Collaborating with Collabora Online

How to re-use Collabora Online in your work or project

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"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



Some simple integrations

Converting my files to <XYZ> (sdk)

REST API: HTTP POST to /cool/convert-to/<format>&<lang=xx-XX>

- the format is e.g. png, pdf or txt
- Lang (optional) default format language, useful for **date type cells in spreadsheets.** Example: lang=fr-FR

Command line:

curl -k -F "data=@test.txt" https://localhost:9980/cool/convert-to/docx >
out.docx

HTML:

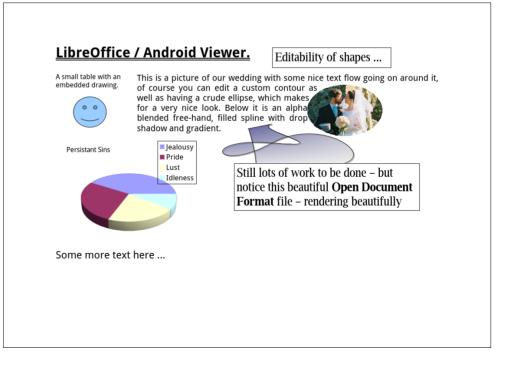
<form action="https://localhost:9980/cool/convert-to/docx" enctype="multipart/form-data" method="post"> File: <input type="file" name="data">
</r></ti><input type="submit" value="Convert to DOCX"></form>



Securely thumbnailing any files:

curl -k -F "data=@/tmp/foo-baa.docx"
https://localhost:9980/cool/convert-to/png > foo.png

Nice big image by default: ~1k pixels across in one dimension.





Integration samples (sdk)

Helpers for the WOPI-like integration:

Node JS:

- https://github.com/CollaboraOnline/collabora-online-sdk-examples/
 PHP
- https://github.com/CollaboraOnline/collabora-online-sdk-examples/ Python
- https://github.com/CollaboraOnline/collabora-online-sdk-examples/
 React JS:
- https://github.com/CollaboraOnline/collabora-online-sdk-examples/

C#

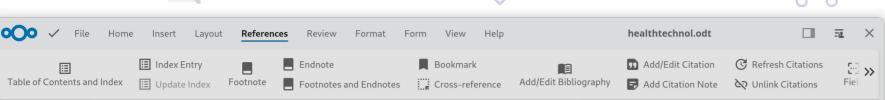
• https://github.com/CollaboraOnline/collabora-online-sdk-examples/



Zotero integration

Re-using their web-service / API





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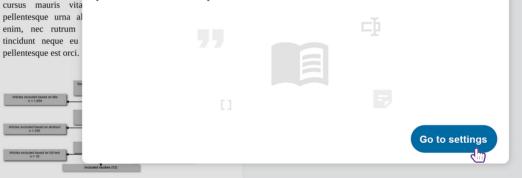
3 TEXT IN COLUMNS

his text is written in **two columns** over two pages, starts with an **initial letter**, and has a couple of images in the text (text is dynamically floating around them). Additionally we use automatic hyphenation! Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum consequat mi quis pretium semper. Proin luctus orci ac neque venenatis, quis commodo dolor posuere. Curabitur dignissim sapien quis cursus egestas. Donec blandit auctor arcu, nec pellentesque eros molestie eget. In consectetur aliquam hendrerit. Sed cursus mauris vitae ligula pellentesque, non pellentesque urna aliquet. Fusce placerat mauris enim, nec rutrum purus semper vel. Praesent tincidunt neque eu pellentesque pharetra. Fusce pellentesque est orci.

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Link your web library

Connect your Zotero's accountm no need for any additional software or fuss. Simply head over to your personal settings page and gain instant access to your whole web library.



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Allow users to make use of their existing library

Easy to connect through integrator



00 • •

Personal

- Personal info
- Security
- Notifications
- External storage
- Mobile & desktop
- < Sharing
- ★ Appearance and accessibility

Groupware https://www.zotero.org/settings/keys



Integration from Nextcloud into their user settings

Nextcloud Office

Select a template directory



Templates inside of this directory will be added to the template selector of Nextcloud Office.

