Integrations and Customisation

Pedro Silva
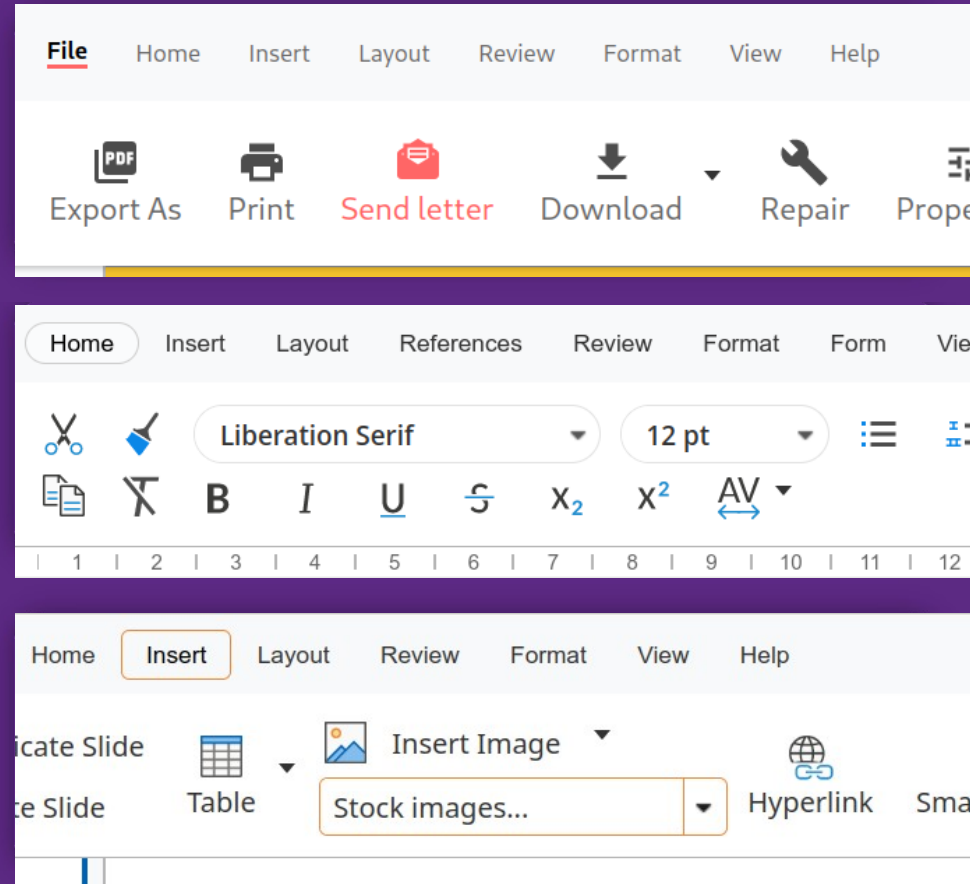
Major Opportunities Technical Manager
pedro.silva@collabora.com

