ReleaseNote9_9_0

4 Dec 2023, Apache Lucene™ 9.9.0 available

The Lucene PMC is pleased to announce the release of Apache Lucene 9.9.0.
Apache Lucene is a high-performance, full-featured text search engine library written entirely in Java. It is a technology suitable for nearly any application that requires full-text search, especially cross-platform.

This patch release contains bug fixes that are highlighted below. The release is available for immediate download at:
https://lucene.apache.org/core/downloads.html

Lucene 9.9.0 Release Highlights

**New Features**
- Add int8 scalar quantization to the HNSW vector format. This optionally allows for more compact lossy storage for the vectors, requiring approximately 4x less memory for fast HNSW search.
- HNSW graph now can be merged with multiple threads, leveraging the same infrastructure that inter-segment concurrency utilizes.

**Improvements**
- Speed up Panama vector support, use FMA, and test improvements.
- FSTCompiler can now approximately limit how much RAM it uses to share suffixes during FST construction using the suffixRAMLimitMB method.

**Optimizations**
- Faster top-level conjunctions on term queries when sorting by descending score.
- Change Postings back to using FOR in Lucene99PostingsFormat. Freqs, positions and offset keep using PFOR.

... plus a multitude of helpful bug fixes!

Further details of changes are available in the change log available at: http://lucene.apache.org/core/9_9_0/changes/Changes.html.

Please report any feedback to the mailing lists (http://lucene.apache.org/core/discussion.html)

Note: The Apache Software Foundation uses an extensive mirroring network for distributing releases. It is possible that the mirror you are using may not have replicated the release yet. If that is the case, please try another mirror. This also applies to Maven access.