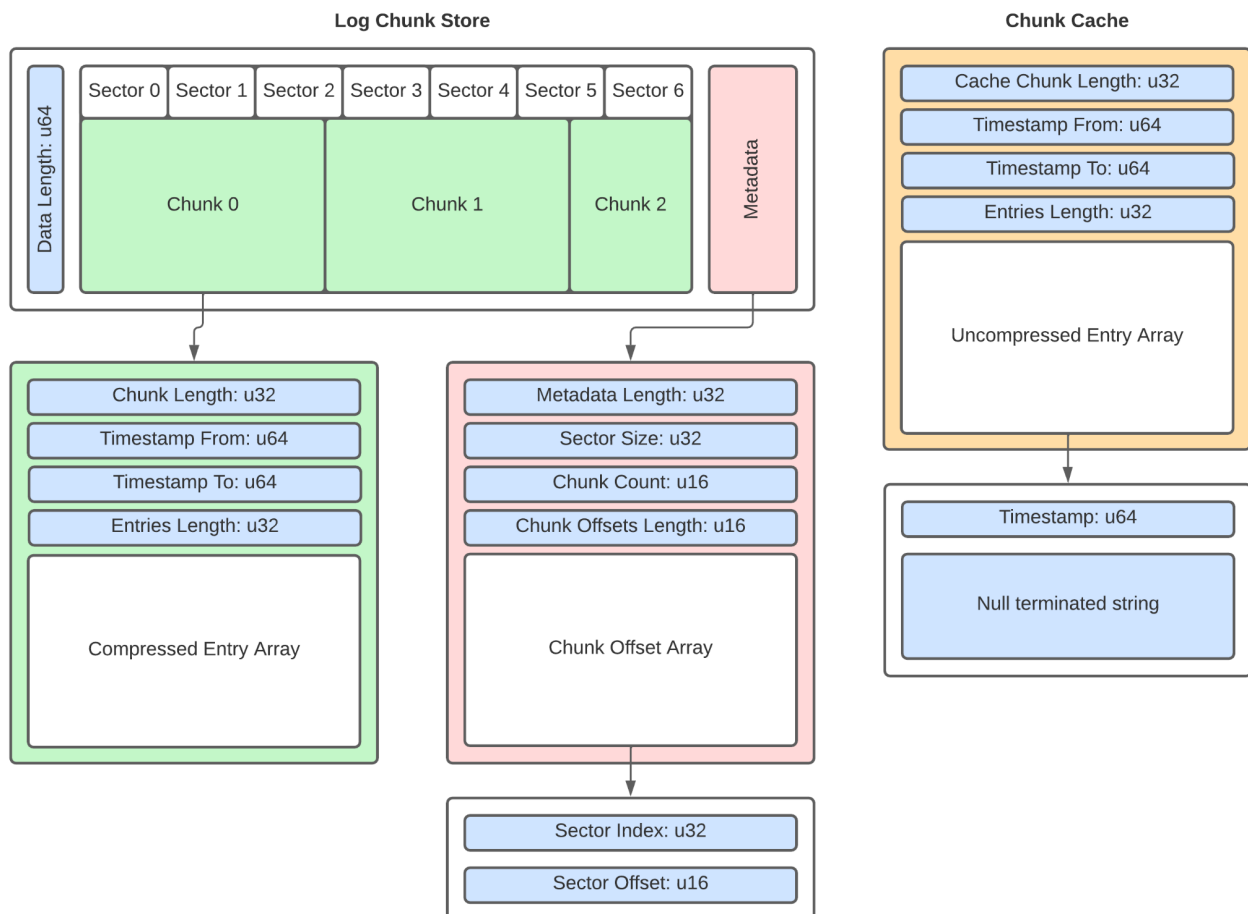# Design Document - Chunky Logs

Requirements

- Space efficient logging
- Cached writing for recovery
- Chunked compression

Overview

Storage format for high frequency writes for temporally linear data. Data is written in compressed chunks, each chunk has n data elements. Data is initially written to a cache which is periodically flushed to a cache file. Once the cache file is full it is compressed and written to the data store.

Details

Structure

Initialising

A new file is created with data length set to 0. After this the metadata chunk is written in defaulted format:
- Metadata length: 96
- Sector size: 1000
- Chunk count: 0
- Chunk offsets length: 0
- Chunk offsets array: empty

In addition to this, a new cache file is created with defaults:
- Cache chunk length: 192
- Timestamp from: 0
- Timestamp to: 0
- Entries length: 0
- Entry array: empty

Loading

TODO

Writing

TODO

Reading

TODO

Caching

TODO