SemTalk

Semtation GmbH

SemTalk is for…

- Times when Excel and PowerPoint are not sufficient to meet Business Process Modeling needs,
- Projects where Visio has reached its limits,
- Organizations who would like to create understandable and accepted process models, and for
- Everyone who finds other tools too complicated, not flexible enough or too expensive
Overview

- Success Factors in Business Process Modeling
- SemTalk – Functionality and Benefits
- Technical Description
- Special Considerations
- Semtation Company Profile
### Process Modeling Scenarios

- Definition of IT requirements
- Organizational Design
- Organizational Optimization/Simulation
- Certification
- Quality Management
- Knowledge Management
- Automatic Generation of Process Execution Code

**Source:** Estimates from Semtation GmbH 2012
Integration Requirements for Different Application Scenarios

Reusable Models

- Certification
- Organizational Design
- IT Requirement Definition
- Quality Management
- Knowledge Management Components

Existing Models can be used to automatically...

- Generate Process-Based Executable Code
- Simulate

Degree of modeling effort required to integrate process elements
Why do process modeling projects fail?

Models do not reflect reality

Lack of executive sponsorship

Too much redundancy in models so models become quickly inconsistent

Process descriptions are fragmented

Specialists do not communicate with responsible departments

Wrong modeling notation minimizes communication potential and model value

Diagrams are confusing because there is too much information on each diagram

Models are semantically inconsistent

Fail to adequately represent collaboration

Not easy to share modeling info so it can be reviewed

Lack of departmental ownership

Maintenance of models is too costly so they are quickly out of date

Benefits are not explained in an understandable way

Too costly because model data cannot be reused

Models are too technical

Potential benefits are left unidentified
Business Process Modeling Success Factors

- Use of the correct modeling notation creates optimal modeling content.
- Processes are interrelated, not fragmented.
- Business potential is maximally realized.
- Interfaces between organizational units are clear and consistent.
- Models represent reality and real business processes.
- Models have appropriate detail and are not redundant.
- Business components are modeled once and reused saving time and money.
- Modeling benefits are explained in a understandable way so they are positively accepted by everyone.
- Process models are owned by each department for maximal buy-in.
- Executive sponsors follow, support, communicate and act upon newly discovered business potential.
- Process models support clear communication channels with each responsible departments.
Assured Success with The Process Success Disc™

- The Process Success Disc™ bundles success factors to maximize the success of BPM initiatives.
- Presents a structured summary of BPM tool requirements.

Process Success Disc™
BPM notations come and go…

- As business requirements change, old notations are modified or new notations are implemented.
- There is no universal notation. Best practice shows that some notations work better than others in specific situations.
- Notation selection criteria depends on human resource capabilities, scope, specific project properties, regional aspects, etc…
- Many organizations adapt standard notations to more specifically address their needs or they create own customized notation.

Companies should be able to use an optimal mix of methods and notations and should not be restricted by any particular tool.
Process Success Disc™ in Detail
Examples for usage of different notations

**EPC (Event Driven Process Chains)**
- **Main Application Area:** IT reference models
- **Advantage:** Explicit logic via Operators and State definitions
- **Disadvantages:** Needs lots of modeling space; information flow not visible; process descriptions not easy to understand for non-technical people

**BPMN**
- **Main Application Area:** Process automation and documentation
- **Advantages:** High degree of expressiveness and it is an international standard
- **Disadvantages:** Focuses on technical documentation; BPM view (e.g. duration, cost) not supported in standard; if used as designed in standard there is little intuitive understanding

**RACI**
- **Main Application Area:** Quality Management
- **Advantage:** explicit display of different kinds of responsibility
- **Disadvantages:** Needs lots of modeling space; information flow not visible; special view restricts modeling flexibility

**Individual Notation (Example)**
- **Main application area:** Company specific notation standard
- **Advantages:** Specific views and displays (e.g. explicit information flow, organizational units)
- **Disadvantage:** Unable to take advantage of improvements in standards
Process Success Disc™ in Detail

The Importance of Company-Wide Modeling Consistency

- The same object (e.g., "Order") often appears in different processes with different characteristics.

- Without having a central, notation-independent repository; vocabulary and concepts will be used arbitrarily, without control, resulting in lower quality process models due to less understandable content.

- Reuse of process components improves modeling productivity and modeling quality.

- A central object and process repository allows for reuse of information for a variety of uses such as in IT implementation, quality management, compliance and knowledge management.

