



Volume III

Method Manual

ADONIS Standard Method



Volume 1:	Introduction Manual
Volume 2:	User Manual
Volume 3:	Method Manual
Volume 4:	Method definition and Administration Manual
Volume 5:	Installation and Database Administration Manual

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V.

Preface

Welcome to



The integrated Business Process Management and Knowledge toolkit from BOC GmbH.

ADONIS offers you a wide-range of various functionalities in the following operational areas:

E-Business:

E-business application development, as well as constant and integrated modelling of business models, Business Processes, products, IT systems and IT infrastructures.

Business process management:

Acquisition, modelling, analysis, simulation, evaluation, documentation and realisation of Business Processes.

Process-based application development:

Application development with workflow, CASE-, groupware and object technology as well as process-based introduction of standard software.

Process Warehouses:

Operational data management and Evaluation based on business process and integrated solutions with different workflow products .

Knowledge management - Training and Learning:

Production of training supports through graphic models and process orientated knowledge management.

ADONIS is a client/server multi-user system, which has an object-oriented structure. Additionally, **ADONIS** has a remarkable adaptation possibility, so it can be configured according to your needs and developed according to your requirements(ADONIS-customising)".

We hope that our tool meets your requirements and that you have a lot of fun working with ADONIS.

Your BOC team

Vienna, 2005

1. Note

Designation of people within this documentation

Preface

We would like to explicitly state here that wherever the third person singular is used within this manual, this is intended to include female as well as male persons. The use of the male form of description is not intended to be discriminatory in any way but is simply used in order to ensure consistent descriptions.

Pictures within this documentation

The pictures within this documentation were created using ADONIS 3.81 for Windows 2000 and Windows XP. If you are using different operating system, the appearance of some screens may be slightly different.

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Part I ADONIS

Successful and dynamic enterprises can achieve decisive competitive advantage through the ability to adapt their Business Processes quickly to the rapidly changing market conditions and through the active arrangement of their core competencies. The increasing dynamic, globalisation and increasing competition makes efficient Business Process Management an essential goal.

To enable this, the Procedural Modelling, Analysis, Simulation and Evaluation of Business Processes is an decisive success factor. The goals of Business Process Management are the optimisation of both the processes of an enterprise as well as the resources and technology which execute those processes.

The ADONIS Business Process Management toolkit, which was developed by BOC Information Technologies Consulting GmbH in co-operation with the University of Vienna offers essential tool support for Re-engineering and Reorganisation of projects.

ADONIS was specifically designed for the particular needs of financial services organisations and provides functionality primarily for the following application areas:

- Business Process Optimisation / Business Process Re-engineering (BPR)
- Quality Management / ISO9000 Certification and Maintenance
- Controlling (Process Costing)
- Personnel Management (Personnel and Resource planning)
- Organisation Management (Enterprise documentation, Job descriptions etc.)
- Information Management (Creation of technical concepts for IT systems, Interfaces to Workflow and CASE systems, Introduction of ERP Systems)
- Creation of electronic handbooks which can be made available over an intranet with the use of powerful multi media functionality
- Evaluation of Business Processes (Benchmarking, Monitoring, "Should-be" comparison)

The "Meta-concept" of ADONIS means that through customising, the tool can be configured to optimally suit the particular requirements of any user. The ADONIS user can decide by himself how he should build the processes and how he can best use the ADONIS mechanisms. As ADONIS is method independent, the management of Business Processes on different levels is guaranteed.

Part II The ADONIS standard method

The ADONIS standard method describes a universal modelling technique to model diagrams and organisation charts.

The method is based on the experience and know-how collected by BOC in business process and knowledge management projects and is a industry-neutral methodology for modelling, documentation and optimisation of the business. The available model types (see chap. 1., p. 7) enable an integrated and consistent representation of strategy to deployment-relevant information on different levels.

Within this document you will find:

- Information for ADONIS users
 - Model types (see chap. 1., p. 7)
 - Classes (see chap. 2., p. 13)
 - Relations (see chap. 3., p. 48)
 - Pre-defined queries and relation tables (see chap. 4., p. 58)
 - Library specific functionality (see chap. 5., p. 76)
 - Example models (see chap. 9., p. 117)
- Information for ADONIS administrators
 - Class attributes (see Part IV., p. 143)
 - Library attributes (see chap. 2., p. 214)

Part III Information for ADONIS users

Within this part of the method manual you will find an overview of the model types, classes, and relations contained in the ADONIS standard application library 3.81. Moreover it should explain which queries and relation tables can be used and which library specific functions are available. An introduction together with example models should make easier to understand the ADONIS standard method library version 3.81 and its features.

The areas are:

- Model types (see chap. 1., p. 7)
- Classes (see chap. 2., p. 13)
- Relations (see chap. 3., p. 48)
- Predefined queries and relation tables (see chap. 4., p. 58)
 - Analysis component (see chap. 4.1, p. 58)
 - Evaluation component (see chap. 4.2, p. 70)
- Library-specific functions (see chap. 5., p. 76)
 - Modelling component (see chap. 5.2, p. 78)
 - Simulation component (see chap. 5.3, p. 93)
 - Import-/Export component (see chap. 5.5, p. 97)
 - Example models (see chap. 9., p. 117)
 - Attribute profiles (see chap. 7., p. 114)
- Records (see chap. 8., p. 116)

1. Model types

In the ADONIS standard application library the following model types are defined:

- Company map (see chap. 1.1, p. 8)
- Business Process Model (see chap. 1.2, p. 9)
- Working Environment model (see chap. 1.3, p. 10)
- Document model (see chap. 1.4, p. 11)
- 🗈 Use case diagram (see chap. 1.5, p. 11)

The dependencies and relationships between the model types are summarized in the figure (see fig. 1, p. 8) below.



Figure 1: Model type dependencies in the ADONIS standard application library

The arrows represent the references between the model types. The arrow label indicates name of attribute that contains a defined reference to the respective model type.

1.1 Company map

Company maps are used to model an overview of Business Process Models (see chap. 1.2, p. 9) or other company maps. Therefore a company map can be seen as a navigation help and entry point into the hierarchy of your Business Process Models.

