A year of Collabora's work in LibreOffice

Thorsten Behrens

Collabora Productivity

Collabora Office

What the Collabora team contributed

Timeline: 26.2 & 26.8 + master

November 25 to September 26

Code, but not only Code

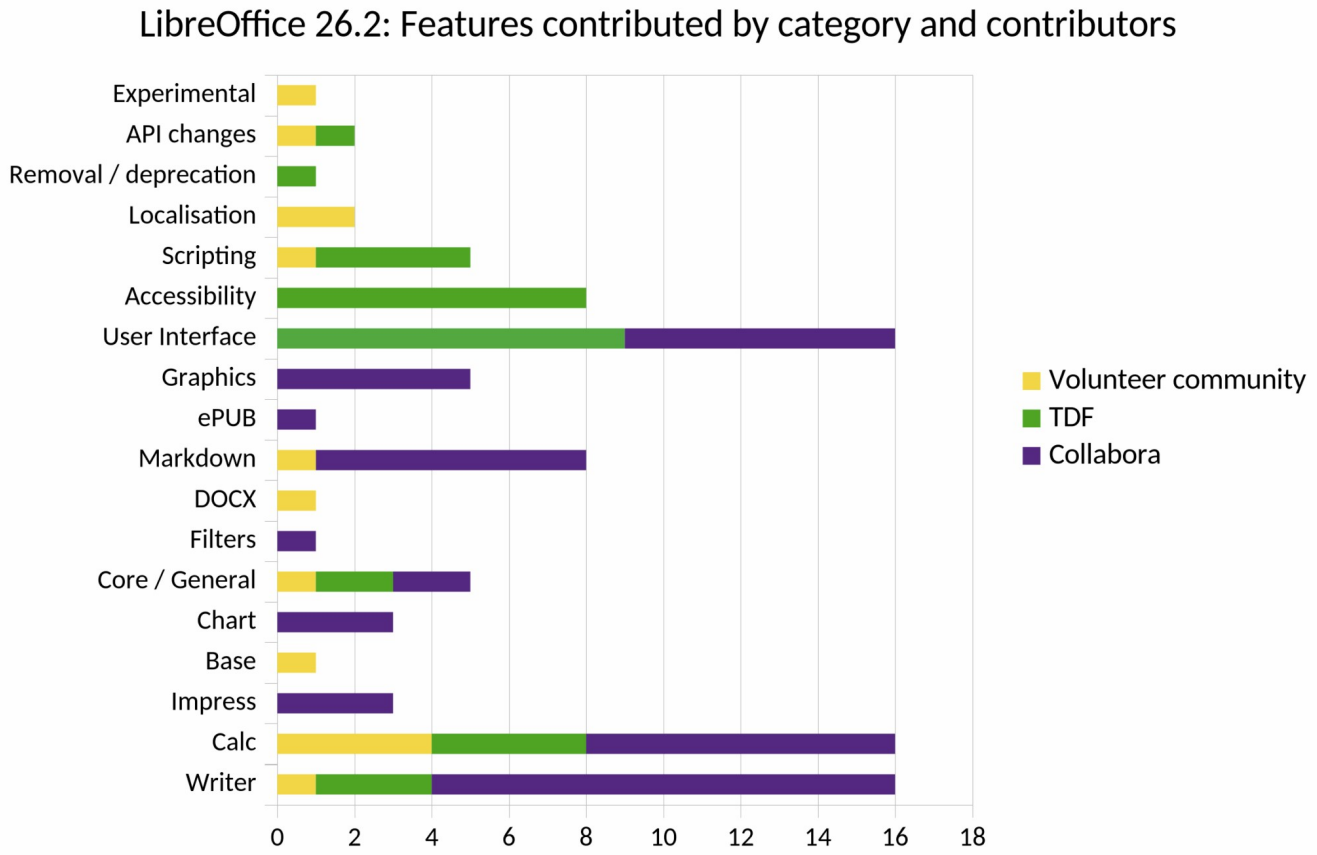
What the team worked on

- Feature work & bugfixing
- Security fixes & code hardening
- Interop improvements & ODF TC
- QA & translation work
- Events, outreach & foundation bodies

LibreOffice 26.2

- Collabora contributed about half of the features to LibreOffice 26.2
- around 2000 commits
- around 500 issues fixed