Collabora Online

LibreOffice Technology

Technical Day
COOL days
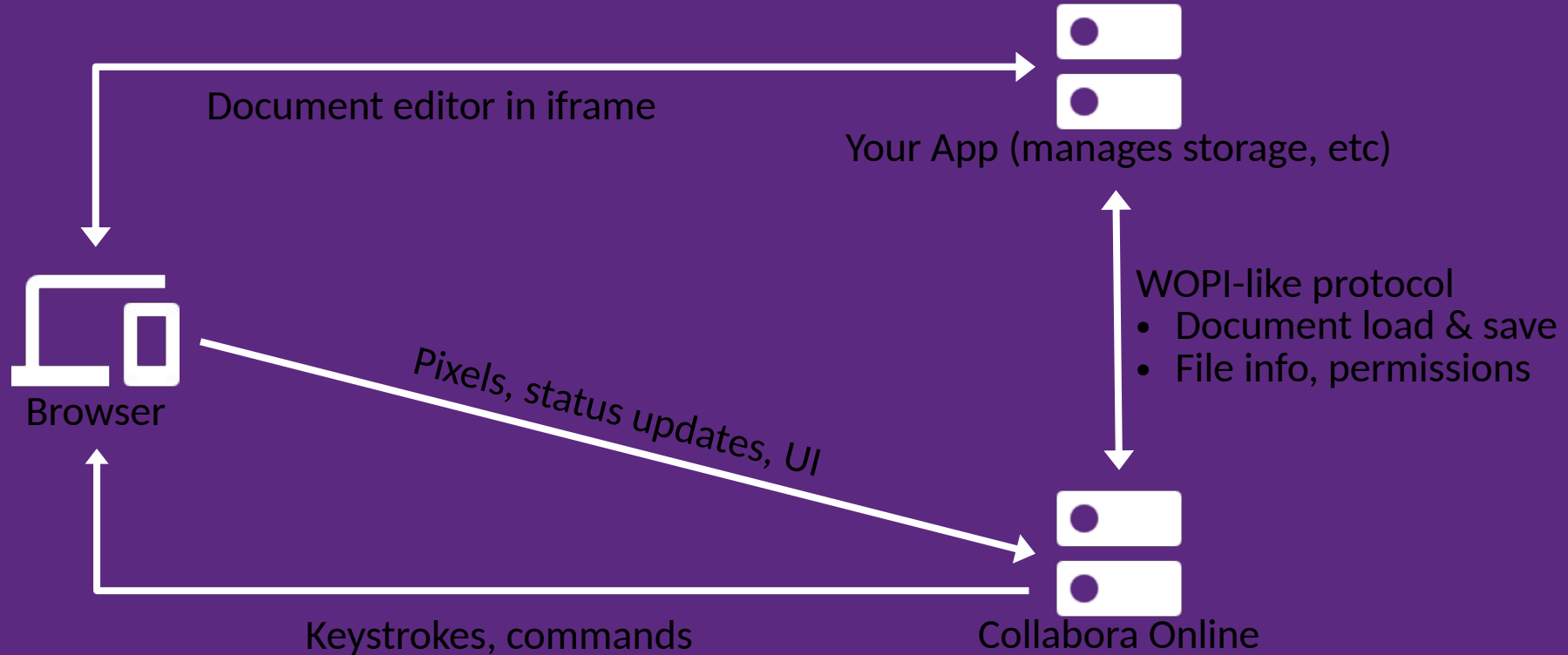
Why integrate Collabora Online

Collabora Online combines

- Leading seamless and efficient online sharing and collaboration
- Digital Sovereignty & Security
- Excellent interoperability

Collabora Online delivers

- Comprehensive paths for migration and support
- Cost effective & flexible pricing
- A wide range of platforms and integrations
- Excellent Support & product relationship with partners and customers
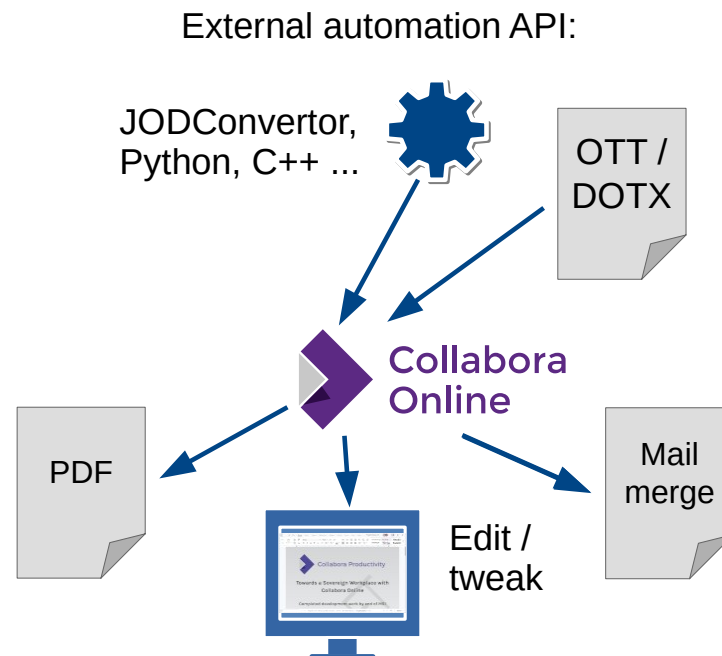
Overview example

Document editor in iframe

Your App (manages storage, etc)

Browser

Pixels, status updates, UI

WOPI-like protocol
- Document load & save
- File info, permissions

Keystrokes, commands

Collabora Online

SDK / UNO remote protocol

UNO remote protocol to construct documents

- Powerful scripting interface enabling document automation

- Over 1500 distinct interfaces providing over 4000 attributes and methods

- Allows creation and manipulation of document content, structure.

External automation API:

JODConvertor,
Python, C++ ...

OTT / DOTX

Collabora Online

PDF

Edit / tweak

Mail merge

Collabora Productivity

Where do I get it?