Zotero

Enter Zotero API Key

Save

Q

To use Zotero specify your API key here. You can create your API key in your Zotero account API settings.



Per-user library key: cf. sdk

Extended WOPI-like properties:

UserPrivateInfo

JSON object that contains additional info about the user, but unlike the UserExtraInfo it is not shared among the views in collaborative editing sessions.

{ 'ZoteroAPIKey': '9GLmvmZ1K1qGAz9QWcdlyf6L' }

For example it can hold the ZoteroAPIKey which is the personal API key to Zotero Web API, for working with citation databases. When the integration provides a Zotero API key for the user, the functionality of handling Zotero databases gets enabled in Collabora Online's user interface.

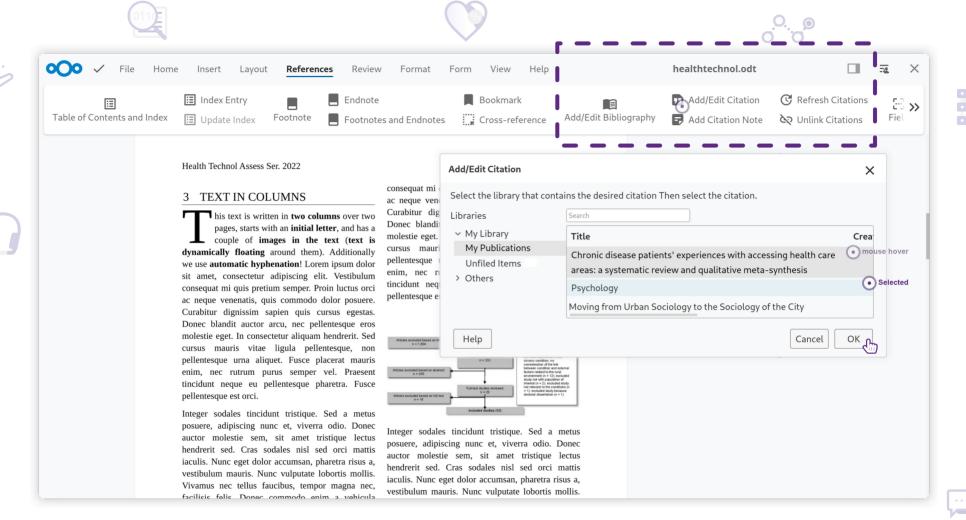


Checkout Zotero API documentation

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	3 TEX	> SubCol > Collection	٦	PROCHECK: a program to check the stereochemical quality of protein structures	R. A. Laskowski, M. W. MacArthur, D. S. Moss, J. M. Thornton	1993-04-0
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Browse your whole library, no need for any additional program installed on the user's side!

Adding citations from private or shared folders using only Collabora Online



Tabbed view \rightarrow familiar user interface

Actions, easy to identify and distinguish

Language / Grammar API

Thanks to LanguageTooler

By LanguageTooler

Language Tool

Save

r Copy

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🕀 English 🗸

Thanks to Adfinis for accelerating this work !

Daniel Naber's company:

- Focused on B2C & the web browser:
- LanguageTooler GmbH •
 - Potsdam.
- Taking on Grammerly •
- More info here •



LanguageTool is your intelligent wr	iting assistant for all common browsers an	nd word processors. Write or paste your text
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Simple Rest API

Keep Java isolated in it's own world:

https://languagetool.org/http-api/

/check + JSON ...

/languages

/words

etc.

defaul	t	Show/Hide List Operations Expand Operations
POST	/check	Check a text
GET	/languages	Get a list of supported languages.
GET	/words	List words in dictionaries
POST	/words/add	Add word to a dictionary
POST	/words/delete	Remove word from a dictionary
-	: /v2 , API VERSION: 1.1.2] nguagetool.org/http-api/#!/d	VALID {··}

coolwsd.xml - can enable it:

<languagetool desc="LanguageTool
Remote API settings for grammar
checking">

<enabled desc="Enable
LanguageTool Remote Grammar Checker"
type="bool" default="false"></enabled>

<user_name desc="LanguageTool
account username for premium usage."
type="string" default=""></user_name>



DeepL built-in translation ...