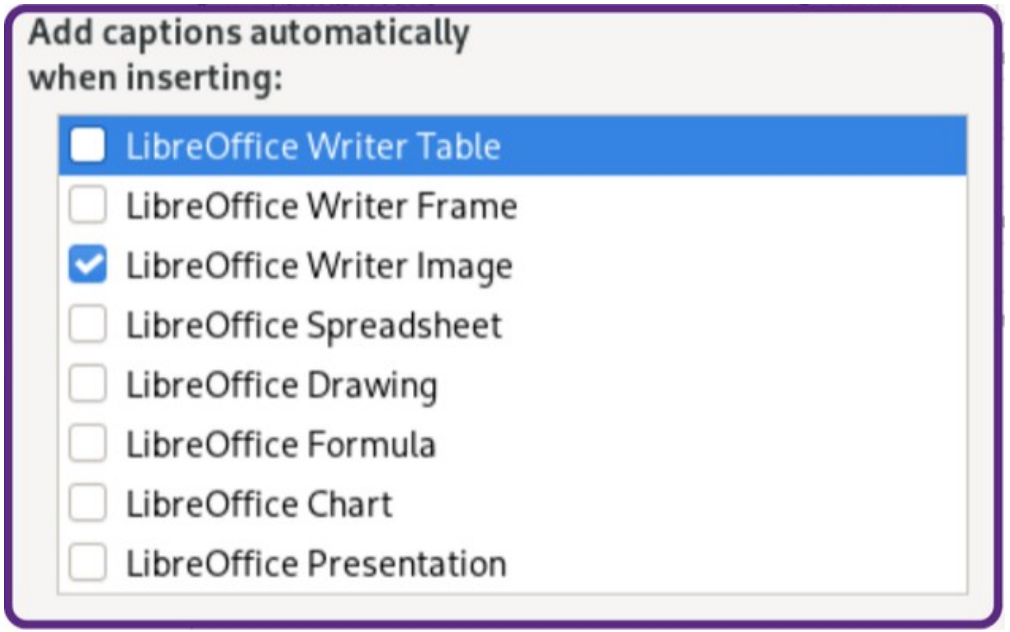
LibreOffice 26.2



Collabora Office

Writer: Auto Captions

- AutoCaptions
  - on image paste, Writer auto-inserts a caption
  - check the box in Tools > Options > LibreOffice Writer > AutoCaptions.



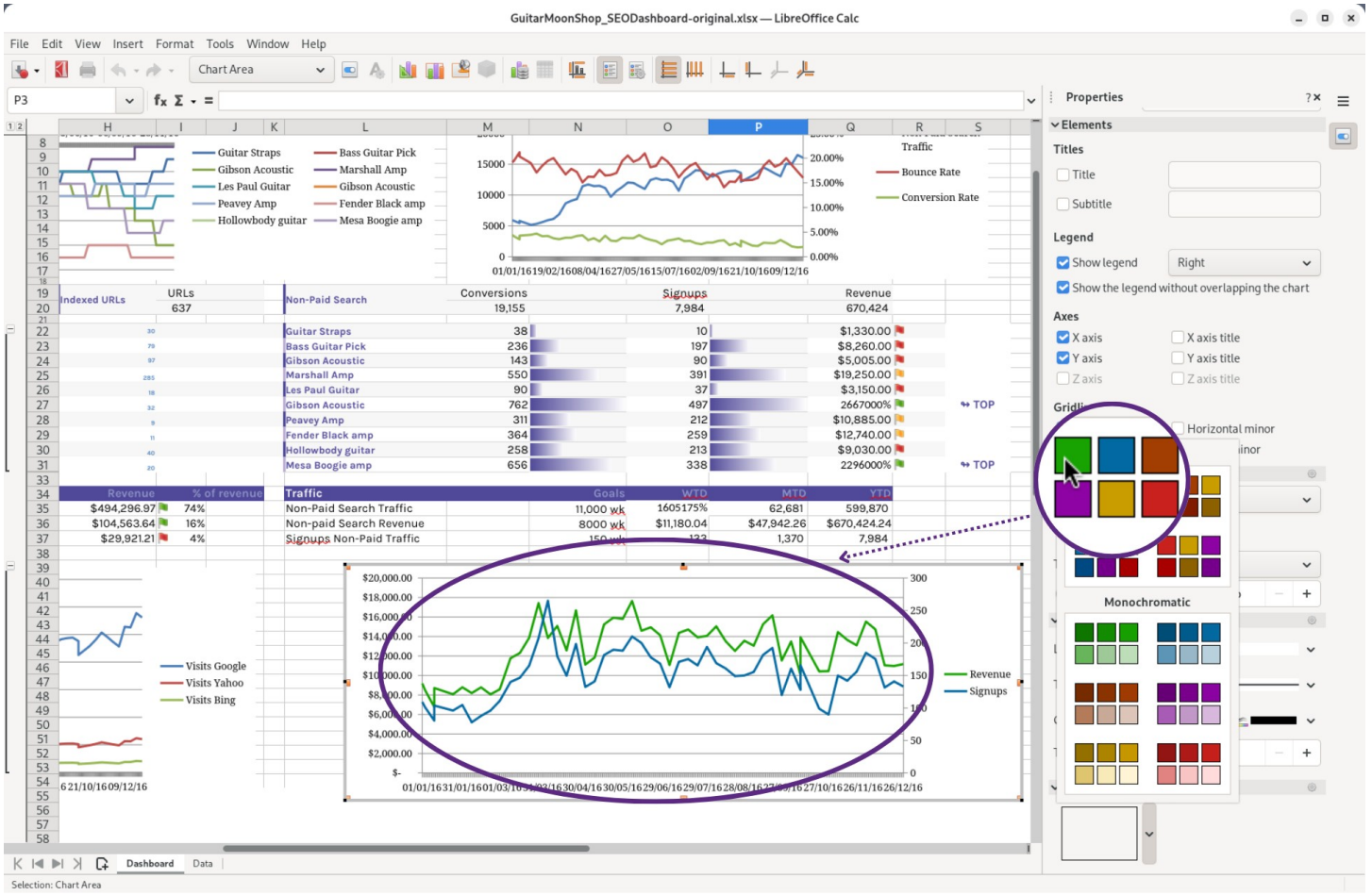
Writer: more fixes

- Better handling of Floating Tables
  - before, Writer prioritised keeping tables and headers together
  - which meant they could both slide onto the next page if there wasn’t enough space
  - sometimes created a large gap on the previous page, but this is now fixed by Miklos
- DOCX interop for Floating Tables
  - Table Split feature much improved. Prior to 26.2, this would result in two floating tables inside one frame, which couldn’t be exported to DOCX.
- Improved Track Changes
  - More choice on interdependent changes
  - select the ‘layer’ to change in the Manage Changes
  - e.g., you can choose a format change that’s on top of a Delete or Insert change

