Enterprise architecture management tools

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Learning objectives of this unit

- Knowing what requirements for an EA management tool exist from a practitioners point of view
- Understanding how different EA management tools can be evaluated
- Being capable of detailing on the different approaches and origins of EA management tools
- Obtaining a general idea of how a generic approach to select an EA management tool looks like
Outline of this unit

- The Enterprise Architecture Management Tool Survey 2008
  - Questionnaire
  - Scenarios
  - Results
- What happened since the survey
- Approaches of the tools
- A wiki-based approach to EA management
- Selecting an EA management tool
Tools for EA management – The Enterprise Architecture Management Tool Survey (EAMTS)

Several tools with

- different originations,
- different approaches,
- different goals and
- different strengths and weaknesses

- Adaptive, Ltd.: Adaptive EAM
- Agilense, Inc.: EA WebModeler
- alfabet AG: planningIT
- ASG, Inc.: ASG Enterprise Management/Rochade
- BEA AquaLogic: Enterprise Repository
- BiZZdesign: BiZZdesign Architect, BiZZdesigner
- BOC GmbH: ADOit/ADOxx
- Casewise Ltd.: Corporate Modeler Suite, IT Architecture Accelerator
- Embarcadero: EA/Studio
- Future Tech Systems Inc.: ENVISION VIP
- Hewlett Packard: Mercury Project and Portfolio Management Center
- IBM: Rational Software Architect
- IDS Scheer AG: ARIS Toolset
- MEGA International SA: MEGA Modeling Suite
- Primavera: ProSight
- process4.biz: process4.biz
- Proforma Corp.: ProVision Modeling Suite
- pulinco: TopEase Suite
- Telelogic AB: System Architect
- Troux Technologies, Inc: Metis Architect, Metis Server, Metis Collection
- ...

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Deutsche Bank

Consultants

act! Consulting
DETECON

sd&m

SYRACOM

The Business and IT Architects

Enterprise Architecture Management Tools

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# Tools sorted based on interest of sponsors & partners

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>alfabet AG</td>
<td>planningIT</td>
</tr>
<tr>
<td>IDS Scheer</td>
<td>ARIS IT Architect</td>
</tr>
<tr>
<td>Telelogic</td>
<td>System Architect</td>
</tr>
<tr>
<td>Troux Technologies</td>
<td>Metis Architect, Metis Server, Metis Collection</td>
</tr>
<tr>
<td>* IDS Scheer</td>
<td>ARIS ArchiMate Modeler</td>
</tr>
<tr>
<td>* Hewlett Packard</td>
<td>Mercury Project and Portfolio Management Center</td>
</tr>
<tr>
<td>Casewise</td>
<td>Corporate Modeler Suite, IT Architecture Accelerator</td>
</tr>
<tr>
<td>* IBM</td>
<td>Rational Software Architect</td>
</tr>
<tr>
<td>MEGA International</td>
<td>MEGA Modeling Suite</td>
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<td>BOC</td>
<td>ADOit/ADOxx</td>
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<tr>
<td>Adaptive</td>
<td>Adaptive EAM</td>
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<td>Proforma</td>
<td>ProVision Modeling Suite</td>
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<td>EA/Studio</td>
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<td>BEA AquaLogic</td>
<td>Enterprise Repository</td>
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<td>CA</td>
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<td>infonea</td>
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<td>EA WebModeler</td>
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<td>QualiWare</td>
<td>EAM Suite</td>
</tr>
<tr>
<td>Primavera</td>
<td>ProSight</td>
</tr>
<tr>
<td>process4.biz</td>
<td>process4.biz</td>
</tr>
<tr>
<td>Avolution</td>
<td>ABACUS</td>
</tr>
<tr>
<td>Sparx Systems</td>
<td>Enterprise Architect</td>
</tr>
<tr>
<td>ASG</td>
<td>ASG Enterprise Management/Rochade</td>
</tr>
<tr>
<td>pulinco</td>
<td>TopEase Suite</td>
</tr>
<tr>
<td>Visible Systems Corporation</td>
<td>Visible Enterprise Products</td>
</tr>
</tbody>
</table>

* Tool unaccounted for evaluation

Short List
Outline of this unit

- The Enterprise Architecture Management Tool Survey 2008
  - Questionnaire
    - Scenarios
    - Results
- What happened since the survey
- Approaches of the tools
- A wiki-based approach to EA management
- Selecting an EA management tool
Online questionnaire EAMTS2008

- Categories
  - Vendor data
  - Tool data
  - General tool architecture
  - Collaboration support
  - Internationalization / Localization
  - Integration with related domains
  - Methodology
  - Integration with other modeling tools
EAMTS2008 scenarios

- Scenarios for Analyzing Specific Functionalities
  - Importing, Editing, and Validating Model Data
  - Creating Visualizations of the Application Landscape
  - Interacting with and Editing of Visualizations of the Application Landscape
  - Annotating Visualizations with Certain Aspects
  - Supporting light weight Access
  - Editing Model Data using an external Editor
  - Adapting the Information Model
  - Handling large scale Application Landscapes
  - Supporting multiple Users and collaborative Work

- Scenarios for Analyzing EA Management Support
  - Landscape Management
  - Demand Management
  - Project Portfolio Management
  - Synchronization Management
  - Strategies and Goals Management
  - Business Object Management
  - SOA Transformation
  - IT Architecture Management
  - Infrastructure Management
Scenario: Creating visualizations of the application landscape

Concerns of this scenario

- The department store SoCaStore wants to get an overview of its application landscape and its EA. This should be accomplished by the creation of six different visualizations for different aspects of the application landscape: a cluster map, a process support map, a time interval map, and a graph layout map as well as a swimlane diagram and a portfolio matrix.

Exemplary Deliverables
Scenario: Landscape management

Concerns of this scenario

- Information about the application landscape should be stored in the tool. Starting with the information about the current landscape, potential development variants should be modeled. The information about the current application landscape and future states should be historicized in the tool to enable comparisons.
- Chosen versions of the application landscape, e.g. current, planned, and target landscapes should be analyzed and compared using different visualizations and reports.

Typical questions to be answered

- What does the current application landscape look like today?
- What is, according to the plan of 01-01-2009, the application landscape going to look like in January 2010?
- What does the target landscape look like?
- …
### Scenario: Landscape management current, planned, and target landscapes

<table>
<thead>
<tr>
<th></th>
<th>Current Landscape</th>
<th>Planned Landscape</th>
<th>Target Landscape</th>
</tr>
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<tbody>
<tr>
<td>today</td>
<td><img src="image" alt="current landscape" /></td>
<td><img src="image" alt="planned landscape" /></td>
<td><img src="image" alt="target landscape" /></td>
</tr>
<tr>
<td>2008-07-01</td>
<td><img src="image" alt="current landscape" /></td>
<td><img src="image" alt="planned landscape" /></td>
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<tr>
<td>2008-10-01</td>
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<td><img src="image" alt="planned landscape" /></td>
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<tr>
<td>2009-01-01</td>
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<td><img src="image" alt="planned landscape" /></td>
<td><img src="image" alt="target landscape" /></td>
</tr>
<tr>
<td>2010-01-01</td>
<td><img src="image" alt="current landscape" /></td>
<td><img src="image" alt="planned landscape" /></td>
<td><img src="image" alt="target landscape" /></td>
</tr>
</tbody>
</table>

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Scenario: Demand management

Concerns of this scenario

- The IT department of the SoCaStore department store has received numerous demands, which must be documented and linked to the affected elements of the EA. To prepare the project portfolio management a subject of the five demands has to be selected. These demands must subsequently be transformed into project proposals, combining demands asking for similar functionality or affecting the same application systems.

Typical questions to be answered

- Which demands have been received?
- Which application systems are affected by the individual demands?
- Which demands can be combined into one project proposal?

<table>
<thead>
<tr>
<th>ID</th>
<th>Demands</th>
<th>Description</th>
<th>Contact person</th>
<th>Legacy</th>
<th>Affected business applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improve Customer retention</td>
<td>The percentage of customer relationships that a business is able to maintain on a long-term basis</td>
<td>Mr. Mayer</td>
<td>3</td>
<td>100, 800, 1600, 1610, 1615, 2100</td>
</tr>
<tr>
<td>2</td>
<td>Homogenization</td>
<td>Reducing the heterogeneity of business applications</td>
<td>Mrs. Huber</td>
<td>5</td>
<td>130, 300, 350, 400, 470, 1000, 1300, 1200, 1400, 1500, 1600, 1620, 1650, 1720, 1730, 1820, 1830, 1850, 1890, 1900, 1910, 1950</td>
</tr>
<tr>
<td>3</td>
<td>Reduce costs</td>
<td>Cost-efficient support and maintenance for business applications</td>
<td>Mr. Weber</td>
<td>2</td>
<td>120, 200, 300, 350, 400, 500, 700, 1000, 1100, 1200, 1400, 1500, 1600, 1610, 1620, 1650, 1720, 1730, 1820, 1830, 1850, 1890, 1900, 1910, 1950</td>
</tr>
<tr>
<td>4</td>
<td>Adapt to government regulations</td>
<td>Understanding the government regulations for business applications</td>
<td>Mrs. Schmidt</td>
<td>6</td>
<td>150, 550, 600, 1580, 1630, 1650, 1700, 1720, 1750</td>
</tr>
<tr>
<td>5</td>
<td>Improve enterprise-wide knowledge management</td>
<td>Building an intellectual capital strategy</td>
<td>Mrs. Huber</td>
<td>2</td>
<td>1800, 1100, 1300, 1308, 1900, 2000</td>
</tr>
</tbody>
</table>
Scenario: Project portfolio management

Concerns of this scenario

- The IT department of the SoCaStore department store has received numerous project proposals. In consideration of the processes, organizational units, and application systems affected by the project proposals a selection of the project proposals should be made. The available budget for projects is 5 million EUR.

Typical questions to be answered

- Which project proposals have been received?
- What costs are calculated for which project proposal?
- What is the expected return of investment of which project proposal?
- Which processes/organizational units are affected by the changes as they use the application systems modified by the project proposals?
- Which projects should be accomplished in any case?
Scenario: Synchronization management

Concerns of this scenario

- To support the management of ongoing projects and to plan future projects, there has to be the possibility to model and manage project interdependencies or to derive them from affected elements of the EA.
- It should be possible to analyze the project timeline using Gantt-like diagrams. This timeline shall than be updated and annotated to reflect delays of a single project as well as to identify projects, that depend on it and might also be delayed.

Typical questions to be answered

- Which projects affect the same organizational unit?
- Which dependencies exist among projects?
- What happens, if a particular project is delayed? Which schedules have to be adapted and how?
- …
Scenario: Strategy and goals management

Concerns of this scenario

- As part of the implementation of a balanced scorecard at the SoCaStore department store the customer perspective is considered. The strategies and goals lead to different projects and changes in the EA. These changes should be traceable to the prior defined strategies and goals.

Typical questions to be answered

- Which strategy leads to which goals?
- Have all goals been reached?
- Which organizational units have not reached their goals?
- Which projects support which goals?
- …
Scenario: Business object management

Concerns of this scenario

- The department store SoCaStore wants to get an overview of the business objects involved and exchanged in the execution of the business processes. Therein, especially the data flow between the application systems performing operations on the business objects should be modeled and the kind of operation performed in a specific application system should be detailed.

Typical questions to be answered

- Which business objects are created, modified, or deleted by which application systems during the execution of which business process?
- Which application systems exchange business objects via which interface?
- Which application system holds the master copy of which business object?
- …
Scenario: SOA transformation

Concerns of this scenario
- An enterprise wants to transform its architecture into a service oriented one, with a top-down and bottom-up approach to identify the possible candidates for reusable services. The top-down approach starts identifying services from the business objects perspective within the conduction of different business processes. The bottom-up approach starts with technical functionalities currently provided by business applications. The services should not only be identified but also the effects of the transformation should be modeled.

Typical questions to be answered:
- Does the business application support a differentiating or a standardized business process?
- Which business functions supported by the current landscape are used within numerous domains?
- What would a service oriented target architecture aligned to business needs look like?
Concerns of this scenario

- SoCaStore regards its heterogeneous application landscape as a problem. The high number of technologies used in different architectures calls for a high number of experts. A homogenization may reduce operating costs, e.g. by consolidation of used software licenses, and maintenance expenses.

Typical questions to be answered:

- Which architectural solutions are used within the different domains of SoCaStore?
- Which solution elements are used within SoCaStore?
- Which of the existing solution elements should be kept, which should be replaced?
- Which application systems use which solution elements?
- What actions have to be derived, if architectures/solution elements are replaced?
Scenario: Infrastructure management

Concerns of this scenario

- The department store of SoCaStore intends to consolidate its database systems to decrease the costs for maintenance and licensing. Also, expected support periods offered by the database vendors should be considered.

Typical questions to be answered:

- What DBs are in danger of running out of support?
- Which DBs are currently in use?
- Which application systems use which DB?
- What are the costs for operating and licensing which DB?
- …
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What is SoCaStore?