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

LibreOffice is the world's **most popular Open Source** Office suite with over 120 million users. Collabora, a leading contributor to the project, and developer of the enterprise-ready, Term Supported edition of LibreOffice, Collabora Office, has now brought LibreOffice to the Cloud with Collabora Online. Apple are great

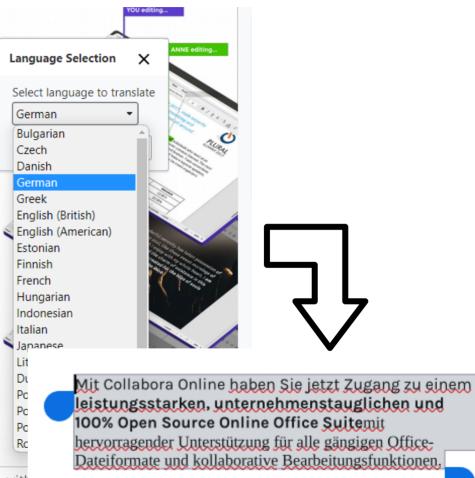
With Collabora Online you now have access to a **powerful, enterprise-ready and 100% Open Source Online Office suite** functionality, with excellent support for all popular office file formats and collaborative editing features.

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 can be integrated in any web-based solution, such as File Share and Sync solutions, Document Management Systems, Groupware or custom build software.

Collabora

Productivity





Save-As / Export integration

Advertising our abilities to save-as something else ...

Save-As as an option ...

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Save Save As See history	Print Download ▼ Repair Propert	ies
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Rich Text (.rtf)	File Edit View Insert	: Format Sheet Data Tools H [,]
Word Document (.docx)	Save (Ctrl + S)	
Word 2003 Document (.doc)	Save As > Share See revision history	ODF spreadsheet (.ods) Excel 2003 Spreadsheet (.xls) Excel Spreadsheet (.xlsx)
	Download as > : Properties Print (Ctrl + P)	D E F G
	Close document	SERP R



Integrating properly ...

We need a file picker:

- WOPI propreties:
 - EnableInsertRemoteImage=True
 - UserCanNotWriteRelative=False
- Trigger this with a PostMessage: {"MessageId":"UI_InsertGraphic", "Values": {}}

```
{"MessageId":"UI_SaveAs",
    "Values":{"format":"odt"}}
```

We get various PostMessages:

Action_InsertGraphic <url>

or Action_SaveAs

- Filename: <String>
- Notify: <boolean>

Creates copy of the document with given Filename.

Filename is the requested filename for the new file. Notify when present and set to true notifies the host when document is saved. See Action_Save_Resp for details.



Same hooks for new 'Export':

Collabora Productivity

PDF Options	×	EPUB Export
PDF Options General Initial View User Interface Lin Range All Pages: Selection Images Lossless compression JPEG compression 90 % 2 Reduce image resolution to: 300 DPI -	ks Security General Hybrid PDF (embed ODF file) Archive (PDF/A, ISO 19005) PDF/A version: PDF/A version: PDF/A-3b Universal Accessibility (PDF/UA) Tagged PDF (add document structure) Create PDF form Submit format: FDF Allow duplicate field names Structure Export outlines Export placeholders Comments as PDF annotations	General Version: EPUB 3.0 • Split method: Heading • Layout method: Reflowable • Metadata Identifier: Mcy919 Title: Test Author: Testbenutzer
Sign with watermark	 Export automatically inserted blank pages Use reference XObjects 	Language: de-DE Date: 2017-12-18T21:10:04
Help	Reset Cancel Export	Help Cancel OK

Remote & Font management

A key to better interop ?

