Introduction to SAP NetWeaver Knowledge Management (KM)

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Learning Objectives

As a result of this session, you will learn:

- Why knowledge management strategies are important for organizations
- How SAP NetWeaver Knowledge Management (KM) addresses the challenges of working with unstructured information
- How SAP NetWeaver KM is tightly embedded and integrated into SAP’s core business applications
What is KM, and why is it important?

KM usage scenarios

Integration into business processes

Future plans and outlook
What is KM, and why is it important?

KM usage scenarios

Integration into business processes

Future plans and outlook
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### SAP NetWeaver (cont.)

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<td>ESA Design and Deployment</td>
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Different Users Need Different Information

- CFO
- Manager
- Employee

Structured Information

Unstructured Information

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SAP NetWeaver Knowledge Management provides end users and consumers with the capabilities to access, search, create, and disseminate unstructured information across repository boundaries.

Integration into business applications and processes provides additional context on top of the documents’ content.
The Challenge: Unstructured information is distributed across various repositories

- ERP data
- BI reports
- Workflow data

~ 15%: Structured information

~ 85%: Unstructured information
Repositories are Not the Only Dimension

Information is distributed in organizations ...

Technically
- Web server
- File server
- SAP systems
- DM systems
- ...

Organizationally
- Subsidiaries
- Departments
- Teams
- ...

Semantically
- Categories
- Keywords
- Navigation hierarchies
- ...

... and the consequences are:
- People do not find the right information
- Related information cannot be connected
- Collaboration and information exchange between people does not work
Unstructured Information in the Context of Business Applications and Processes

Embedding unstructured information into business processes and applications provides 360° insight for informed decision-making.

- Innovation and Problem Solving
- Efficiency and Execution
- Merge them!
What is KM, and why is it important?

KM usage scenarios

Integration into business processes

Future plans and outlook
Knowledge Management Core Usage Scenarios

1. Access and search information
2. Create and disseminate information
3. Integrate into business applications and processes

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Challenges of Working in a Knowledge-Based World

Access and search information

- Search, navigate, and retrieve unstructured information in a central environment
- Ensure the accessibility of all documents to all authorized users and provide critical information services
SAP NetWeaver Portal as Central Access Point

Role-based, ... secure, ...

and Web-based ...

access to applications, information, and services

ERP

BI

Knowledge Management

Further applications/services

SAP NetWeaver Portal

Authentication

Single Sign-On
What is KM, and why is it important?

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Repository Integration

KM provides:

- Centralized access to heterogeneous document repositories
- A repository for storing documents related to portal and everyday work
- Consistent look and feel
- Full-text search capabilities
- Document-centric services

KM is:

- Delivered via SAP NetWeaver Portal
- Tightly integrated with SAP NetWeaver Collaboration to enable document-centric collaboration scenarios

SAP NetWeaver KM provides a unifying layer for heterogeneous document repository landscapes

SAP delivers its own repository and “ready-to-use” connectors to various others!

Customers can develop their own connectors!

Partners can certify their connectors!
Integration of SAP Repositories

Connectors to third-party repositories delivered by SAP
- “Native” KM repository
- File system
- Web server (http/https)
- Web DAV
- Lotus Domino (5.x)

Connectors to SAP applications
- mySAP PLM DMS
- SAP BI (for attachments and reports)
- mySAP CRM (for specific scenarios)
- Portal Content Directory (for search on PCD content, NetWeaver ’04 SP14)
Integration of SAP Partner Repositories

Connectors delivered by partners

Certified
- IXOS DocuLink 4.6C
- FileNet P8
- Easy Software
- LogicTools
- Lotus Domino 6.5 (by Conet)

Developed
- Previon
- ICContent
- Documentum 5.3

In progress
- MS Windows Sharepoint Services

Further possibilities
- Integration via Web DAV/HTTP
- iView Integration (bypasses KM)

Customers and partners can develop their own connectors ("Repository Managers"): Go to http://www.sdn.sap.com* → Knowledge Management and Collaboration

Listed vendors on http://www.sdn.sap.com* → Portal Content Portfolio

* Requires login credentials to the SAP Service Marketplace
Search Capabilities

Search capabilities

- Full text/attribute search
- Exact/Linguistic/Fuzzy
- Phrase search and wildcards
- Boolean operators
- Highlighting of search results
- HTML conversion on the fly
- Content Snippets/Abstracts
- “Sponsored links” to direct users to preferred search sites
- Dynamic search for similar documents (“See also”)
- Automatic classification of documents into categories
- Federated search (integration of other search engines)

Note: SAP’s engine for search and classification (TREX) is used for the search. TREX is used in many other SAP applications.
KM taxonomies sort documents from various sources into a common virtual place in the portal.
Classification of Documents

Why classification?

