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## A Lucene-based cataloging solution for Zope-3 and CPS-3.4

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Lucene is an open source project from the Apache Software Foundation written in Java. This is a high-performance, full-featured text search engine library.

NXLucene, from Nuxeo SAS, is a multi-threaded remote server handling Lucene stores. It takes advantage of the freaking fast PyLucene Python bindings and uses Twisted for its implementation. It uses some parts of the Zope3 component architecture as well. NXLucene currently supports the XML-RPC and SOAP protocols. (Its roadmap even includes an ICE connector for the 1.x branch.) As well, NXlucene might be seen as a good example of what could be achieved using the best parts of different worlds (Java Lucene, PyLucene, Zope3, Twisted,...).

nuxeo.lucene is a cataloging component integrated to the Zope3 application server currently offering an xml-rpc proxy to an NXLucene remote server. As well, It offers an abstraction for Python objects' cataloging strategy providing the ability to specify how Python objects should be indexed and retrieved from a Lucene store through NXLucene. (It is important to note here that any remote server providing an XML-RPC remote interface could be theoretically used.)

CPSLuceneCatalog is a CPS-3.4.x specific product adding the CPS specific business rules to nuxeo.lucene. For example, it takes care of the way different versions of CPS documents should be indexed. CPSLuceneCatalog is a complete substitute for the ZCatalog which is showing its limits when dealing with millions of objects within the ZODB. CPSLuceneCatalog will be shipped along with the next major release of CPS, version 4, along with the JackRabbit JCR repository.

The result is a big win on large scale deployments:

- Indexing and searching are much faster and more scalable compared to ZCatalog
- Indexing and searching are much more powerful than with ZCatalog
- (Analysis, ranking, etc...)
- Zope global performance is increased because Zope no longer deals with the indexing and searching business.

NXLucene is an open source project under the LGPL.

nuxeo.lucene is an open source project available under the ZPL.

CPSLuceneCatalog is an open source project available under the GPL.

For more information:

- CPS Project: <http://www.cps-project.org>

- Zope3: <http://dev.zope.org/Zope3>
- Apache Lucene: <http://lucene.apache.org/java/docs/index.html>
- PyLucene: <http://pylucene.osafoundation.org>
- NXLucene: <http://www.cps-project.org/sections/projects/nxlucene>
- nuxeo.lucene: <http://svn.nuxeo.org/trac/pub/browser/Zope3/nuxeo.lucene/trunk>
- CPSLuceneCatalog: <http://svn.nuxeo.org/trac/pub/browser/CPS3/products/CPSLuceneCatalog/trunk>
- Nuxeo SAS: <http://www.nuxeo.com>

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