Calc: better Excel interop

- BIFF12 support
  - Bumped limit for pasting from Excel to Calc
  - Prior to 26.2, Calc could paste 65,536 rows
  - With the Biff12 file format (Excel 2007+) supported, users can paste 1,048,576 rows by 16,384 columns per sheet.
- XmlMaps support
  - users can now create direct, structural links between cells and external XML data files, e.g., turning Calc into an interface for managing XML data.

Chart: Live Preview for Sidebar



Performance: Boosts and Fixes

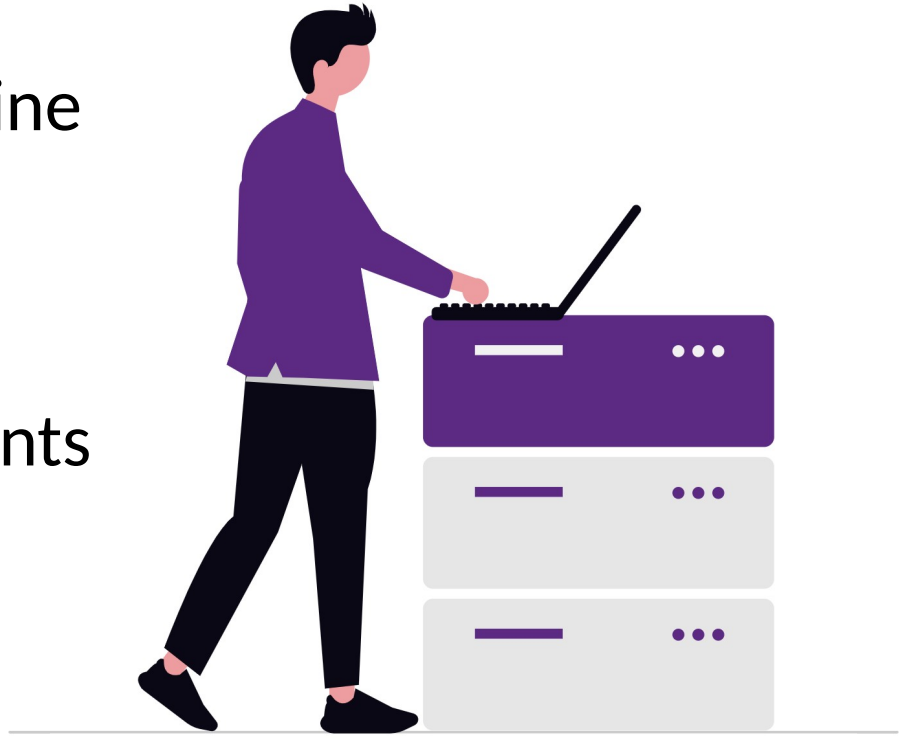
- Calc
  - Across the board fixes
  - faster scrolling on spreadsheets with many hidden columns
  - faster removal of duplicates, and Reject All in Track Changes was slow to complete
- Graphics
  - A ton of optimisation for many user cases
  - e.g. when exporting SVGs with bitmaps and importing certain SVGs (usually because of fills) and polygons (with tiled image fill) that were noticeably slow to render
- UI
  - Go To Page / Slide / Sheet Dialogs made async now
  - So the UI stays responsive when navigating large documents.

Improved Interop & Markdown

- Markdown
  - Markdown export and import are improved, and you can apply templates to imported Markdown, too
  - so your documents pick up the colour theme and formatting, for example.
- Calc: Generic XML and JSON Tabular Mapping Support
  - Linkable tabular ranges are auto-mapped to sheets in Calc when opened now
  - A linkable range is a section of a document containing tabular records
  - When a document contains multiple linkable ranges, each range gets mapped to a single sheet.

LibreOffice 26.8

- Collabora contributed 17 headline features to LibreOffice 26.8
- around 2200 commits (37%)
- around 300 interop improvements
- around 250 issues fixed



Writer: large docs open much faster

Noel Grandin, with Miklos Vajna - tdf#170595

Opening a very large Writer document with many images was slow. The fix included: fix repeated opening and parsing of the zip container, avoid needless heap allocations, fix exception overhead, and a slow path that made object names unique.

Why it matters: the first page appears fast, and scrolling works while the rest of the document is still being laid out.

Writer: side-by-side document compare

Miklos Vajna - blog: https://vmiklos.hu/blog/cool-doc-compare.html

Writer gained a "redline render mode", mirroring what Impress already had. Removed content is drawn in a red tone and added content in a green tone, for text, images, tables, and numbering portions.

Author and modification date of each change are exposed, and the LibreOfficeKit API can render "left-hand" and "right-hand" tiles of the same comparison.

For Collabora Online this drives the "View Changes" button on the Review tab and a "compare" option of the convert-to REST endpoint that produces a PDF of differences.

Why it matters: two versions of a contract or a report can be read next to each other, with the differences colour-coded instead of buried in tracked-changes markup.

Writer: delete comments text in DOCX

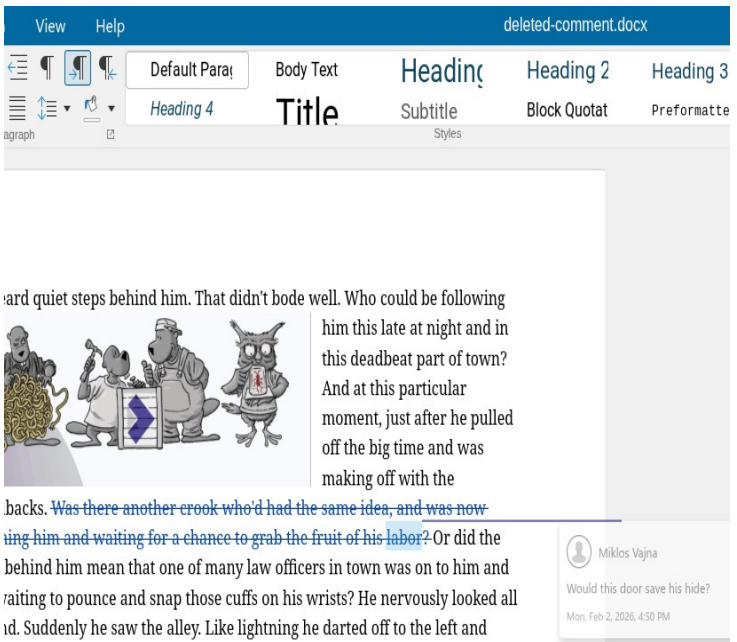
Miklos Vajna - blog: https://vmiklos.hu/blog/sw-ranged-comment-delete-docx.html

Users could comment on a range of text, and could have comments inside a tracked deletion, but not both at once. The DOCX filter lost the "deleted" flag on ranged comments.

Import and export were both fixed so the combination round-trips.

Desktop Writer now shows such comments struck through, and Collabora Online shows them semi-transparent, so the deletion is visible at a glance.

Why it matters: review workflows with range-comments and track changes on the same paragraph no longer lose information when the file is saved as DOCX.



Writer: "hidden" and "show in gallery"

Szymon Kłos - commit 5bee91d5

DOCX documents mark styles as hidden or as "show in gallery" (the qFormat flag). Writer now reads both properties and writes them back on export, even when the value was explicitly set to false.

The result is that the list of styles offered to the user can be filtered down to the ones the document author meant to show.

Why it matters: a DOCX template with two hundred internal styles no longer floods the style picker with entries nobody want to apply.

UI: deterministic style list across

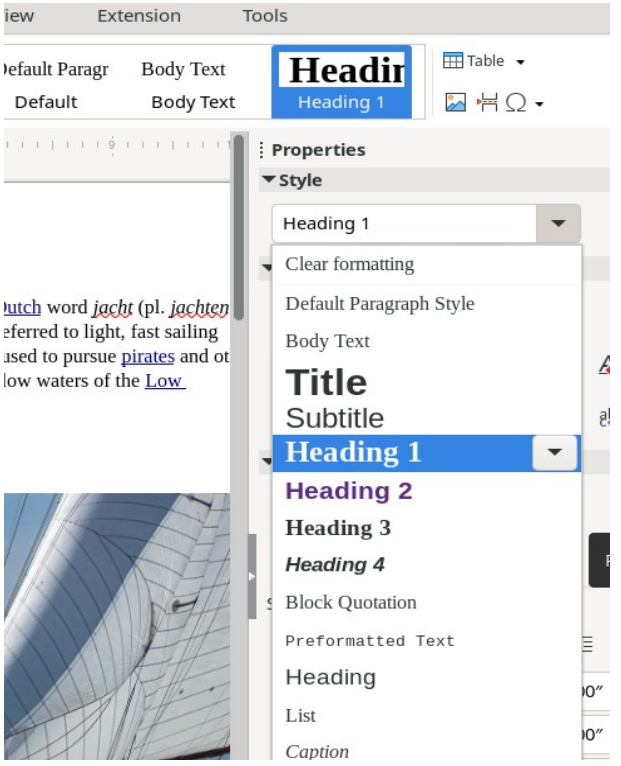
Szymon Kłos - tdf#108239, with a follow-up by Noel Grandin (tdf#166684)

The Notebookbar style previews, the Formatting toolbar dropdown and the sidebar Properties deck now share one list of styles, built the same way every time.

Creating a custom style no longer pushes a standard style out of view, which used to make the list feel like a random selection.

Noel Grandin removed a quadratic loop in the style box filling, so the unified list is fast even with many styles.

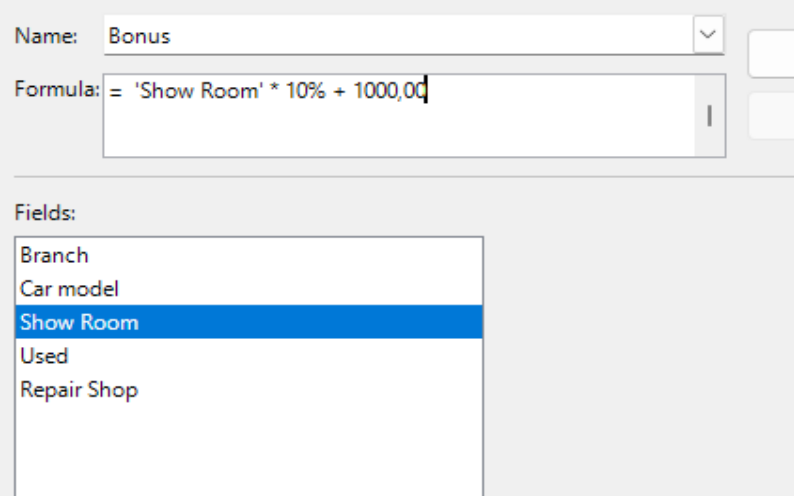
Why it matters: users see the same styles in the same order wherever they look, and learn one picker instead of three.



Calc: Pivot Table Calculated Fields

Balazs Varga - tdf#78486 (requested in 2014) - collabora blog

- A calculated field is a virtual column inside a pivot table. Shows up in field list, behaves like any other item, and updates as you pivot, filter, or refresh.
- Create via Insert > Calculated Field or the pivot context menu
- Operands are aggregated with SUM, matching the OOXML behaviour. Fields survive save and load in XLSX, XLSB and ODS. Missing references resolve to #NAME! after a refresh.



Why it matters: one of the longest-standing pivot table gaps is closed, without touching the source data.

Calc: Shuffle a cell range

Tomaž Vajngerl - tdf#158196

A new Shuffle command randomly reorders the cells of a selected range.

It reuses the existing sort machinery with a random ordering function, so undo, references and formatting behave exactly like a sort.

Why it matters: teachers randomising a seating list, statisticians drawing samples, and anyone building a randomised trial get a one-click answer instead of a helper column of RAND() values.

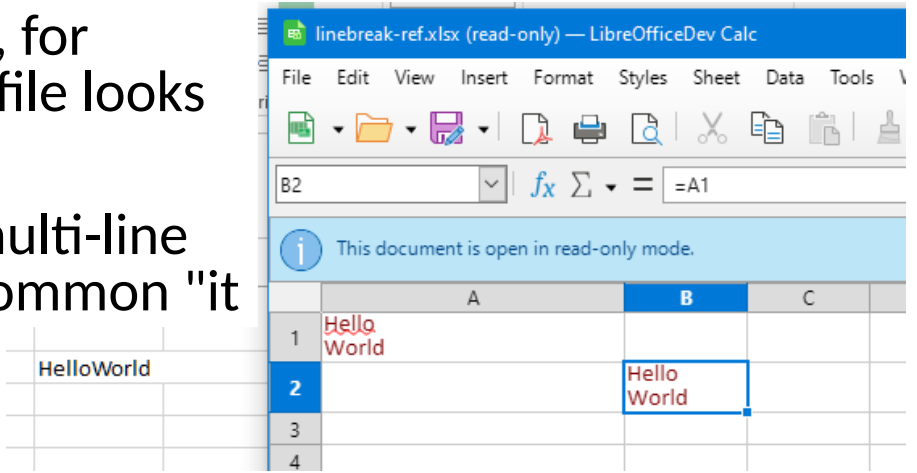
Calc: line breaks in ref cells match XLSX

Bayram Çiçek - tdf#169326

A formula referencing a cell with a line break, Calc displayed the break while other spreadsheets didn’t.

Now aligns the behaviour for XLSX import, for existing texts, and for ODS, so the same file looks the same everywhere.

Why it matters: shared spreadsheets with multi-line cells render consistently, which removes a common "it looks different on my machine" report.



Impress: Presentation Sections

Pranam Lashkari – see talk yesterday!

Slides can be grouped into named sections, shown as headers in the slide sorter and managed from the slide pane context menu: add, rename, move, remove.

Sections are a native UNO property with full undo and redo, and the document is marked modified when they change.

They are written to PPTX (presentation.xml) and to ODP through a loext:section-list extension, with round-trip tests in both directions.

The section model is exposed to LibreOfficeKit so Collabora Online shows the same structure.

Why it matters: long decks become navigable, and section structure created in other presentation software is no longer lost on open and save.

Impress: numbers to bullets in one step

Miklos Vajna - blog: https://vmiklos.hu/blog/sd-bullet-improvements.html

- Switching a numbered list to a bulleted one previously required turning numbering off first. Now the bullet button does it directly.
- List styles of outline shapes are now imported from and exported to PPTX, so multi-level bullets render and edit correctly.
- Turning bullets off and on again clears stale direct formatting and reconnects the text to the outline style's bullet definition.

Why it matters: list editing in Impress behaves the way it does in Writer and in other presentation software, and PPTX bullets stop drifting.

Calc dynamic arrays and #SPILL!

Tomaž Vajngerl - about 170 Calc commits

- Array formulas now spill into neighbouring cells and report #SPILL! when the target range is blocked, the same way OOXML dynamic arrays do. Deleting the blocker resolves the error automatically.
- Spill state round-trips through XLSX and ODF, works with undo and redo, and a leading @ operator opts a formula out of spilling.
- Editing a matrix reference cell collapses the matrix to #SPILL! instead of refusing the edit.