Remote configuration (sdk)

Make ourselves more state-less:

coolwsd.xml - point to a config server:

```
<remote_config >
```

<remote_url desc="remote
server to which you will send
request to get remote config
in response" type="string"
>https://server_url_endpoint<
/remote_url>

</remote_config>



Can configure a useful sub-set of settings

Polled font settings

```
"kind": "fontconfiguration",
"server": "Some pretty name",
"fonts": [
```

},

},

ollabora

```
"uri": "https://somehost/path/f1.ttf"
```

```
"uri": "https://someotherhost/path/f2.ttf",
"stamp": "foo3"
```

```
"uri": "https://whatever/path/x42.ttf"
```

coolwsd.xml:

```
<remote_font_config>
<url desc="URL of optional JSON file that
lists fonts to be included in Online"
type="string"
>https://someserver/path/file.json</url>
</remote_font_config>
```

Polled every minute.

Very easy to make a D&D font mgmt UI

Funkiness in forkit / opening files & chrooting to make this work smoothly.

• thanks to Tor Lillqvist...

22

Gratuitous recent features:

Other things we've been up to ...

Jumbo Spreadsheets



 $+ \times$

We now support up to 16384 columns in spreadsheets

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Possibly the most annoying error dialog in the world now

One: Warning loading document foo.xlsx: The data could not be loaded completely because the maximum number of columns per sheet was exceeded.

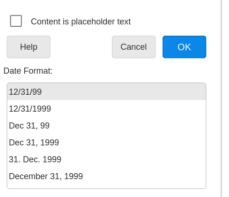
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Content Controls in Writer: Forms ...

- Rich Text
- Checkbox
- Dropdown
- Picture
- Date

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This feature was made possible by funding from NGI and the

European Union's Horizon 2020 research and innovation programme under grant agreement No 871498.

PDF form creation ...

Class beating PDF form export:

Collabora Productivitv

Improved form / a11y support

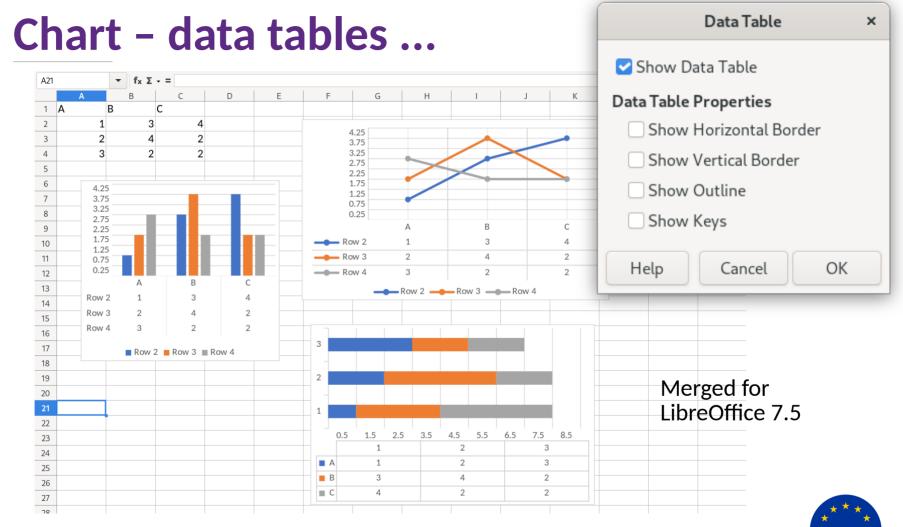
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Impress color theme

A key interoperability win

Collabora Productivitv

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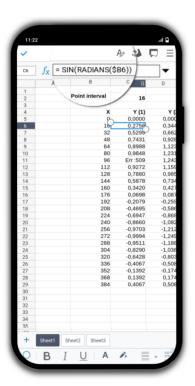
This feature was made possible by funding from NGI and the European Union's Horizon 2020 research and innovation programme under grant agreement No 871498.

