

# Faster zstd Tiles (thanks to Facebook)



Collabora  
Productivity

# Documents as tiles:

The screenshot shows 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 buttons for Next, Previous, Accept All, and Reject All. The document content is a promotional page for LibreOffice, featuring the text: "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.", and "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." The document is overlaid with a grid of blue lines, and each tile contains a small status box with the text: "requested: 0", "rec-tiles: 1", and "rcv-delta: 0". A red box labeled "THOMAS editing..." is visible over the document. On the right side, a settings menu is open, showing the following options: "Tile overlays" (checked), "Screen overlays", "Show Clipboard", "Always active", "Typing", "Tiles device pixel grid", "Sidebar Rerendering", "Performance Tracing", and "Protocol logging". The bottom status bar shows the search bar, page number (Page 1 of 8), word and character counts (315 words, 2,125 characters), and the current language (English (USA)).

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.

requested: 0  
rec-tiles: 1  
rcv-delta: 0

requested: 0  
rec-tiles: 1  
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requested: 0  
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requested: 0  
rec-tiles: 1  
rcv-delta: 0

requested: 0  
rec-tiles: 1  
rcv-delta: 0

THOMAS editing...

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

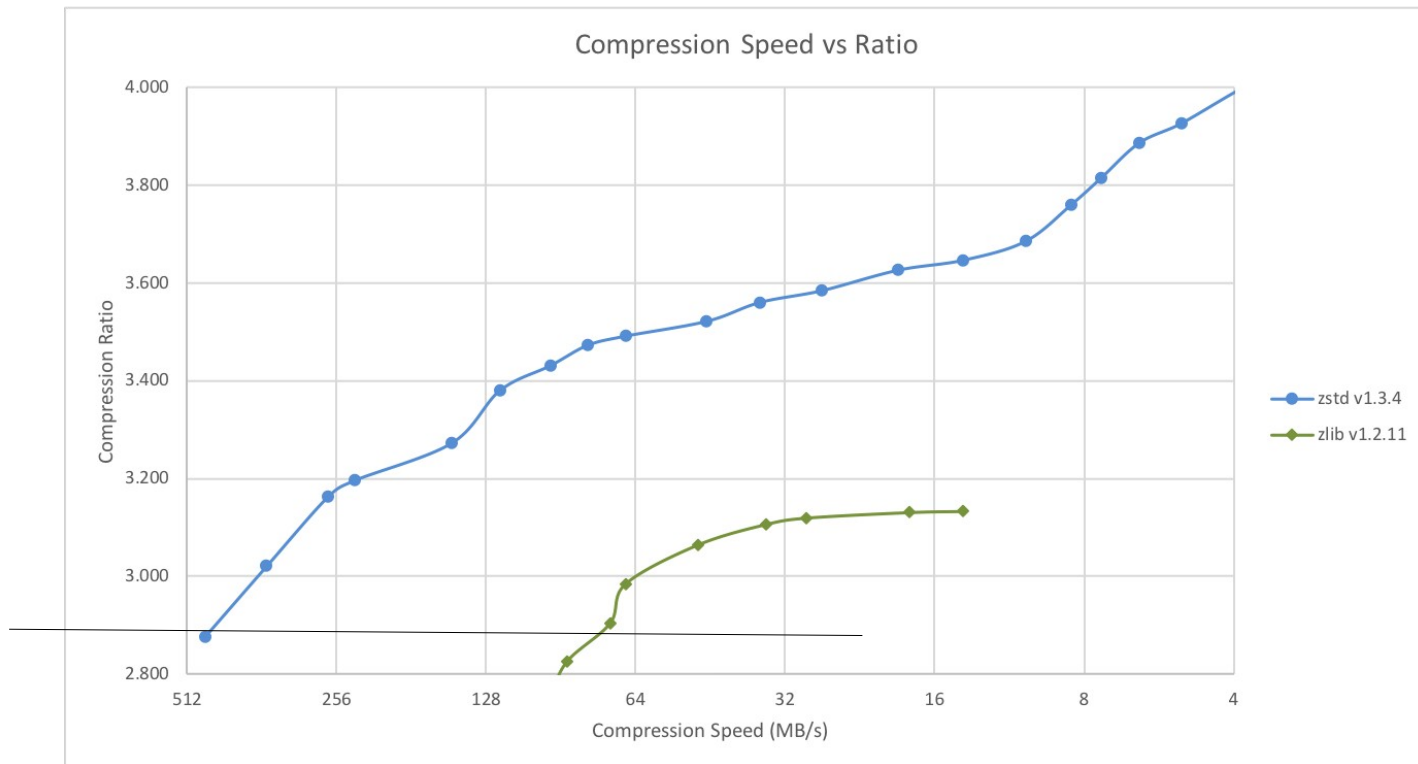
Page 1 of 8 | 315 words, 2,125 characters | Insert | Standard selection | English (USA) | Edit | 120%



