

Faster zstd Tiles

(with thanks to Facebook)



Collabora
Productivity

Documents as tiles:

The screenshot displays the LibreOffice application window. The top menu bar includes Spelling, Thesaurus, Language, Translate, Automatic Spell Checking, Comment, Resolved Comments, Record, and Show. The right side of the menu bar has navigation buttons: Next, Previous, Accept All, and Reject All. The main document area shows a text document with a grid overlay. The text content includes:
control of your own documents, full control of your office files.
LibreOffice is the world's most popular Open Source office suite with over 120 million users.
Collabora, a leading contributor to the project, and developer of the enterprise-ready, Long Term Supported edition of LibreOffice, Collabora Office, has now brought LibreOffice to the Cloud with Collabora Online.
With Collabora Online you now have access to a powerful, enterprise-ready and 100% Open Source Online Office suite functionality, with excellent support for all popular office file formats and collaborative editing features.
A settings menu is open on the right side, listing various options:
Tile overlays (checked)
Screen overlays
Show Clipboard
Always active
Typing
Tiles device pixel grid
Sidebar Rerendering
Performance Tracing
Protocol logging
The bottom status bar shows the page number (Page 1 of 8), word and character counts (315 words, 2,125 characters), the current selection (Standard selection), the language (English (USA)), and the zoom level (120%).

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- ☒ Tile overlays
- ☐ Screen overlays
- ☐ Show Clipboard
- ☐ Always active
- ☐ Typing
- ☐ Tiles device pixel grid
- ☐ Sidebar Rerendering
- ☐ Performance Tracing
- ☐ Protocol logging

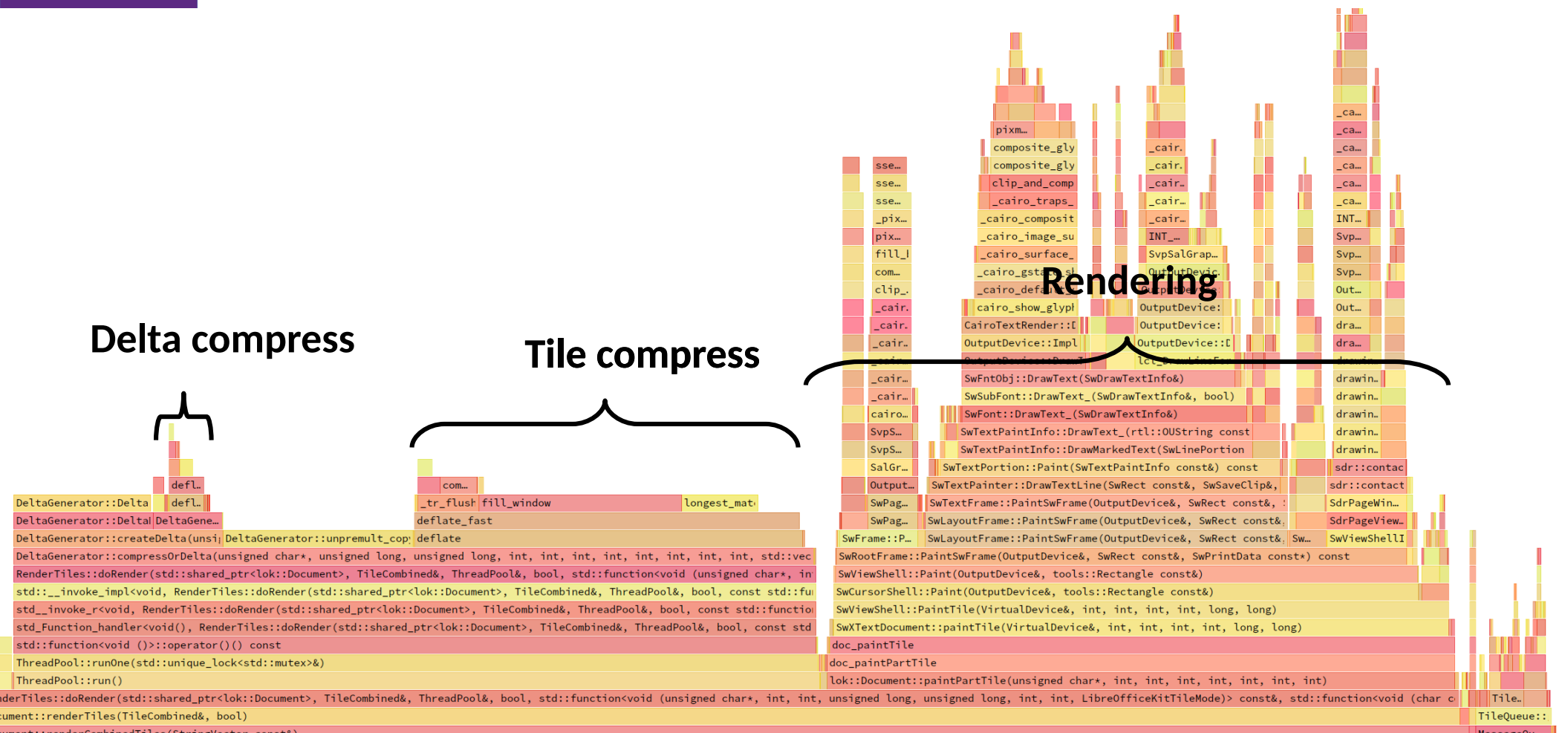
Page 1 of 8 | 315 words, 2,125 characters | Insert | Standard selection | English (USA) | Edit | 120%

