ReleaseNote47

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February 2014, Apache Lucene™ 4.7 available
The Lucene PMC is pleased to announce the release of Apache Lucene 4.7

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 4.7 Release Highlights:

* When sorting by String (SortField.STRING), you can now specify whether
  missing values should be sorted first (the default), or last.

* Add two memory resident dictionaries (FST terms dictionary and FSTOrd
  terms dictionary) to improve primary key lookups. The
  PostingsBaseFormat API is also changed so that term dictionaries get
  the ability to block encode term metadata, and all dictionary
  implementations can now plug in any PostingsBaseFormat.  See
  http://blog.mikemccandless.com/2013/09/lucene-now-has-in-memory-terms.html

* NRT support for file systems that do not have delete on last close or
  cannot delete while referenced semantics.

* Add LongBitSet for managing more than 2.1B bits (otherwise use
  FixedBitSet).

* Speed up Lucene range faceting from O(N) per hit to O(log(N)) per hit
  using segment trees.  See
  http://blog.mikemccandless.com/2013/12/fast-range-faceting-using-segment-trees.html

* Add SearcherTaxonomyManager over search and taxonomy index directories
  (i.e. not only NRT).

* Drilling down or sideways on a Lucene facet range (using
  Range.getFilter()) is now faster for costly filters (uses random
  access, not iteration); range facet counts now accept a fast-match
  filter to avoid computing the value for documents that are out of
  bounds, e.g. using a bounding box filter with distance range faceting.

* Add Analyzer for Kurdish.

* Add Payload support to FileDictionary (Suggest) and make it more
  configurable.

* Add a new BlendedInfixSuggester, which is like AnalyzingInfixSuggester
  but boosts suggestions that matched tokens with lower positions.

* Add SimpleQueryParser: parser for human-entered queries.

* Add multitermquery (wildcards,prefix,etc) to PostingsHighlighter.

* Upgrade to Spatial4j 0.4.1: Parses WKT (including ENVELOPE) with
  extension "BUFFER"; buffering a point results in a Circle. JTS isn't
  needed for WKT any more but remains required for Polygons. New Shapes:
  ShapeCollection and BufferedLineString.  More info:
  https://github.com/spatial4j/spatial4j/blob/master/CHANGES.md

* Add spatial SerializedDVStrategy that serializes a binary
  representation of a shape into BinaryDocValues. It supports exact
  geometry relationship calculations.
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* Various bugfixes and optimizations since the 4.6.1 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.
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