Deploying Enterprise Search in PLM Context
Session Goals

► What is enterprise search?
► Aren’t we just talking about using Google?
► What are the drivers for searching PLM content?
► Does engineering data create any unique challenges or opportunities?

► The format will be a panel discussion
  ▪ Aras and 2 experts on PLM search will talk about their different approaches to enabling enterprise search
  ▪ Each will make a short introduction, then your questions
User expectations of search have changed in the last 5 years (google, bing, yahoo)

PLM datasets with > millions of records and files are increasingly more common

PLM doesn’t hold all the data. Often need to integrate ERP, CRM, SCM data to create meaningful results

This creates an increasing challenge for application developers to deliver to these expectations
PLM Search

Search in a PLM context is not exactly the same as searching at home

- Authentication Issues
- Authorization to View specific data items must be enforced
- Context is sometimes abstract
- Data is often more structured
  - For example: search in the context of a BOM. Do we return 1M parts in a result set when the user searches on the model number of Helicopter – the parts are all directly related to the search, but without some context, 1M result rows is the wrong approach.
- Performance concerns – IT Servers are not infinite capacity
Aras Search

- Microsoft Search in Aras
  - Same search engine that is bundled with SharePoint
  - Combines meta-data search with full text search of the vault
  - Vault indexing of Office documents and PDF only
  - Index is pre-populated for fast search
  - Available as a Community project downloadable from [http://www.aras.comm/Community](http://www.aras.comm/Community)
  - User access rights to data records and files are enforced
  - BUT... just a long list of results without any value-add

- Decided our value was secure & open web services and vault API’s and find partners who are search experts to build enterprise search add-ons
Deploying Enterprise Search

In a PLM Context

Al Cole

http://nridge.com/
NorthRidge Software

▶ Serving PLM industry since 1997
  - ProductDashboard (web portal solution)
  - ProductPortfolio (product portfolio management solution)
  - Technical Documentation Knowledge Management (Navy)
  - Discover Innovator (integrated search application)

▶ Enterprise search focus since 2008
  - Google Search Appliance
  - Open Source Apache Lucene/Solr
  - Search-based Applications
Information Challenge

► **Unstructured content explosion**
  - Unstructured content is growing between 65% and 200% every year
  - Each user is creating a GB of unstructured content per year

► **Structured content applications focus on authors**
  - User interfaces tend to be complex due to the rich feature set that must be exposed
  - Difficult for the casual information consumer to master
  - Important content ultimately ends up hidden from them

Source: IDC
Trends We See

▸ Innovation
  ▪ An effective search solution can play an important role in your innovation cycle

  \[ \text{Innovation} = \text{Effective Search} + \text{Collaboration} \]

▸ Search-based Applications
  ▪ Direct correlation to increased satisfaction among departmental users

▸ Content Integration
  ▪ Incorporating content from outside the corporate firewall
Deploying Enterprise Search

A Focus on Engineering and Manufacturing Environments

Martin van der Roest, Alcove9

http://www.alcove9.com/
Backgrounder

- Alcove9 is a business unit of vdR Group, Inc.
  - We build integration technologies and solutions
  - Industry partners sell and market

- 6 years in the making ... over 120,000 users
  - Integrations with MatrixOne, Agile, OpenText
  - Multiple platform evolution ... K2, IDOL, Vivisimo, Exlead
  - Now using Open Source SOLR
Philosophy on search ... what’s the problem?
Philosophy on search ... what’s the problem?

- recognize the richness of data
  - parts, assemblies, files, CAD drawings
- unify access
  - file systems, PLM, ECM, ERP ... including Aras Innovator
  - “mashup”
- provide connector infrastructure
  - leverage open source libraries
Product Today

► search features
  ▪ dynamic categories, parameters
  ▪ virtual properties (mashup)

► multiple repository access
  ▪ integration with Aras Innovator
  ▪ file systems, SharePoint and Enovia (MatrixOne)

► CAD visualization

► personalization

Demonstration
Vision

- improved product-centric semantics
  - e.g. you say pounds ... I say kilograms
  - localization
- embedded search-based hyperlinks
  - properties in metadata and objects in CAD drawings
- expanded search-based applications
  - build on the results to drive improved decision making (BI?)
  - mobile?
Questions for the Panel
Wrap-up

- Visit the partner web sites for more information: