ReleaseNote45

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October 2013, Apache Lucene™ 4.5 available
The Lucene PMC is pleased to announce the release of Apache Lucene 4.5

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 4.5 Release Highlights:

* Added support for missing values to DocValues fields through AtomicReader.getDocsWithField.

* Lucene 4.5 has a new Lucene45Codec with Lucene45DocValues, supporting missing values and with most
datastructures residing off-heap.

* New in-memory DocIdSet implementations which are especially better than FixedBitSet on small sets:
WAH8DocIdSet, PFORDeltaDocIdSet and EliasFanoDocIdSet.

* CachingWrapperFilter now caches filters with WAH8DocIdSet by default, which has the same memory usage as
FixedBitSet in the worst case but is smaller and faster on small sets.

* TokenStreams now set the position increment in end(), so we can handle trailing holes.

* IndexWriter no longer clones the given IndexWriterConfig.

* Various bugfixes and optimizations since the 4.4 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.
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