☐ Image files .ai .bmp .gdraw .gif .ico .jpe .jpeg .jpg .pct .pic .png .svg .svgz .tif .tiff [Expand](#)

☐ Image files to be optimised, such as badges .gif .jpe .jpeg .jpg .png [Expand](#)

☐ Image files used on the web .gif .jpe .jpeg .jpg .png .svg .svgz [Expand](#)

☒ Presentation files .gslides .odp .otp .pps .ppt .pptx .ppsm .potx .potm .ppam .ppsx .ppsm .pub .xsl .xslt [Expand](#)

☒ Spreadsheet files .csv .gsheet .ods .ots .xls .xlsx .xlsm [Expand](#)

[Save changes](#) [Cancel](#)

Enable submissions of collaborative documents in assignments.

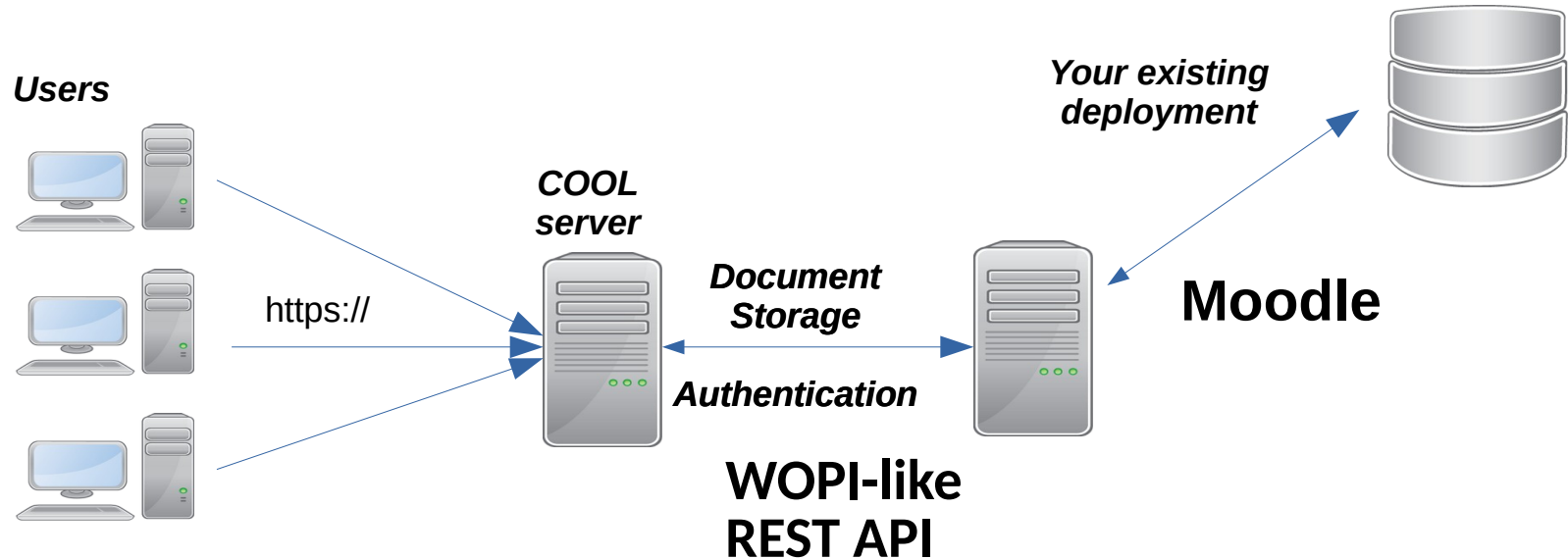
Define accepted file types and much more.



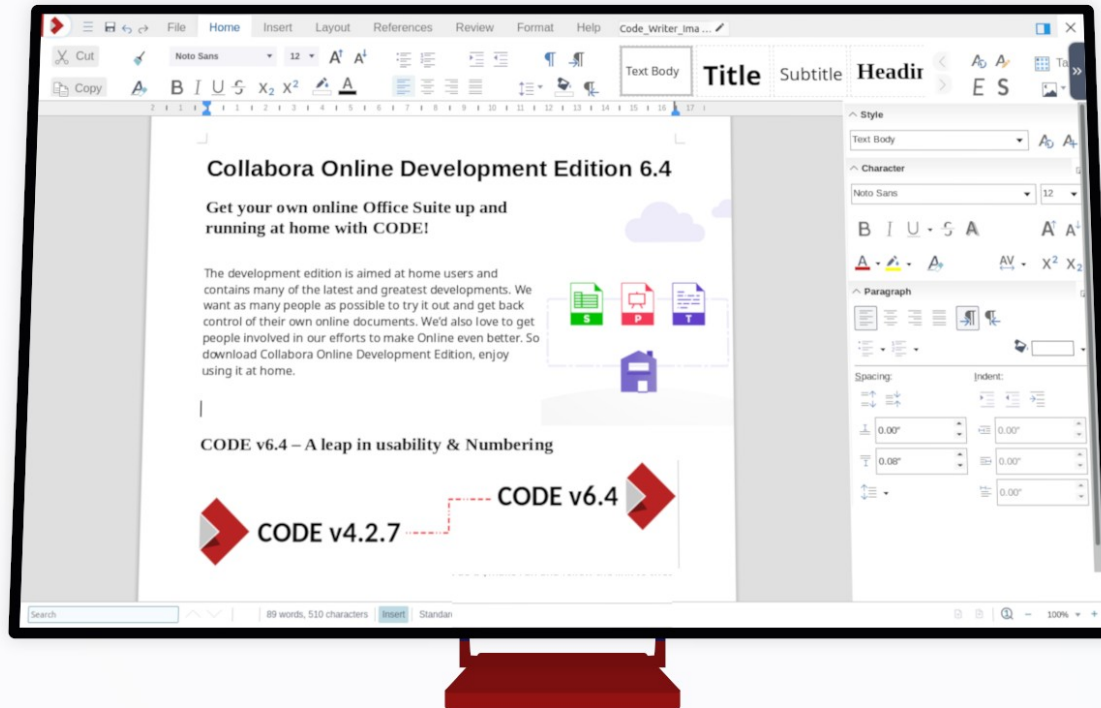
COOL: a state-less drop-in ~micro-service