The following classes are available in company maps:

- Process (see chap. 2.14, p. 31)
- Performance indicator overview (see chap. 2.15, p. 33)
- Performance indicator (see chap. 2.16, p. 34)
- Note (see chap. 2.18, p. 38)
- Aggregation (see chap. 2.19, p. 39)

The following relations are available in company maps:

- Has process (see chap. 3.10, p. 54)
- Owns (see chap. 3.12, p. 54)
- Has Note (see chap. 3.13, p. 55)

For **company maps only the mode "Standard"** has been defined, i.e. all available classes and relations will always be shown.

1.2 Business Process Model

Business Process Models represent process flows in an organisation. In Business Process Models the sequence of tasks is modelled with use of (activities) that are needed to resolve a specific task (process). The control objects (Process start, Decision, Parallelism, Merging and End) and the Subsequent relation enable to clearly map the tasks and the process as it happens in the real world (Order, Alternatives, Parallelisms).

In Business Process Models the following classes are available:

- Process start (see chap. 2.4, p. 15)
- Subprocess (see chap. 2.5, p. 17)
- Activity (see chap. 2.6, p. 19)
- Decision (see chap. 2.7, p. 24)
- Parallelism (see chap. 2.8, p. 25)
- Merging (see chap. 2.9, p. 26)
- C End (see chap. 2.10, p. 27)
- Variable (see chap. 2.11, p. 28)
- Random generator (see chap. 2.12, p. 29)
- Resource (see chap. 2.13, p. 30)
- Note (see chap. 2.18, p. 38)
- Aggregation (see chap. 2.19, p. 39)

In Business Process Models the following relations are available:

- Subsequent (see chap. 3.1, p. 48)
- 🖡 ቅ 👘 Sets variable (see chap. 3.2, p. 49)
- Sets (see chap. 3.3, p. 50)
- Uses (see chap. 3.4, p. 50)
- Has Note (see chap. 3.13, p. 55)

The following modes are available for **Business Process Models**:

"Flow"

containing the classes Process start, Subprocess, Activity, Decision, Parallelism, Merging and End as well as the relation Subsequent.

"Flow - including variables and random generators"

containing the classes Process start, Subprocess, Activity, Decision, Parallelism, Merging and End, Variable and Random generator as well as the relations Subsequent, Sets variable and Sets.

"Flow including resources"

containing the classes Process start, Subprocess, Activity, Decision, Parallelism, Merging and End and Resource as well as the relations Subsequent and Uses.

"Flow including performance indicators"

containing the classes Process start, Subprocess, Activity, Decision, Parallelism, Merging, End, Performance indicator overview and Performance indicator as well as references Subsequent and Owns.

"All modelling objects"

containing all available classes and relations.

Note: The classes Note and Aggregation are available in all modes.

1.3 Working Environment model

Working Environment models describe the structure of an organisation (organisation chart).

In Working Environment models the following classes are available:

- Organisational unit (see chap. 2.22, p. 42)
- Performer (see chap. 2.23, p. 43)
- 8 Role (see chap. 2.24, p. 45)
- Resource (see chap. 2.25, p. 45)
- Cost centre (see chap. 2.26, p. 46)
- Note (see chap. 2.18, p. 38)
- Aggregation (see chap. 2.19, p. 39)

In Working Environment models the following relations are available:

- Is subordinated (see chap. 3.14, p. 55)
- Has resource (see chap. 3.15, p. 55)
- Belongs to (see chap. 3.16, p. 56)
- ls manager (see chap. 3.17, p. 56)
- Has role (see chap. 3.18, p. 56)
- Uses resource (see chap. 3.19, p. 57)
- Is charged to (see chap. 3.20, p. 57)
- Is cost centre manager (see chap. 3.21, p. 57)
- Has note (see chap. 3.13, p. 55)

In Working Environment models the following modes are available:

"Standard"

containing the classes Organisational unit, Performer and Role as well as the relations Is subordinated, Belongs to, Is manager and Has role.

"Standard - including Resources"

containing the classes Organisational unit, Performer, Role and Resource as well as the relations Is subordinated, Has resource, Belongs to, Is manager, Has role and Uses resource.

"Standard - with cost centre"

containing the classes Organisational unit, Performer, Role and Cost centre as well as the relations Is subordinated, Belongs to, Is manager, Has role, Is charged to and Is cost centre manager.

"Organisation"

containing the class Organisational unit as well as the relation Is subordinated.

"Role diagram"

containing the classes Performer and Role as well as the relation Has role.

"Resource diagram"

containing the classes Organisational unit, Performer and Resource as well as the relations Has resource and Uses resource.

"All modelling objects"

containing all available classes and relations.

Note: The classes Note and Aggregation are available in all modes.

1.4 Document model

Document models contain documents (templates), which are utilised in the processes (input, output to activities etc.).

In document models the following classes are available:

- Document (see chap. 2.17, p. 38)
- Note (see chap. 2.18, p. 38)
- Aggregation (see chap. 2.19, p. 39)

In document models the following relations are available:

- Has note (see chap. 3.13, p. 55)
- Has Subdocument (see chap. 3.11, p. 54)

For **document models only the mode "Standard"** has been defined, i.e. all available classes and relations will always be shown.

1.5 Use Case Diagram

In Use case diagrams interactions between systems and involved parties are shown and described.

The involved parties have requirements for the system in order to reach goals. These requirements lead to a number of interactions with the system. Then the system performs actions to fulfil these requirements.

The ideal way (i.e. a series of steps and the communication with the involved parties) to deal with such a request is called a scenario in Unified modelling Language (UML). UML is a method to model object-oriented systems in complex software systems. Scenarios in UML are not explicitly modelled but can be additionally described in textual form.

There are many methods and scenarios to accomplish the user's goal such as *I would like to withdraw money from my bank account*. The money can e.g. be withdrawn using an ATM machine or by going to a bank counter. These are two of the possible scenarios. Later on, it is possible

that the transaction cannot be completed and the customer cannot withdraw the money. Also scenarios have to be described to deal with exceptions, errors, etc.

All scenarios relating to the same user target are grouped into a use case which is represented by the ellipse in the diagram. The use case *Withdraw money from account* summarises all possible scenarios to withdraw money from an account. The use case, on the one hand, describes the responsibility of the system bank in relation to its customers. On the other hand it describes the requirements from the customers to the system.

In use case diagrams the users interacting with a system are shown and the requirements from the users which have to be fulfilled by the system are modelled. The requirements describe the internal system and the users the system environment. In use case diagrams particular importance is given to the interface between systems and the system environment. With the third modelling element, the system interface, this distinction can be emphasized.

Use cases are often used in the early phases of an IT project to support the requirements analysis. Requirements for a future or existing system and the involved parties are defined. Involved parties put requests to the system and therefore have a relation to the system. These relationships can be shown very clearly using a use case diagram.

In use case diagrams the following classes are available:

- Actor (see chap. 2.1, p. 13)
- Use case (see chap. 2.2, p. 14)
- System boundary (see chap. 2.3, p. 14)
- Note (see chap. 2.18, p. 38)

In use case diagrams the following relations are available:

- Communicates (see chap. 3.5, p. 50)
- Contains (see chap. 3.6, p. 51)
- Extends (see chap. 3.7, p. 52)
- -> Generalisation (see chap. 3.8, p. 52)
- Has note< (see chap. 3.13, p. 55)
- Uses (see chap. 3.9, p. 53)

For **use case diagrams only the mode "Standard"** has been defined, i.e. all available classes and relations will always be shown.

2. Classes

The list mentioned below contains all the classes needed to create models. Its availability in a model depends on the chosen **Model type** (see chap. 1., p. 7) and on the selected view mode.

Note: The description of the **view modes** you can find in the chapters on particular model types Company map (see chap. 1.1, p. 8), Business Process Model (see chap. 1.2, p. 9), Working Environments model (see chap. 1.3, p. 10), Document model (see chap. 1.4, p. 11) and Use case diagram (see chap. 1.5, p. 11).

2.1 Class "Actor"



An actor describes a role participating and interacting with the system.

When modelling a system interface it is not important, which of the actual persons (e.g. Smith, McDyes, etc.) are querying the system. All participating persons are grouped into roles due to their requirements and are assigned a role according to this. This ensures that from a modelling point of view only homogenous groups (e.g. customers or managers) will remain. Different participants within one group have the same demands towards the system, the same role and are modelled with a single actor-symbol.

For the class "Actor" the following attributes are defined:

- Name (Description):
- **Description (Description):** Enter a description of the "Actor".

For documentation purposes.

- **Comment (Description):** Enter a comment. For documentation purposes.
- **Open questions (Description):** You can enter questions that are still open for this object. If you enter text here, a red question mark appears above the object symbol on the drawing area.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar ein. Dient der Dokumentation.

2.2 Class "Use case"



A use case describes a function that is visible for the user. It helps the user to achieve a certain goal.

The size and number of use cases for a system are not defined and can be selected depending on the user, for particular circumstances.

For the class "Use case" the following attributes are defined:

- Name (Description):
- **Description (Description):** Enter a description of the "Use case". For documentation purposes.
- **Comment (Description):** Enter a comment. For documentation purposes.
- **External documentation (Description):** The "External documentation" enables the integration of existing design documents, as well as complementary external documents.
- **Details (Description):** The attribute "Details" can be used to decompose the current use case within a separate Use case diagram.
- **Open questions (Description):** You can enter questions that are still open for this object. If you enter text here, a red question mark appears above the object symbol on the drawing area;
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar ein. Dient der Dokumentation.

2.3 Class "System boundary"



With the system boundary several use cases, which build a logical unit, can be summarised..

For the class "System boundary" the following attributes are defined:

- Name (Description):
- **Representation (Description):** Select whether the object name should be displayed inside or outside the object.
- **Description (Description):** Enter a description of the system boundary. For documentation purposes.
- **Comment (Description):** Enter a comment for the system boundary. For documentation purposes;
- **Open questions (Description):** You can enter questions that are still open for this object. If you enter text here, a red question mark appears above the object symbol on the drawing area.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung der Systemgrenze ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Systemgrenze ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur Systemgrenze ein. Dient der Dokumentation.

2.4 Class "Process start"



Every business process model must contain exactly one Process start object, which symbolizes the beginning of the business process model.

The object "Process start" has no predecessor and only one subsequent and variables can be assigned to the Process start.

For the class "Process start" the following attributes are defined:

- Name (Description):
- **Order (Description):** This attribute can be set with the help of the "Object numbering" function, which numbers the objects of the business process model.

This can be useful for example within the component "Documentation", to ensure that all objects are documented in the required order.

- **Description (Description):** Enter a description of the "Process start". For documentation purposes.
- **Comment (Description):** Enter a comment for the Process start.

For documentation purposes.

- **Trigger (Description):** Enter a trigger for the business process model. For documentation purposes.
- Result (Description): Enter the result of the business process for documentation purposes.
- **External documentation (Description):** The "External documentation" enables the integration of existing design documents, as well as complementary external documents.
- **Referenced documents (Description):** You can reference a desired document from a Document model.
- **Process responsibility (Description):** Enter into this attribute the information for the Process responsibility as follows:

Role/Performer: Select a role or a performer from a working environment model. This role or this performer is responsible for the process.

Classification: Enter whether the responsible role/performer is mainly responsible/on behalf of/supporting.

Description: Enter a detailed description for the ownership.

• **Open questions (Description):** You can enter questions that are still open for this object.

If you enter text here, a red question mark appears above the object symbol on the drawing area.

- **Input (Input/Output):** Reference the input document from a document model here.
- **Output (Input/Output):** Reference the output document from a document model here.
- **Quantity (Simulation data):** Please enter the number of occurrences of the business process within the chosen time period.

The value in this field will be used by the "Capacity Analysis" simulation algorithm.

• **Time period (Simulation data):** Please select the time period (per day, per month or per year) in which the business process occurs "quantity" number of times.