Why it matters: modern spreadsheets built around spilled arrays open, calculate and save correctly.

OOXML interop, one bug at a time

About 300 Collabora commits around DOCX, XLSX, PPTX or RTF.

- **Justin Luth** (88): DOC and DOCX import details, field shading, paragraph and character style handling, find-and-replace edge cases.
- **Karthik Godha** (69): XLSX pivot tables with external or Power Query sources, invalid dates, grouping, table formulas, header and footer fonts.
- **Aron Budea** (21), **Ujjawal Kumar** (20), **Balazs Varga** (12): content controls, data validation, query tables, PPTX bullet indentation.
- **Mike Kaganski** (246 commits overall): DOCX export of rotated shapes, table of contents fields, trailing blank handling in justified lines, animation timing.
- **Armin Le Grand**: SmartArt fill and line export, diagram ungrouping.

Why it matters: every one of these is a document that looked different in LibreOffice.

Markdown on the clipboard

Ujjawal Kumar and Miklos Vajna - tdf#171481, tdf#171121, tdf#172084

- Calc gained Paste Special support for Markdown, so a table copied from a chat or a wiki lands as cells.
- Markdown is detected less eagerly on the clipboard and skips encoding detection, so ordinary text pastes stay ordinary text.
- Writer's Markdown import now picks matching paragraph formats and numbering rules from the target document.

Why it matters: Markdown is how much of the web writes; moving text between it and an office document should not need a converter.

Robustness and hardening

An excerpt:

Caolán McNamara (482 commits): 61 fixes for fuzzer findings (ofz#), 70 Coverity findings (cid#), 32 crash fixes, plus tightening of which URL protocols can be used by document-supplied data.

Stephan Bergmann (115): use-after-free and heap safety fixes found with sanitizers, build and test infrastructure.

Andras Timar (64): null-pointer guards across Writer, Calc and EMF import, PDF password handling on version downgrade.

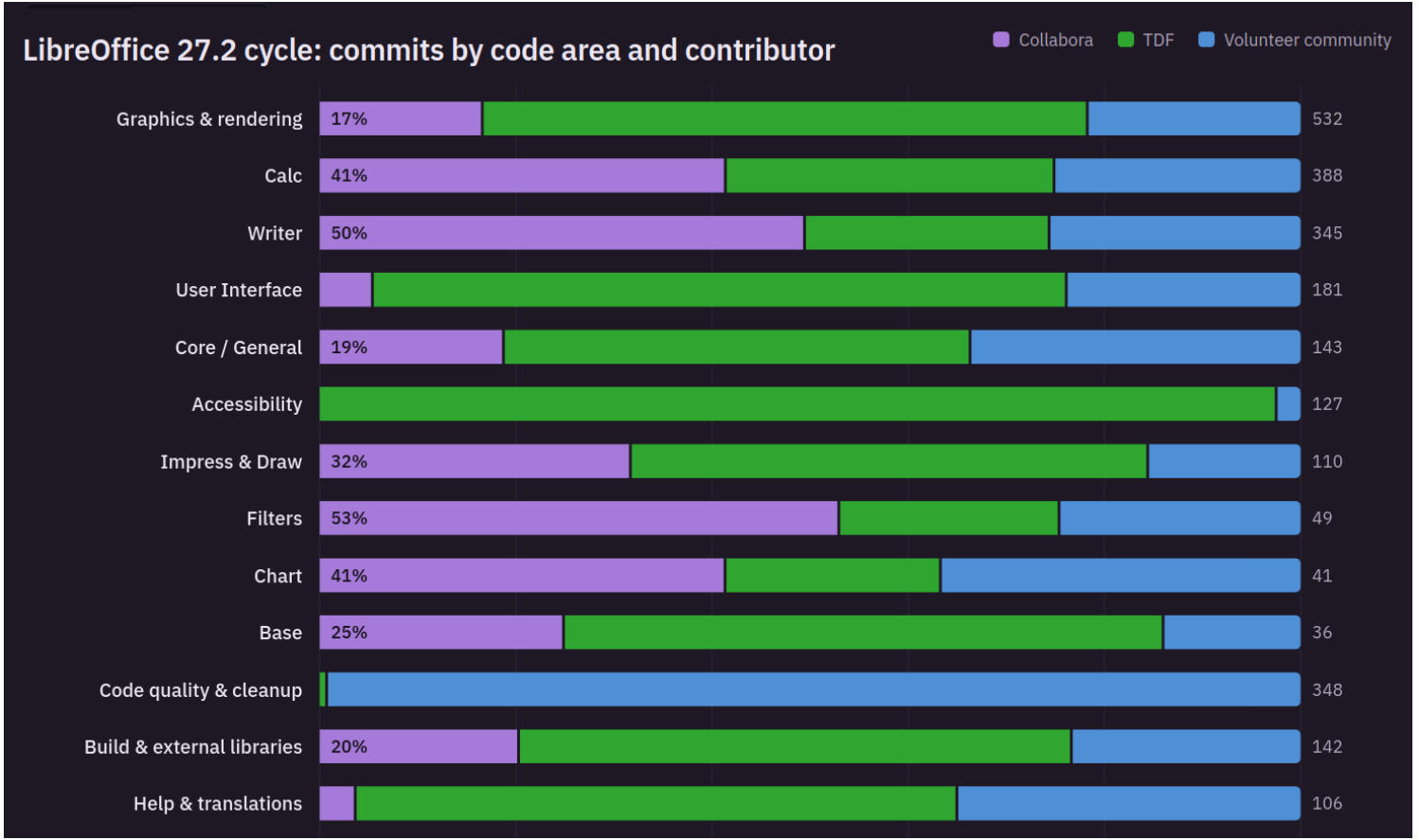
Noel Grandin (224): performance and allocation work across the code base beyond the large-document series.

