



Lightning Talks!

LibreOffice Hackers

beer devrooms
open source 8000+ hackers
lightning talks 642 lectures

Brussels / 4 & 5 February 2017 [schedule](#)

Slot #1: Moggi/UI Testing



UI Testing

- ▼ Markus Mohrhard
- ▼ 2017-02-04

Design of our UI Testing

- ▼ 2 component solution
 - ▼ Introspection code in LibreOffice
 - ▼ Python code with the actual tests
- ▼ Communication through an untyped UNO interface
- ▼ Element discovery through the ui-file IDs
- ▼ Event based approach -> no sleeps

The Good Part

- ▼ Most UI elements already covered
- ▼ Good element discoverability
- ▼ Avoids test failures for unrelated changes
- ▼ Can support any feature we need
- ▼ Is close to the code paths taken by real user input

The Bad/Ugly

- ▼ New elements need support on the LibreOffice side
- ▼ Backward compatibility of the tests
- ▼ Slow tests (around 5s)
- ▼ Need to maintain our own framework



Thanks ...

- ▼ ... to all LibreOffice donors for making it possible!
- ▼ ... for supporting LibreOffice!



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Slot #2: Moggi/Manual Testing

Deprecating Manual Testing

- ▼ Markus Mohrhard
- ▼ 2017-02-04

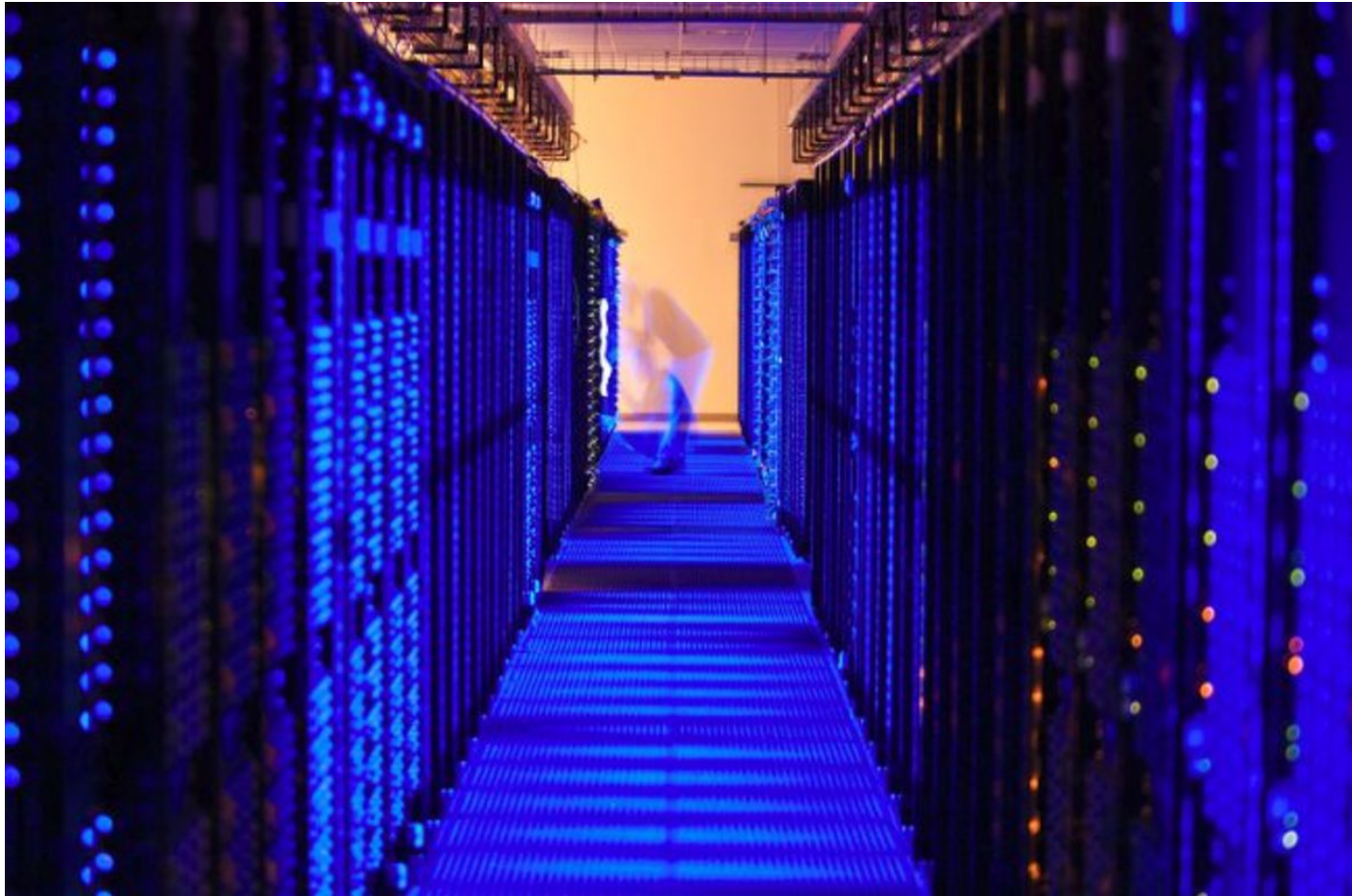
Manual Testing Today



Manual Testing in the Future



Or let the computer do the stupid tasks!



A framework for complex test.

- ▼ Run on release builds.
- ▼ Start VM with clean environment for tests.
- ▼ Script the hell out of it with python.
 - ▼ Installation testing
 - ▼ Partial updates adds to the problem
 - ▼ Testing integration with system resources
 - ▼ Testing interaction with external services
- ▼ <https://gerrit.libreoffice.org/gitweb?p=ui-test.git;a=summary>



Thank you ...

- ▼ ... for listening!
- ▼ ... for supporting LibreOffice!



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Slot #3: Svante/CHANGES



Changes