Document data is loaded / stored directly back to Moodle

Authentication is managed by Moodle; trivial to install

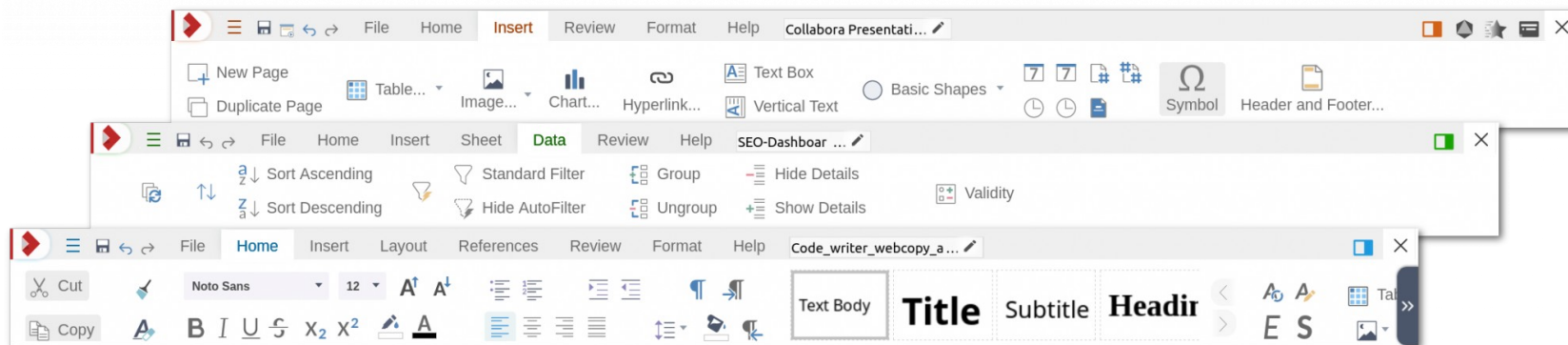


Collabora Online 6.4.x





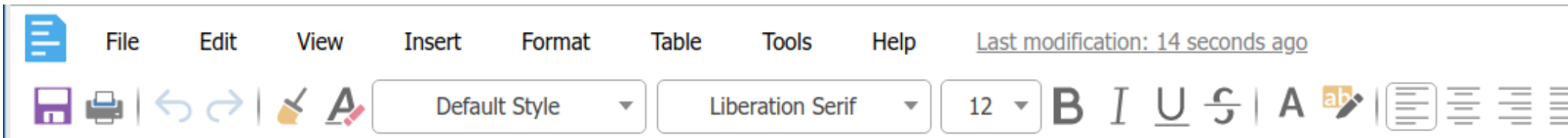
Eclectic Notebookbar UX choices: to taste



Can collapse to just a menu ...



Or just menu/toolbar



PDF Search, Collaboration & Annotation



File View Insert Help CollaboraOnline_Presentatio ...

Local Image...
Image...
Set Background Image...
Comment
Chart...
Hyperlink...
Special Character...
HeaderAndFooter

Collabora is the Creator of LibreOffice online

Collabora is the Creator of LibreOffice Online

Online commits
Collabora
94%

Collabora Online
+ Cloud and Collaborative editing
Collabora Online is a web-based office suite that allows you to create, edit and share documents in real-time. It is designed to be used on any device, from desktop to mobile, and can be integrated with your existing workflow.

More mobile wins: the touch online handles

Full Feature - the things the feature matrix hides

Online commits

By affiliation (last year)

Collabora

3218
97%

5	Others
15	QIB
21	1&1
28	Volunteers

Marc
Wed, Aug 26, 2020

You can now add annotations to PDF Files in Collabora Online via the Comment function

col

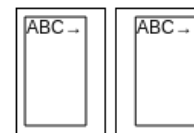
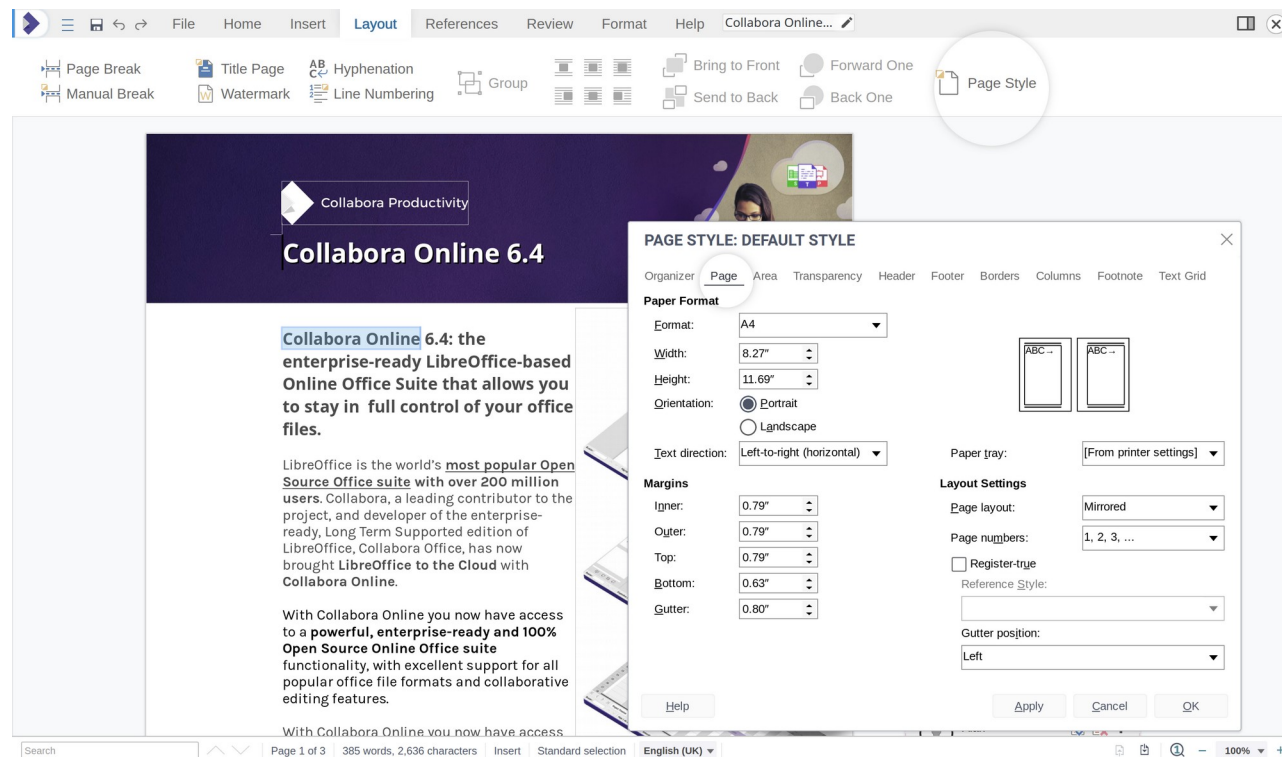
2021