- Simulation is based on a fictitious department store, called SoCaStore.
- Information model of SoCaStore consists of
  - Business Processes
  - Organizational Units
  - Application Systems
  - Domains
  - Projects
  - ....
- Information objects are maintained in an Excel sheet
### SoCaStore: A set of reference data for evaluating EA management tools

<table>
<thead>
<tr>
<th>SoCaStore Model</th>
<th>SoCaStore Metamodel</th>
<th>Utilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Microsoft Excel Files" /></td>
<td><img src="image2.png" alt="UML / Ecore" /></td>
<td>Generated data for „handling large scale application landscapes“</td>
</tr>
</tbody>
</table>

- **Microsoft Excel Files**
  - total ca. 200 instances, ca. 700 links (using foreign keys)

- **UML / Ecore**
  - ca. 25 classes, ca. 30 associations, ca. 90 attributes

- **Utilities**
  - 3 different sizes
  - total ca.1000/5000/10000 instances with each ca. 70 attribute values and ca. 15 links
Overview on the evaluation process and its criteria

9 Tools are evaluated by 3 teams

**Functional Criteria**
- Online questionnaire for every vendor
- Simulation of functional scenarios with every tool
  ➔ Documentation of the functional aspects and the evaluation results in simulation

**EA Management Task Criteria**
- Simulation of typical EA Management tasks with every tool
- One scenario per EA Management task
  ➔ Documentation of the evaluation results in simulation

Final evaluation based on the results documented
  ➔ Each evaluation criterion is assigned an ordering of tools reflecting their specific support

9 Spider diagrams each with 8 specific functionalities

8 Spider diagrams each with 9 EA management tasks

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Enterprise Architecture Management Tools

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Analyzing specific functionalities – Minimum and maximum achieved results

- Importing, Editing, and Validating
- Creating Visualizations
- Usability
- Interacting with, Editing of, and Annotating Visualizations
- Flexibility of the Information Model
- Impact Analysis and Reporting
- Communication and Collaboration Support
- Support of large scale Data

Enterprise Architecture Management Tools
Analyzing specific functionalities – Details of the evaluation results

**Communication und Collaboration Support**

- Well supported with interesting features for collaboration, e.g. workflows and notification mechanisms

**Creating Visualizations**

- Different approaches to visualizing the EA or parts thereof - retaining potential for improvement
  - (Semi)-Automatic generation of visualizations still has its limitations
  - Flexible models without predefined semantics are not supported out-of-the-box and mostly have to be created manually

**Interacting with, Editing of, and Annotating Visualizations**

- Interaction is mostly „drawing“ – semantic changes could provide an improvement towards graphical modeling

**Importing, Editing, and Validating**

- No standard exchange format for EA models
- No common information model or core concepts thereof exist
Analyzing EA management support – Minimum and maximum achieved results

Landscape Management

Infrastructure Management

Demand Management

IT Architecture Management

Project Portfolio Management

SOA Transformation

Synchronization Management

Business Object Management

Strategies and Goals Management

Enterprise Architecture Management Tools
Analyzing EA management support – Details of the evaluation results

Landscape Management
- Different levels of support for the concept of time
- Versioning application landscapes retains potential for improvement
- Not all tools provide methods for deriving the planned landscape from the planned project portfolio

Synchronization Management
- No tool directly supports the concept of project delay

SOA Transformation Management
- Tool support for indentifying services retains potential for improvement

Infrastructure Management
- Not all tools provide concepts for lifecycle aspects of infrastructure components
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What happened since the survey...

The first study was conducted from January to September 2005, the recent results were gathered from October 2007 to April 2008.

The market of EA Management Tools is still moving.

Some vendors included the advices and critics from the survey of 2008.
Tool vendors added software maps (1)

Example ARIS Toolset from IDS Scheer AG

- Process Support Map in ARIS 7
- Time interval map in ARIS 7
- „Object-in-Object“-Functionality for Cluster Maps in ARIS 7
Tool vendors added software maps (2)

Example planning IT from alfabet AG

- Time interval maps in planningIT 1.0
- Visualization of metrics in planningIT 2.1
Tool vendors added software maps (3)

Example Troux 7.1 from Troux Technologies
- Automatic Cluster Maps
- Visualization of metrics („Heat-Maps“)
- SOA Transformation Methodology
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Approaches of the tools (1)

EAM-Tools have different approaches

- **Flexibility vs. Guidance** regarding process, method, and information model for supporting EA management
- **Preconfigured vs. Customization** regarding the functionality provided by the tool out of the box – two approaches exist: EA management solution vs. EA management platform
- **Integration vs. Single-Point-of-Truth** regarding the information base of the tool, which in the one approach is collected from a variety of sources, while in the other approach being under data sovereignty of the tool itself
- (Framework-driven)

These approaches are not disjoint!

