With BPMN 2.0
Notation Guide Poster

Issue 5
June 2010

MID
the modeling company

Modeling Magazine 5

Focus: BPMN

modeling magazine

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Dear Modeling Magazine Readers,

BPMN 2.0 stirs up emotions and breathes new life into modeling.

So, I'm really happy to be able to welcome you to this edition of the Modeling Magazine, which focuses on BPMN.

How did I awaken my interest into BPMN 2.0, I hear you cry? This was the question on many people's lips at JAX 2010. I personally put it down to two things:

Firstly, SOA and the large as ever challenge of executing business processes using execution engines in the form of BPEL. Even though there is a great demand for this, it is often difficult to seriously implement. BPEL itself grew from a multitude of dialects and tools are only compatible with it to a certain extent. It is also not often possible to align workflows with business processes. This leads to discussions far and wide about the future of BPEL. The fact that BPMN 2.0 specifies mapping from BPMN into an XML format (BPMN-XML) in its standard means that this is not really a question anymore.

Many execution engine manufacturers are changing from BPEL to BPMN-XML; this shows that the BPEL idea, but in the form of BPMN, is surviving better than ever before.

Secondly, and possibly the most important of all, is the modeling itself. The idea of BPMN 2.0 as a single language for the operating department and IT department has been very well received. UML once used to be in a similar position to take on this task.

Since UML 2 has been brought in, many companies consider it to be too technical for their needs. BPMN 2.0 fills precisely this gap. It is, therefore, my great pleasure to inform you that this edition of the magazine contains articles from two notable authors of German BPMN books which discuss precisely this topic in detail.

MID consultant and trainer, Thomas Henninger, gives you a brief introduction into BPMN from page 4. Prof. Dr. Allweyer discusses implementation of BPMN for modeling in the operating department from page 6. You can find a brief summary of their books on page 13. MID managing director, Andreas Ditze, and Thomas Henninger describe how business analysts can methodically implement BPMN for requirements analysis and specifications from page 8 onwards. MID project manager, Maria Deeg, gives an account of her own experiences when implementing BPMN 2.0 in SOA projects in the insurance sector from page 11. The removable BPMN 2.0 poster rounds off the BPMN edition of this magazine nicely.

Enjoy reading the fifth issue of the Modeling Magazine and I look forward to reading your feedback sent to magazine@mid.de.

Jochen Seemann
Managing Director MID GmbH

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MID NEWS

Laying the Foundations for Growth

The foundations were laid in February 2010 for the new MID headquarters just outside Nuremberg city center. MID will move into its bespoke building next to the idyllic lake, Wöhrder See, in the spring of 2011. Both employees and customers alike will profit from the central and attractive location.

Service Framework Contract with BARMER GEK

The recently merged health insurance companies, GEK and BARMER, are also merging their various processes and IT systems.
GEK has been using Innovator for its object-oriented modeling since 2001. The model-driven customized development for strategic applications relevant for competition will continue for the new company even after the merger has taken place. MID has been actively assisting this merger in the scope of Innovator since May 1, 2010 and has won a framework contract based on its work.

Business & IT Alignment Days

After the successful implementation of the roadshow about Business & IT Alignment in May for Daimler AG, MID is now offering free roadshows to all its customers. Lectures on the topics SOA governance, introduction into BPMN, service modeling with BPMN 2.0 and UML, modeling of requirements and model-based business intelligence are a central part of the day, as are the firsthand project reports from our customers.

New Standard for Authorities Developed by MID and Partners

By order of the Bundesstelle für Informationstechnik of the Bundesverwaltungsamtes (Federal Office for Information Technology of the Federal Office of Administration), 4Soft, akquinet and MID developed the authorities-specific standard, V-Modell XT Bund, in line with the 3 partner model. Users of this standard who work for the authorities now have a variation of V-Modell XT which is significantly more tailored towards their needs. The first responses from experts attest that the new standard is practical and easy to use. V-Modell XT Bund is now available free to the public under http://www.bit.bund.de/v-modell-xt (German only).

The New Innovator 11 Is Available

Innovator 11 R2 was released on May 31, 2010.

This Innovator release contains the product, *Innovator for Business Analysts*, which is part of the product range "Innovator X"; it is both equipped with a state-of-the-art Microsoft .NET WPF interface and can simply be extended with components which can be downloaded. The other Innovator products will also be adapted onto this interface and the extendable architecture in the medium-term.

The various editions of *Innovator for Business Analysts* are also new on the scene.

Innovator for Business Analysts is available as a pure BPMN modeling tool; it is a free Personal Edition for a single user.

The Professional Edition is implemented in projects which require a product for a single user with full support and the option of customizing, as is the case with all Innovator products.

The Enterprise Edition is designed for teams looking for a tool that can be completely customized, with a central data management and with the option of working together using the Innovator server.

These Innovator editions now cover the entire spectrum – from users who are looking for a powerful free tool right the way through to enterprise teams.
Innovator Object and *Innovator Data* have been improved for Innovator 11. The main areas of improvement include more attention to detail, bugs being fixed, performance and memory requirements for large models used by enterprise customers.

You can find more information about Innovator 11 here:
www.mid.de/innovator

BPMN –
Ambassador Between Business and IT

Bridging the gap between various mindsets of the operating department and IT still remains a great challenge. What new possibilities are being developed for communication between these parties when using BPMN as a modeling language? From the beginnings of business process management to the new standard for business process modeling.

Business Process Management (BPM) integrates the business-organizational view with the technical view of processes. BPM, in its fledgling stages and driven by traditional corporate doctrines, attempted to optimize individual processes using empiricism. Business process reengineering emerged in the 90s and examined process optimization both conceptually and holistically. IT supported this process with continually well-engineered tools for analysis, documentation and optimization of processes. Processes were also implemented in IT, from further development of documentation management systems to human workflow management systems; advancements were also made in enterprise application integration (EAI) to service-oriented architectures (SOA).
BPM has been combining business and technical development of process thoughts since 2004 and attempting to link the areas of business and IT with one another.