Company-wide object and object library consistency must be actively supported by a tool that maintains a central repository.
Process Success Disc™ in Detail

Example of the Benefits of Consistency

Example:
Approximately 100 Municipal processes in 3 Federal States were modeled using a continuously growing library of process elements.

- In the first modeling project in the first State, process elements were reused **2-3 times on average**.
- Reuse of process elements reduced the average modeling time from 12 man days/ process to 3,5 man days/ process.

> “Without automated consistency maintenance, models of this dimension would not only result in poor modeling content, they could not have been realized in a cost effective way.”

Dr. Andreas Giesenhagen
Process Success Disc™ in Detail

Participation in Modeling and Review is a Necessity

- Modeling is driven by organizational expertise. This requires the participation of content experts who have limited time. A central repository and intuitive tools make it easier for content experts to access and review models, even if they have limited modeling experience.
- Work status and results must always be visible. Participating departments need efficient and understandable feedback paths that are based on existing collaboration tools.
- Power users need efficient ways to process model elements outside of the modeling environment.
- Results need to find their way into the daily actions in each department. These results should be integrated into existing information platforms such as Microsoft SharePoint.

Broad participation, and the productive use of process models within departments, maximizes modeling benefits and it ensures essential departmental buy-in. This requires intuitive modeling and automatic integration with standard office applications.
Example: Process Portal at Bayer

- Bayer operates a Process Portal that contains more than 300 process descriptions, some of them with more than 100 process elements.
- The portal is used for overall organizational design, implementation and documentation. It is a central means for collecting improvement proposals.
- The portal is integrated deeply into Bayer’s existing Intranet landscape and is used by employees on a daily basis.

Example: SharePoint-Based Process Descriptions at Unity

- UNITY consultancy supports customers in process optimization. All results are collected in a Microsoft SharePoint-based Process Portal that is used as a solid basis for continuous organizational development.
- Integration of modeling into Microsoft SharePoint supports transformation of process models into organizational change.
- The portal is a process-oriented knowledge platform. Process models are automatically transformed into Wikis.
Overview

- Success Factors in Business Process Modeling
- SemTalk – Functionality and Benefits
- Technical Description
- Special Considerations
- Semtation Company Profile
Contents

- Success Factors in Business Process Modeling
- SemTalk – Functionality and Benefits
- Technical Background
- Special Subjects
- Company Profile Semtation
What is SemTalk?

SemTalk extends Visio by integrating it with an XML database thereby supporting the creation of reusable Visio objects that behave according to pre-defined business processing rules based on popular modeling methodologies.

- **Business Process Modeling with SemTalk**
  - Easy-to-use, with all of the functionality of Visio, but with the additional logic and functionality of a high-end modeling tool,
  - Graphically and logically supports many modeling methods (BPMN, EPC, PROMET, Flow Chart, CSA …),
  - Imports existing Visio diagrams,
  - HTML Generator, MS Office Export, MS Project, simulator, reporting tools, multilingual models,
  - Easy to customize to specific needs
  - Economical, richly functional Microsoft-based modeling tool with open import/export interfaces and complete integration with other Microsoft applications,

- **Knowledge Management with Visio**
  - Wikis and Ontologies
  - Glossaries and ontologies are conform to W3C‘s recommendations (OWL, “Semantic Web“)
  - Used for EAI, Process Portals, Knowledge Management, Product Modeling, MS-Office Documents, Data Warehouse Metadata Modeling
  - Full integration with all major components of Business Process Modeling
What is SemTalk?
SemTalk und Visio (1)

Microsoft Visio:

- Very powerful graphical functionality:
  - Lines, colors, shadows
  - Align, Automatic Layout
  - QuickShapes
  - Data Graphics
  - Publication as HTML or Visio Services (no additional viewer required)

- Very low modeling functionality:
  - No repository (no reuse of modeled elements)
  - No defined modeling methods that only symbol groups (Shape sets)

Visio with SemTalk:

- Reuse of modeled elements (Repository)
- Ability to test model for accuracy and completeness
- Automatically creates a background meta-model (e.g. to easily assign attributes such as modeling time)
- Model evaluation (Reporting)
- Import elements / processes from other tools via xml
- Export into various xml formats
- Fully integrated into Microsoft Office environment
- Process simulation
- Management of modeling elements in Microsoft SharePoint (if required)
SemTalk and Microsoft Visio (2)

- Modeling processes with SemTalk is as simple as drawing a Flow Chart with standard Visio:
  - Drag a shape onto the drawing area, rename it and connect it to the next shape. No complicated dialogs or tables.
  - SemTalk’s rule engine maintains consistency while modeling:
    - The same objects on multiple shapes or pages
    - Deletion and renaming
    - Use of the connector tool for every link
    - Navigation to different pages
    - IDEF Numbering of process steps
    - Search
  - All of Visio’s sophisticated functions are always available.

- Modeling processes with SemTalk is even simpler than using Visio alone:
  - SemTalk optimizes Visio for Business Process Modeling:
    - Only those menu entries are visible, which are needed for the task
    - User-defined attributes are specified on objects instead of shapes
  - Model Explorer and Property Window
SemTalk Completely Supports the Process Success Disc™
Overview

- Broad selection of adaptable standard notations
- Individual methods and notations
- Meta model present new possibilities for additional extensions

- CONSISTENT Models
- POWERFUL Results
- Intuitive modeling with Microsoft Visio
- Deep Microsoft SharePoint integration (Objects – not only HTML)
- Wide selection of export functions

- Comprehensive process models
- Process building block objects
- Company-wide shared object repository
FREEDOM OF NOTATION
SemTalk features and benefits

<table>
<thead>
<tr>
<th>Open meta model that is configurable by user to…</th>
<th>Models are quickly adaptable and customizable to meet user requirements concerning representation, notation and reporting (no additional programming required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Define new attributes</td>
<td></td>
</tr>
<tr>
<td>• Define new modeling elements</td>
<td></td>
</tr>
<tr>
<td>• Modify Existing Modeling Concepts</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Complete integration of Microsoft Visio (shapes or shape sets) and Visio tools</th>
<th>Intuitive handling and easy introduction in the creation and use of models</th>
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<tr>
<th>More than 10 out-of-the-box notations available</th>
<th>Supports a broad range of applications and uses</th>
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<table>
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<tr>
<th>Individualized notations are supported</th>
<th>Maintains and strengthens competitive advantage in areas unique to your organization and industrial sector</th>
</tr>
</thead>
</table>
SemTalk and Visio

Microsoft Visio:

- **Very powerful graphical functionality:**
  - Lines, colors, shadows
  - Alignment, automatic layout
  - Quick Shapes
  - Data Graphics
  - Publishing via HTML or Visio Services (no additional viewer needed)

- **Very little modeling functionality:**
  - No repository (no reuse of already modeled elements)
  - No defined modeling methods, only groups of symbols (Shape Sets)

Visio + SemTalk:

- **Reuse of already modeled elements (Repository)**
- **Modeling rules are checked as you add elements to your model (user-selected rule-based modeling method)**
- **Report of model content**
- **Import of elements/processes from other tools via different XML formats**
- **Export into different XML process modeling formats and into Microsoft Office**
- **Processes can be simulated to assess process performance and model completeness**
- **Models and modeling elements can be managed using Microsoft SharePoint**
## Consistency of Modeling and central repository

<table>
<thead>
<tr>
<th>Vocabulary-based modeling</th>
<th>Higher quality and efficiency in distributed modeling environments and better support for multi-lingual modeling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separation of modeling elements and representation</td>
<td>Central availability of reusable modeling components</td>
</tr>
<tr>
<td>Dynamic integration of relevant modeling elements form third party systems</td>
<td>Assured relevance and avoiding redundancy in modeling maintenance</td>
</tr>
<tr>
<td>Context based filtering</td>
<td>Reduction of modeling complexity by building views</td>
</tr>
</tbody>
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FREEDOM OF NOTATION

Example: EPCs (Event Process Chains)

- Syntactically and semantically supports the EPC method
- Even inexperienced modelers are able to create EPC’s when combined with SemTalk
- The EPC Meta-Model creates "Syntactic consistent" models within the Visio environment
- Object-orientation ensures "Semantic Consistency" in EPC models (often not available in other EPC-based tools)
- Import and consolidation of existing EPC models created with other tools
- Supports SAP R / 3 reference models
- Export / import interfaces with other tools
FREEDOM OF NOTATION
Example: BPMN (Business Process Modeling Notation)

- Syntactically and semantically checks added model elements based on up-to-date BPMN standards
- Extends model functionality based on object-oriented modeling (e.g. reusable business objects, able to add attribute data)
- Able to switch between analyst and technician mode
- Export / import of various XML formats, including BPMN2.0
Example: Controlled Vocabulary
How to use your Controlled Vocabulary
### POWERFUL RESULTS
**SemTalk features and benefits**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
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</thead>
<tbody>
<tr>
<td>Deep Microsoft SharePoint integration</td>
<td>Able to build interactive process portals</td>
</tr>
<tr>
<td>Comments made via SharePoint</td>
<td>Easy feedback loops for process communication, review &amp; edit</td>
</tr>
<tr>
<td>Microsoft SharePoint model and meta model synchronization</td>
<td>Cost-effective &amp; timely model maintenance based on SharePoint lists</td>
</tr>
<tr>
<td>Existing models from other third party systems are transformed &amp; published in SharePoint</td>
<td>Cost reduction/ investment optimization due to an open process data storage platform</td>
</tr>
<tr>
<td>Open repository in Visio and SharePoint</td>
<td>Maximal result utility/ positive benefit</td>
</tr>
</tbody>
</table>
POWERFUL RESULTS
Object Repository in SharePoint

- Central management of shared objects in SharePoint Server
- SharePoint lists can be connected to any SemTalk object type
  - Org units
  - IT systems
  - Glossaries
  - ...
- Able to globally edit/delete shared objects in SemTalk or SharePoint
- SharePoint Columns are synchronized with SemTalk attributes and relationships
- External models or direct connections to export/import, or select individual elements
- SemTalk Content Types and Column Types simplify the creation of new lists
POWERFUL RESULTS
SharePoint as a Centralized Process Repository

- Collaboration platform for process modelers
- Location for Visio process files
- Process meta-data location (e.g. "Process Owner")
- Support files for all models (e.g. model background page)
- Versioning
- Model views (Process, HR,)
- Roles and Permissions
- Workflows
- Sub-process combinations
- Ability to directly open and save from SemTalk
- Attachments selected from SharePoint libraries
POWERFUL RESULTS
Processes as HTML/Intranet Content

- Extension of the Visio HTML Export
- Navigation within model
- Database-based search
- Model content tree
- Printable Pages
- Vector graphics for any magnification
- Merge for multiple Visio files
- No additional viewer required
POWERSFUL RESULTS
Visio Web Access

- Supports preview and navigation for quicker access. Visio/Visio readers are not required to view model data.

- Ideally, the same library is used by the editor.

- In practice, a publication library is created so that copies of released Visio documents can be easily accessed.
  - Publication libraries should be formatted as VDW
  - Workflow integration requires SharePoint Designer to be installed on client computers
POWERSFUL RESULTS
SemTalk Services Process Portal

- HTML or Visio Web Access (Visio Services in SharePoint) or as a Visio Viewer
- Virtual integration of multiple Visio documents
- Stand-alone or in SharePoint Web Part
- Feedback via SharePoint
- SemTalk Services:
  - Navigation
  - Reporting
  - Search
  - Context
  - Documents
  - Comments
  - …..
POWERFUL RESULTS

SemTalk Services: Freely configurable Web Parts
POWERFUL RESULTS
Process Documentation with Microsoft Word

- Easy creation of
  - Process Training Manuals
  - QM Handbooks
  - Compliance Documentation
  - ...

- Use of any document template, style or text block

- Freely configurable
POWERFUL RESULTS
Project Templates for Microsoft Project

- Definition of repetitive project types as process models
- Faster project implementation
- Graphical description of projects with additional information specific to the execution of projects
- Reimport of project plans and actual project execution times in SemTalk
POWERFUL RESULTS
Process Optimization via Simulation

- Identify bottlenecks and throughput times
- Optimize resources
- Single-step mode to verify processes
- Identification of process costs of individual process paths
- Distributions, blackout dates, user-defined KPIs
- Process execution branching according to probabilities or attribute values
- Programmable
  - Within tool
  - Using scripts
- Simulation reports in Microsoft Office Excel
POWERFUL RESULTS
Reports and Process Overviews

- The main analyses for process models are included:
  - Contents of models and
  - Simulation results

- Export to MS Excel

- User-defined process evaluations can be created as scripts

- Meta-model evaluation generator allows you to create your own XML formats or tables similar to those available with XPATH
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SemTalk Basics

- SemTalk extends Visio by integrating Visio with an XML Database.
- Visio consists of a set of shapes that focus on a specific topic: Subway, Flow Chart, EPK, etc.
- Modeling tools need to do more than to create simple drawings. They need...
  - Databases for attributes
  - Logic as to shape types with rules for connectivity and relationships to each other
  - Navigation (to the same object that may appear on many pages, navigation between diagrams)
  - Process refinements and interface definitions ("postings")
  - Interfaces to other tools based on open meta models
  - Meta model-based reports
  - Simulation,

SemTalk = Visio + Logic
(Meta model and data objects are imbedded as XML in Visio Documents)
Customization and Extension of SemTalk

- Meta model for modeling methods
- Objects
- Relationships
- Views
- Representation
  - How it is represented
  - What is visible

For each Visio shape users can determined (in Visio), how it can be connected to other shapes and they can assign shape attributes.
Advantages of Using a Meta-Model Approach

The meta model can be graphically customized and extended without programming in SemTalk

- Object types and types of charts (Views)
- New features such as "Knowledge Intensive Processes" or “Process Modeling for e-Government” are to be realized within a short time
- Customized solutions (most larger customers have their own company method)
Architecture: SemTalk and Microsoft SharePoint

- **Platform:**
  - Visio with embedded SemTalk

- **Data Management:**
  - XML in Visio Document
  - SharePoint Lists
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    - SAP
    - ARIS
    - Microsoft SharePoint Site Builder
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Selected SemTalk Application Scenarios
SemTalk and SAP
SAP Solution Manager: Documentation the SAP System

- Bi-directional exchange with the SAP Solution Manager 7.1
- Flexible assignment to process levels and steps
- Applicable for every process modeling notation
SemTalk and ARIS
Extending ARIS at the Department Level

- Easy to use --> little training
- Vector graphic based HTML Visio
- Bi-directional interface to ARIS
- Easy integration into portals
- Database-free version
- Flexibility: Adaptable by the meta model-based architecture
- Semantic Web technology makes it easier to create a consistent reference models
- Excellent value for money
- "Correct" simulation
- Deep integration with the Microsoft Office product line:
  - Word, Excel, PowerPoint, Project
  - SharePoint
SemTalk SharePoint Site Builder
An easy-to-use Case Tool for SharePoint

- SemTalk WSS Builder allows the simple modeling of SharePoint lists in SemTalk
- Generation of Sites
- No XML changes or programming required
- No installation on server. 100% web services generated.
- All essential elements: Lists, Columns, Content types, Lookups, Views, Folders and Contents
- Transferable sites for WSS and SharePoint Portal
- Predefined Examples of Process Portals
SemTalk SharePoint Site Builder

SemTalk Site Builder helps you create and develop your SharePoint structures. SemTalk Site Builder is based on the established modeling platform SemTalk.

The creation of sites in Microsoft Office SharePoint can be very time intensive for complex sites. Columns, views, folders, lookups and content types have to be defined.

For complex sites or later on for simple sites also, the links between different SharePoint lists and relationships within these lists become pretty confusing:

The graphical representation of the structure within SharePoint is essential for the understanding and the maintainability of the site.

The migration of a site between different SharePoint instances is often a very complex task.

Using a graphical model, the same structure can be generated very easily in different sites.
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SEMUTATION COMPANY PROFILE
Short Profile

**Semtation**

- 20 years in the field of process modeling tool creation
- More than 1000 user models created with SemTalk
- Several 1000 SemTalk users
- Close development partnership with Microsoft (Microsoft Gold ISV Partner)

Select References:

- Hamburg Port Authority
- Datenzentrale Baden-Württemberg
- Japan Tobacco International
- Wirtschaftsministerium Brandenburg
- Bayer MaterialScience
- Vattenfall
- Fielmann
- Senatsverwaltung für Stadtentwicklung und Umwelt Berlin
- Fachhochschule Kiel
Due to its high extendibility and flexibility SemTalk is ideally suited for the implementation of specific counseling approaches as an OEM solution.

**Select Partner Applications**

**OMEGA Process Modeler (UNITY AG)**
- OMEGA method process model developed by University of Paderborn
- Specification generation

**SemTalk for E-Government (Knowlogy Solutions AG)**
- Reference models and Product Catalogs

**C-ENS (ConVista AG)**
- Custom method for reference modeling in SAP and Insurance Sector

**Redmond Integrators GmbH**
- Implementation of successful SharePoint-Projects

**araneaNET GmbH**
- ITIL-Based IT Service Management

**CORAK GmbH**
- Process cost accounting
Conclusions

- SemTalk optimally supports the three key Process Success Disc™ success factors (Freedom of Notation, Modeling Consistency and Powerful Results).
- SemTalk uses the strength and distribution of Microsoft Visio and Microsoft SharePoint to produce first-class results and an optimum price/performance ratio.
- SemTalk is seamlessly integrated into the existing IT and portal landscapes and provides many feedback opportunities between IT and the business.
- SemTalk builds on the experience of more than 20 years in the field of process modeling tool development to deliver product excellence to its customers.
Would you like to try SemTalk?

Download a free 30 day trial version or make an appointment for an online presentation:

www.semtalk.com

If you do not have Microsoft Visio available, we will help you with a trial version of Visio as well.

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