Turn your Face to Strange

Svante.Schubert@gmail.com

ODF: Saved User Data

- ▼ OpenDocument file
 - ▼ shock frozen user's work (serialized run-time model)
 - ▼ derived from StarOffice's / OpenOffice's run-time model
 - ▼ consists of zipped XML, images, etc.

ODF: Interface between Applications

- ▼ OpenDocument file
 - ▼ interface between ODF applications
 - ▼ OASIS specification = blue print
 - ▼ ISO standard (ISO countries can demand usage by law)

ODF: Market Impact

- ▼ Microsoft's OOXML ISO standard
 - ▼ Microsoft invested incredible amount of money creating own XML based zipped file ISO format
 - ▼ Office Open XML is called after the first ODF Open Office XML
 - ▼ Why did they invested so much money?

ODF: Obstacles

- ▼ Collaboration
 - ▼ Works with one editor at the time (OOXML has same problem)
 - ▼ No easy way to merge / explain difference (a change)
 - ▼ Shared editing would require Versioning System (GIT)
- ▼ Run-Time API
 - ▼ 3rd party software can not rely on standardized API
 - ▼ Like HTML has DOM during run-time
- ▼ Testing
 - ▼ Possible: Load → Save → Test
 - ▼ Impossible: Load → Edit feature (→ Save) → Test (equal ACID Tests for HTML/CSS: loading the ODF showing result)

ODF: ODF ISO Changes

- ▼ Changes
 - ▼ Documents are too large for efficient collaboration
 - ▼ Exchanging changes on 'user known objects' instead
 - ▼ A document is equal to a sequence of changes (any order of changes lead to the same document)
 - ▼ Changes refer to unique document version (e.g. hash not on XML, but logical user objects)

ODF: Future Scenarios

- ▼ Scenarios
 - ▼ Sending Change Request:
Fixed Typo in 5th paragraph replace 3rd character with 'x'
 - ▼ Versioning Systems:
Give me all changes on contract since I was on vacation
 - ▼ Commenting Signed Documents:
Signed XML can not be broken, but changes in file aside (signed themselves)

