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# CONNECT, EMBED, INTEGRATE

LIBREOFFICE AS A BUILDING  
BLOCK FOR YOUR SYSTEMS

BRNO  2016  
CONFERENCE 



# CIB: SOLUTIONS FOR YOUR CHALLENGES



Our strength – developing document lifecycle and correspondence management solutions that integrate with ***your*** computing landscape.

Our building blocks:

- > **Generating and processing PDFs**
- > **Operate LibreOffice professionally**
- > **Generate and process invoices the smart way**
- > **Exchange data safely and securely**



Mobile



Security



Cloud



Open Source



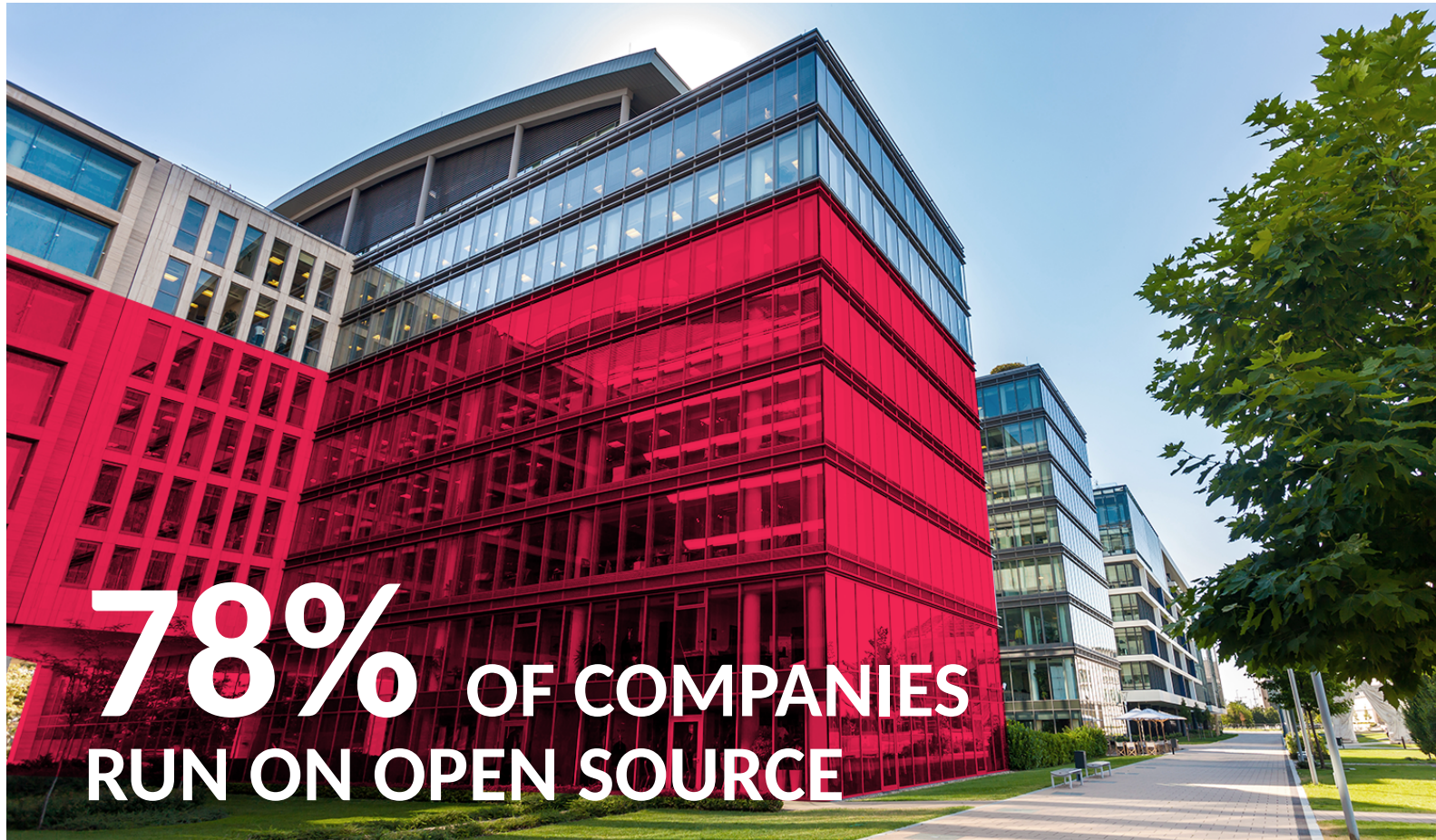
Big Data

# FUTURE OF OPEN SOURCE SURVEY 2015:



A survey graphic titled "MOST VALUABLE OPEN SOURCE PROJECT?". The background features a world map with glowing nodes and a close-up of hands typing on a keyboard. In the top left corner, it says "SECTION 4 TECHNOLOGY" with a gear icon. In the top right corner, it includes the Twitter handle "@FUTUREFOSS" and the hashtag "#FUTUREOSS" with a Twitter bird icon. Below the title, a horizontal row of logos is displayed: OpenStack, Docker, Drupal, LibreOffice (The Document Foundation), Linux (with the Tux penguin), Ubuntu, and PostgreSQL. The entire graphic is framed with a green border.

# Cost, Control, Time to Market & Quality



**LESS THAN 3%**  
DON'T USE OSS IN ANY WAY



# LIBREOFFICE PROGRAMMABILITY



**QUESTIONS? WE'VE ANSWERS**

[HTTP://LIBREOFFICE.CIB.DE/SUPPORT](http://libreoffice.cib.de/support)

# LibreOffice Eclipse Plugin



- Work done during several GSoC periods by Cedric Bosdonnat (with contributions by Dan Corneanu, Oliver Specht, and Ludovic Smadja)
