

WebODF : ODF on the web



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WebODF

FOSDEM 2014

Jos van den Oever

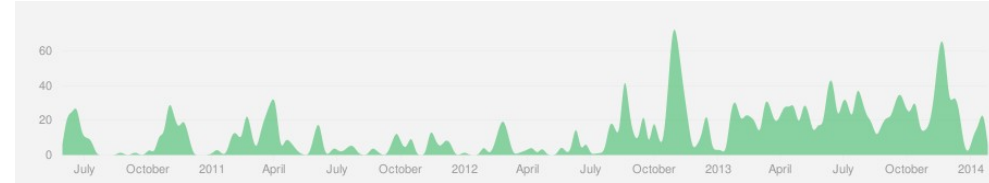


Overview

- What is it?
- Demo
 - Viewer.js
 - ODF editor
 - Collaborative ODF editor
- How does it work?
 - ODF in the browser
 - Collaborative editing
- How to use it?



WebODF



- Since 2010
- Initial work sponsored by NLNet
- Since then: improved by investments from customers and contributions by commercial users
- Written in JavaScript with HTML
- Smaller than the average document (85kb, 40k loc)
- <http://webodf.org/> and on GitHub



Viewer.js

Documents. On your site. Now.



- Combinatie van PDF viewer en ODF viewer
- Eenvoudig te gebruiken in webpagina's
- Ook gesponsord door NLNet
- <http://viewerjs.org>



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Viewer.js

<demo url="<http://viewerjs.org>"/>



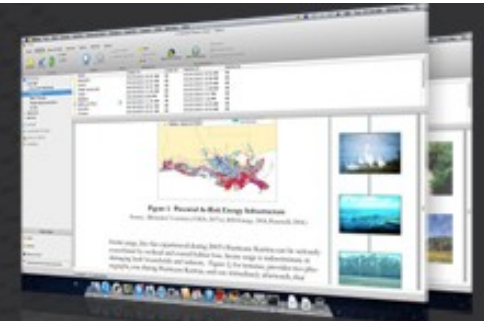
WebODF in NVivo

- NVivo: desktop application by QSR International
- Application to manage research materials
- Works on Mac en Windows
- WebODF used as 'invisible' component for text editing
- QSR contributes many features

NVIVO
for Mac

Software to support qualitative
and mixed methods research.

Check out the new look and
feel of NVivo for Mac



WebODF  : ODF on the web

WebODF for text editing

- WebODF combined with a graphical interface (Dojo)
- Works completely in the browser
- No conversion to HTML
- Document structure unaltered

<demo url="http://webodf.org/demo"/>





Documents

- ownCloud: software for a cloud under your control
- Share en synchronize files, music, images, calendar, todos
- Community and enterprise versions
- Version 6: collaborative editing of text documents





Documents

- First idea: FOSDEM 2013
- Group of people can edit a document at the same time
- Complete edit history is available
- Each user has a distinct color and cursor

<demo url="<http://demo.viewerjs.org:23456/programs/editor/>"/>



Secure Enterprise File Sync and Share

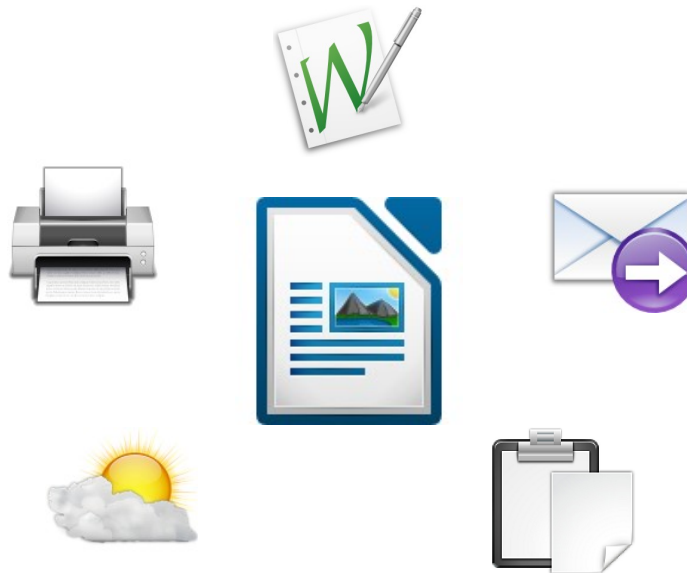
Your Cloud, Your Data, Your Way!