Precisely anchor & reflow your boat (and other) images

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is no standard definition, so the term applies here to sailing vessels that have a cabin with amenities that accommodate overnight use. To be termed a "yacht", as opposed to a "boat", such a vessel is likely to be at least 33 feet (10 m) in length and have been judged to have good aesthetic qualities.[4] <u>Sailboats</u> that do not accommodate overnight use or are smaller than 30 feet (9.1 m) are not universally called yachts. Sailing yachts in excess of 130 feet (40 m) are generally considered to be <u>cellyaces.[5]</u> Sailing <u>yachts</u> are actively in sport and are among categories recognized by the governing body of sailing sports,	The history of sailing yachts begins in Europe to the boginning the son of <u>F</u> . James I of gland. Pleasure (Lation and Size)	sparency: 0% 0% 0 1.00 0 1
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The term, <i>yacht</i> , originates from the <u>Dutch</u> word <i>jacht</i> (pl. <i>jachten</i> , which means "hunt"), and originally referred to light,	of the 17th cfal catamaran. The first recorded yacht race Charlec ressels occurred in 1661, followed by the first open sailing competition in 1663 in English waters.[8]	



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Accessibility Check

Accessibility Check Helps to create documents according to the **PDF/UA Standard**

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Richer dialog functionality left & right

eg. SparkLine properties

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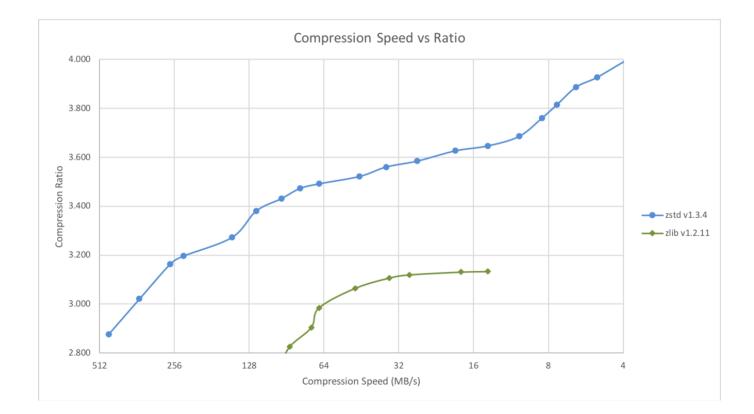
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Modified:	01/09/2021, 20:52:35			
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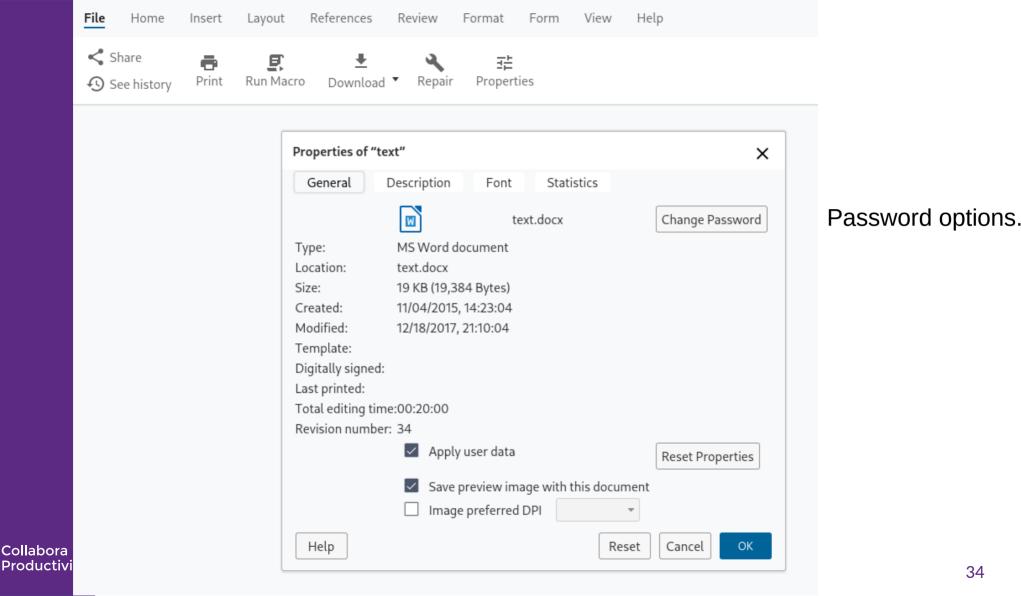
Faster (zstd) tile compression + \delta's