- Combinations of different approaches are possible
- Tools follow partially several approaches with variable degree of coverage

Attention: Mostly no exact matching between tools and approaches is possible!
Approaches of the tools (2)

Flexibility vs. Guidance:

- **Meta model driven approach:**
  - Customers can adapt the information model to their needs
  - Reports and visualizations have to be adapted to the changed information model
  - Mightiness of the tools at changing the information model is heavily variable; From small proprietary solutions up to MOF compliant solutions

- **Methodology driven approach:**
  - Predefined and documented methodology (methodology manual)
    - How to use which models?
    - Which elements belong to which models?
  - Only small or no changes to the information model, methodology remains
  - Reports and visualizations are coupled to the information model

- **Process driven approach:**
  - Methodology is expanded with a management process
    - The “what” and “how” of the methodology is extended by the “when”
  - Process connects different modules in a process model
Preconfigured vs. Customization

- **EA Management Solutions (Preconfigured)**
  - Preconfigured functionality for typical EA Management tasks are provided by delivery
  - “Misuse” is aggravated
  - Rampant learning curve (Training, Consulting necessary)

- **EA Management Platforms (Customization)**
  - At delivery only basic functionality is provided
  - Implementation of a company specific EA Management approach is possible
  - At the beginning of the implementation of the tool a customer specific adaption is necessary
Approaches of the tools (4)

Integration vs. Single-point-of-truth

- **Single-point-of-truth**
  - Data of EA are stored centrally in the EAM Tool
  - Replication is done “manually“ via imports
    - conflict resolution strategy is necessary
  - High data consistency, clear data sovereignty

- **Integration**
  - EAM-Tool acts as „Data Warehouse“
  - Main target of these EAM-Tools is the maintenance of the relation information
  - Reuse of different data sources
  - Linking, integration and aggregation of different sources in one model
  - Demands sophisticated transformation possibilities
  - Is also called „Metadata Integration“
    - Data consistency and data sovereignty may be problematic
Approaches of the tools (5)

Example of the combination of approaches
Methodology driven and metamodel driven approach
  - Tool owns methodology manual and
  - Tools allows definition of customized information model

Variant 1:
  - Information model is customized and the given model is changed (not only extended!)
  - Consequence: Predefined methodology has to be replaced partially!
  - Remark: This is often done, when the tool has good meta modeling capabilities and the methodology does not fit.

Variant 2:
  - Predefined information model is only extended slightly
  - Consequence: Predefined methodology has to be extended!
  - Remark: This is often done, when the tool has a good methodology manual but the company specifications are missing
Example of an unusual (or curios) approach for the usage of a methodology driven EAM tool:

- Meta model can not be adapted in the tool, but the methodology is bended.
  - The information model is implicitly redefined
  - Existing models of the tool are redefined using a self-developed method manual

- Consequences: An own method manual has to be written

- Remark:
  - If a tool is already applied in an enterprise, which is (politically) set, or no funds are available for the purchasing of a new product, this method is chosen frequently
  - Even UML-tools are used!
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Starting an EA management initiative does not come without problems

- Emerging EA management initiatives often start informal using spreadsheets or text documents since
  - the development of an information model is a labor intensive task and
  - no widely-accepted standard information model exists.
- With the growing complexity of the management body and the rising number of stakeholders involved, problems arise regarding
  - scalability and
  - collaborative work.
- Introducing an EA management tool is often regarded to solve these problems.

➤ How to support an evolutionary approach to EA development (esp. regarding the design of an enterprise-specific information model)?
➤ How to map the grown structure of informal documentation to structures as incorporated in EA management tools?

[Bu09]
A wiki-based approach facilitates EA documentation, communication, and analysis by

- Watch lists and change feeds, which
  - allow a stakeholder to get notifications, if certain parts of the documentation, he/she is responsible for, is changed and
  - support the head of a group of people to keep track on the progress made, e.g. in an documentation endeavor.
- Versioning, which
  - enables historization of EA descriptions or parts thereof (incl. information models)
  - supports traceability of the origin of changes if comments for changes are supported, e.g. effects of a project
- Collaborative tagging and bookmarking, which
  - enable flexible organization of resources by categorization according to cross-cutting concerns, e.g. data security,
  - allow the user to keep track or inform fellows of open activities (task organization tags)
- Roles and rights management

[Bu09]
Tricia as an enterprise wiki

- **WYSIWYG-Authoring**
- **Tagging**
- **Bookmarking**
- **Awareness**
- **Commenting**
- **Linking**
- **Social networking**
- **Access control**
- **Search (full-text)**
- **Versioning**
- …
Extending wikis with templates to support structured content

- Automated data processing and visualization, which are essential in an EA management context impose additional requirements on data representation.
  → capture data in a structured form

- Existing wikis rely on text formatting conventions to express structure (e.g. www.wikipedia.org, cf. Figure), but do not offer native support of automated data processing.