Search

70%



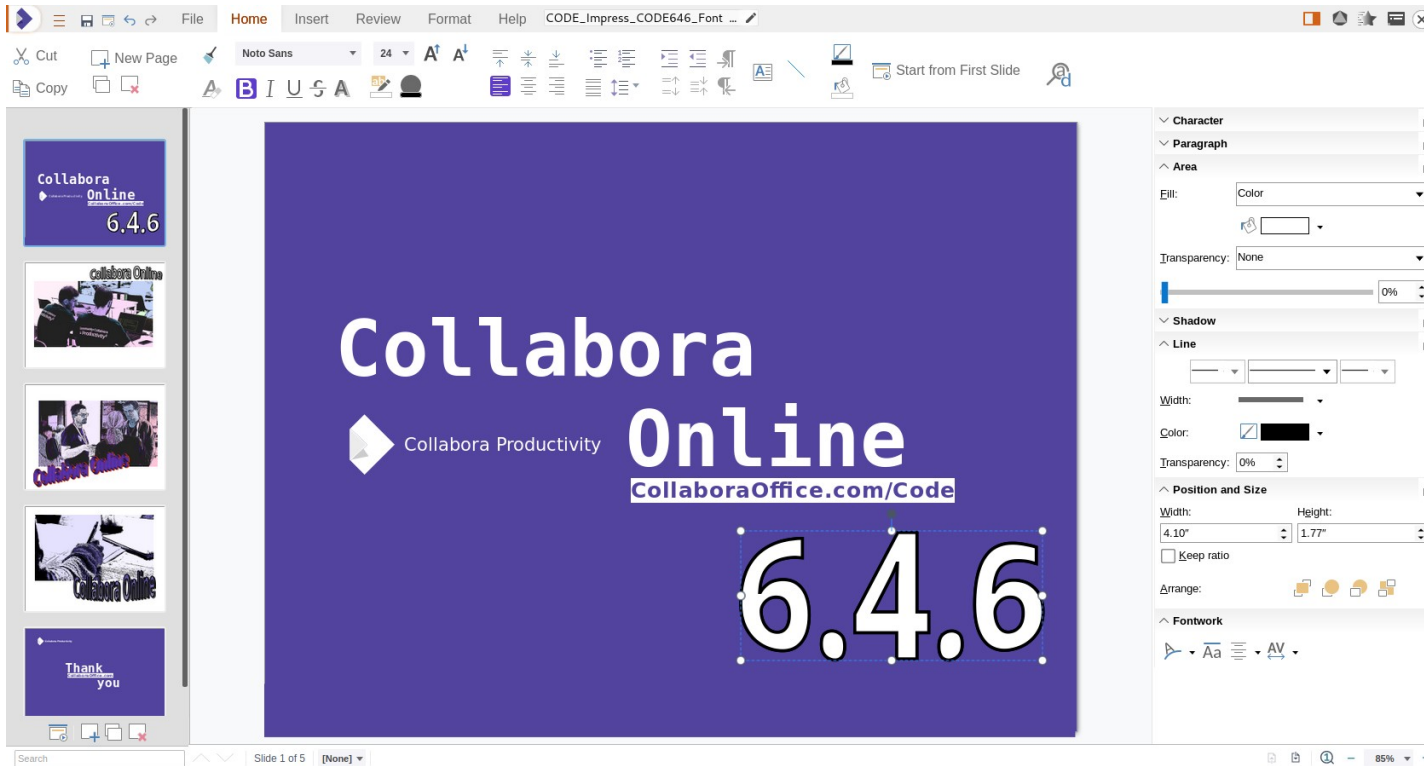
Writer: Gutter Margins



Gutter Margins:
Explicit specification
of margin types for
printed publications



Writer, Calc, Impress: Fontwork (graphical text art)



Fontwork:
Add graphical text art
to text documents,
presentations or
spreadsheets



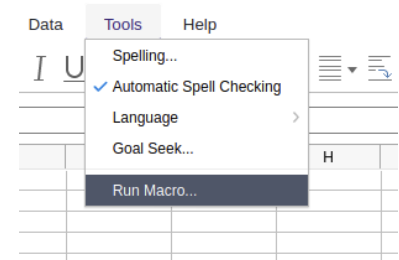
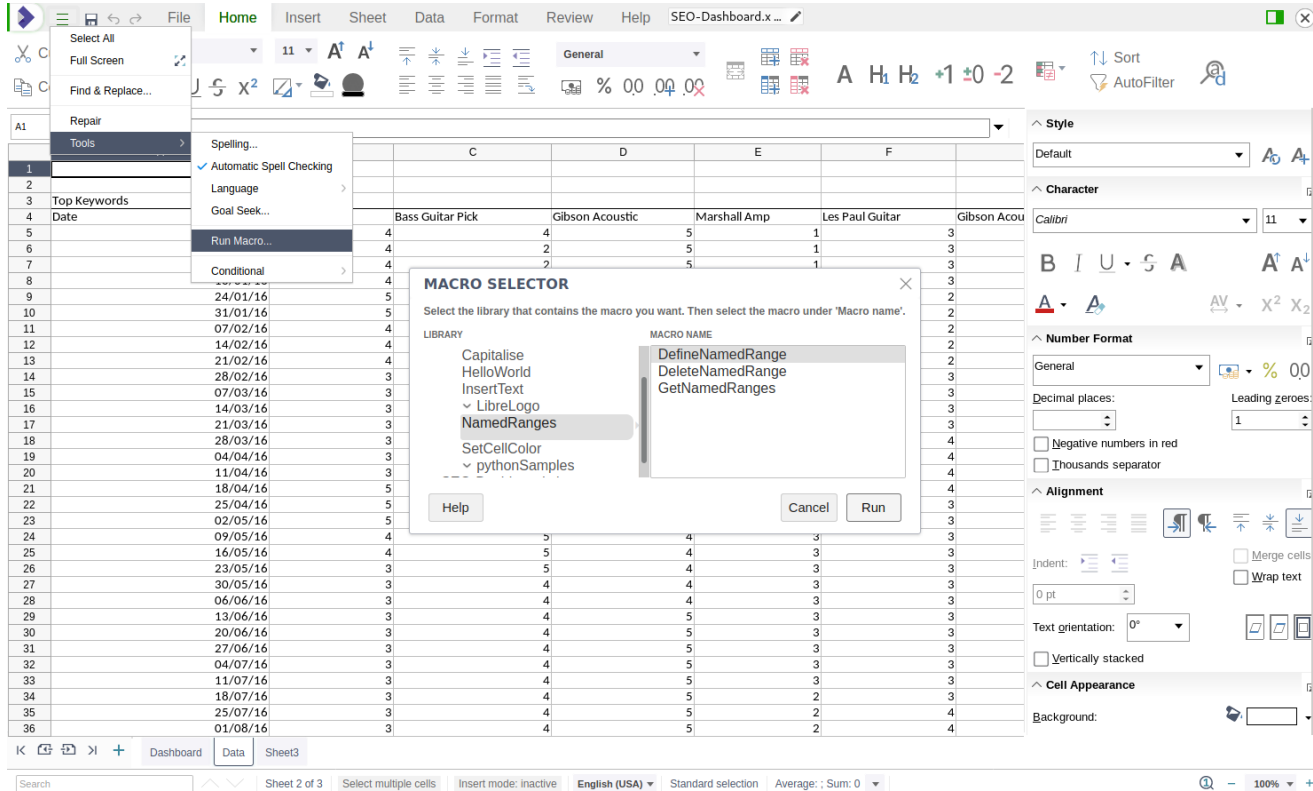
Calc: Freeze Panes

The screenshot shows the LibreOffice Calc application window. The menu bar includes File, Home, Insert, Sheet, Data, Format, Review, and Help. The toolbar contains various icons for file operations and editing. The spreadsheet area displays a table with columns labeled A through AJ and rows numbered 1 through 53. A large, semi-transparent text overlay reads "Answers to the Experiences in Close Relationships Scale". The sidebar on the right contains several panels: Style, Character, Number Format, Alignment, and Cell Appearance. The Status bar at the bottom shows "Sheet 1 of 1", "Select multiple cells", "Insert mode: inactive", "English (USA)", "Standard selection", and "Average: 3; Sum: 3".