Why it matters: this is the unglamorous work that helps keeping users secure.

LibreOffice 27.2

- To date:
  - around 1170 commits (27%)
  - around 87 issues fixed

LibreOffice 27.2



Collabora Office

Calc: Dynamic arrays, ranges & LAMBDA

- Continues the work from 26.8
- A formula whose result is an array now spills into the neighbouring cells
- blocked cells give #SPILL!
  - the @ operator collapses an array to one value
  - the # operator references a spilled range. The @ and # operators, reference unions
  - spilled ranges all round-trip through XLSX and ODS
- LAMBDA gained optional parameters and built-in functions passed as values
- New ARRAYTOTEXT function

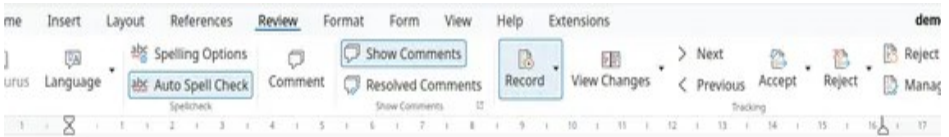
Values	=UNIQUE(C6:C8)	=SORT(D6#)
1	1	1
4	4	2
2	2	4

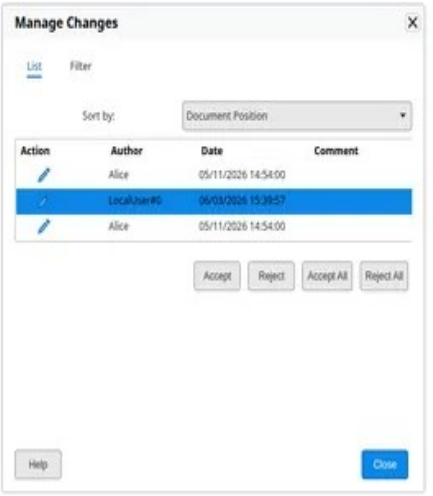
Markdown copy’n’paste improvements

- Continues the work from 26.8
- Pasting Markdown no longer joins the first list with the paragraph before it
- no longer leaves an empty paragraph at the end
- and keeps the last bullet
- Landed new copy-as-Markdown and paste-special-Markdown commands

Dependent tracked changes

- delete followed by a format change on the same text now shown as one change
- undo restores the deleted word when tracked changes are hidden
- bullet numbering survives a tracked paragraph split.





...and many more improvements

- Calc solver rebuilt
- Funnel charts (and more from chartex)
- Impress placeholders & clipped pics
- Tables, footnotes & multi-page floating tables
- PDF export encryption
- Pivot & smart tables
- Threaded PDF comments
- External media link management
- WebP & image alpha

Post-MC action

LibreOffice 26.8 commits

Measure	Value
Commits in the cycle	6060
Commits by Collabora engineers	2250 (about 37 percent)
Distinct tdf# bugs referenced in Collabora commits	279
Collabora engineers with at least one commit	about 40
Interoperability commits (DOCX, XLSX, PPTX, RTF in subject)	about 300
Release-note entries credited to Collabora	17

Most-active Collabora committers: Caolán McNamara (482), Mike Kaganski (246), Noel Grandin (224), Tomaž Vajngerl (201), Justin Luth (133), Stephan Bergmann (115), Karthik Godha (102), Miklos Vajna (92), Balazs Varga (84).

Post-MC action: contributions to 26.8

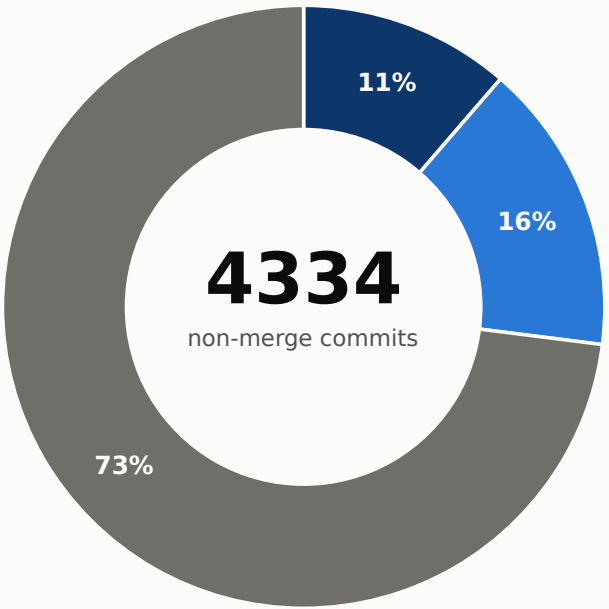
Committer	Commits	Authors picked
Xisco Fauli	97	Caolan 85, Mike Kaganski 5, Andras Timar 2, Stephan Bergmann, Michael Stahl, Jan Holesovsky, Balazs Varga, Aron Budea 1 each
Neil Roberts	1	Noel Grandin
Ilmari Lauhakangas	1	Karthik Godha

Of the 108 Collabora-authored commits, 99 were committed by someone with a @libreoffice.org address.