- Semantic wikis (e.g. http://semantic-mediaWiki.org), try to exploit complex semantic web technologies but often lack usability.

- **Our approach:** templates provide a simple extendable table containing attributes, textual values, and links.
Accounting System 520

The Accounting System 520 supports the process steps billing and accounting at the subsidiaries Munich and Hamburg. It is a thin-client system.

Usage description and interfaces

It is used to create bills entered by the key account managers and automatically forwards them to the printing system, which automatically sends out the receipts via mail. Afterwards the receipts get automatically registered in the factoring process and are registered in accounting.

Another possible use case is that the system receives data from the ordering process and then created the corresponding bill and forwards it again to the printing system and registers the receipt in accounting.

Accountant staff also uses the system to extend accounting with needed information as e.g. information for cost accounting and invoices. Furthermore the system is used to export the information to the headquarters SAP FI and SAP BI system.

Users

The main users of the system are key account manager and accountant staff.

Eco-System

The system is developed in Java EE and runs on a BEA Weblogic environment on server X08. As database an Oracle 10g instance on server X10 is used. On the clients the workstation the system is called in the Firefox 3.5 browser via http://X10/Accounting.
The template in detail

- Existing templates can be assigned to a wiki page to provide an initial set of attributes (labeled table rows)
- Attributes are either literals or links to other wiki pages
- Attributes can be edited in the same manner as wiki text
- New attributes can be added easily
Links at work

- Each association between two templates has an owning side (i.e. the side where the relation is specified in an attribute)

  ➞ This avoids redundancies and inconsistencies

- Navigation is facilitated by providing links to referencing wiki pages grouped by template
Management of templates

- Overview on
  - textual description of the underlying concept and its attributes
  - template statistics, e.g. number of instances or attribute assignments
- Activities
  - rename templates and attributes
  - configure further constraints on the values of attributes, e.g. type of referenced template

Application System

A software system, which is part of an information system within an organization. An information system is therein according to [Keene 2001] understood as a socio-technological system composed of a software system (i.e., the business application), an infrastructure, and a social component, namely the employees working with the system. An information system is further described as contributing to the business process support demanded by the organization.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Total number of instances: 27</th>
</tr>
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Outline of this unit

- The Enterprise Architecture Management Tool Survey 2008
  - Questionnaire
  - Scenarios
  - Results
- What happened since the survey
- Approaches of the tools
- A wiki-based approach to EA management
- Selecting an EA management Tool
Generic tool selection process (1)

1. Create List of Criteria
   - Collecting demands for tool support from stakeholders
   - Consolidate demands in a list of criteria
   - Define „must have“ criteria in order to speed up the selection process
   - Weighting the criteria
   - Define scales for the evaluation of the tools

2. Create Long List
   - Analyze the market for existing tools
   - Analysts, like e.g. Gartner, may be a source for a list of existing tools
     - Be aware that they do not list all available tools!
   - Studies for EAM tools may be another source for available tools

3. Reduce to Short List
   - Apply list of criteria on long list in order to select 2-3 tools, which will be further evaluated
     - Looking for „must have“ criteria speeds up the selection process
     - No complete objective evaluation possible

[Ke07b]
Generic tool selection process (2)

4. "Test-Drive" the Tools
   • The 2-3 selected tools should be evaluated in depth (workshop with vendor and stakeholders) and possibly do a "test-drive" in the context of a test installation

5. Decide
   • Decide for one of the tools of the short list in cooperation with the stakeholders
   • Preferably in a workshop
   • Involving the stakeholders prevents for subsequent criticism

6. Re-negotiation and Buying Decision
   • Do another price negotiation with tool vendor
   • Afterwards make buying decision or possibly go back some of the steps

[Ke07b]
Thank you very much for your attention!

Discussion...

Open source EAM Tools
- Iteraplan [http://www.iteraplan.de](http://www.iteraplan.de)
Bibliography