- **Test it without installation**

  - Demo servers: https://www.collaboraoffice.com/ → Click "try the online demo"

- **Install it**

  - From source code: https://github.com/CollaboraOnline/online/

  - From Linux packages: https://www.collaboraoffice.com/code/linux-packages/

  - From docker hub: https://hub.docker.com/r/collabora/code/

    - Step by step instructions:
      https://sdk.collaboraonline.com/docs/installation/CODE_Docker_image.html

sdk.collaboraonline.com

Customize coolwsd.xml

- Set security settings: customize CSP header, SSL settings, etc.

- Enable features: Accessibility, Macros, integrations, experimental features (<experimental_features>), etc.

- Fonts: how to handle missing fonts, remote_font_config

- Choose the default UI mode (tabbed or compact)

- Set allowed_languages

Some parts can also be controlled by the integrator via hidden input field:

- <input name="ui_defaults" value="VALUES" type="hidden"/>

- <input name="css_variables" value="--co-color-main-text=#000;--co-body-bg=#FFF;--co-txt-accent=#2e1a47;" type="hidden"/>

While developing/testing you can work with the url directly

- http://localhost:9980/[...]debug.html?file_path=/[...]/hello-world.odt**&lang=ar** or **&en-uk** etc

- http://localhost:9980/[...].debug.html?file_path=/[...]/hello-world.odt**&css_variables=**--co-primary-element%3Dred;--co-body-bg%3D%23FDFDFD

Collabora
Online

Example of toggles → coolwsd.xml

```
<overwrite_mode>
    <enable desc="Enable overwrite mode (user can use insert key)" type="bool"
default="true">true</enable>
</overwrite_mode>

<zotero dec="Zotero plugin configuration. For more details about Zotero visit https://www.zotero.org/">
    <enable dec="Enable Zotero plugin." type="bool" default="true">true</enable>
</zotero>

<watermark>
    <opacity desc="Opacity of on-screen watermark from 0.0 to 1.0" type="double" default="0.2"></opacity>
    <text desc="Watermark text to be displayed on the document if entered" type="string"></text>
</watermark>

<accessibility desc="Accessibility settings">
    <enable type="bool" desc="Controls whether accessibility support should be enabled or not."
default="false">false</enable>
</accessibility>
```

Active development

- `<group_download_as desc="If set to true, groups download as icons into a dropdown for the notebookbar view." type="bool" default="true">true</group_download_as>`

- Thanks 1 and 1 (Gabriel Masei and Alexandru Vlăduţu)!

- Started out as a better UX option and then, after testing and user feedback, it became the default

Collabora
Online

Technical Day
COOL
days

coolconfig and its options

coolconfig - Configuration tool for Collabora Online

- **-h, --help**: Show this usage information.

- **--config-file=path**: Specify configuration file path manually.

- **--old-config-file=**path: Specify configuration file path to migrate manually.

- **--pwd-salt-length=number** Length of the salt to use to hash password [set-admin-password].

- **--pwd-iterations=number** Number of iterations to do in PKDBF2 password hashing [set-admin-password].

- **--pwd-hash-length=number**   Length of password hash to generate [set-admin-password].

- **--anonymization-salt=salt** Anonymize strings with the given 64-bit salt instead of the one in the config file.

- **--write**: Write migrated configuration.

- **coolconfig set [key or parent.key] [value]**

  - To set a key and value as arguments (alternative to coolwsd.xml)

  - Example: **coolconfig set allowed_languages "en_US es pt_BR"**

- **coolconfig update-system-template:**

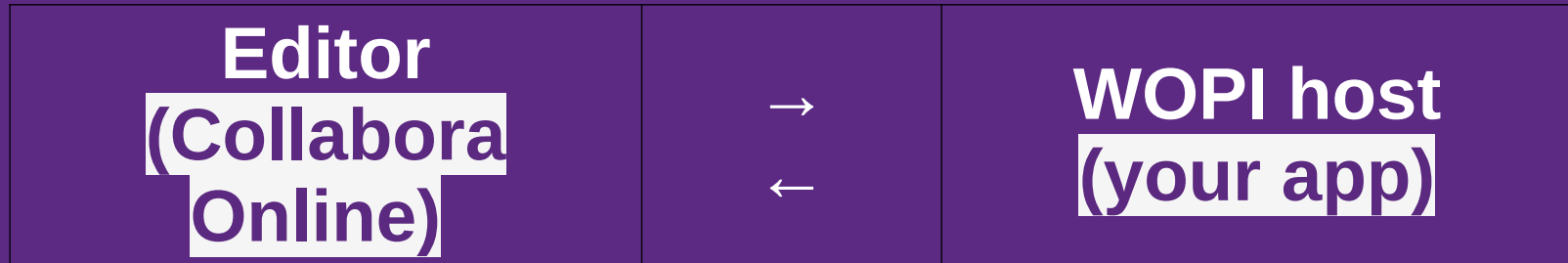 - coolconfig update-system-template

Using docker?
Add "extra_params=" to pass values to coolwsd

```
docker run -t -d -p 9980:9980 -e "extra-params=o.ssl.enable=false"
--privileged collabora/code
```

```
https://sdk.collaboraonline.com/docs/installation/
CODE_Docker_image.html
```

