



ACE 2011 International

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

Aras Viewpoint



- ▶ **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>
- 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

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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

Innovation = Effective Search + Collaboration

▶ Search-based Applications

- Direct correlation to increased satisfaction among departmental users

▶ Content Integration

- Incorporating content from outside the corporate firewall

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Deploying Enterprise Search

A Focus on Engineering and Manufacturing Environments

Martin van der Roest, Alcove9

<http://www.alcove9.com/>



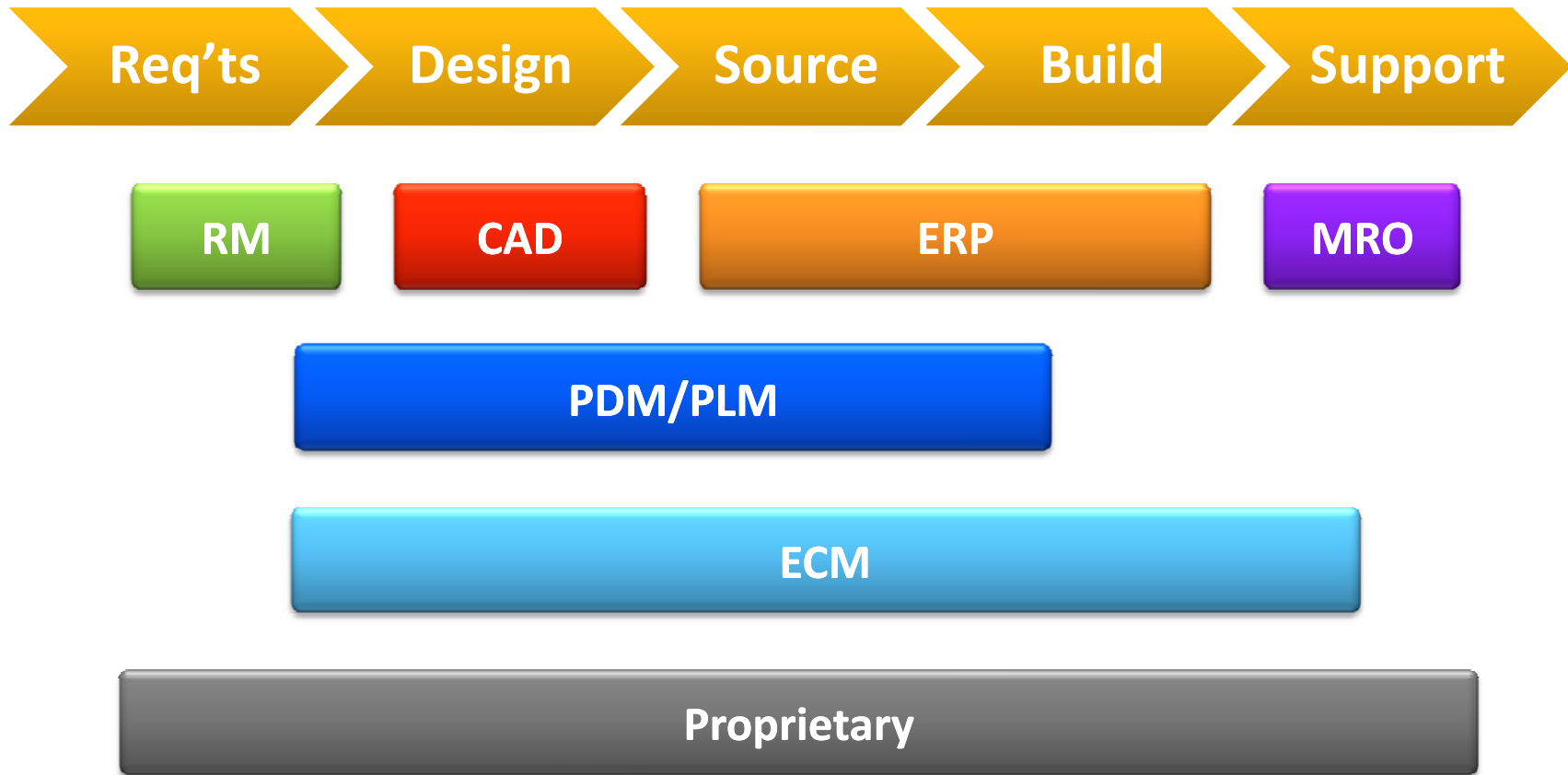
Backgrounder



- ▶ **Alcove9 is 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

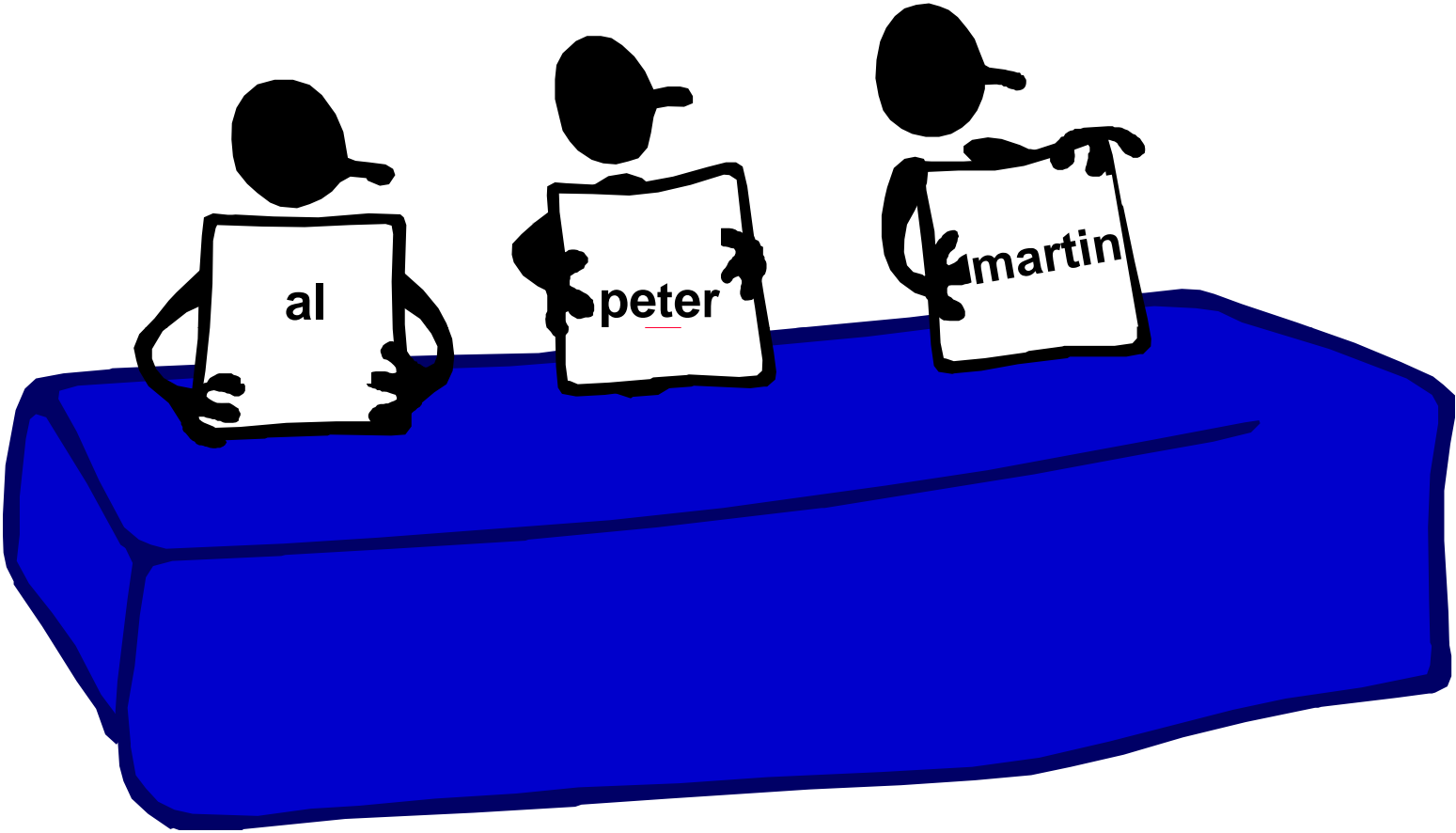
▶ **embedded search-based hyperlinks**

- properties in meta data 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:
 - Al Cole,
<http://nridge.com/>
 - Martin van der Roest,
<http://www.alcove9.com/>