  - Fixed & improved to work with LibreOffice by Samuel Mehrbrodt:  
<https://smehrbrodt.wordpress.com/2016/01/08/libreoffice-and-eclipse-loeclipse-2-0-released/>
  - Grab it here: <http://eclipse-plugins.libreoffice.org/>
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# LibreOffice Eclipse Plugin: Selling points

- Wizard-based extension development
- Streamlined deployment & debugging experience:
  - Deploy on press of a button, optionally into separate userdir
  - Debugging deployed extensions from inside Eclipse IDE

**– DEMO –**

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# LibreOffice Eclipse Plugin: Demo





# NOA-Libre: Nice Access to Office API

- high level functions for common stuff
- Done by IOn AG, originally:  
<http://ubion.ion.ag/solutions/004niceofficeaccess>
- LibreOffice version here:  
<https://github.com/LibreOffice/noa-libre>





# NOA-Libre: Nice Access to Office API

- lightweight UNO wrapper API for many UNO interfaces
  - access to underlying UNO interfaces from wrapper objects
  - Now able to use in-tree Office jars, and build against maven
  - Used in production for a large OSGI-Plugin based Rich-Client Java application
  - Used by e.g. by [Gnuaccounting](#), and [Thera-Pi](#)
  - Here's an example:  
<https://github.com/LibreOffice/noa-libre/blob/master/examples/calc/Snippet15.java>
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# JEXO: Java Extension Helper

- Developed by Benjamin Sponring, now at BRZ
- Available here: <http://sourceforge.net/projects/jexo/>
- Same thrust as for NOA – simplify Office API usage
- But targetted at extensions vs. embedding