Post-MC action: contributions to master

Collabora and LibreOffice master, 15 April to 10 September 2026

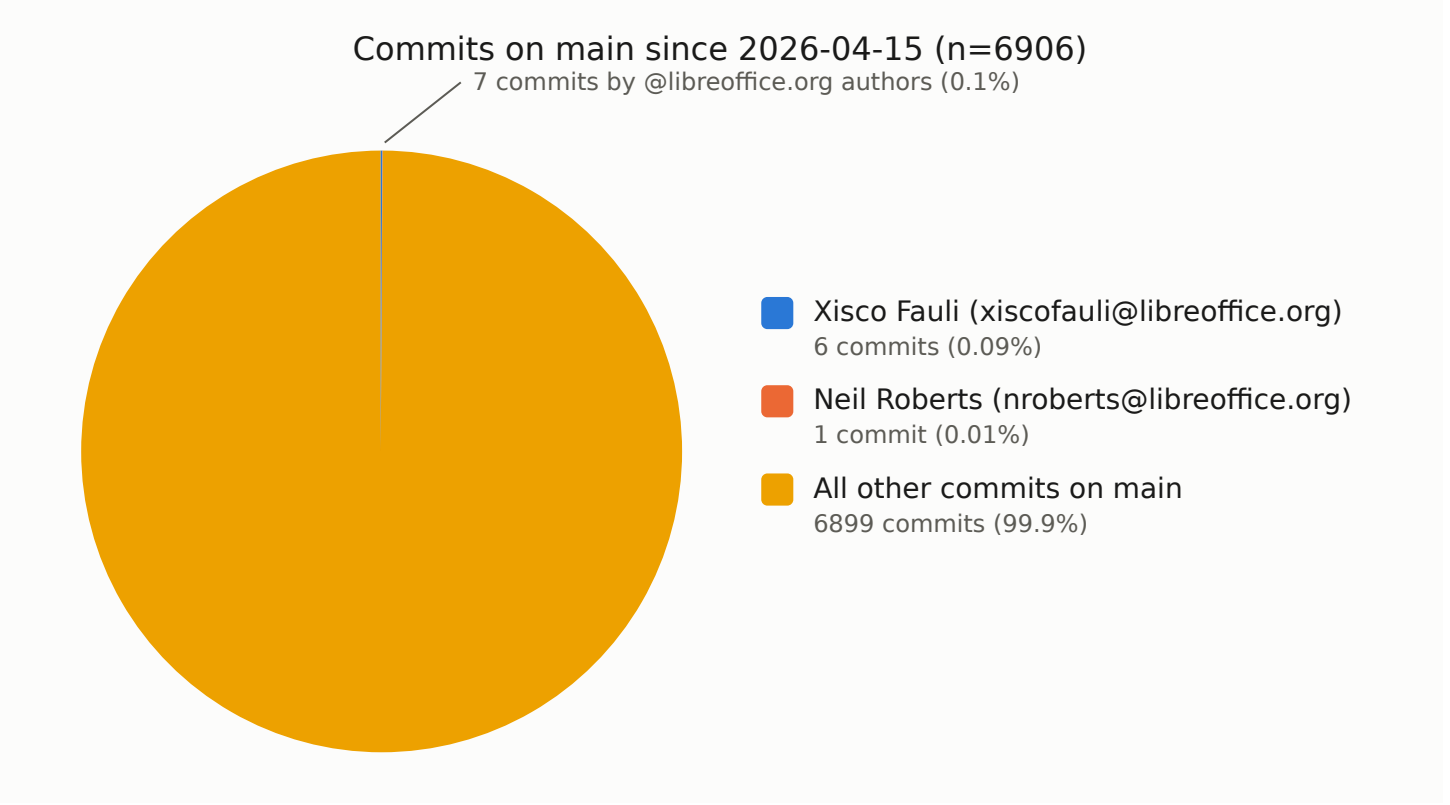
Share of the 4334 non-merge commits on master. Collabora engineers wrote 1170 of them (27 percent).



- Commits by Collabora engineers after the 26.8 branch cut (27.
  492 commits, 11.4 percent
- Commits by Collabora engineers that also shipped in 26.8
  678 commits, 15.6 percent
- All other commits
  3164 commits, 73.0 percent

Blue: Collabora engineers, 1170 commits in total. Gray: all other autho
The 26.8 branch was cut on 16 June 2026.
Source: local core repository, git log --since=2026-04-15, merges excl

Post-MC action: contributions to online



To conclude:

- Code flows into one direction
- Around 30% of LibreOffice releases is still Collabora work
- Nearly all security work done by Caolán
- Good collaboration at the OASIS / ODF TC

Questions & Answers

Connect on Linkedin

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