Slot #4: Samuel/gpg4libre

GPG4LIBRE: INTEGRATING GNUPG INTO LIBREOFFICE

FOSDEM 2017



Bundesamt
für Sicherheit in der
Informationstechnik

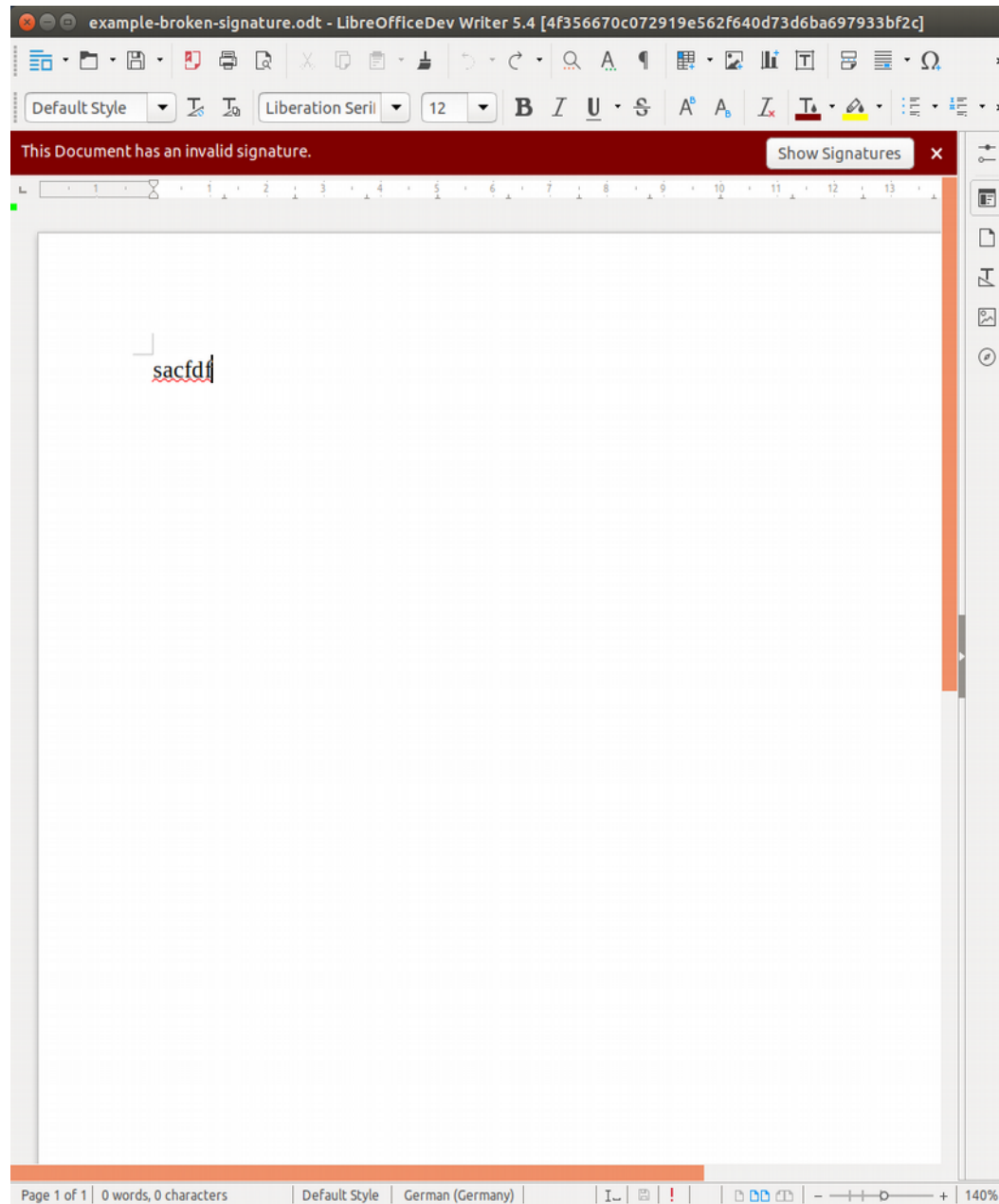
CONCEPT



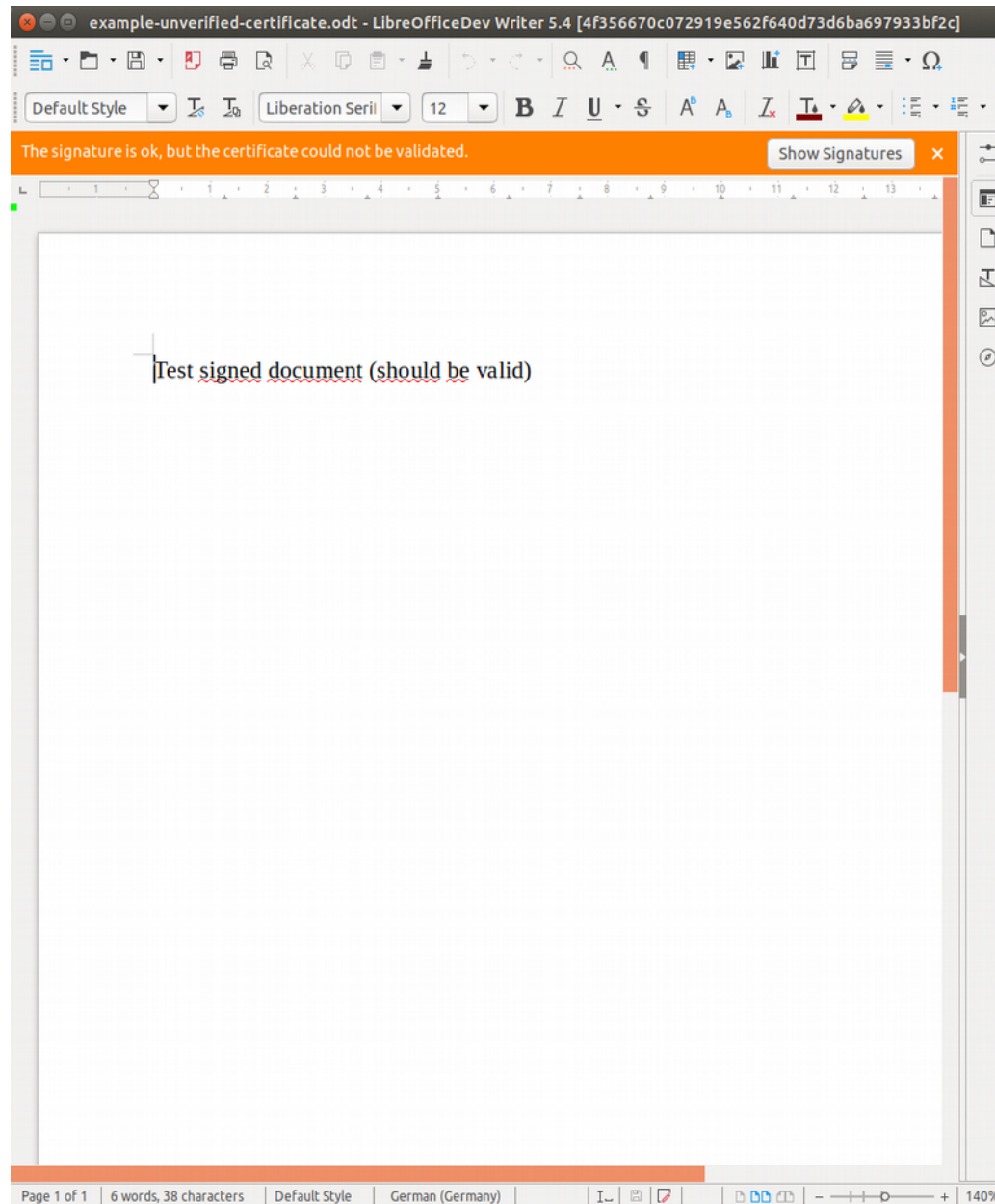
IPC



FIRST STEPS



FIRST STEPS



Slot #5: Cor/How TDF works

The Document Foundation

Manifesto: <https://www.documentfoundation.org/foundation/overview/>

Statues: <http://www.documentfoundation.org/foundation/statutes/>

- ◆ TDF is the 'House of LibreOffice'
- ◆ started with 'Next Decade Manifesto'
"run, copy, distribute, study, change and improve" ... and more
- ◆ solid Berlin based Stiftung
- ◆ statues guarantee shared influence, prevent single-party dominance
(max 30% of the members of TDF-bodies can be from one organization/the same affiliation)

TDF Governance

<http://www.libreoffice.org/about-us/governance/>

- ◆ members: 'Board of Trustees'
 - individuals; elected based on work and criteria in statues
- ◆ Board of Directors
 - governance, supporting TDF goals
- ◆ Membership Committee
 - decides on membership applications