PostMessage API

Editor (Collabora Online)	→ ←	WOPI host (your app)

PostMessage API

```
{
    "MessageId": "<MessageId>",
    "SendTime": "<Timestamp when message is
sent>",
    "Values": {
        "<key>": "<value>"
    }
}
```

https://sdk.collaboraonline.com/docs/
postmessage_api.html/

sdk.collaboraonline.com

Use PostMessage API

- Insert_Button

- Hide_Button

- Show_Button

- Remove_Button

- Remove_Statusbar_Element

- Hide_Ruler, Show_Ruler

- Disable_Default_UIAction

- CallPythonScript

- etc

Mentions: https://col.la/coolmentions

User starts typing with "@" → Collabora Online sends *UI_Mention* postMessage **type: autocomplete**. Then WOPI host sends:

```
Action_Mention

list: [{
        username: "example-username1",
        profile: "link-to-the-profile"
    },
    {
        username: "example-username2",
        profile: "link-to-the-profile"
    }.....]
```

Action_Mention: Based on UI_Mention message of type *autocomplete*, integrator should send this message with list of user object. Each user object contains *username* and *profile*

Collabora Online

More plugins coming in

Example: Reference Management & Bibliographic Data with Zotero

```
    <zotero dec="Zotero plugin configuration. For more details about Zotero visit
https://www.zotero.org/">
        <enable dec="Enable Zotero plugin." type="bool"
default="true">true</enable>
    </zotero>
```

- Enable it in coolwsd.xml

- Using CheckFileInfo extended response property: UserPrivateInfo
  https://sdk.collaboraonline.com/docs/advanced_integration.html?highlight=zotero#userprivateinfo

Collabora
Productivity

sdk.collaboraonline.com

Where to start

1. Good to know **How to integrate** https://sdk.collaboraonline.com/docs/How_to_integrate.html

2. Better to start small with the **tutorial**: https://sdk.collaboraonline.com/docs/Step_by_step_tutorial.html

   1. Maybe even from one of these **minimal examples**:
      https://github.com/CollaboraOnline/collabora-online-sdk-examples/

3. Look at how other products integrate it and peruse the **available integrations**
   https://sdk.collaboraonline.com/docs/available_integrations.html

4. **PostMessage API** to talk and listen to cool: https://sdk.collaboraonline.com/docs/postmessage_api.html

5. Setup reverse proxy (sometimes 9980 can be blocked by firewall etc); SSL

6. Advanced Integration: https://sdk.collaboraonline.com/docs/advanced_integration.html

7. Leverage the **Linking API** and turn your documents in a linked knowledge base:
   https://sdk.collaboraonline.com/docs/linking_api.html

8. Convert documents in the server via the **Conversion API**:
   https://sdk.collaboraonline.com/docs/conversion_api.html

Collabora
Online

Check list into scorecard

- ✔ Demo server integration
- ✔ Avatars
- ✔ Save-as / Rename
- ▪ Insert image from network storage
- ▪ Theming: Customize Collabora Online UI
- ▪ Convert-to for thumbnailing
- ▪ See History – version control
- ▪ SecureView
- ▪ Mentions
- ▪ Insert Custom buttons

- ▪ Linking API
- ▪ Hyperlink previews
- ▪ PDF Viewer/Annotate
- ▪ Create documents from template
- ▪ Use of UNO commands
- ▪ UI Visibility Controls
- ▪ Hide commands
- ▪ 3rd party services
- → **Talk with us/Create your own option/message etc**

Integration Steps	Doc Migration & Embedded iframe	Integrated	Fully integrated and customized
Demoing	1		
Beta		1 2 3 4 5 6	
Product			1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 ∞

Watch the previous talks from integrators:

- Innovative use of file revision history
- Customized look & feel
- Use of PostMessage API: mentions
- Leverage Link API
- Scripting, placeholders
- Create documents based on templates

Collabora
Online

LibreOffice Technology

Technical Day
COOL days

Thank you!

By Pedro Silva

@CollaboraOffice
hello@collaboraoffice.com
www.collaboraoffice.com