Freeze columns or rows to navigate more easily through large spreadsheets



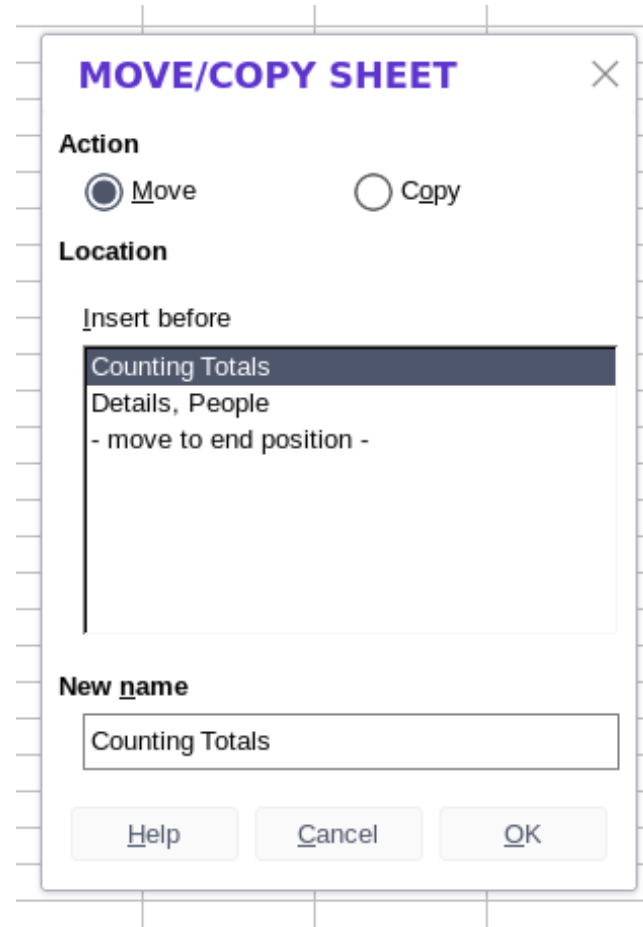
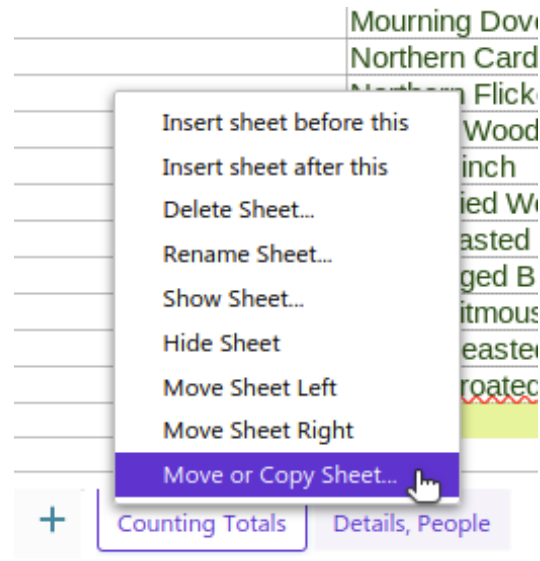
Calc: Run Macros



Macros can be enabled online (disabled by default). Once enabled, the administrator can decide which security level should be used for the macro execution.



Calc: Improved sheet movement:





Calc: customize & create Pivot Tables

SELECT SOURCE ✕

☒ Current selection

☐ Named range:

Help

PIVOT TABLE LAYOUT ✕

FILTERS:

COLUMN FIELDS:

AVAILABLE FIELDS:
Country
Size
Orchards count
Apple & Pear Trees
Peach & Apricot Trees
Olive Trees

ROW FIELDS:
DATA FIELDS:

DRAG THE ITEMS INTO THE DESIRED POSITION

> Options

> Source and Destination

Help

Cancel

OK

PIVOT TABLE LAYOUT ✕

FILTERS:

COLUMN FIELDS:

AVAILABLE FIELDS:
Country
Size
Orchards count
Apple & Pear Trees
Peach & Apricot Trees
Olive Trees

ROW FIELDS:
DATA FIELDS:

DRAG THE ITEMS INTO THE DESIRED POSITION

> Options

> Source and Destination

SOURCE

☐ Named range

☒ Selection

DESTINATION

☐ New sheet

☐ Named range

☒ Selection

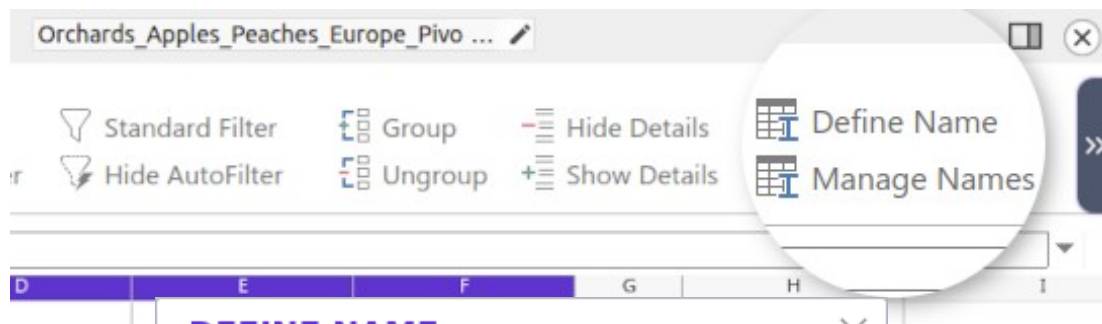
Help

Cancel

OK




Calc: define & manage range names & print ranges



DEFINE NAME

DEFINE THE NAME AND RANGE OR FORMULA EXPRESSION.

NAME:

RANGE OR FORMULA EXPRESSION:
 


SCOPE:

> Range Options

MANAGE NAMES

Name	Range or formula expression	Scope
Apples	'Sorted Data'.\$E\$4:\$E\$19	Document (Global)
Orchards	'Sorted Data'.\$B\$39	Document (Global)
Peaches	'Sorted Data'.\$F\$4:\$F\$22	Document (Global)

NAME:

RANGE OR FORMULA EXPRESSION:
 

SCOPE:

> Range Options

Calc: Statistical tools for data analysis

File Home Insert Sheet Data Review Help Orchards_Apples_Peaches_Europe_PivotTable (...

Refresh Pivot Table Sort Ascending AutoFilter Standard Filter Group Hide Details Define Name
Delete Pivot Table Sort Descending Advanced Filter Hide AutoFilter Ungroup Show Details Manage Names Validity Statistics

B3:G75 $fx \Sigma =$

	A	B	C	D	E	F	G	H	I	J
1										
2									Size	- all -
3		Country	Size	Orchards count	Apple & Pear Trees	Peach & Apricot Tree	Olive Trees		Data	
4		Austria	S	4,518.19	767.46	71.63			Country	Som - Apple & Pear
5		Austria	M	2,344.80	3,837.32	214.90				Som - Peach & Apricot Trees
6		Austria	L	2,655.50	3,069.85	429.80				Som - Olive Trees
7		Belgium	S	2,208.49	1,736.58	838.69			Austria	
8		Belgium	M	9,587.01	2,315.44				Belgium	
9		Belgium	L	2,934.50	1,736.58					
10		Bulgaria	S	6,918.00	495.80					
11		Bulgaria	M	4,518.49	991.60					
12		Bulgaria	L	3,500.76	3,470.59					
13		Croatia	S	14,518.60	891.82					
14		Croatia	M	6,318.49	2,229.54					
15		Croatia	L	2,354.64	1,337.72					
16		Cyprus	S	11,007.59	75.35					
17		Cyprus	M	1,518.49	113.03					
18		Cyprus	L	1,550.55	188.38					
19		Czechia	S	4,578.88	1,563.72					
20		Czechia	M	3,955.49	4,691.16					
21		Czechia	L	1,306.54	1,563.72					
22		Denmark	S	918.92	125.50					
23		Denmark	M	500.65	376.49					
24		Denmark	L	207.95	752.99					
25		France	S	39,522.80	11,489.49					
26		France	M	31,580.03	22,978.98					
27		France	L	14,074.47	3,829.83					
28		Germany	S	9,901.44	8,478.29					
29		Germany	M	15,698.11	14,130.48					
30		Germany	L	10,518.29	5,652.19					
31		Greece	S	549,528.32	2,813.21					
32		Greece	M	132,518.22	2,813.21	14,635.12	201,203.81			
33		Greece	L	79,220.36	3,750.94	36,587.79	402,407.62			
34		Hungary	S	23,221.55	5,008.80					
35		Hungary	M	5,539.26	5,008.80					
36		Hungary	L	7,530.67	15,026.41					
37		Italy	S	873,425.28	11,161.98	59.76	107,083.35			
38		Italy	M	294,518.49	16,742.97	59.76	535,416.77			
39										