The selected option will be used by the "Capacity Analysis" simulation algorithm.

• **Process calendar (Simulation data):** The Process start calendar is evaluated and used in the simulation algorithm "Workload Analysis".

It describes the occurrences of the business processes over one year. It is possible to define a number of "typical" day profiles, which can then be assigned to all the days of the year. The day profile is constructed by time intervals within which a probability distribution is assigned. Those probability distributions within the various day profiles describe the time between two process starts.

• **Tolerance waiting time (Simulation data):** Enter the tolerance waiting time, after which the process should be cancelled.

This will only be evaluated during the Workload Analysis.

• Abandon after tolerance waiting time (Simulation data): Define whether the process should be canceled, if the time interval between the process start and the execution of the first activity is greater than the tolerance waiting time.

This will only be evaluated during the Workload Analysis.

- **Cost driver (Simulation data):** Enter the cost driver for the process cost analysis.
- **Cost driver quantity (Simulation data):** Enter the quantity of the cost driver for the process cost analysis.
- Aggregated cycle time (Simulation results): The value of this attribute contains an estimator for the expected cycle time of the business process.

More information about the relevant period can be found in the attribute "Info on results".

• Aggregated execution time (Simulation results): The value of this attribute contains an estimator of the expected value of the execution time of the business process.

More information can be found in the attribute "Info on results".

- Aggregated waiting time (Simulation results): The value of this attribute contains an estimator for the expected value of the waiting time of the business process.
 More information can be found in the attribute "Info on results".
- **Aggregated resting time (Simulation results):** The value of this attribute contains an estimator for the expected value of the resting time of the business-process.

More information about the relevant period can be found in the attribute "Info on results".

• Aggregated transport time (Simulation results): The value of this attribute contains an estimator for the expected value of the transport time of the business-process.

More information about the relevant period can be found in the attribute "Info on results".

 Aggregated costs (Simulation results): The value of this attribute contains an estimator for the expected activity-costs of this business process.

More information about the relevant period can be found in the attribute "Info on result".

- Aggregated personnel costs (Simulation results): The value of this attribute contains an estimator for the expected value of the personnel costs of the business process.
 More information about the relevant period can be found in the attribute "Info on results".
- Info on results (Simulation results): The value of this attribute gives more information
- Into on results (Simulation results): The value of this attribute gives more information about the last evaluation carried out.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung des Prozeßstarts an. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung des Prozeßstartes ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar zum Prozeßstart ein. Dient der Dokumentation;

2.5 Class "Subprocess"



It is possible to call other processes with the object "Subprocess". Rather than repeating the same process steps within a larger model a number of times, it makes sense to create a subprocess, which can be called wherever necessary. The Subprocess object can also be useful when you want to structure your business processes to maximise clarity.

It must have at least one predecessor and at most one subsequent.

If the name of a business process model is entered in the attribute "Referenced subprocess", then that name will be visualised, otherwise the object name will be visualised by default.

For the class "Subprocess" the following attributes are defined:

- Name (Description):
- **Referenced subprocess (Description):** Enter the model name of the subprocess which is to be called.

Please be careful that the name entered here matches that of the model to be called.

- **Display name and reference (Description):** Activate this option, so that both the object name and the model name of the subprocess are displayed in the model graphic.
- **Order (Description):** This attribute can be set with the help of the "Object numbering" function, which numbers the objects of the business process model.

This can be useful for example within the component "Documentation", to ensure that all objects are documented in the required order.

• **Description (Description):** Enter a description of the "Subprocess". For documentation purposes.

For documentation purposes.

• Comment (Description): Enter a comment for the subprocess.

For documentation purposes.

• **Open questions (Description):** You can enter here questions that are still open for this object.

If you enter text here, a red question mark appears above the object symbol on the drawing area.

• **Performer (Working environment):** You can assign performers, i.e. you can link business processes to working environments.

The expression entered here is used in all activities of the referenced process (and of the subprocesses that it possibly references), if no performer assignment has been entered in these activities.

The dialogue button on the right above the input field "Performer" calls the support dialogue for entering the performer assignment.

The value of this attribute is required for the simulation.

In addition to the static elements of AQL you can use the two dynamic constructions "Performer of" and "Done by" for the assignment of performers in the capacity and workload analysis.

"Performer of": process intern, syntax: performer of <Activity>

The result is the performer of the working environment model, who executed the activity during simulation.

This way it is secured that an activity will be executed by the same performer as assigned in the performer field (useful, when e.g. many performers work in the same department, but only one of them executes the whole process flow).

Example: Performer of "Contract be filed"

"Done by": process inter-referenced, syntax: done by <Variable>

The result is the performer of the working environment model, who executes the activity during simulation, at which the variable refers to. To use this construction the name of the variable of the refered activity should be entered in the "Done by" attribute.

Example: Done by "Contract performer"

 Aggregated execution time (Simulation results): This attribute contains the aggregated execution time determined by the simulation for the business process model entered in the attribute "Referenced subprocess" with respect to a year or a business process.

More information about the relevant period can be found in the referenced business process model in the attribute "Info on results" of the Process start object.

If no model has been referenced, the default value "00:000:00:00" is displayed.

Note: The attribute value is automatically updated and cannot be changed.

• Aggregated waiting time (Simulation results): This attribute contains the aggregated waiting time determined by the simulation for the business process model entered in the attribute "Referenced subprocess" with respect to a year or a business process.

More information about the relevant period can be found in the referenced business process model in the attribute "Info on results" of the Process start object.

If no model has been referenced, the default value "00:000:00:00" is displayed.

Note: The attribute value is automatically updated and cannot be changed.

• Aggregated resting time (Simulation results): This attribute contains the aggregated resting time determined by the simulation for the business process model entered in the attribute "Referenced subprocess" with respect to a year or a business process.

More information about the relevant period can be found in the referenced business process model in the attribute "Info on results" of the Process start object.

If no model has been referenced, the default value "00:000:00:00:00" is displayed.

Note: The attribute value is automatically updated and cannot be changed.

