



Improvements to PDF support in Collabora Online

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PDF support is getting very important as it is a format that is commonly used for sharing the read-only documents and forms.

Good support in LibreOffice and Collabora Online is therefore a commonly asked feature.



PDF import in LibreOffice

Normal PDF import is using Poppler library

- Converts PDF elements to LibreOffice shapes
- Can import the PDF to edit it, then export
- The fidelity is compromised
- Sometimes fidelity is more important than the ability to edit



PDF import in LibreOffice

Alternative, import PDF with PDFium

- Import a PDF page as graphic object
- Rendering of the PDF is done with PDFium library
- Import into Draw – each page in Draw with a full-page PDF graphic
- Good fidelity
- But can not edit the graphic
- Enabled by a environment variable in LibreOffice



PDF import in Collabora Online

Collabora Online

- Used PDFium import by default
- Main use to be a PDF viewer
- But there are some missing features
- Search (requested by OwnCloud)
- Annotations / Comments (requested out client by Microfocus)



PDF Search

Implementing PDF Search

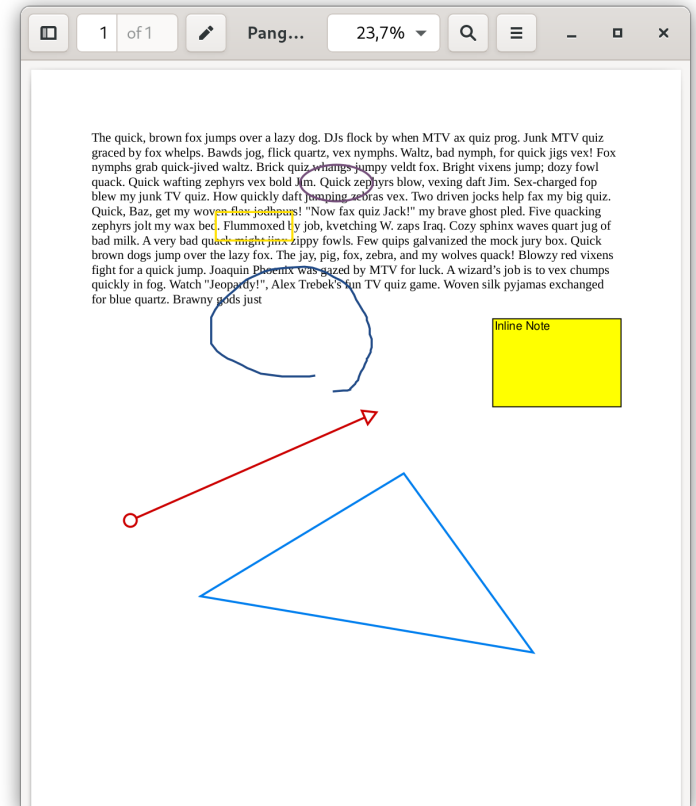
- PDF pages are graphics, how can we search those?
- A graphic still keeps the PDF in memory, so we can use search with PDFium
 - we use the search in Draw
 - when we discover a PDF graphic, we use PDF search
- Another issue – how to show selection of the found text on a graphic
 - PDFium can tell us the (page relative) text rectangle where the text was found
 - implement custom selection rectangles that can draw a selection over a graphic object



PDF Annotations in LibreOffice

PDF Annotations

- Want to annotate the PDF files
- Many kind of annotations
- Text (note), Link, FreeText, Line, Square, Circle, Polygon, Polyline, Highlight, Underline, Squiggly, Strikeout, Stamp, Caret, Ink, Popup, FileAttachment, Sound, Movie, Widget, Screen, Printermark, Trapnet, Watermark, Threed, Richmedia, XFAWidget





PDF Annotations in LibreOffice

Implementation of PDF Annotations

- We have comments in Draw, but that covers only text (note) annotations
- Idea implement text (note) PDF annotation first
- On import we read the PDF annotations with help of PDFium
- And add them into the document as Draw comments



PDF Annotations in LibreOffice

Changing the Draw comments

- We change the comments and want to preserve them
- Use the existing PDF export
- There is already support for exporting the comments as PDF annotations
 - Almost, not all properties were exported – in particular “Modification Date”
- We go full circle import → export → import
 - And we have a test for that
- Not supported by comments → colours are hardcoded in Draw comments



