

# ReleaseNote42

March 2013, Apache Lucene™ 4.2 available

The Lucene PMC is pleased to announce the release of Apache Lucene 4.2

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 release contains numerous bug fixes, optimizations, and improvements, some of which are highlighted below. The release is available for immediate download at:

<http://lucene.apache.org/core/mirrors-core-latest-redir.html>

See the CHANGES.txt file included with the release for a full list of details.

Lucene 4.2 Release Highlights:

- \* Lucene 4.2 has a new default codec (Lucene42Codec) with a more efficient docvalues format (sorted bytes in FST, less addressing overhead, improved numeric compression) and smaller term vectors (LZ4-compressed terms dictionaries and payloads, delta-encoded positions and offsets using blocks of packed integers).
- \* Doc values external and codec API and implementations have been simplified: the codec is no longer responsible for buffering doc values; the numerous types have been consolidated down to only three (NUMERIC, BINARY, SORTED); PerFieldDocValuesFormat lets you set a different format for each field, and the doc values and FieldCache APIs were unified.
- \* Significant refactoring and performance enhancements to the facet module, resulting in overall ~3.8X speedup in one case (single Date field faceting).
- \* DrillDownQuery in the facet module now supports multi-select.
- \* A new DrillSideways class enables counting facet labels and counts for both hits and near-misses in a single query. See <http://blog.mikemccandless.com/2013/02/drill-sideways-faceting-with-lucene.html>
- \* An additional docvalues type (SORTED\_SET) was added that supports multiple values.
- \* FSTs are a bit smaller, and the FST package supports FSTs over 2GB in size.
- \* A new LiveFieldValues class lets you get live or real-time values for any indexed doc / field. See <http://blog.mikemccandless.com/2013/01/getting-real-time-field-values-in-lucene.html>
- \* Added a new classification module.
- \* Various bugfixes and optimizations since the 4.1 release.

Please read CHANGES.txt for a full list of new features.

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 goes for Maven access.