Tile compression is significant:

Delta compress

Tile compress

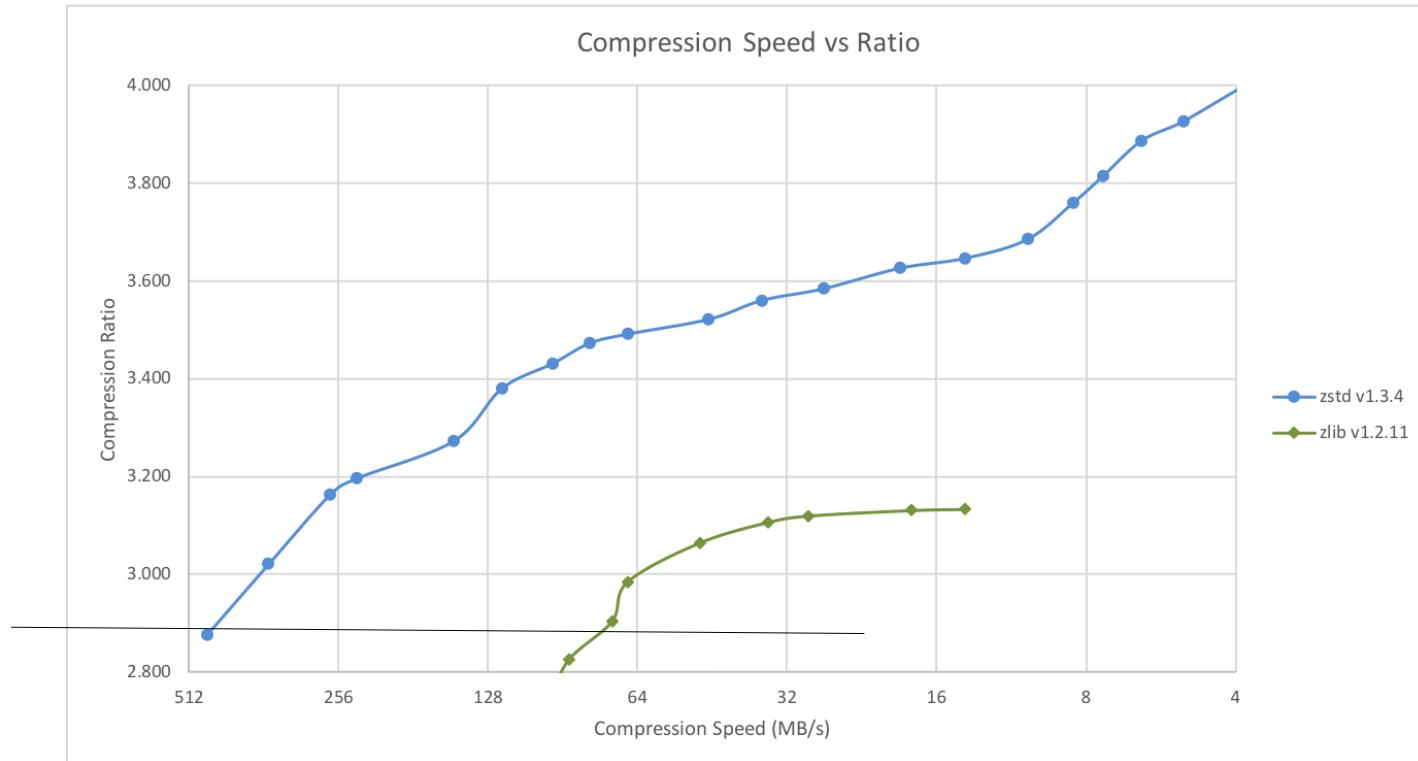
Rendering



Faster (zstd) tile compression

Thanks to Facebook for a better zlib.

~5x lower CPU load for tile compression.



Current status

Status ...

- Pull request on github
 - Compresses Deltas
- Blockers:
 - iOS & Android porting ...

Thanks to:

- Henry Castro – zstd / JS integration.

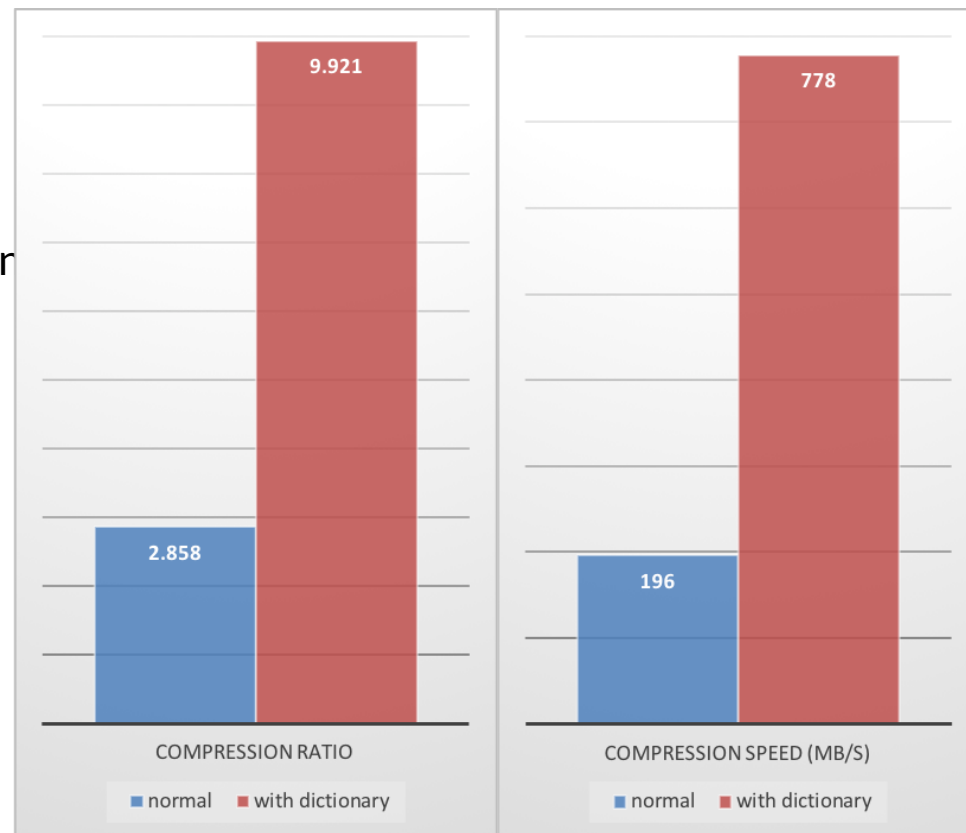
What we can do next: ...

Future work:

- Faster & far more efficient with a dictionary:
 - Build ship & cache that in the client browser cache

Shared messages:

- Tiles (& deltas) are shared between all users.
- Can compress larger / shared messages vs. dictionary
 - JSON / uno status etc.



Thanks !

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