## Further resources

- Maven LibreOffice repo:  
<http://repo1.maven.org/maven2/org/libreoffice/>
  - Cedric's LOEclipse Tips & Tricks:  
<http://bosdonnat.fr/tag/ooeclipse.html>
  - Dmitri Popov tutorial: <http://www.linuxjournal.com/article/9412>
  - LibreOffice extensions:  
[https://wiki.documentfoundation.org/Development/Extension\\_Development](https://wiki.documentfoundation.org/Development/Extension_Development)
  - Oo ecosystem links:
    - [https://wiki.openoffice.org/wiki/Extensions\\_development](https://wiki.openoffice.org/wiki/Extensions_development)
    - <https://wiki.openoffice.org/wiki/JavaEclipseTuto>
    - And of course the Developer Guide as the ultimate compendium:  
[https://wiki.openoffice.org/wiki/Documentation/DevGuide/OpenOffice.org\\_Developers\\_Guide](https://wiki.openoffice.org/wiki/Documentation/DevGuide/OpenOffice.org_Developers_Guide)
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## Outlook / further work

- More statically-typed UNO API / wrappers for better IDE support
  - Training materials – videos, more examples, one-stop shop for non-core developers to go to
  - StarBasic – is there value in improving the developer experience, e.g. external IDE support
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# LIBREOFFICE INTEGRATION EXAMPLES



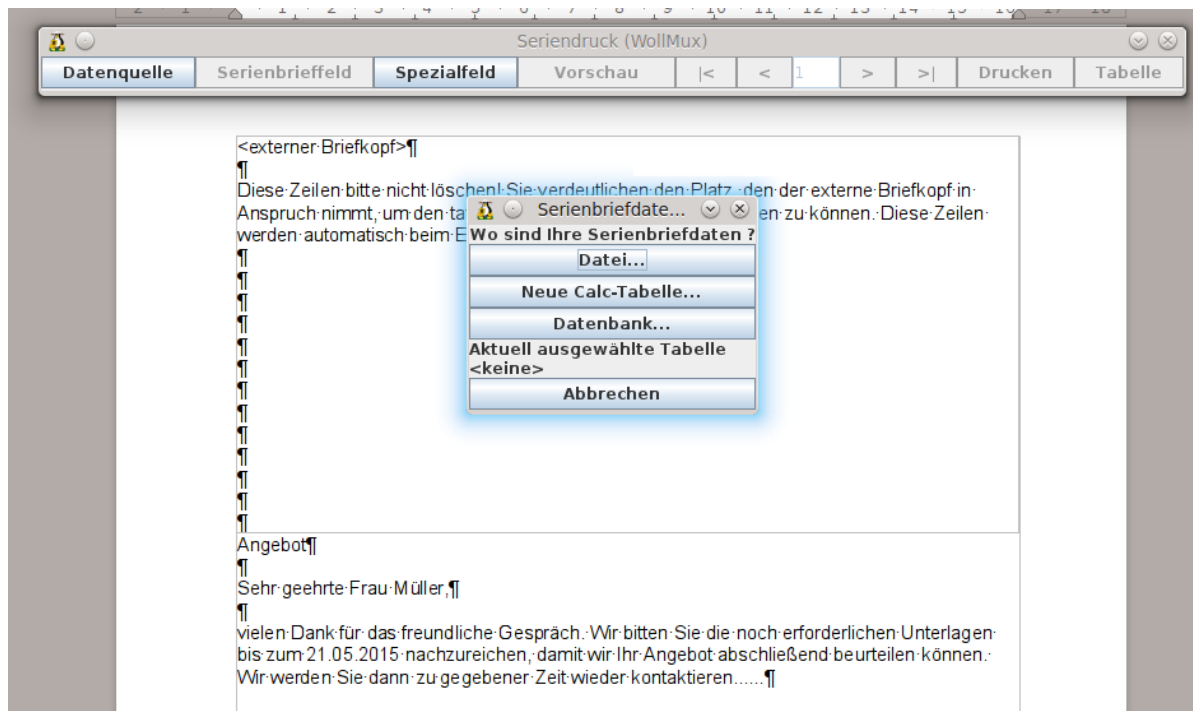
**QUESTIONS? WE'VE ANSWERS**

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# WOLLMUX – LIBREOFFICE TEMPLATES & MAIL MERGE EXTENSION



- > WollMux - <https://github.com/WollMux/WollMux>
  - Template- and letterhead management
  - Java-based LibreOffice-Extension
  - Screenshots:



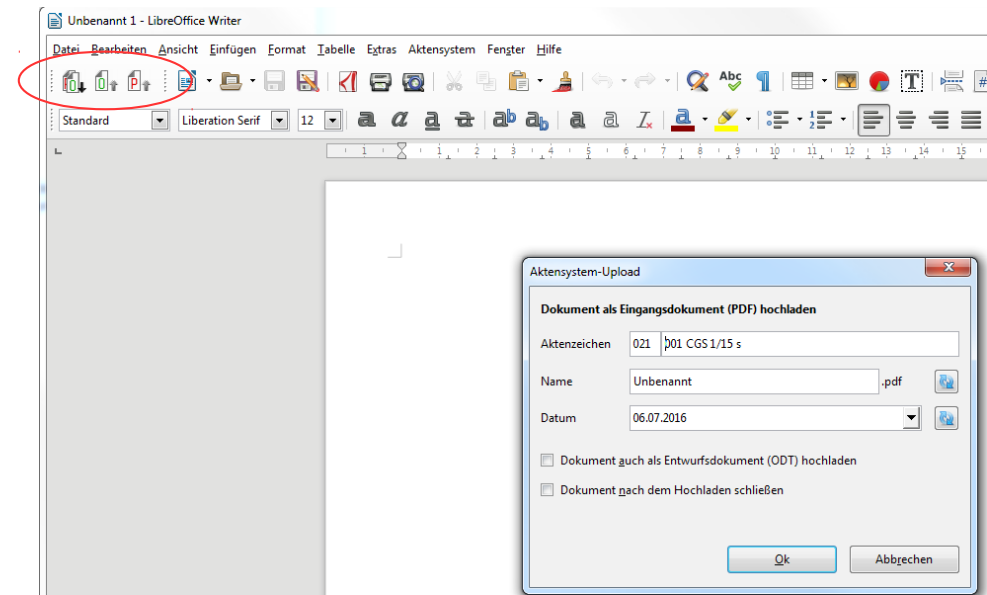
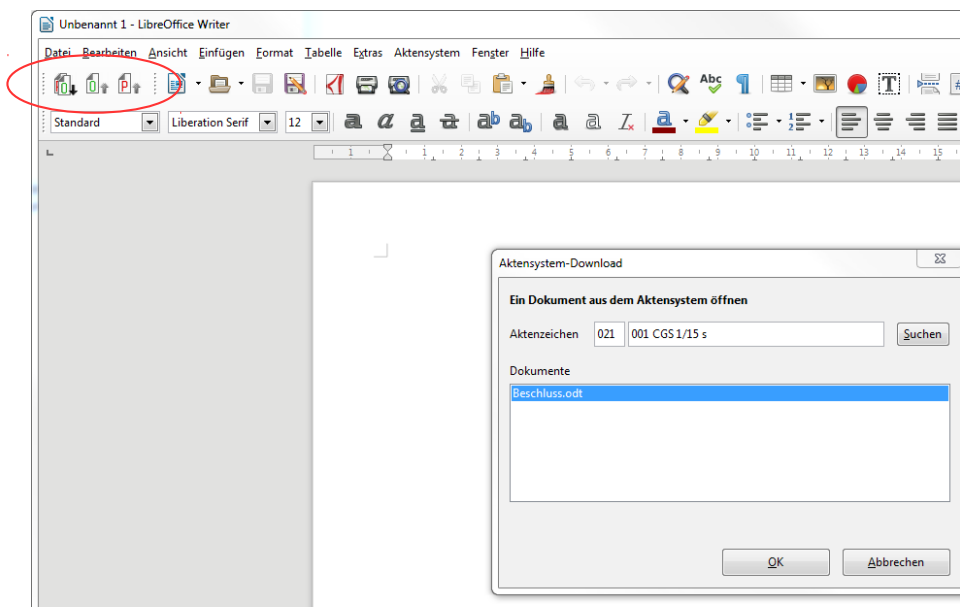
WollMux-Manual  
Serienbrief