Where (else) can WebODF be used?

- Publication of ODF documents
- Work flow with display, annotation or editing of text documents
- Component in CMS, DMS, document generation
- Custom programming with JavaScript
- Collaborative editing of text documents



WebODF



How does it work? ODF in the browser

The ZIP contains:

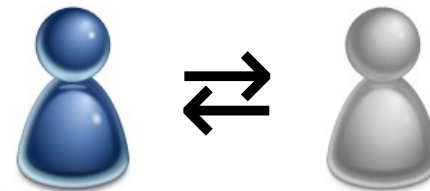
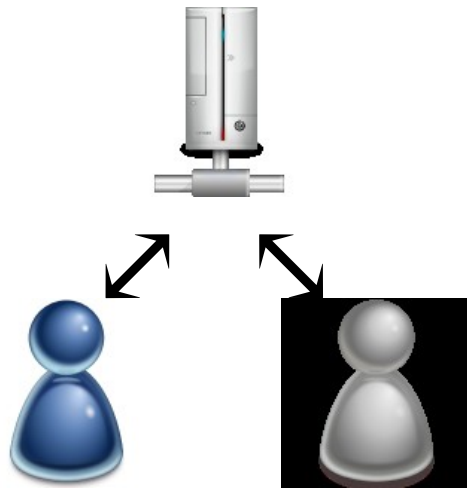
content.xml, styles.xml, settings.xml, meta.xml

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.  
- <html lang="en" xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">  
  + <head>  
    - <body onload="init()">  
      - <document>  
        + <office:meta>  
        + <office:settings>  
        + <office:styles>  
        + <office:automatic-styles>  
        + <office:master-styles>  
        + <office:body>  
      </document>  
    </body>  
  </html>
```

How does it work? Collaborative editing

General implementation

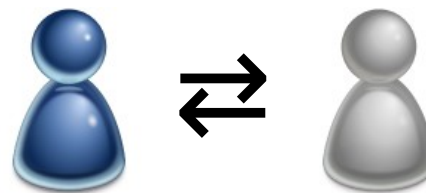
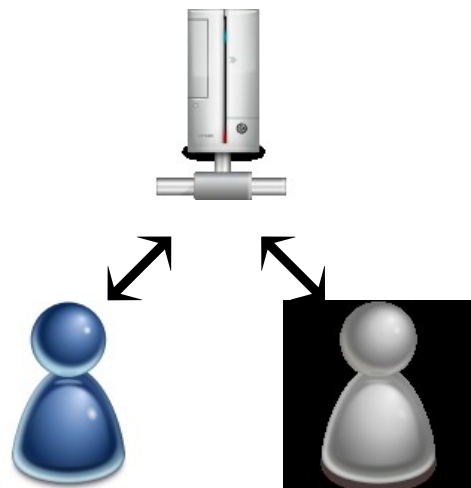
- Each edit action is an operation
- Operations are sent to the central node
- Central node can be a server or participant
- Web Socket, GET/PUT, minimal server logic



How does it work? Collaborative editing

ownCloud implementation

- Requirements: run on any XAMP stack
- Numbered operations are added to database table
- Clients resolve conflicts themselves
- Server has complete edit history





What else is in the box?

- Mandatory JSLint checks
- Closure compiler for minification and type checking
- >500 unit tests runnable in Node.js and target browsers
- Detailed reporting of code coverage
- Continuous integration server
- Mandatory code reviews
- XML Schema validation (ongoing)
- Relax NG validation (element level)

Object Oriented code base:
C++ coders will feel at home

WebODF



: ODF on the web

What do you need?

- A web browser
- Text editor (optional, see above)
- No fear of JavaScript
- IRC client (#webodf on freenode)
- Recent example project: Sodfa, offline editing with server sync
 - <https://github.com/iivvoo/sodfa>



Ideas for the roadmap

- General XML editor
- Floating UI elements, pluggable editing components
- Mobile international keyboard interaction (done by QSR)
- Presentation and spreadsheet editor
- Collaborate live with desktop software (e.g. LibreOffice, OpenOffice)
- Spelling and grammar check
- Lock parts of the document
- Images, table, header/footer editor
- Server-side library
- Import OOXML

WebODF



: ODF on the web