• Aggregated transport time (Simulation results): This attribute contains the aggregated transport time determined by the simulation for the business process model entered in the attribute "Referenced subprocess" with respect to a year or a business process.

More information about the relevant period can be found in the referenced business process model in the attribute "Info on results" of the Process start object.

If no model has been referenced, the default value "00:000:00:00" is displayed.

Note: The attribute value is automatically updated and cannot be changed.

• Aggregated costs (Simulation results): This attribute contains the aggregated costs determined by the simulation for the business process model entered in the attribute "Referenced subprocess" with respect to a year or a business process.

More information about the relevant period can be found in the referenced business process model in the attribute "Info on results" of the Process start object.

If no model has been referenced, the default value "00:000:00:00" is displayed.

Note: The attribute value is automatically updated and cannot be changed.

- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung des Prozeßaufrufes ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung des Prozeßaufrufes ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zum Prozeßaufruf ein. Dient der Dokumentation.

2.6 Class "Activity"



Activities describe which tasks in a business process model are to be executed.

The object "Activity" has at least one predecessor and at most one subsequent. The level of detail at which activities are described can vary according to the requirements of the modeller.

One or more variables can be assigned to an activity.

For the class "Activity" the following attributes are defined:

- Name (Description):
- **Order (Description):** This attribute can be set with the help of the "Object numbering" function, which numbers the objects of the business process model.

This can be useful for example within the component "Documentation", to ensure that all objects are documented in the required order.

• Description (Description): Enter a description of the "Activity".

For documentation purposes.

• **Comment (Description):** Enter a comment for the activity.

For documentation purposes.

• **Responsible role (Description):** Select the role, which executes this activity, from a working environment model.

The role defined in this attribute is assigned to the attribute "Performer" (Simulation data).

By activating the option "Display responsible role", the role is displayed on the object area. A "Hotspot" is created at the same time. That means you can switch from the activity to the assigned role in the working environment model by a mouse click.

- Display responsible role (Description):
- Classification (Description): Select one or more options to classify this activity.

For documentation purposes.

Note - The selection of following values is displayed graphically in the top left corner of the Activity object:

- "manual" with a hand symbol
- "checking" with an eye symbol
- "automatic" with a computer symbol

- "manual" AND "automatic" with a flash and the text "Error", since this combination should not appear

- External documentation (Description): The "External documentation" enables the integration of the existing information sources (documents, tables, graphics and web pages...) in the business processes.
- **Referenced documents (Description):** You can reference a desired document from the Document model.
- **Referenced use cases (Description):** Here you can indicate a use case diagram for each activity, which shows a use case in more detail.
- **Open questions (Description):** You can enter here questions that are still open for this object.

If you enter text here, a red question mark appears above the object symbol on the drawing area.

- Input (Input/Output): Reference the input document of your document model here.
- **Output (Input/Output):** Reference the output document of your document model here.
- **Execution time (Time/Costs):** This is the time taken to actually execute the activity.

The format for time is yy:ddd:hh:mm:ss (years-days-hours-minutes-seconds). The default value for each time field is "00:000:00:00:00".

The value in this field is used in the simulation algorithms. If no time value is entered, the value of each time type will be zero in the simulation.

• Waiting time (Time/Costs): This is the time between the possible and the actual start of the execution of the activity.

The format for time is yy:ddd:hh:mm:ss (years-days-hours-minutes-seconds). The default value for each time field is "00:000:00:00:00".

The value in this field is used in the simulation algorithms. If no time value is entered, the value of each time type will be zero in the simulation.

• **Resting time (Time/Costs):** This is the time between the completion of an activity and its transport to the following activity.

The format for time is yy:ddd:hh:mm:ss (years-days-hours-minutes-seconds). The default value for each time field is "00:000:00:00:00".

The value in this field is used in the simulation algorithms. If no time value is entered, the value of each time type will be zero in the simulation.

• Transport time (Time/Costs): This is the time used for transport to the next activity.

The format for time is yy:ddd:hh:mm:ss (years-days-hours-minutes-seconds). The default value for each time field is "00:000:00:00:00".

The value in this field is used in the simulation algorithms. If no time value is entered, the value of each time type will be zero in the simulation.

- **Costs (Time/Costs):** Enter the costs for the execution of the activity.
- **EDP transaction costs (Time/Costs):** Enter the EDP transaction costs.

This attribute will be evaluated by the process cost analysis.

• **EDP batch costs (Time/Costs):** Enter the EDP batch costs.

This attribute will be evaluated by the process cost analysis.

• Print costs (Time/Costs): Enter the print costs.

This attribute will be evaluated by the process cost analysis.

• **Postal costs (Time/Costs):** Enter the postal costs.

This attribute will be evaluated by the process cost analysis.

• **Performer (Working environment):** It is possible to assign a performer that is a reference between business processes and working environment.

The assigned performer will be used in all the called processes. If the process calls its subprocesses, the performer will be used in all these subprocesses without his special assignment to their activities.

At the top right of the field "Performer" you will find a dialogue button, which will give assistance in making performer assignments.

The value of this attribute is needed for the simulation.

Apart from the static elements of AQL also the dynamic elements of "performer of" and "done by" can be used in the Capacity and Workload analysis.

"performer of": process intern; syntax: performer of <Activity>

The result is the performer of the working environment model, who executed the activity during simulation.

This way it is secured that an activity will be executed by the same performer as assigned in the performer field (useful, when e.g. many performers work in the same department, but only one of them executes the whole process flow).

Example: performer of "Contract be filed"

"done by": process inter-referenced; syntax: done by <Variable>

The result is the performer of the working environment model, who executes the activity during simulation, at which the variable refers to. To use this construction the name of the variable of the refered activity should be entered in the "done by" attribute.

Example: done by "Contract performer"

 Continuous execution (Working environment): If "continuous execution" is activated (value=yes) then this means this activity will be executed by the same performer (if possible) as in the previous activity.

This activity will be placed at the top of the list of orders that should be executed by the performer, so that execution by the performer is secured in order to avoid (unrealistic) waiting time.

Note: The "Continuous execution" is evaluated by the simulation algorithm "Workload Simulation".