Business-IT Alignment – Bridging the Gap Between Business and IT

The IT department doesn't normally understand the operating department and, in turn, the operating department doesn't know what the IT department wants. This has been the basic communication problem since the beginning of software development. This is normally down to lack of coordination from both parties responsible for the systems involved and often for different departments and companies.
So-called business-IT alignment helps both sides with comprehension and collaboration when visualizing process models using BPMN. This is due to both parties being able to coordinate earlier in the project and in a uniform and common language for both the business and technical processes.

BPMN - One Standard as a Uniform Language

With the aim of finding a uniform language for displaying processes, a standard was successfully established and defined: BPMN (Business Process Model and Notation). It was developed by Stephen A. White (IBM) in 2002 and was initially released by the Business Process Management Initiative (BPMI) before the Object Management Group (OMG) took on its further development in 2005. BPMN has been an official OMG standard since 2006. Version 1.2 was released in January 2009 and is still the most up-to-date version; this will be replaced by Version 2.0, which is planned for the 3rd quarter of the year.

BPMN Is Really That Easy!

Everyone who has modeled processes before is able to understand BPMN technical process models in a few easy steps, as the base elements are easy to understand and learn.
Why not see for yourself in our free web video of a brief introduction into the world of BPMN?
You can also find a BPMN poster to be used as a key for reading and understanding BPMN processes in the middle of this magazine.

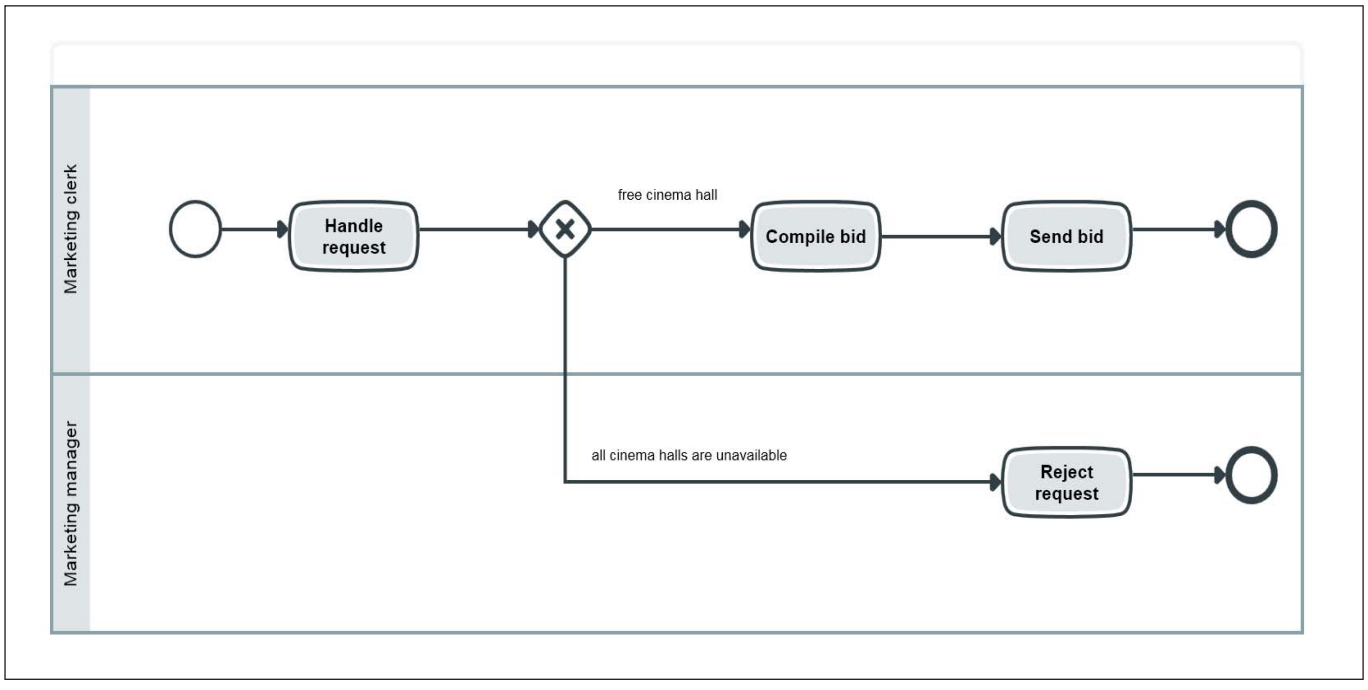


Fig. 1: Editing a Premiere Event at the Cinema

BPMN Really Isn't That Easy!

More than just a basic knowledge of BPMN is required for the transition from an operative to a technical workflow. The correct (technical) modeling which e.g. should be used for automating a process or implementing an SOA, requires intensive notation training for both the operating and IT department, valuable knowledge in business process management and a fine-tuned methodical approach within the company.

Strengths of BPMN – Please Sir, Can I Have Some More?

The basic elements for BPMN largely correspond to known flow diagrams. These consist of start and end events, as well as activities which are linked to each other with arrows (sequence flows). In between these are also gateways, which are depicted by a rhombus, for modeling branches or exception cases. Activities are arranged in lanes for depicting various actors in a process or roles. As you can see from Fig. 1, a diagram can be easily understood without going into detail.

As opposed to current modeling languages, BPMN's language scope by far exceeds the conventional scope and contains further elements which would otherwise not be contained or are not expressive enough for a technical model. This enables e.g. events to be typed and have different graphical notations.

A process can be started by an external message or be influenced by it during its progression. BPMN can be used to intuitively model a certain point in time being reached or the flow of a span of time; errors in the process or during individual steps can be caught and solved using connected intermediate events, also known as boundary events.

Another example for how expressive BPMN is can be seen in certain modeling principles:

e.g. processes are performed by actors and their collaborating with each other makes up the big picture. Each partner has its own process that "lives" in it and communicates with other actors and the outside world only via messages.

Conclusion

BPMN enables technical processes to be modeled into a form that is easily understood due to it being so expressive and having such a broad language scope. BPMN is also sufficiently precise and can be extended to technically implement a process in software development; it can be interpreted and used in its newest version directly from the model for process execution.

BPMN 2.0 standard specification on the OMG website.

http://www.omg.org/spec/BPMN/2.0/

Thomas Henninger
Consultant and Trainer
MID GmbH

BPMN

A Language for Business?

The communication between operating departments and software developers continues to be problematic. Despite best efforts, business and IT continue to speak a multitude of different languages. BPMN (Business Process Model and Notation) wants to be the common process modeling notation for business and IT and, in doing so, bridge the gap between the two worlds. Can BPMN live up to its own expectations? How well can business processes be modeled at a technical level? How is this implemented in IT?

BPMN was originally developed as a way of graphically displaying process descriptions which could be processed by a workflow system or business process management system (BPMS). This type of system uses a process engine which transfers tasks to employees and calls systems and functions according to a defined process. A very precise model which has all the technical details is needed for this. This is why BPMN contains a multitude of constructs similar to programming, such as e.g. loops, error processing, transactions and compensations.

A domain modeler who initially wants to document and analyze business processes completely independently from IT implementation will consider many of these detailed, technical constructs to be unnecessary. Domain models should be as descriptive and clear as possible. Too many details which are very technical would be annoying.

BPMN is currently enjoying an increase in popularity amongst domain modelers. BPMN is also implemented in many projects where use of a process engine is not planned for. Two reasons are crucial for this: On the one hand, basic elements such as e.g. activities, swimlanes and branches (shown as a rhombus) can be read and understood by most modelers. They are similar to widely-known flowchart diagrams.

The second reason is due to the previous lack of a general recognized standard for business process mode-

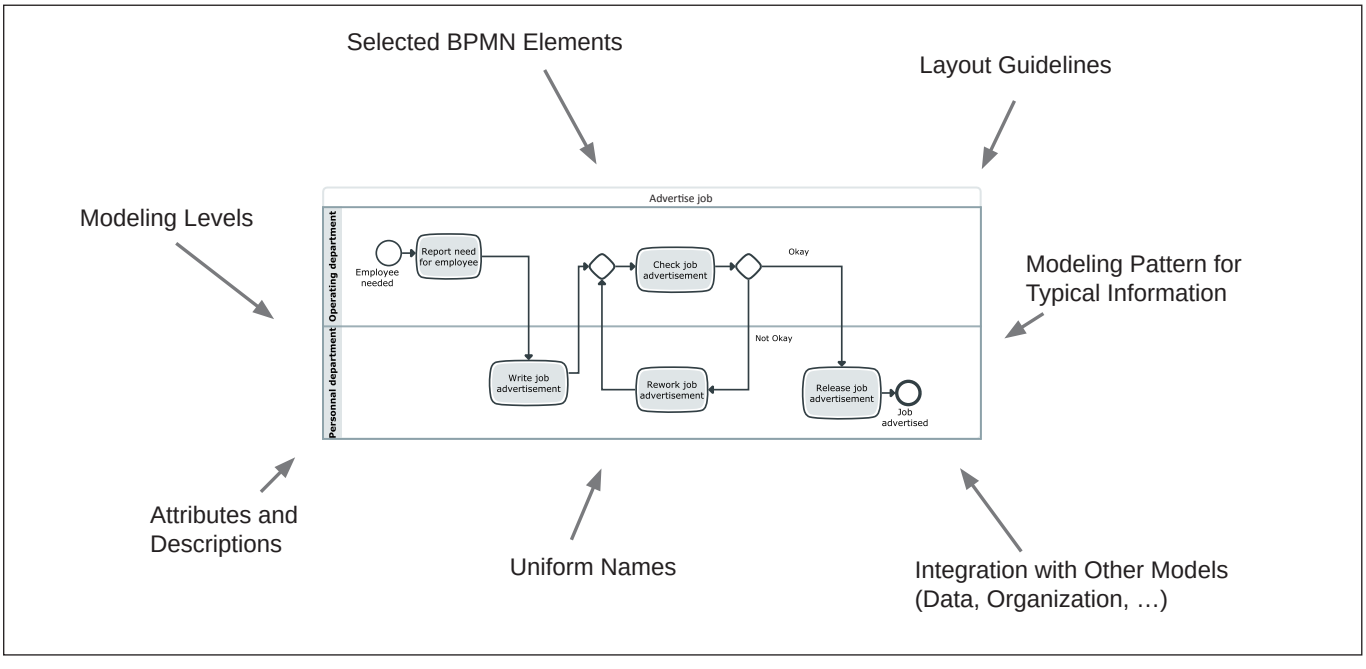


Fig. 1: Examples for Modeling Conventions Which Should be Adhered to to Make Modeling Standardized and Uniform

ling. Modeling was often carried out in operating departments using company-specific notations or a clearly-defined methodology.
With BPMN as the standard it is significantly easier to understand diagrams created by other modelers.
Course providers and universities can teach the standard and, in doing so, educate competent modelers who are not restricted to using a single tool.
If you wish to use BPMN for technical modeling, you quickly come up against many questions which should be answered before beginning so that modeling is standardized and target group-oriented. The appropriate settings should be documented as modeling conventions and released for all modelers (Fig. 1).
One of the first steps is to select BPMN elements which you would like to use. It is precisely the constructs which are more technically designed that are less relevant for domain modeling. However, elements which require explanation should not be written off right from the start, such as e.g. boundary events for interrupting activities.
On a technical level, you also need to think about which exceptions could occur in a process. Solving exceptions and problems is often what is most time-consuming during a process (Fig. 2).

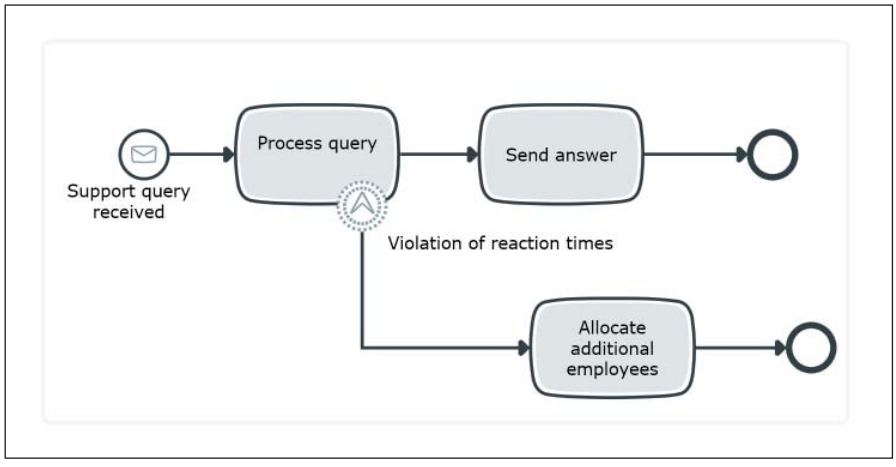


Fig. 2: Solving Errors and Problems also Plays an Important Role in Technical Processes. The Accepted Response Time is Breached in this Example, which Leads to Appropriate Measures Being Taken.

Process models are normally hierarchically structured. To do this, you need to set how many levels should be used and how much detail should be modeled on individual levels. BPMN offers the option of refining process models using subprocesses.
This means that it is possible to link higher and lower level processes extremely precisely. It may be necessary to make some refinements for rough overview models to make them easier to read; this is also the case if the detail models no longer show exact refinements.

Both process models and the connection to other model types play a role. e.g. a pool or a swimlane can link to an organizational unit which is defined in an organization chart. Data objects from BPMN diagrams normally represent comprehensive data structures. BPMN does not make specifications about connections to other models, which means that the modeling tools used should be suitable for use. This enables BPMN models in Innovator for Business Analysts to be e.g. linked with UML class diagrams.

Other modeling conventions affect e.g. attributes which should be maintained for individual elements. Models can be more easily read if the layout is always the same and there are fixed rules for renaming activities and other elements.

It is also a good idea to compile a collection of modeling patterns which show examples of the best way to model certain information. As you can see, successful implementation of BPMN for technical models requires a certain amount of preliminary work. However, this notation is particularly suited for business. It actually has the potential to be a common language for business and IT. However, you have to be clear in your mind that domain models and executable models often differentiate from each other significantly. In practice, it is not done by extending a business model to include various technical details. The target platform usually has to be extensively restructured and customized. However, it is a good prerequisite for both models to use the same notation. Implementation becomes significantly easier and both the business and IT sides can better understand the model from the other side better too. As well as just for pure implementation of the control flow, the technical models can also be used as a basis for IT development. For example, they contain requirements for the development of services which are called when a process is executed. Technical data models can also be used as a basis for data services; defined roles are implemented with user administration.

As a notation, BPMN is a useful basis for facilitating the path from domain models to their implementation. It must, however, be embedded in a sophisticated complete methodology.

Prof. Dr.
Thomas Allweyer

Professor for Enterprise Modeling and Business Process Management at the University of Applied Sciences in Kaiserslautern

Methodical Approach for Business Analysts with BPMN

The methods and processes used by business analysts will change for the tasks of requirements analysis and process modeling when BPMN 2.0 is introduced. A modeling methodology is planned for when BPMN 2.0 is implemented in combination with UML 2 for model-based structuring of the tasks assigned to a business analyst. The aim of this is to answer the question of how a business analyst gets from an empty piece of paper to a resilient process description which can be prepared in detail in the IT department right up until the process is executed.

Requirements Analysis

The business analyst uses known techniques for requirements engineering and management when collecting, recording and analyzing requirements for the company or system. Requirements are documented and managed in the model as independent model elements, in accordance with the SysML's UML-based requirement specification. Each requirement is given a unique number (ID), a short single line name and a detailed description.

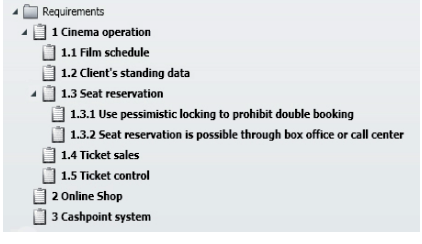


Fig. 1: Excerpt from the Model Structure with Requirements

Any number of properties or attributes can also be added to the requirements for categorization. Fig. 1 shows a section of the requirements model for a cinema.

Actors and Their Business Cases

The necessary actors are initially identified from a list and their business cases are specified, recorded and described.
The company or system (a cinema in this example) show the context which provides the services for the actor.
Each requirement needs to be assigned to all business cases which should perform them. A requirement must be assigned to at least one business case, otherwise it is irrelevant in the model.
This art of statisfying requirements is modeled using a relationship between the requirement and business case and shown using a note in the use case diagram.
This enables traceability, which is required from many maturity models in the development (e.g. SPICE, CMMI).
Fig. 2 shows a business case for the sub-area "reserve seat"; the requirement to avoid double-bookings is attached.

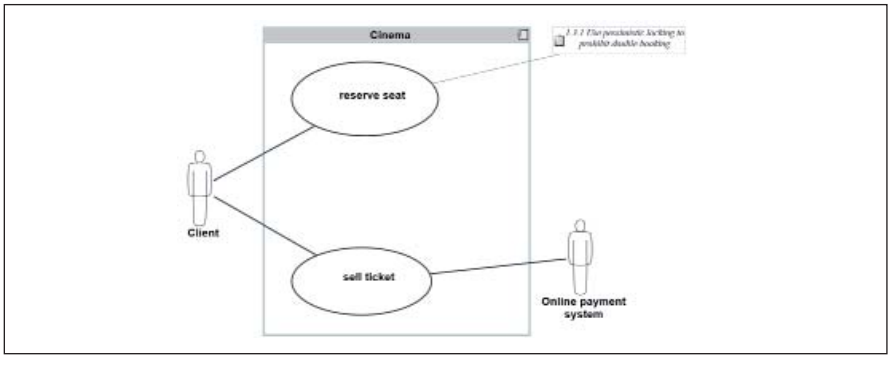


Fig. 2: Actors and Their Business Cases

Interaction Between Actor and System as BPMN Collaboration

The interaction between actor and system as BPMN collaboration is modeled based on identifying business cases.
Essential exchanged information and the system's reaction are described.
Information exchange between actor and system is modeled using message flows between the participants in the collaboration. The messages and their contents are specified and linked with elements from the domain information model.

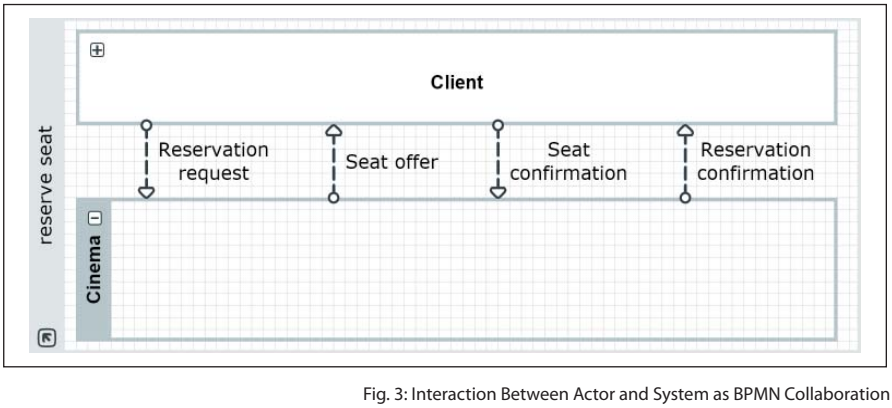


Fig. 3: Interaction Between Actor and System as BPMN Collaboration

Happy Path as a Starting Point into Process Modeling

Once the collaboration is defined for a business case, the business analyst can model the first process. The appropriate stakeholders or actors are asked what their "happy path" is. This is the typical standard flow of a process which does not contain any exceptions, special cases or errors. As well as modeling the process' start and end event, the individual process steps (BPMN: tasks) and intermediate events are also needed for the normal process flow.
The interviews with the stakeholders "…I send my choice of seat off and wait until I get a confirmation…" led to the combination of sending and receiving intermediate events, as shown in Fig. 4.

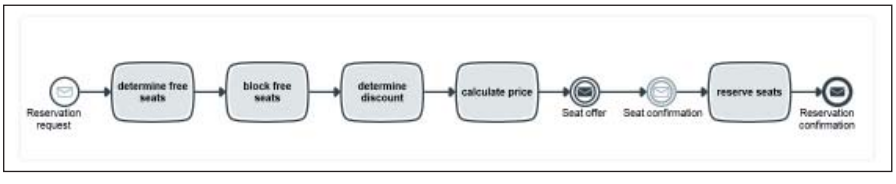


Fig. 4: Process' Happy Path

The process elements (tasks and events) gathered are linked with directed edges (BPMN: sequence flows) and the happy path is modeled using the process.

Refining Processes

Once the happy path has been modeled, special cases and errors can be discussed in the interviews. Each task is examined for all possible technical errors. e.g. the question "What happens if there are no seats available?" can be used to extend the gateway so that if there are no seats available, a message is sent to the customer saying that the seats are "sold out".
The alternative events or answers to sent messages (here: seat offer) also need to be asked.
An event-based gateway is modeled if various intermediate events are expected.
It represents a branching point in the process and receipt of a message determines the path that will be taken (Fig. 5).
You also need to examine how the system behaves if none of the events are caught within an acceptable timeframe and how large this timeframe is.

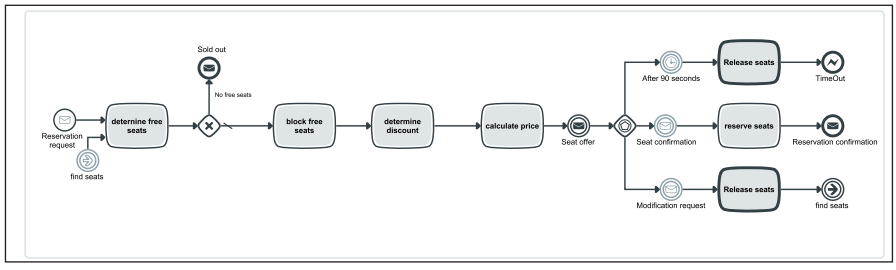


Fig. 5: Refined Process with Errors and Special Cases

This then leads to timer events which report the time out as an error.
Structuring or hierarchy should be considered if an extensive task description is recorded for a task when discussing the process. Subprocesses or call activities can be inserted in the process for this. Similar tasks need to be merged into reusable global tasks. The "Release Seats" task is identified as a global task and used more than once in the process.

Adding Data Elements and their Information Flow

Attention was not previously paid to the processed information during process modeling. This is why you need to check which input and output information is required for individual tasks. This information is modeled using data elements in the process model and linked to the process elements using data associations (see Fig. 6).
Local data and data which is only valid for this process instance are modeled as data objects (in this example: free seats). Data store references (in this example: conditions) are used for data which is valid, irrespective of the current process.

Setting Task Types

Differentiating how individual tasks are performed can be examined in the next step; this forms the basis for identifying the scope of possible IT support for the process.
Manual tasks, user tasks, service tasks etc. can be used to differentiate between whether the process step is performed without IT support, with IT support or whether the task is completely automatic without user intervention.

Identifying Business Rules

Business rules which map the decision making processes which influence the process may occur. The "determine discount" task is a candidate for a business rule task in this example. The local process data, reservation data and general valid conditions are used in this example to make the decision to grant the discount.

Modeling Relationships Between Domain Terms and the Information Model

All data objects, data stores and messages in the process model should correspond to sections (views) or individual elements of the technical term or information model.

The information entities in this

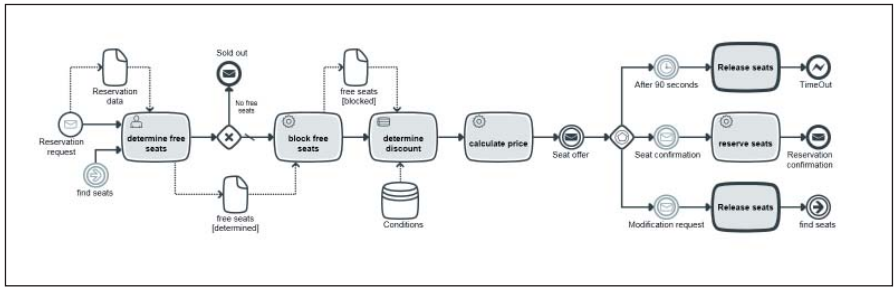


Fig. 6: Complete Process with Data Elements and Task Types

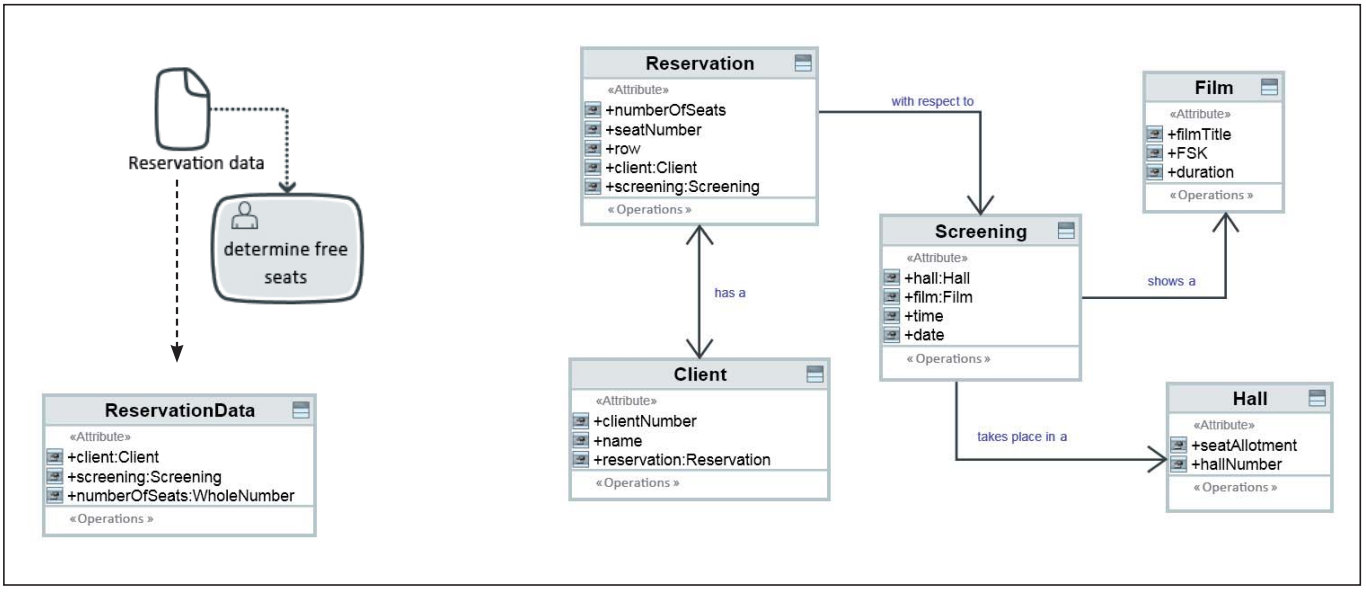


Fig. 7: Information Model

model are modeled with their typed attributes as UML classes into a class diagram.

The relationships between information are shown as associations with the respective roles.

The relationships between the process model's data elements and the information model's classes are modeled as dependencies (Fig. 7). These dependencies can be visualized in the whiteboard diagram.

Whiteboard Diagram Visualizes Relationships

The relationships between the project's various partial models are made transparent in a whiteboard diagram. All necessary diagrams are inserted in this diagram and the various dependencies (used, refined, is dependent etc.) between the model elements are shown (see Fig. 8).

Summary

Combining BPMN 2.0 and UML 2 opens the doors for the business analyst for continuous model-based processes.
An efficient project process is enabled through implementation of a directed selection of BPMN 2.0 and UML 2 model elements at various modeling levels with pre-defined attributes and descriptions, as is integration of various models.
Information which should be set for domain modeling (see the article by Prof. Dr. Allweyer) can be transferred into requirements analysis and process modeling.
An extremely simplified example of the approach shown here is a section from the MID Modeling Methodology M³, which is extremely helpful for business analysts when creating requirements and process models.

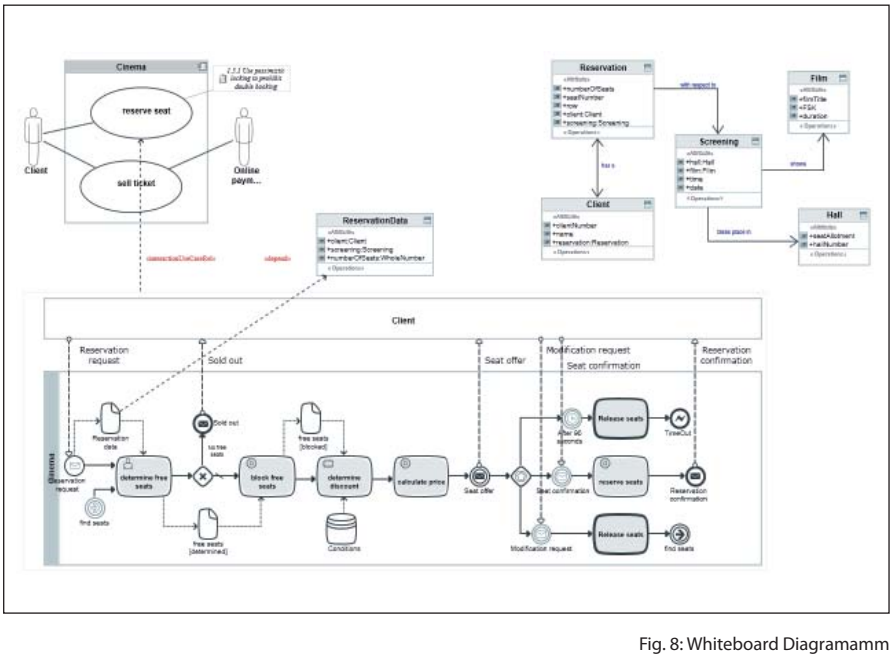
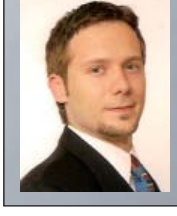


Fig. 8: Whiteboard Diagramamm

You can find more information about the MID Modeling Methodology M³ here :
www.mid.de/m3

Andreas Ditze
Managing Director
MID GmbH



Thomas Henninger
Consultant and Trainer
MID GmbH

BPMN 2.0

The Notation for Process Modeling in SOA Projects

BPMN is becoming more and more popular. The new standard in version 2.0 promises to support process automation in SOA projects. We explain an approach for a suitable modeling methodology and use a simple example to show you how processes and services can be linked.

BPMN and SOA – How Does That Work?

Those who know BPMN and SOA know that it is impossible to briefly discuss how they work together in just one little article of a few pages. As the manufacturer of the modeling tool, Innovator for Business Analysts, we are asked this time and again as the modeling language BPMN 2.0 was developed especially as support for process automation using a process engine. This is why we would like to attempt to illustrate some of the basic aspects.

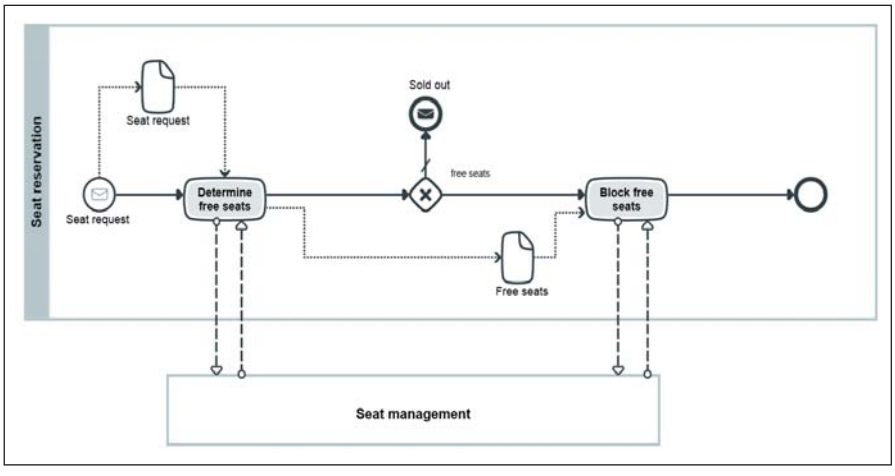


Fig. .1: Process Modeled in a Collaboration

Operating Department Configures the Productive Processes – is This an Unrealistic Vision?

The basic idea is that processes on a process engine are implemented as configurable processes, e.g. to map the workflow between the individual participants or business operation of a multitude of work steps.
The operating department should be responsible for and model business logic for this implementation using BPMN. Processes modeled in BPMN should then be directly performed and/or interpreted or translated into the process engine's target language, e.g. BPEL, using a transformation. The operating department can then be responsible for and implement changes made to the process. This can be e.g. a change to the order of process steps or customizing the waiting times.
This is primarily interesting for an SOA project as it is normally used to react quickly and flexibly to business changes in the processes; this should be achieved using a process engine.

The operating department can directly customize business processes in the process engine, which means that changes can be made by the user themselves quickly and they can take responsibility for them.
That is the idea anyway.
How does this work exactly? Projects are often faced with the challenge that the process' implementations were previously realized on another abstraction level (often called the "technical workflow") and the operating department modeled the processes from a business perspective.
Those involved are usually critical and do not believe that it is possible to connect both aspects.

Fig. 2: "Seat Management" Service's Interface with Operations

Die Alone, Fight Together: Connecting Business Processes and Realization Details

If you observe the processes modeled by the operating department and the technical workflow, it quickly becomes apparent that it is not possible to generate the "technical workflow" out of the operating department's processes; this is because additional information which is not part of the business process is required that is not known by, or is not of interest to, the operating department.
The trick is to know that various aspects do not need to be directly linked during modeling but can be separated in the models and merged later for execution (upon generation or directly during runtime). They are sometimes separated during implementation and then merged during runtime, e.g. where a service is called can be specified by a service registry during runtime. The aim of this is to achieve a high level of flexibility and only having to change the one aspect which requires changing.
Somewhat simplified, the following

```
…
   <variables>
     <variable name="Seat_request" messageType="ns1:determineFreeSeatsRequest" />
     <variable name="free_Seats" messageType="ns1:determineFreeSeatsResponse" />
…
   </variables>
…
     <invoke  name="determineFreeSeats" partnerLink="Seat_management"
operation="determineFreeSeats" inputVariable="Seat_request" outputVariable="free_Seats">
        </invoke>
        <if> <condition>freie_Plaetze.Anzahl != 0 <condition>
            …
            <else>
          …
            </else>
        </if>
…
```

Fig. 3: Excerpt from a Generated BPEL Code

aspects should be tackled separately, as far as possible:

Business Information

- The process' flow logic
- The workstep's logic for completing a process step
- Business rules which control and influence the process flow

Technical Information

- Application and user interfaces which are used
- Storage location and format of data, as well as transformations between formats
- Infrastructure information; which server a service is running on and with which application

Example: Embedding Services in a Process

BPMN and SOA offer various concepts for splitting. We want to stick to one example which is known by both and is similar to the interface principle from the object orientation: Interfaces are used in BPMN to define a set of operations that are implemented by services. The interface is modeled with the operation separately from the process in BPMN when another service is called using a service task and only the operation is assigned to the task.

Fig. 1 shows an example of a simple process which contains service tasks, e.g. „Determine Available Seats".

An interface is also modeled with operations to represent the service "Seat Management" (Fig. 2). The interface was imported into the model using a WSDL in this case. The "DetermineAvailableSeats" operation was assigned to the service task which calls the service. This assignment is not visible in the diagram, as it is a detail that is more than a purely business definition of the process.

Information is combined from both model parts when generating BPEL (Fig. 3).

In the generated BPEL code, all elements in bold are generated from information from WSDL.

Variables (data objects between process steps) and the partner link are contained in BPMN itself. The prefix defines which variable has which message format. The SOA platform determines exactly which service is the partner in this process upon runtime.

Limits of the BPMN 2.0 Beta

Some questions still remain unanswered in the current beta version. Here are two examples: The BPMN specification has practically no statements about the process' abstraction levels (workflow between those involved and worksteps so that a workflow step can be performed). Also missing from the current specification is a differentiation of when processes are destroyed in subprocesses or whether they are made up of business services instead.

It is well-known that worksteps – what the individual does in what order to achieve an effective business result for a workflow step – are not considered business processes. i.e. a user task initially shows a workflow step at the business process level, which means that the individual worksteps are not even modeled in the main process. These also largely depend on implementation and the degree of automation. This is why the worksteps are not modeled until the next refinement which describes the logic of user interaction.

However, whether this logic is implemented on a process engine depends on the architecture. Implementation often takes place completely separately from the process engine in a separate framework.

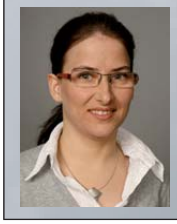
This concept conflicts with many SOA projects which often start with subprocesses which run completely automatically and many of them require the services called to be stateless. OK, it's obvious that the aim of this is to increase productivity and ease the burden of the employee by making as much work as possible automated. However, it quickly becomes apparent that the aim of mapping business processes so that they are configurable is not possible as the business process is stored at a higher level. This leaves integration of the various BPM concepts, SOA and role-based interfaces open.

Independence of called sequences has proven itself to be the guideline for classification between service calls and subprocesses. A service task should be modeled if the option of the called part of the process being implemented by an independent external partner (service provider) should exist; a subprocess should be modeled if the called part of the process should be provided within the organization, i.e. cannot be assigned outside of the organization. The gray zone here is that the modeler needs to make the decision, as there are process sections which can be provided both within an organization and externally (e.g. a call center that switches to a provider if it receives too many calls). If this is the case, the same process is called once in a process branch as a subprocess and once in another using a service task. This

makes it clear that the provider acts separately from the actual process and the internal call center works as a subprocess.

Conclusion

BPMN offers a good basis for modeling business processes for an SOA. BPMN is a good option for modeling various aspects separately from one another; this makes it possible to implement business and IT changes separately from each other.
The beta version of the BPMN 2.0 specification may have a few gaps, however, we can but hope that these will be filled by the final specification and/or the process engine's manufacturer.



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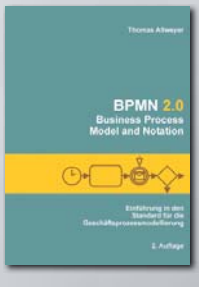
MID GmbH

Book Recommendations for BPMN

BPMN Praxishandbuch (BPMN Practice Manual)
Jakob Freund, Bernd Rücker, Thomas Henninger

A practice manual for successful implementation of BPMN in projects. It identifies what aspects technical process modeling depends on and discusses process automation and business IT alignment aspects. The disadvantages and gaps in the specification are discussed, as well as pitfalls which can sometimes occur when putting the specifications into practice.



BPMN 2.0 - Business Process Model and Notation
Introduction into the Standard for Business Process Modeling
Thomas Allweyer

This book introduces BPMN step-by-step using a multitude of practical examples. All BPMN 2.0 diagrams are shown in detail, based on the basic elements for clear flow modeling. You can gain valuable knowledge of the complete notation and find out how to correctly implement various language constructs.

Basiswissen Geschäftsprozessmanagement (The Basics of Business Process Management)
Tim Weilkiens, Christian Weiss, Andrea Grass

The basics for the first level (foundation) of the OMG Certified Expert in Business Process Management (OCEB). The book introduces the terms and concepts of business studies, business processes and business process management, enterprise modeling, modeling business processes with BPMN, as well as frameworks and specifications. Each chapter ends with test questions in the style of the actual exam. The appendix contains the answers, as well as recommendations for further reading, translations of English BPMN terms and a glossary

You can win these books. Enter the competition here: www.mid.de/buchtipp
Competition ends August 31, 2010. Terms and conditions apply.

As track chair, MID's managing director, Jochen Seemann, compiled the series of lectures "Modeling goes Business" for the OOP2010 conference program; these were focused on bridging the gap between business and IT based on practical experience.

REConf 2010

MID's Speech Received Top Marks at the REConf 2010.

The motto of the REConf 2010 was "The Changing Face of Requirements Management – Agile Yet Still Stable". MID's managing director, Andreas Ditze, showcased modeling as an agile means to requirements definition in his talk "Agile Requirements Modeling" and came second in the run for the best speech, as voted for by conference participants.

MID Modeling Day@OOP 2010

"SOA is Better with Models – From BPM to SOA Governance" was the theme of the MID Modeling Day where speakers shared their practical experiences of how modeling helps when constructing and further developing a service-oriented architecture (SOA) to tackle obstacles and organizational challenges.

Roadshow Innovator for Business Analysts

Customers and visitors to the "BPMN and more" Business Breakfast in seven different towns got to experience how to model requirements, business processes and services using *Innovator for Business Analysts* with its easy to use interface set out in the style of Office. Depending on their requirements, they used BPMN 2.0 or UML was used for use cases or class structures.

JAX Business Technology Days

The Business Technology Days were held at JAX 2010 for the first time. MID was there as a sponsor of the SOA Governance Days and showcased the new BPMN 2.0 tool, *Innovator for Business Analysts*. In his talk, MID managing director, Jochen Seemann, demonstrated how to simplify SOA Governance models.

New MID Academy Courses

UML 2 OCUP-F Certification Preparation

OMG-Certified UML Professional, Fundamental

You will work together in a group using an appropriate version of UML 2 specification taught by an experienced trainer to glean the expertise required to successfully complete the certification. You will get to know the UML 2 metamodel and understand the relationships between essential UML 2 elements. This will give you a closer insight into modeling with UML 2. The certification can be completed at any VUE testing center.

Next date: July 5-7, 2010 in Nuremberg

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OMG-Certified UML Professional, Intermediate

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Next date: August 2-4, 2010 in Nuremberg

OCEB Certification Preparation, Foundation

OMG-Certified Expert in Business Process Management

General concepts and the basics of business process management and business processes are taught, as well as enterprise modeling using Business Motivation Models (BMM) and concepts and skills of business process modeling using Business Process Modeling Notation Version 2.0. Process quality, governance and Metrics Frameworks, and how they can be used to measure your results, are also discussed. For example, you will learn the application, advantages and differences between SCOR, BPMM, Six Sigma, Balanced Scorecard, COBIT, Basel 2. The certification can be completed at any VUE testing center.

Next date: June 28 – July 1, 2010 in Nuremberg

Business Process Modeling with BPMN 2.0 and Innovator for Business Analyst

The course covers business process modeling with Business Process Model and Notation in Version 2.0. As well as BPMN, you will learn the basics and methods of business process management. The course is focused on established process modeling skills using BPMN 2.0, including the definition of data used in the process. Business objects are described with UML classes.

Next date: July 19-22, 2010 in Nuremberg

Individual dates can be organized at any time upon request.

You can find more training options for model-based software development under: www.mid.de/akademie

MID Insight 2010

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Magician, Harry Riegel, will add a magical touch to the day and why not come and be inspired by talking to other users?

More Information under
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