Thanks to Facebook for a better zlib.

~5x lower CPU load for tile compression.







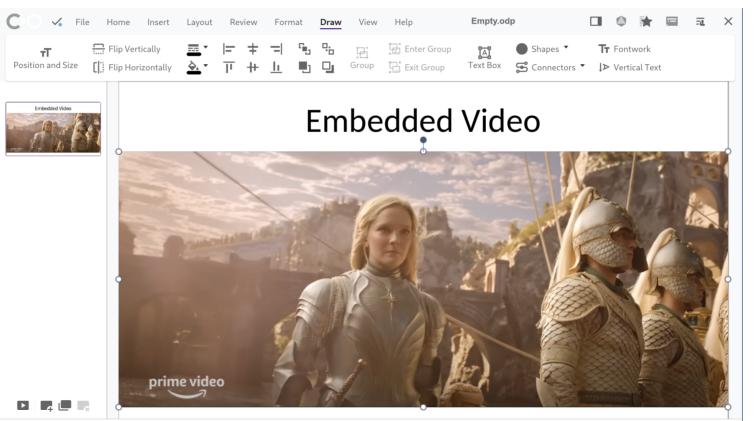
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Collabora Productivity

 \mathbf{b}

Online / embedded Video playback

Built on browser codec support:



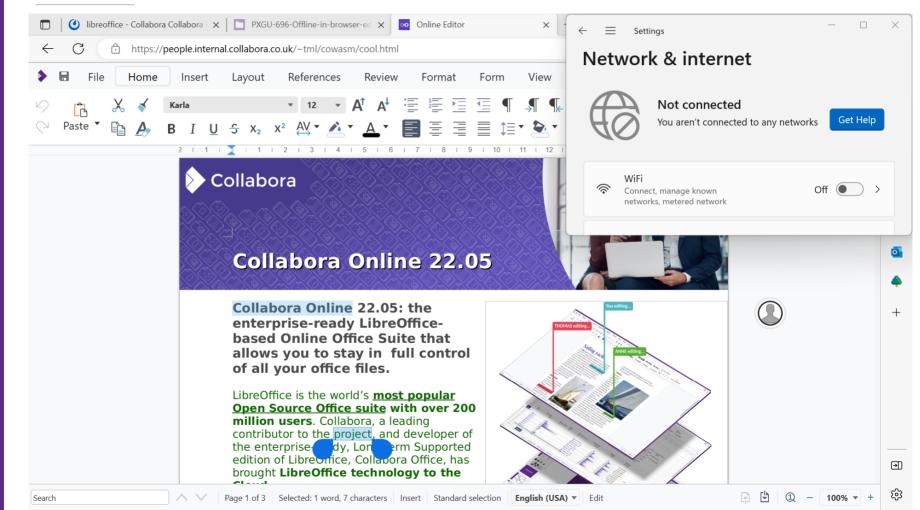


100%

WASM prototype

Proving the concept of off-line-ness ...

Working prototype: proves concept



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LibreOffice Hack-fest

- This Monday & Tuesday:
- Community Dinner tonight!



Business & Technology INCUBATOR

COOL Days 2023 + LibreOffice technology Hack-fest:

- March 28th & 29th
- Claire College



https://www.collaboraoffice.com/cool-days-2023/



https://wiki.documentfoundation.org/Events/2023/FOSDEM



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

Thank you!

By Michael Meeks



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