ANALYSIS OF VARIANCE (ANOVA)

DATA

INPUT RANGE: '\$Sorted Data'!\$B\$3:\$G\$75

RESULTS TO: '\$I\$34

TYPE

☒ Single factor ☐ Two factor

GROUPED BY

☒ Columns ☐ Rows

PARAMETERS

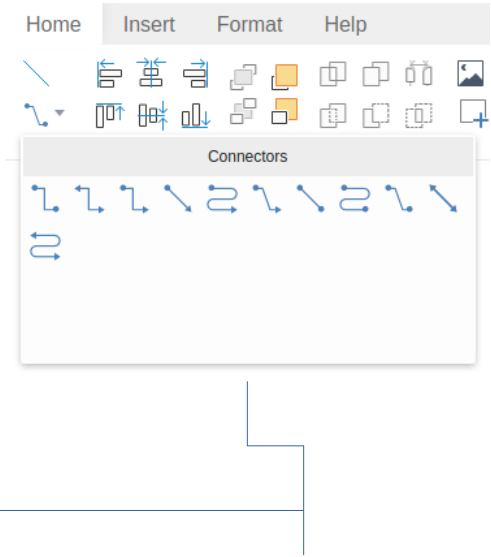
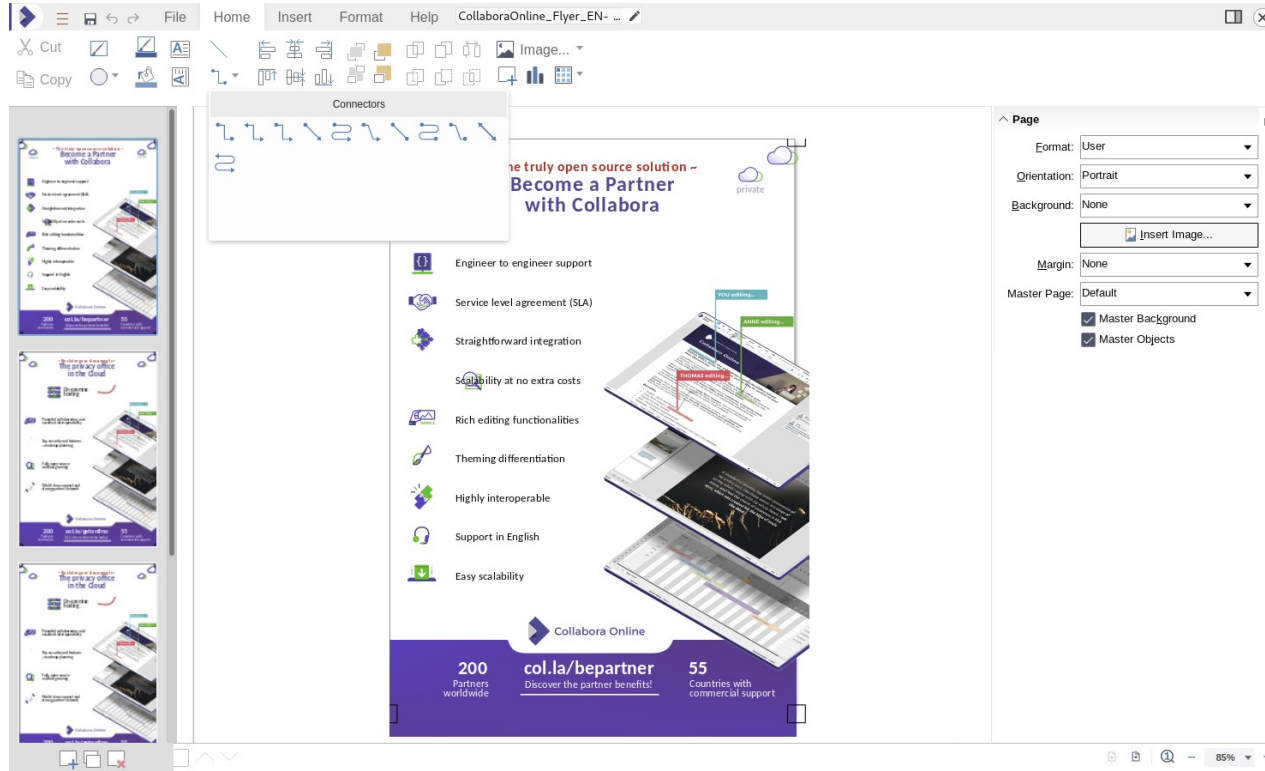
ALPHA: 0.05

ROWS PER SAMPLE: 1

Help Cancel OK

Sampling
Descriptive Statistics
Analysis of Variance (ANOVA)
Correlation
Covariance
Exponential Smoothing
Moving Average
Regression
Paired t-test
F-test
Z-test
Chi-square Test