• **Execution interruptible (Working environment):** When the activity is "Execution interruptible" (value=yes) then the execution of the process is interrupted at this activity when the working time of the performer is ended.

When the activity is not execution interruptible the process will continue also in the performers free time.

Note: This attribute is evaluated only in the Workload Simulation.

• **Task stack (Working environment):** Choose "personal" when the activity is to be executed directly by a specific performer. The assignment will be successful even if the performer is not currently available. The activity remains in the performer's task stack until he executes it.

Choose "global" when the activity may be executed by the next free performer. Only available performers may execute activities.

Note: This attribute is only evaluated in the Workload Analysis.

• **Done by (Working environment):** By entering a variable name into this attribute, the name of the performer who executes the activity will be saved into that variable. Through the "done by" construct it is possible to refer to this variable during execution of interreference AQL expression (Capacity and Workload analysis).

Example:

Assign to the "done by" field: Application performer

The reference to the application performer through an AQL expression: done by "Application performer"

• **Cooperative (Other simulation data):** An activity is co-operative (value=yes) when more than one performer, out of potential performers, is chosen to execute it, when the activity is delegated to all potential performers.

The execution of the activity by the performers starts when enough performers are available (see "Average number of participants" and "Max. start period"). The execution of an activity by the performers may be either synchronous which means that all performers must execute it at the same time or asynchronous where there is a time slack (see "Cooperation mode").

• **Cooperation mode (Other simulation data):** A synchronous activity (value=synchron) is executed by all performers to whom the activity has been delegated at the same time (see "Average number of participants" and "Min. quota of presence").

An asynchronous executed activity (value=asynchron), is being executed by all performers with the time slack, i.e. as soon as one performer is available for the execution of the delegated activity.

• Average number of participants (Other simulation data): This attribute is evaluated by the simulation algorithm "Path Analysis" during the execution of co-operative activities.

During path analysis, activities are not assigned to specific performers. Therefore a cooperative activity is doubled during analysis by the "Average number of participants" and these are then executed like parallel activities.

• Min. quota of presence (Other simulation data): This attribute is evaluated during the execution of the co-operative activities by the simulation algorithm "Workload Analysis".

It refers to the minimum number of performers who must be present before a synchronous, co-operative activity can be executed.

If a sufficient number of performers are not available, the activity is delayed until they become available. The maximum delay period is held in the attribute "Max. start period".

• Max. start period (Other simulation data): This attribute is evaluated during the execution of the co-operative activities by the simulation algorithm "Workload Analysis".

The value of the "Max. start period" attribute indicates the maximum length of time for which a co-operative activity may not be executed until a sufficient number of performers is available (see "Min. quota of presence").

• Priority (Other simulation data): Enter the priority for the activity to be executed.

The larger the value of this attribute, the higher the activity's priority. Then, the execution of such an activity in the simulation is done according to its priority. Activities with the same priority are worked out according to their delivery order.

• Max. resource waiting time (Other simulation data): The maximum resource waiting time declares the resource waiting time period for which a performer awaits the necessary resources to become available.

If the resource waiting time is greater than declared, the performer will reassign the activity within the task stack.

Example:

If the value of this attribute is: "00:000:00:05:00".

This means that the performer of this task will wait maximum 5 minutes for the necessary resource to become available. This task will then be attempted again when the following task has been completed.

- **Number (Simulation results):** The number contains the number of times this activity was executed concerning the last evaluation carried out.
- **Aggregated execution time (Simulation results):** This attribute contains the whole execution time of an activity (either referenced to a year or a business process).

More information can be found in the attribute "Info on results".

• **Aggregated waiting time (Simulation results):** This attribute contains the whole waiting time of an activity (either referenced to a year or a business process).

More information can be found in the attribute "Info on results".

• Aggregated resting time (Simulation results): This attribute contains the whole resting time of an activity (either referenced to a year or a business process).

More information about the relevant period can be found in the attribute "Info on results".

• Aggregated transport time (Simulation results): This attribute contains the whole transport time of an activity (either referenced to a year or a business process). More information about the relevant period can be found in the attribute "Info on results".

• Aggregated costs (Simulation results): This attribute contains the costs of an activity (either referenced to a year or a business process).

More information can be found in the attribute "Info on results".

• Aggregated personnel costs (Simulation results): This attribute contains the personnel costs of an activity (either referenced to a year or a business process).

More information can be found in the attribute "Info on results".

- Info on results (Simulation results): The value of this attribute gives more information about the last evaluation carried out.
- External tool coupling (External tool coupling):
- **Bezeichnung (Deutsch):** Geben Sie die Bezeichnung der Aktivität ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie die Beschreibung der Aktivität ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur Aktivität ein. Dient der Dokumentation.

2.7 Class "Decision"



The decision object within a business process model allows pre-defined variables to be queried in order to determine the path through the process.

A decision has at least one predecessor and at least two subsequents.

During a simulation only one of the subsequents must be "true" that is an correct value in the attribute "Transition condition" of the "Subsequents".

During the analytical evaluation, the subsequent connectors of the decisions have to be set with a transition probability, where the sum of all transition probabilities of the subsequent connectors outgoing from a decision object must always be (1).

If the sum of all transition probabilities of the subsequent connectors outgoing from a decision object is not (1), it will be displayed in the graphical representation with a red "!" (on the right above the decision object) meaning that no analytical evaluation is possible.

For the class "Decision" the following attributes are defined:

- Name (Description):
- **Order (Description):** This attribute can be set by the "Object numbering" function, which numbers the objects of the business process model.

This can be useful for example within the component "Documentation", to ensure that all objects are documented in the required order.

• Description (Description): Enter a description of the "Decision".

For documentation purposes.

• **Comment (Description):** Enter a comment for the decision.

For documentation purposes.

• **Open questions (Description):** You can enter questions that are still open for this object. If you enter text here, a red question mark appears above the object symbol on the drawing area.

- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung der Entscheidung ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Entscheidung ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur Entscheidung ein. Dient der Dokumentation.