PDF Annotations in Collabora Online

Implementation Collabora Online

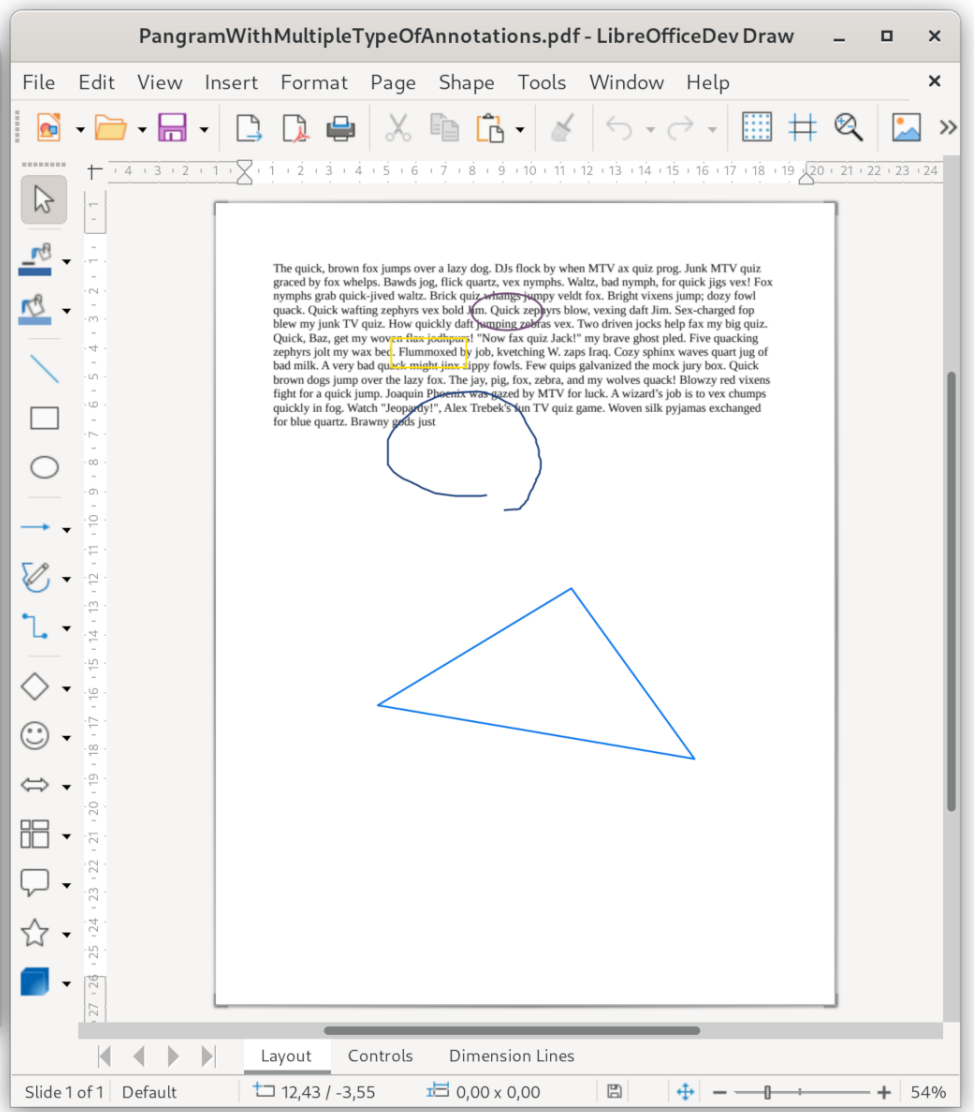
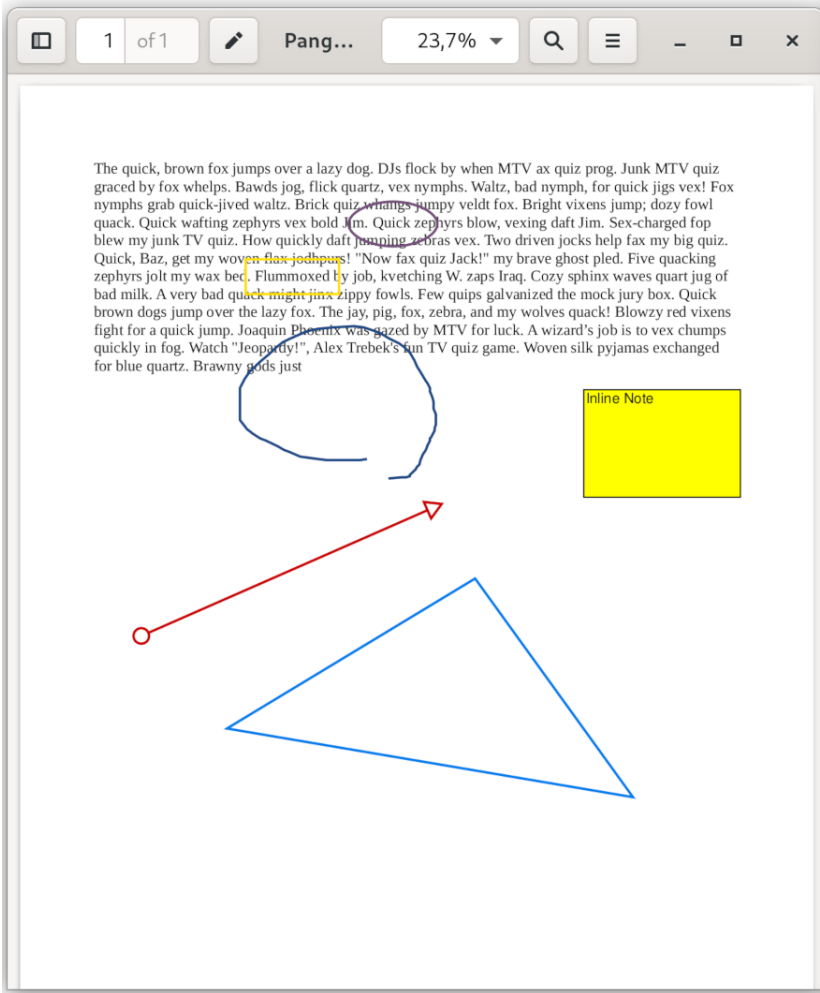
- Extended LOKit
 - Draw in Collabora Online is basic
 - Used only for showing PDF documents for now
 - Need to report comments what comments are present on a Page
 - And have a function to add / change / remove an existing comment
 - Added a icon to show the position of the comment
 - This wasn't present before
 - Show which comment belongs to where



PDF Annotations

Other annotations

- Work in progress...
- Change the default marker and use custom drawing code
 - With this we can implement most vector graphic PDF annotations
 - Polygon, Ink, Line, Square, Circle
- Text highlight annotations
 - Annotate the text – highlight, underline, strikeout
 - We can implement it as vector graphic annotation too





Collabora Office

Thank you for listening!

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