- Information is created in the author’s context
  - In a specific folder
  - In a specific terminology
- Information is needed in the consumer’s context
  - In a known navigation hierarchy
  - In relevant categories

Automatic classification

Navigation structure of author

- Computer
  - Manufacturer
    - Compaq
    - IBM
  - Software

Navigation structure of consumer (taxonomy)

- Office electronics
  - Photocopiers
  - Laptops
  - Fax
  - Phone

Link to 2100_Series.pdf

2100 series
Integrated wireless mobility
from $1,399.05
(shelf available)
as low as $999.00*

- Ready-to-ship models feature mobile AMD Athlon and Intel Celeron processors
- Features IEEE 802.11a/b/g networking
- Embedded 802.11b wireless LAN option available
Query: **Author** = “Technical Office Support”

Query: **Content** = “Laptop” (AND **Author** = “Technical Office Support”)
Concept: Example-Based Classification (EBC)

Example documents describe the category
Create and disseminate information

- Easily create and publish documents
  - From Web browser or Windows file explorer
  - Upload or Web-based forms

- Route information to the right user groups via approval workflows, subscriptions, or classification
Creating Documents within Knowledge Management

Features

- File upload
- New files from templates stored in KM
- Attributes (mandatory/optional)
- Versioning
- Permissions
- Publishing workflow
- Time-dependent publishing
- Automatic indexing/classification
Portal with KM content is exposed as mapped network drive

- KM can be handled like any mapped drive

Offline synchronization

Easy deployment via standard SAP installation

“Mount drive from browser”*

SSO to portal with authorizations respected

Notes:
- “Portal drive” will work with SAP NetWeaver ’04 SP14 and SAP NetWeaver 2004s
- *Planned with NetWeaver ’04 SP15
Creating HTML Content: XML Forms

Content Manager
Creates templates for Web-based forms (Java runtime needed)

Author
Writes content in a Web-based form (Web browser needed)

Reader
Sees HTML content in a corporate look and feel (Web browser needed)
Can You Realize a Web Site Presence with KM?

"Native" KM: XML Forms

Possibilities for Web-based publishing with KM

Partners with WCM offerings

Business package for Web editing by SAP Consulting

Customer-specific project
Can You Realize a Web Site Presence with KM? (cont.)

“Native” KM: XML Forms
- KM Standard (technology and license)
- Good enough for “quick publish” (e.g., news)
- Lean solution, not suitable for full-fledged Web site

Business package for Web editing
- Based on KM Standard (technology)
- Integration of KM iViews into portal navigation
- Extra license applies

Possibilities for Web-based publishing with KM

Partners with WCM offerings
- Best-of-breed vendors for WCM systems
- Tight integration into portal navigation not always possible (check vendor offering)
- Extra license applies

Customer-specific project
- Can be tailored to customer needs
- Project costs and maintenance
- Specific development skills needed (Java/XML)
Integrate into business applications and processes

- Unstructured information is often created in the course of a business process and needs to be handled accordingly.

- KM functionality is integrated with a number of applications within SAP and can be embedded into other business applications via a variety of open APIs.
# Usage of KMC Capabilities in SAP Applications (as of January 2006)

<table>
<thead>
<tr>
<th>SAP Solution</th>
<th>KMC Capability</th>
<th>Document sharing</th>
<th>Web publishing light</th>
<th>Integration of document stores</th>
<th>Document infrastructure</th>
<th>Virtual teams (collaboration rooms)</th>
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<tbody>
<tr>
<td>Employee Self-Service, Manager Self-Service</td>
<td>X</td>
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<td>mySAP HCM (Learning Solution)</td>
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<td>mySAP CRM (Channel Mgt., Digital Asset Manager)</td>
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<td>SAP xApps (xPD, xRPM)</td>
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<td>mySAP PLM (integration with DMS and cFolders)</td>
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<td>BI (Information Broadcasting)</td>
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<td>mySAP ERP 2005 – “Every User” role</td>
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<tr>
<td>mySAP ERP 2005 – “Business Unit Analyst” role</td>
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</tbody>
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*Index:* X = Used  - = not used  (X) = Integration of cFolders with Collaboration Rooms  
*Colors:* Productive/As part of mySAP ERP2005 (currently in ramp-up)
Example: Business Unit Analyst Delivered with mySAP ERP2005 (on NW2004s)