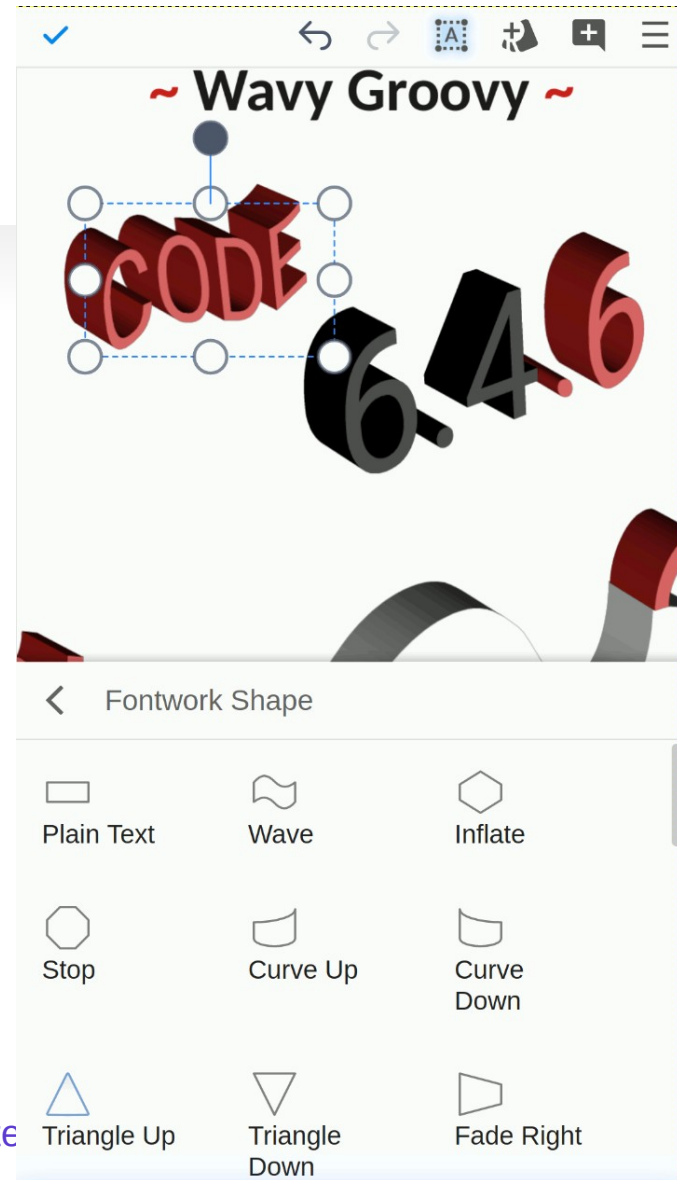
New module: Draw



Draw:
Flowcharts, technical
drawings, posters or
brochures... create vector
graphic drawings online!

Bringing Draw to Online: Fontwork

Wavy & complex 3D text:





VBA / StarBasic – just an option (!)

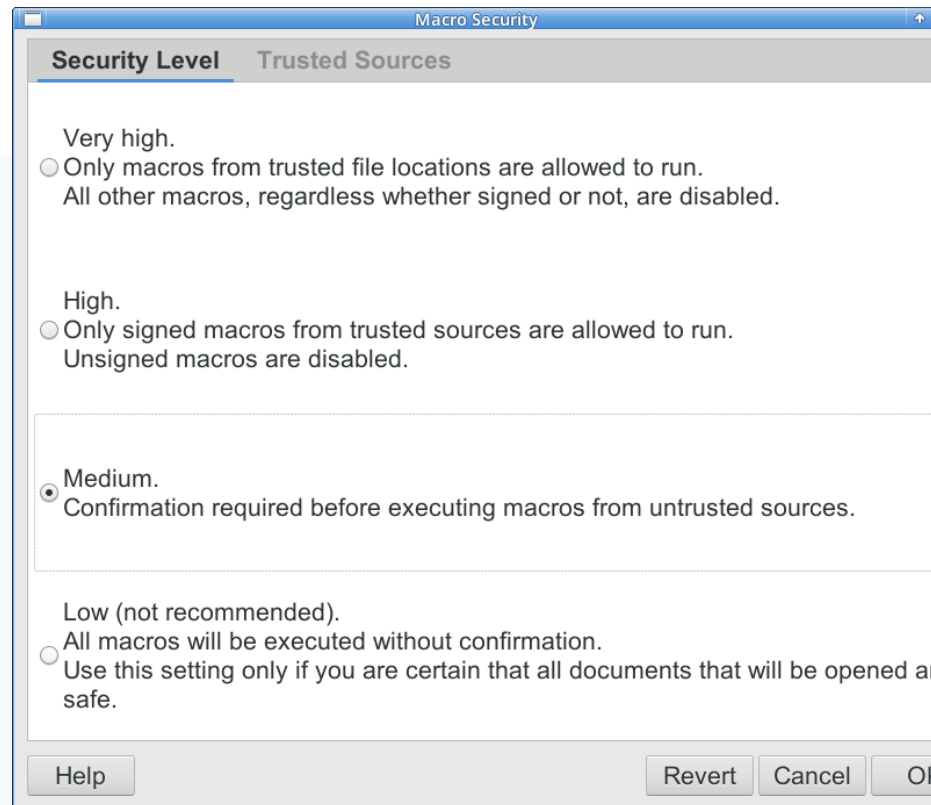
Thoughts:

- Defaults → hard disabled by default (assumed)
- Sysadmin / distributor can configure trusted macros, or allow for the user



Connecting...

100%



Coming in 6.4.x in a week or two.



Crisper rendering ... not just crispness

Better zoom handling

- With some devices, non-100% zoom, poor 'crispness'
 - Browser is interpolating; on Linux - Chrome → 97.7% device scale (1000/1024)
- Pure Canvas (still tile) rendering - at pixel-grid scale
 - Dropping 'leaflet'; major code & dependency simplifications / shrink.
- Split panes on mobile / tablet devices
- Re-written in TypeScript → easier to maintain & scale

Enabling more future smarts:

- Rendering calc grid, page outlines, re-ordering pages etc. on the client



The pieces you can't see

Performance

- 20%+ faster rendering time
- Faster interactive editing of cells
- Bind-mounting of document jails (instead of hard-linking)
- Improved watermark caching
- Slide content pre-fetching
- On-demand slide thumbnail fetching.
- Significant PDF rendering improvements
- Significant thumbnail / download speedups

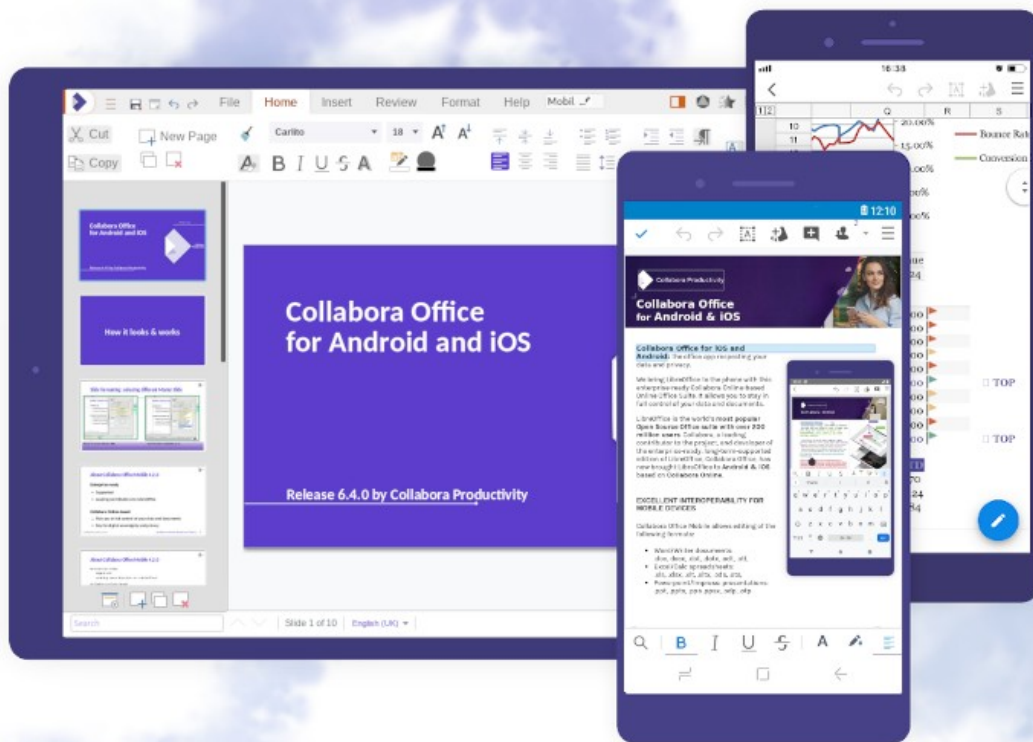
Misc

- iOS multi-document support
- Substantial cypress automated test coverage.
- Cluster debugging / warnings ... check matching ServerIds

And much much more ...

