



Collabora Productivity

Recent Mac-specific bug fixing

Tor Lillqvist

Software Engineer at Collabora Productivity

About us

Collabora Ltd.

- Leading Open Source Consultancy
- 10 years of experience. 100+ People.

Collabora Productivity Ltd.

- Dedicated to Enterprise LibreOffice
- Provides Level-3 support (code issues) to all SUSE LibreOffice clients
- Architects of OpenXML filters in LibreOffice

LibreOffice Vanilla: A reasonably recent version sold in the Mac App Store

- As all Mac App Store apps, runs sandboxed, thus can't access things it shouldn't, etc
- Generates a (smallish) revenue stream that enables some paid work on Mac-specific bug fixing
- Part of proceeds donated to TDF.

tdf#xxxxxx Slowness to start, or delay after input of first character in Writer

- LibreOffice was quite slow to start on the Mac, and there was also quite some delay after typing the first character in a Writer session
- Part of that was caused by doing thousands of pointless checks whether a file is an “alias” (a kind of “smart” symlink) even for files inside the app bundle (installation), that never would be aliases
- Just don't do it for such files
- Actually questionable how useful checking for aliases is in general. Would love to get some insightful input on how common aliases are on real-world Macs.

tdf#103690 LibreOffice crash on startup, VCL thread mutex condition

- On some systems, macOS sends a notification about changed screen parameters as soon as such notifications are enabled
- LibreOffice asked for such notifications early on, before VCL has been initialised.
- The handler for the notification required VCL to have been initialised, though
- Thus fix was simple: Don't ask for these notifications until VCL has been initialised.

tdf#103571 100% CPU usage when minimizing if multiple documents are opened

- Similar to previous bug
- On some systems, macOS sends that `NSApplicationDidChangeScreenParametersNotification` very often even if nothing is changing
- The handler for that notification used to do some very heavy re-layout of text in all open documents
- If nothing has actually changed, reacting to the notification like that is silly
- Thus fix was simple: Check if actually anything has changed. If not, ignore the notification.

tdf#117872 On macOS Impress slide show does not run full screen

Also known as “the full-screen mess”

- There are (at least) two separate “full-screen” concepts in LibreOffice on macOS: The LibreOffice one and the system one
- For many years LibreOffice allowed the user to put a window in the system full-screen state (click green bubble in title bar)
- But that has lead to possible confusion, with the application being in full-screen state from one point of view, but not another
- So, in May I attempted to unify these two concepts, so that they would be in sync. Was easier than expected. And it seemed to work fine
- But...

tdf#117872 On macOS Impress slide show does not run full screen

The full-screen mess, continued

- But then this bug was filed, showing one unintentional bad side-effect
- So I reverted the unification, and also...
- Removed the participation in system full-screen mode
- Of course, not an ideal solution
- Typical childish reaction in Bugzilla: “Getting rid of a feature is the new way to fix things in the Open Source world now ? (See Gnome devs.) A feature that ALL MacOS Apps have. Ever thought to ask Apple for some help?”
- Just ignore the haters, patches welcome.

tdf#117850 Quitting LibreOffice on macOS while About dialog is open causes process to get stuck consuming CPU

- Quick and dirty fix:
- Just call `_Exit()` when we are about to terminate, bypassing global object destructors or whatever it was that got stuck.

tdf#77444 Opening document by double-click waits a long time

- When double-clicking a file, the system causes a callback to an `openFiles:` method of one of our Objective-C classes
- That method just recorded the request in a list, and didn't do anything else
- The list used to be inspected only in a ten-second timer handler, and then actual document loading started
- Solution was to call a “`TriggerUserEventProcessing()`” function right in the `openFiles:` method.

tdf#53282 Missing menu bar after closing fullscreen document

- The “full-screen” here means LibreOffice’s own such, not the system one
- Thus present even after LO stopped participating in the system full-screen state
- Fix was quite simple in the end: Leave the own full-screen state before allowing the document window to close.

tdf#69460 Copy/Paste of a column in Calc file followed by Cmd-Q causes soffice process to consume all resources

- Problem caused by LibreOffice storing its clipboard in the system clipboard when exiting
- For spreadsheets, LibreOffice attempted to store whole columns (that were not completely empty). All one million rows. In multiple clipboard formats
- That was very slow for at least BITMAP and PNG
- Solution was to only store those cells in a column that would be printed, and skip empty ones at the top or bottom of the column.

tdf#104332 Thesaurus in the Tools menu causes it to open slowly the first time

- Also known as (one aspect of) the “long delay after first character typed into Writer” bug
- Root cause was slow initialisation of LightProof (Python) spell checker for Brazilian Portuguese, which required loading a very large Python module (with spell checking data)
- Solution was to delay the import of that heavyweight module until actually needed.

tdf#112442 The language drop-down list in the character dialog contains a lot of entries in brackets (for example {en-BR})

- We asked for the list of locales known to the system, not the list of system spelling dictionaries
- macOS has lots of system locales (language-country combinations), not all of which that make much sense, like en-BR
- The number of system spelling dictionaries is much smaller
- Follow-up bug and fix: tdf#118647: Needed to map some generic system spelling dictionaries (language only) to what LibreOffice expects (language-country), like “da” to “da-DK”, and “de” to the list of “de-AT,” “de-CH,” “de-DE” etc.



Volunteers working on Mac-specific bits, too

- Jan-Marek is doing re-factoring of VCL that makes some of the Mac code much cleaner
- Heiko has done some fixes
- Telesto (QA) too
- Surely forgot some, thanks to them, too.

Known remaining bigger Mac-specific problem areas

- Would be nice to re-enable a unified system+LibreOffice full-screen mode, but this time without regressions...
- Font style mess: more and more typefaces come with more than the traditional R, I, B, BI styles. Handling of that is very suboptimal in LibreOffice (on all platforms?)
- QuickLook (quick preview of document contents in Finder) support for file formats that the system doesn't provide such for
- Spotlight (indexing) support probably could do with enhancements, too
- Performance.





Collabora Productivity

Thank you

... and Keep Calm and Crush the Patriarchy

Tor Lillqvist

tml@collabora.com