# Faster (zstd) tile compression

Thanks to Facebook for a better zlib.

~5x lower CPU load for tile compression.



# Current status

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## Status...

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

## Thanks to:

- Henry Castro – zstd / JS integration.

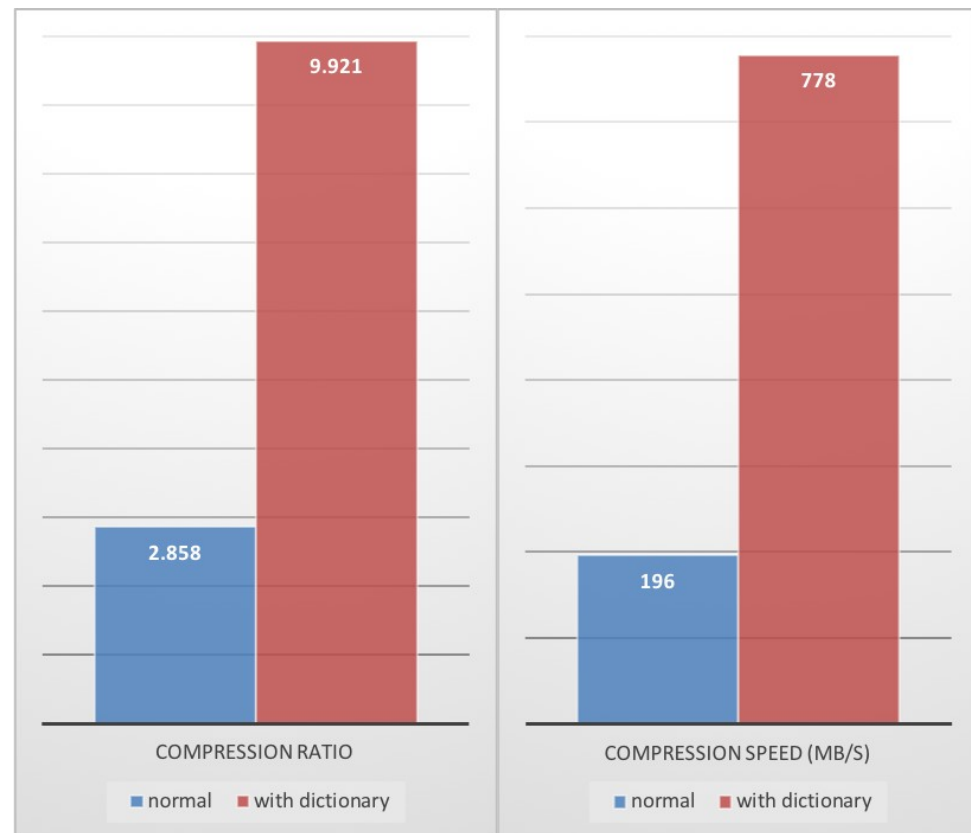
# What we can do next...

## 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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