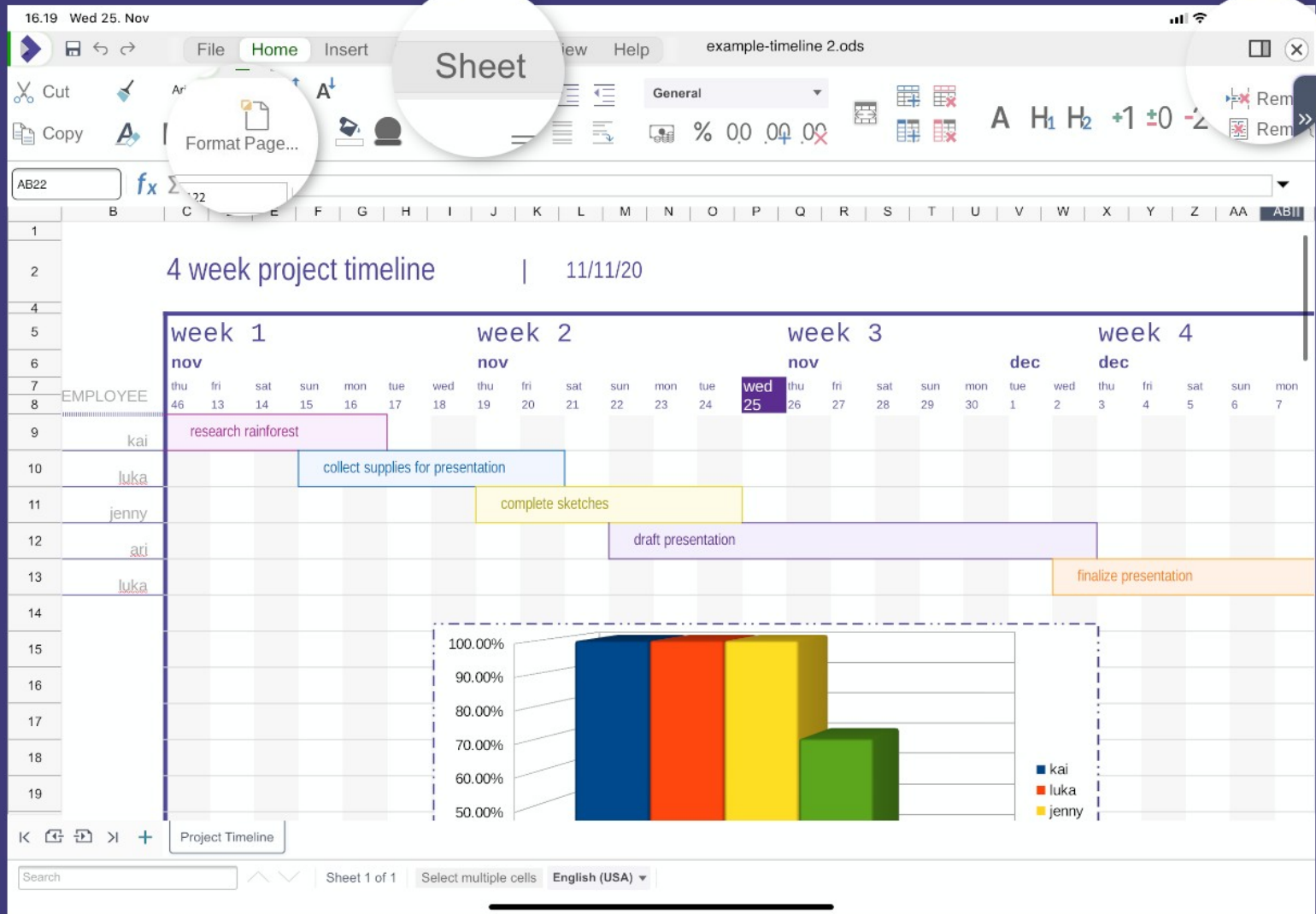
- 3600+ commits.
- Innumerable bug-fixes & improvements