2.8 Class "Parallelity"



The parallelism makes it possible for several paths in a business process to be executed at the same time.

Every parallelism ends with a union (Merging object).

The object parallelity has at least one predecessor and at least two subsequents. A transition condition can be set on a subsequent relation following a parallelism object. This means that one (or more) of the "parallel" paths may be followed only in certain conditions

The object "parallelity" should have the same number of subsequents as the corresponding "Merging" object has predecessors. The only exception is allowed, when a "Decision" splits a path into two or more (logical) paths. Only the paths which started from the object "Parallelity" may lead to the corresponding object "Merging".

The name of a parallelism can be visualised, if required by changing the "Representation" attribute in the Notebook.

For the class "Parallelity" the following attributes are defined:

- Name (Description):
- **Representation (Description):** State whether the name of the parallelity should be visualised.
- **Order (Description):** This attribute can be set by the "Object numbering" function, which numbers the objects of the business process model.

This can be useful for example within the component "Documentation", to ensure that all objects are documented in the required order.

- Modeling direction (Description): Please select the modelling direction:
 - from left to right (horizontal),
 - up to down (vertical)

The graphical representation on the drawing area will be adjusted accordingly.

• Description (Description): Enter a description of the "Parallelity".

For documentation purposes.

• **Comment (Description):** Enter a comment for the parallelism.

For documentation purposes.

- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung der Parallelität ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Parallelität ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar zur Parallelität ein. Dient der Dokumentation.

2.9 Class "Merging"



With the "Merging" object, parallel paths are re-joined.

The object "Merging" has as many predecessors as the corresponding object "Parallelity" has subsequents, and it has at most one subsequent. The only exception is allowed, when a "Decision" splits a path into two or more (logical) paths. Only the paths which started from the object "Parallelity" may lead to the corresponding object "Merging".

The name of a Merging object can be visualised, if required, by changing the "Representation" attribute.

For the class "Merging" the following attributes are defined:

- Name (Description):
- **Representation (Description):** Select whether the name should be displayed on the drawing area.
- **Order (Description):** This attribute can be set by the "Object numbering" function, which numbers the objects of the business process model.

This can be useful for example within the component "Documentation", to ensure that all objects are documented in the required order.

• Modeling direction (Description): Please select the modelling direction.

- from left to right (horizontal),

- up to down (vertical)

he graphical Representation on the drawing area will be adjusted accordingly.

- **Description (Description):** Enter a description of the "Merging". For documentation purposes.
- **Comment (Description):** Enter a comment for the merging. For documentation purposes.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung der Vereinigung ein. Dient der Dokumentation.

- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Vereinigung ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur Vereinigung ein. Dient der Dokumentation.

2.10 Class "End"



The object "End" marks the end of business process path. Several objects of the class "End" are allowed in one model.

The object "End" has at least one predecessor and no subsequent.

The name of the end-object can be visualised with the appropriate adjustments of the attribute "Representation".

For the class "End" the following attributes are defined:

- Name (Description):
- **Representation (Description):** Select whether the name of the End object should be displayed.
- **Order (Description):** This attribute can be set by the "Object numbering" function, which numbers the objects of the business process model.

This can be useful for example within the component "Documentation", to ensure that all objects are documented in the required order.

• **Type (Description):** A local end indicates the end of the current business process and the return to a calling business process. The path will then continue through the calling process. However the path in the calling process is now interrupted and returns to its calling process... and so on... until the entire process ends.

A global end indicates the end of the current business process and the return to the calling business process.

If a global end occurs inside a parallelism, then the path continues until the corresponding merging and then the process ends as described above.

• **Description (Description):** Enter a description of the "End".

For documentation purposes.

- **Comment (Description):** Enter a comment for the end. For documentation purposes.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung des Endes ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung des Endes ein. Dient der Dokumentation.

• Kommentar (Deutsch): Geben Sie einen Kommentar zum Ende ein. Dient der Dokumentation.

2.11 Class "Variable"



Variables are used to enable transition conditions to be defined in the model.

These transition conditions are set in the "Subsequent" relation (after a Decision or Parallelity). The object "Variable" does not have any predecessors or any subsequents. The object "Variable" can be related to the object "Random generator" with the relation "Sets variable".

A variable can be set with different values at different times through the use of several "Random generator" objects.

For the class "Variable" the following attributes defined:

- Name (Description):
- **Description (Description):** Enter a description of the "Variable". For documentation purposes.
- **Comment (Description):** Enter a comment for the variable. For documentation purposes.
- Variable type (Description): Select the variable type:

- "float", when the value of the variable is to be defined by normal, exponential or uniform distribution,

- "enumeration", when the value is to be defined by discrete distribution.

It is important to select the correct type as otherwise simulation may result in an error!

• Variable scope (Description): The scope of a variable may be either local or global.

A local variable may only be referenced in the model in which the variable was defined. A global variable may be referenced anywhere within the related model structure i.e. in any subprocesses or parent processes of the model in which the variable was defined.

A local variable may however be passed as a parameter to a subprocess.

- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung der Variable ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Variable ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar zur Variable ein. Dient der Dokumentation.
2.12 Class "Random generator"



The Random generator sets a variable with a certain value. The value can be set through a steady or a discrete distribution function.

The object "Random generator" does not have any predecessors or any subsequents. The object "Random generator" can be related to the following objects:

- "Variable" through the relation "Sets variable",

- "Process start","Activity" through the relation "Sets".

Several Random generators can set the same "Variable" object with values.

For the class "Random generator" the following attributes are defined:

• Value (Description): Select the type of distribution and the corresponding parameters.

The syntax for entering a continuous distribution is:

- for normal distribution: Normal (<Number1>; <Number2>), where <Number1> is the expectancy and <Number2> is the standard deviation.

Example: Normal (1200; 100) - the variable has a normal distribution with an expected value of 1200 and a standard deviation of 100.

- for exponential distribution: Exponential (<Number>), where <Number> corresponds to 1 divided by the expectancy (1/E).

Example: Exponential (0,002) - the value is distributed exponentially with the expectancy of 500.