# LIBREOFFICE – CONNECTING TO INTERNAL DMS



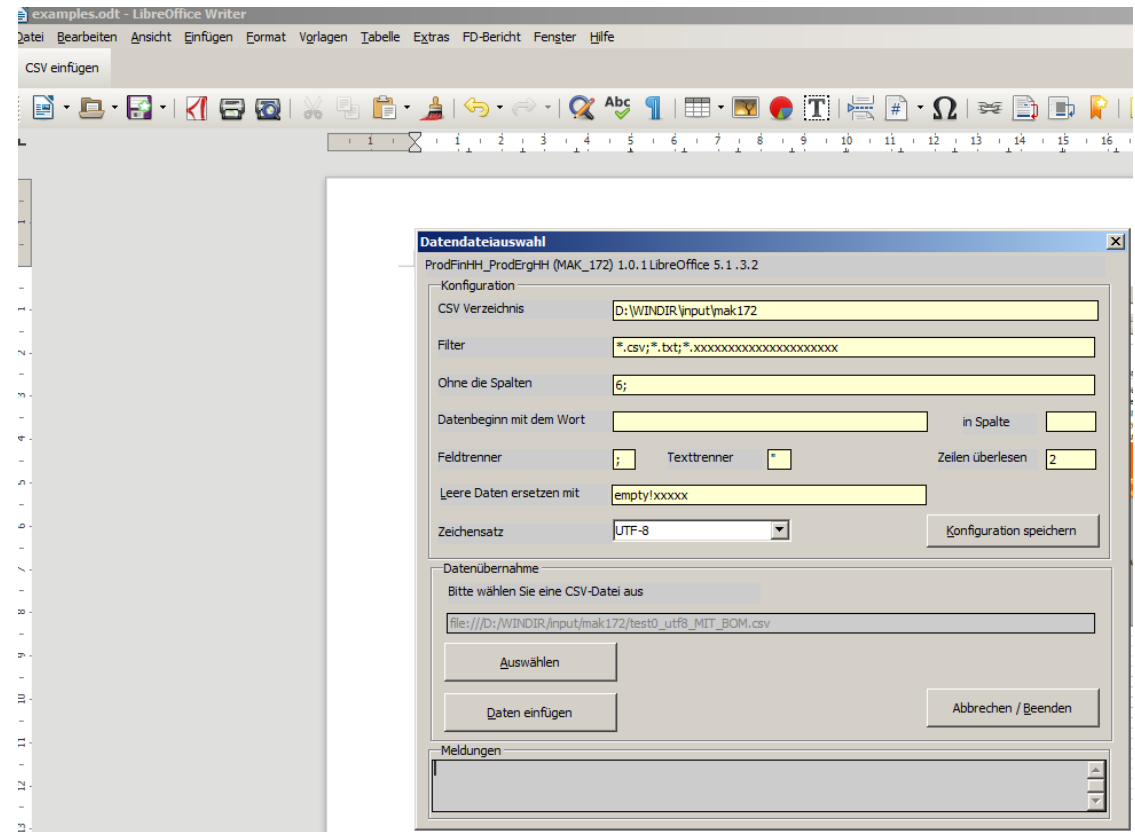
- > OfficeAktensystem
  - Connects to internal DMS
  - Round-trips metadata, plus some amount of custom UI inside LibreOffice
  - Java-based LibreOffice extension



# LIBREOFFICE – MACRO-AUTOMATION



- Macro solutions
  - Automate routine tasks
  - Have own custom UI
  - Example: insert data via CSV into Writer documents



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**THANK YOU!**



**OUR PRODUCTS:**

**[HTTP://LIBREOFFICE.CIB.DE/](http://libreoffice.cib.de/)**

**WE CAN HELP:**

**[HTTP://LIBREOFFICE.CIB.DE/SUPPORT](http://libreoffice.cib.de/support)**