Android, iOS & Chrome OS
bring your own device



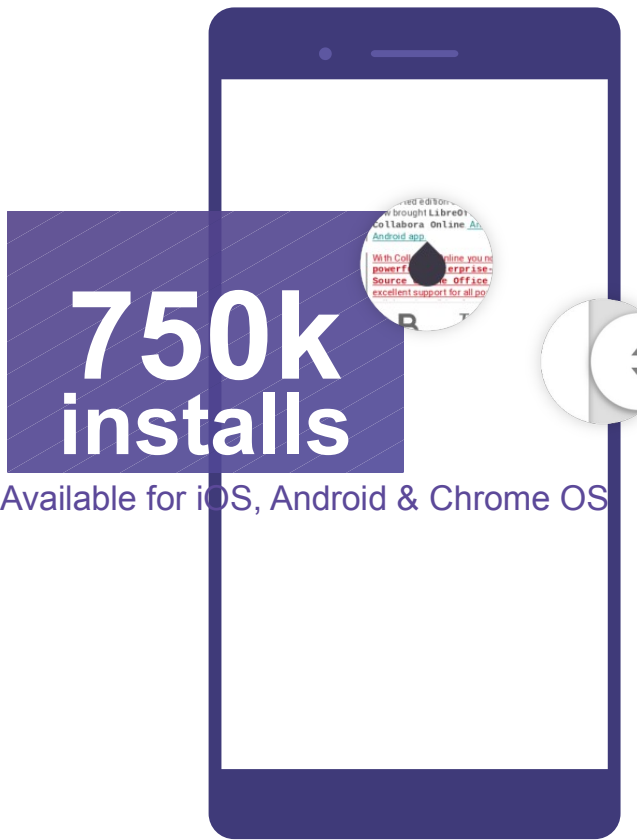
Collabora Office

6.4

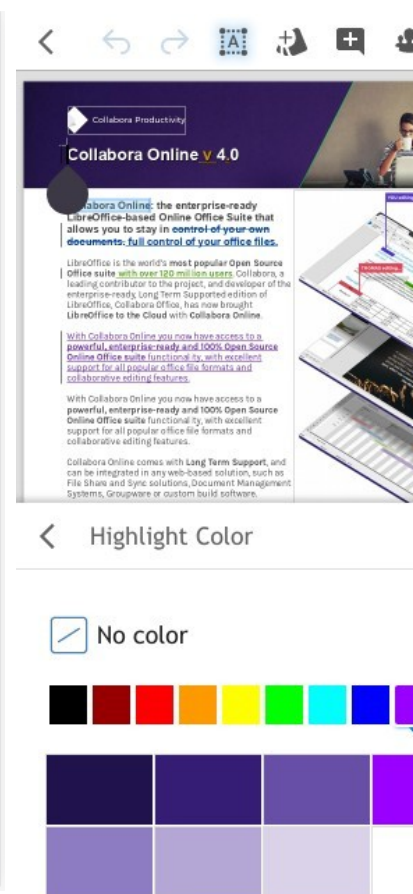
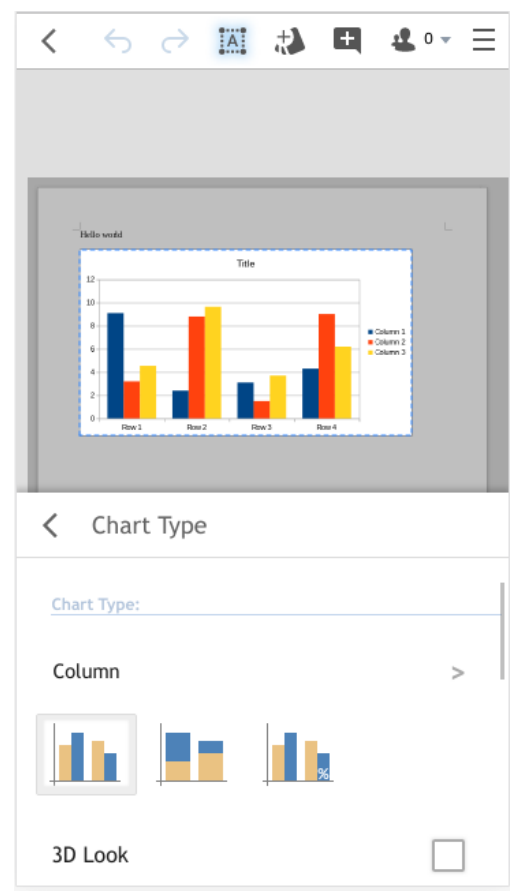
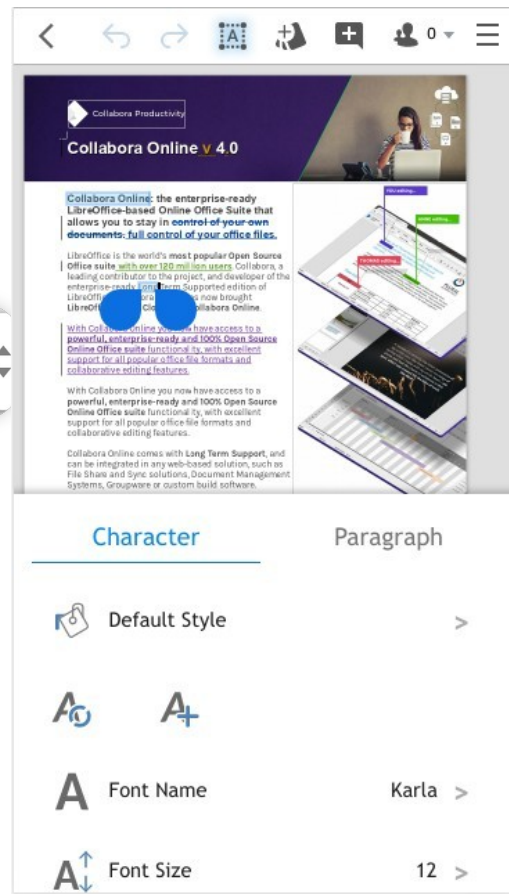




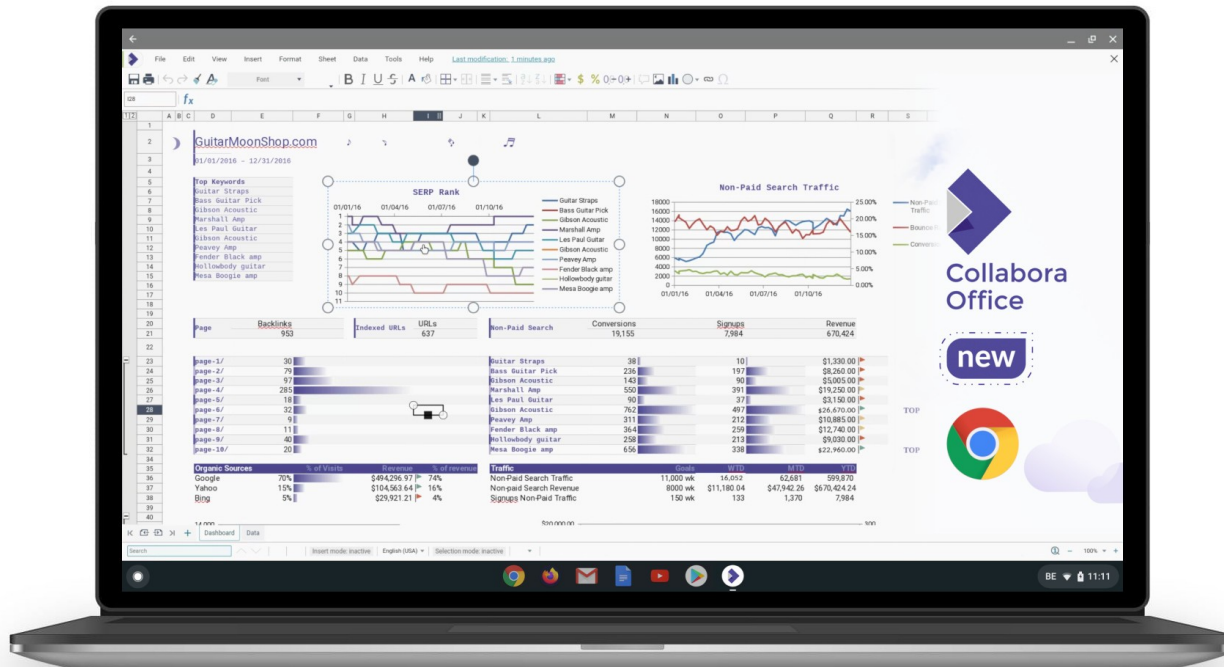
Re-use the online responsive UI for apps:



collaboraonline.com



ChromeBooks:



Get Involved ...



It's fun to get involved:

LibreOffice features:

<http://www.libreoffice.org/>

Code

<https://git.libreoffice.org/core>

Get involved:

- <https://www.libreoffice.org/community/get-involved/>
- C++, python, l10n and more
- <https://translations.documentfoundation.org/>

Collabora Online

<https://collaboraonline.github.io/>

Easy Hacks:

<https://github.com/CollaboraOnline/online>

- C++, Javascript, CSS, Design ...

<https://hosted.weblate.org/projects/collabora-online/>

Forum:

<https://forum.collaboraonline.com/>

Weekly dev. meetings

Making Open Source ROCK

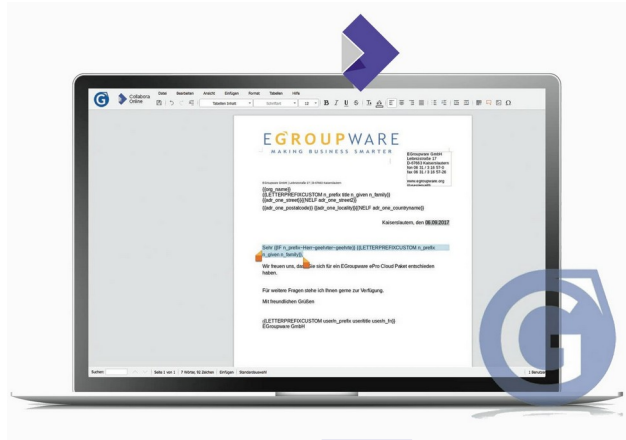




Checkout more related talks:

Egroupware - News in version 21.1 – next in this room ...
Stefan Unverricht

LibreOffice 7.1 – What's new & how can you help with 7.2
next door: Mike Saunders





Thank you!

By Michael Meeks

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CollaboraOffice.com/CODE

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Open Source, Open First

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