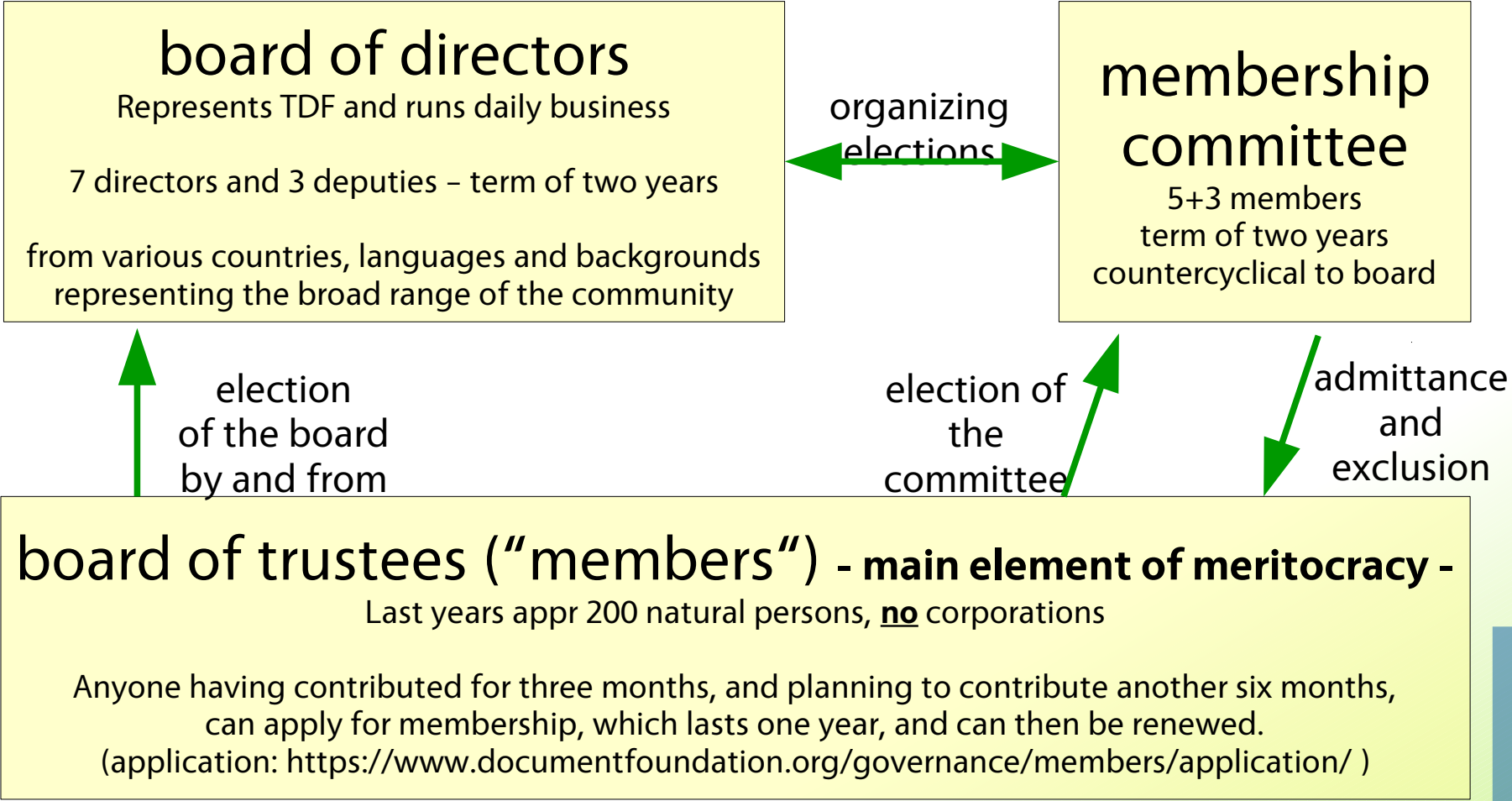
other TDF-bodies

<http://www.libreoffice.org/about-us/governance/>

- ◆ Engineering Steering Committee
 - technical discussions code, infra, QA, localization, documentation
- ◆ Advisory Board
 - organisations/enterprises that support/donate
 - meets with the board for exchange of information and views



TDF governance



Slot #6: Cor/Introducing LibreLex

<DEMO PLACEHOLDER>

▼ You want to watch the video...

Slot #7: Jmux/VCL EventLoop



Tackling the VCL event task loop

Speaker: Jan-Marek Glogowski – Linux Client Team

FOSDEM 2017, Brussels, 13 de fevereiro de 2017



The origin – there is even more „WTF!?“



- There are mainly two different Tasks: Timers and Idles
 - Idles are instant Timers, which run when „LO isn't busy“
 - Busy is defined in some backends as „no system event available“, some don't implement it
- The event / task loop is run by a system timer **and** the Yield loop
 - If a system timer occurs, we and might process a system event and a LibreOffice task.
 - If there is no system event, we process two LO tasks
- The MacOS backend sometimes (?) misses system timer events
- Some backends define multiple system timers!?
- **For all this reasons LO basically does some kind of „optimized“ polling, AKA we have too many wakeups**