Mike de Wolf
Business Unit Analyst

Gary Dahl
Line Manager

Lucy Jones
Line Manager

Trigger for annual budget planning round (via a guided procedure)

Planning round in collaboration room
Example: Manager Self-Service (MSS) Using KM in NetWeaver ’04

Manager can create documents related to his/her employees
Jump from KM documents directly to related CRM Business Objects
“I need to distribute BI information to other users in a controlled and intuitive fashion”
Example (xPD): Full-Text Search and Attribute Classification Across Ideas

SAP xApp Product Definition (xPD) stores ideas and concepts in KM (including search and classification).

Full-text search with TREX across ideas and associated attachments.

Classification of ideas into categories based on attributes.
“Every User” Role in mySAP ERP 2005

mySAP ERP uses KM (and collaboration) extensively in every user role that provides the entry point to all generic company information (independent of specific business roles)
Main Hooks for Integration of Partner Products

- iViews for EP
- Adaptation/Creation of KM applications
- KM Connectors “Repository Managers”
- KM Flexible UI, Reporting, KM Commands, etc.
- TREX APIs are wrapped via KM APIs and not available in public

SAP Enterprise Portal

- Knowledge Management and Collaboration Roles
- KM Tools
- Content Management (CM)
- Collaboration Room Services
- Search and Classification (TREX)
- Mail and Calendars

SAP Web Application Server

- Repository Framework
- KM Repositories
- External Repositories

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What is KM, and why is it important?

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Future plans and outlook
**KM and Collaboration (KMC) in Next Major NW Release**

**End-User Productivity**
- Waste basket
- Shopping basket (mass download)
- Enhanced multi-language support
- Integration of “native” mail client’s UI (e.g., Outlook) instead of SAP UI
- Improved navigation capabilities
  - Integration with work center/control center
  - Search for collaboration rooms

**Administration**
- Reuse of room roles in permission
- Reports/tools for monitoring, logging, and analysis

**Infrastructure**
- KM cache servers
- Transport of KMC content

**Application Integration**
- Application integration infrastructure (Web Services, ESA compliance)
- Collaboration exposure to Web Dynpro applications

All features are subject to change without prior notice
Summary

The KM capabilities of SAP NetWeaver will help you manage all facets of unstructured information

Capabilities include:

- Functions for effectively creating and working with information in documents
- A powerful search and classification engine
- Adaptability through an open set of extensions
- Full integration with the SAP NetWeaver integration and application platform
Further Information

Public Web and SAP Developer Network SDN
- www.sap.com/netweaver
- www.sdn.sap.com* ➔ Knowledge Management and Collaboration
- SAP NetWeaver Developer Guide

Documentation
- http://www.help.sap.com

Related SAP Education Training Opportunities
- http://www.sap.com/education/
  SAP EP: Overview of Portal, KM, Collaboration
  EP300: Configuration of KM and Collaboration

Service Marketplace
http://service.sap.com/nw-km* (Knowledge Management)
http://service.sap.com/nw-collaboration* (Collaboration)
* Requires login credentials to the SAP Service Marketplace
For more information: Access the SAP Developer Network – www.sdn.sap.com

The central hub for the SAP technology community

- Everyone can connect, contribute and collaborate - consultants, administrators and developers
- Focus around SAP NetWeaver and SAP xApps

High quality of technical resources

- Articles, how-to guides, Web logs, collaborative areas, discussion forums and downloads, toolkits and code-samples

A collaboration platform, not a one-way street

- SAP experts from customers, partners and SAP

SDN is powered by SAP NetWeaver™

- Built on the SAP Enterprise Portal
- Featuring collaboration capabilities of SAP Knowledge Management
The IT Scenario, Enterprise Knowledge Management, provides the foundation for organizations to plan, build, and operate an integrated work environment for users.

KM can help your organization manage distributed unstructured information in your organization and put it into a business context.

Repositories can be consolidated and integrated with KM.

Adaptable user experience through a configurable user interface for creation and distribution of information.

Wide variety of KM services available such as search, rating, subscriptions, discussion, feedback, etc.

Search and classification capabilities that can span all document repositories within your organization.

KM functionality is integrated with a number of applications within SAP.
Your Turn!

Q&A

Debbie Adams

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