

Sonora

Project Checkpoint 2 Agenda

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Current state

Sonora can now edit ID3 metadata and save changes to disk. These edits can also be made in bulk, though currently this can only be done by editing all files under a particular album. The metadata inspector does not yet correctly identify “mixed” metadata in these instances, but it does now display album artwork.

We are mostly on track, just need to tighten up batch editing and multi-file select. The UI has also been greatly improved though there is room for improvement.

The internal architecture is stabilizing, with large files being split up into modules as needed.

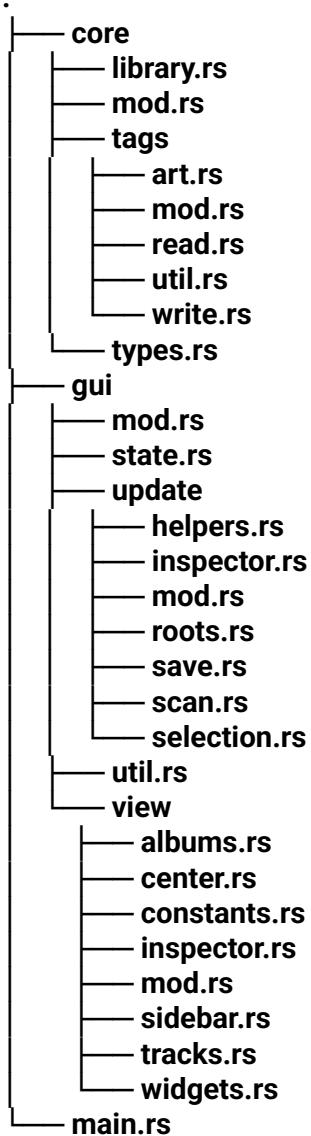
Demo

- Folder scan
- Album View and Track View switching
- Single-track metadata editing and saving
- Batch editing multiple tracks
- Album selection automatically selecting all tracks
- Embedded album art thumbnails (lazy loading currently)

Still need to thoroughly test

- Different filetypes
- Recursive scan
- Should start writing some Unit tests

Current structure



Difficulties so far

- Difficulty troubleshooting Iced related bugs due to version changes
- Handling multi-selection in Iced
- Implementing lazy loading and caching for album artwork without blocking the UI
- Rust ownership and lifetime constraints when coordinating GUI state and background file operations

- Designing architecture that will scale to large music libraries while keeping the UI responsive

Potential challenges

- Scaling with large library sizes
- Cross-platform filesystem weirdness
- Tag corruption and other edge cases
- Playback integration with Rust audio libraries

Next steps

- Implement SQLite database for persistent library state (faster loading, album art, play counts etc)
- Implement basic audio playback
- Implement play counts and last-played tracking
- If time permits, prettier GUI (lower priority)

Questions

- Any architectural concerns I should address now to avoid major refactoring headaches later? I've decided to split up files as soon as they exceed 300 lines or so but I wonder if that will introduce its own complications