Newmont Enterprise Search

Proposal for Colorado School of Mines MCS Field Session, Summer 2014

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Introduction

Newmont Exploration has been engaged in worldwide minerals exploration for close to 100 years and has a amassed a large portfolio of information. The majority of this information is on-line in various forms which can make finding things difficult. As a potential solution to this problem Newmont would like to deploy an Enterprise Search tool based on Apache Lucene, and implemented via Apache Solr, Apache PyLucene or ElasticSearch. Lucene is the leading open source search engine. We want to build a scalable, fast, really, good search tool.

Objectives

1. Learn about search, install and configure search tools on a web server, develop custom search interface and web pages as needed.
2. Search large (maybe 500K items) document/data repository.
3. Test relevancy of search results, tune search engine if needed to improve index creation, relevancy, performance, etc.
4. If time permits further explore any or all of the following:
   a. Search Newmont specific formats or content in PostgreSQL or Microsoft SQL Server databases.
   b. Spatial search.
   c. Federated search across indexes (and content) from different locations.

Requirements

1. Interested in search.
2. Passionate (or at least curious) about Open Source.
3. Communication skills.

Work Environment

The work environment and location are flexible. Anticipate a number of face-to-face meetings and frequent electronic communication as a minimum.