Current status

- Only schedule by priority → no more busy handling
- Single system timer work on all non OSX platforms → Mac development platform incoming
- No more minimal sleep time of 1 ms → 0 ms timers work for continued processing (no more forced minimal sleep)
- Quite some refactoring of the whole task handling code
- All patches pass all existing and new tests
- Round-robin same priority tasks correctly
- More unit tests to test the task loop

The heavy desktop / LOK unit tests are good stress tests



The target system

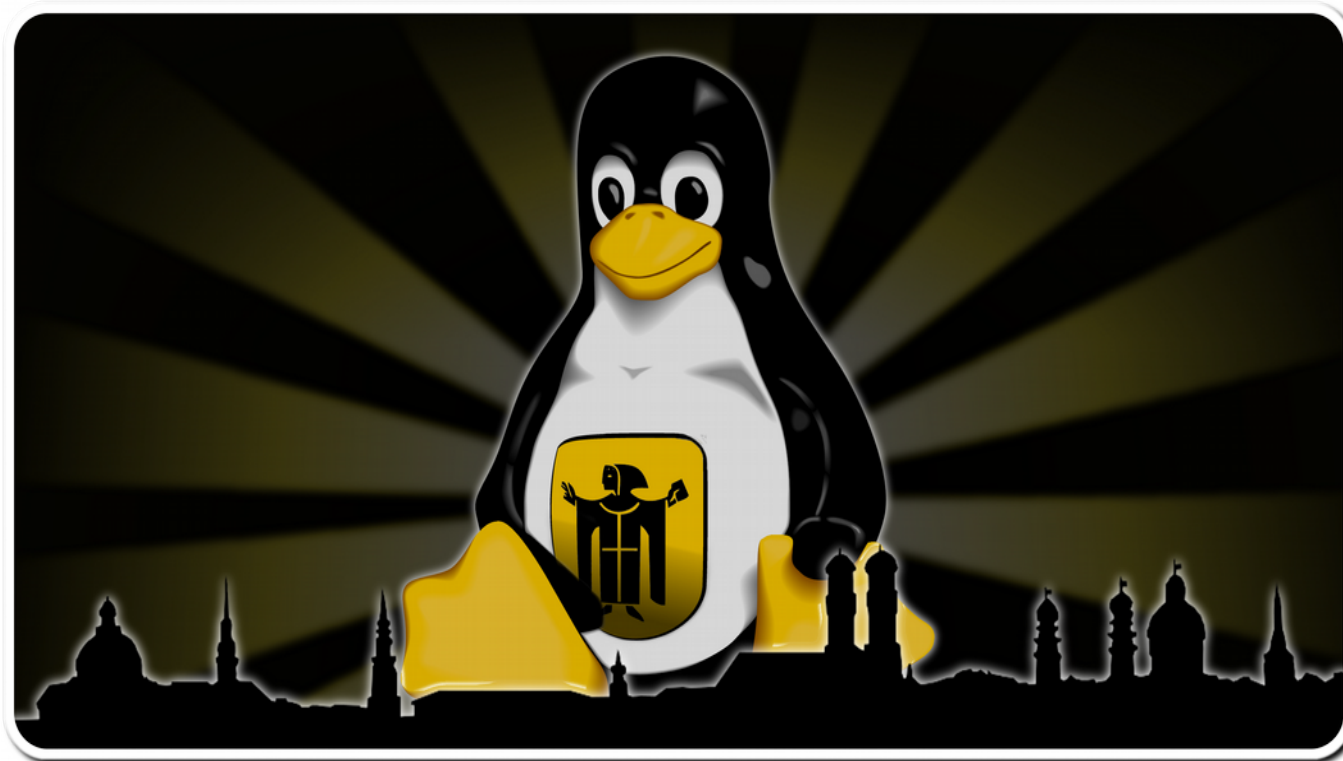
- Run LO loop only from the system loop
- Just a single system timer in all backends
- No more polling – the LO loop restarts the timer to be re-invoked
- Don't walk the list of tasks multiple times → some unit tests break, because they assume LO task loop is slow
- Correct locking is hard to implement
 - Tasks aren't owned by the task loop. Eventually go with an additional loop global lock.

Allow to run a single loop per thread, which owns the tasks and executes them, like all other event loop implementations.

Further information and contact



Landeshauptstadt
München
it@M



email: limux@muenchen.de

Or even visit us!

Slot #8: Olivier/New Help System

<DEMO PLACEHOLDER>

▼ You want to watch the video...

▼ And here's the link to the test VM:

<http://vm173.documentfoundation.org/index.html?page=shared/test.xhp>