- for uniform distribution: Uniform (<Number1>; <Number2>), where <Number1> is the lower boundary and <Number2> the upper one.

Example: Equal (0 ; 100) - the variable is distributed uniformly between the boundaries of 0 and 100.

The syntax for the discrete distribution is:

Discrete (<Symbol1> <Number1>; <Symbol2> <Number2> ; ...)

You can define one or more symbols with their probabilities of occurrence (Number1, Number2, ...). Note the sum of all the probabilities for a discrete distribution must be 1!

Example: Discrete (YES 0.6; NO 0.4) - the variable is assigned with the value "YES" with a probability of 0.6 and NO with a probability of 0.4. Note the transition conditions are defined as follows <Variable name>="YES" or <Variable name>="NO".

For cycles, it is possible to assign more than one distribution to the attribute "Value" so that the value is changed in every cycle. Separate the distribution with ";". During simulation the first distribution will be run in the first cycle, the second distribution in the second cycle etc.

Description (Description): Enter a description of the "Random generator".

For documentation purposes.

• **Comment (Description):** Enter a comment for the random generator.

For documentation purposes.

• Information on data collection (Description): The "Information on data collection" enables the integration of the existing information sources (documents, tables, graphics, web pages ...) in the business processes.

Enter into the path and file name into the field "Program arguments". If you want to open the referenced document with a program which is different from the default one, select this program in the field "Executable".

• **Manual random generator (Description):** The activation of the manual random generator (Value "Yes") enables the manual allocation of variables during the simulation.

The activation of the manual random generator is visualised by the system with a hand symbol in the graphical representation (on the left above the random generator object).

• Info zum Wert der Variablenbelegung (Deutsch): Geben Sie den Wert der Variablenbelegung ein.

Dient der Dokumentation.

- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Variablenbelegung ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur Variablenbelegung ein. Dient der Dokumentation.

2.13 Class "Resource" (__BP_Resource__)



Resources are taken into consideration in the simulation by the algorithms "Workload analysis" and "Capacity analysis". The object "resource" in a business process model represents exactly one object "resource" from a working environment model.

The relation is executed by an AQL-expression, which is evaluated dynamically during the simulation.

In the "Capacity analysis" the resource object is set at its first usage with the corresponding resource from the working environment and that resource remains until the end of the process run through.

For the class "Resource" the following attributes are defined:

- Name (Description):
- **Order (Description):** This attribute can be set by the "Object numbering" function, which numbers the objects of the business process model.

This can be useful for example within the component "Documentation", to ensure that all objects are documented in the required order.

• Description (Description): Enter a description of the "Resource".

For documentation purposes.

• **Comment (Description):** Enter a comment for the resource.

For documentation purposes.

- **Type of resource (Description):** Select the type of the resource. The graphical representation on the drawing area will be adjusted accordingly.
- Selection (Description): The value of this attribute is used in the simulation algorithms ("Capacity Analysis" and "Workload Analysis"). It is possible to assign resources, i.e. to link activities with the resources that are required to execute them.

The effect of resources on the cycle time and waiting time of a business process can be examined by investigating the activities, which use resources.

Mouse-clicking on the dialogue button above the selection box will give support on assigning resources. In addition to the static elements of AQL, it is possible to use the dynamic construct "current Performer" for resource assignment (Syntax: current Performer -> <Resource relation>).

It guarantees that the particular performer will use during the execution of the activity the assigned resources.

• **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung der Ressource ein.

Dient der Dokumentation.

- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Ressource ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur Ressource ein. Dient der Dokumentation.

2.14 Class "Process"



A "Process" is a reference to a Company map or a business process model.

Depending on the model referenced, a process or a business process is symbolized in the object.

For the class "Process" the following attributes are defined:

- Name (Description):
- **Referenced process (Description):** This attribute may contain a reference to a business process model or a company map.

The graphical representation of the object adjusts itself automatically to the model type referenced.

- **Display name and reference (Description):** Activate this option, so that both the object name and the model name of the subprocess, are displayed in the model graphic.
- **Order (Description):** This attribute can be set by the "Object numbering" function, which numbers the objects of the business process model.

This can be useful for example within the component "Documentation", to ensure that all objects are documented in the required order.

• Description (Description): Enter a description of the "Process".

For documentation purposes.

- **Comment (Description):** Enter a comment. For documentation purposes.
- **Open questions (Description):** You can enter here questions that are still open for this object;

If you enter text here, a red question mark appears above the object symbol on the drawing area.

- Input (Input/Output): Reference the input document of your document model here.
- Output (Input/Output): Reference the output document of your document model here.
- Aggregated cycle time (Simulation results): This attribute contains the aggregated cycle time of a business process model, which has been produced through simulation, with respect to one year or one business process (more information about the relevant period can be found in the attribute "Info on results" of the process start object).

If a model of type "Company map" or no model is referenced, the default value "00:000:00:00" is displayed.

Note: The attribute value is automatically updated and cannot be changed manually.

 Aggregated execution time (Simulation results): This attribute contains the aggregated execution time of an activity with respect to one year or one business process (more information about the relevant period can be found in the attribute "Info on results").

If a model of type "Company map" or no model is referenced, the default value "00:000:00:00:00" is displayed.

Note: The attribute value is automatically updated and cannot be changed manually.

• Aggregated waiting time (Simulation results): This attribute contains the aggregated waiting time of an activity with respect to one year or one business process (more information about the relevant period can be found in the attribute "Info on results").

If a model of type "Company map" or no model is referenced, the default value "00:000:00:00" is displayed.

Note: The attribute value is automatically updated and cannot be changed manually.

• Aggregated resting time (Simulation results): This attribute contains the aggregated resting time of an activity with respect to one year or one business process (more information about the relevant period can be found in the attribute "Info on results").

If a model of type "Company map" or no model is referenced, the default value "00:000:00:00" is displayed.

Note: The attribute value is automatically updated and cannot be changed manually.

• Aggregated transport time (Simulation results): This attribute contains the aggregated transport time of an activity with respect to one year or one business process (more information about the relevant period can be found in the attribute "Info on results").

If a model of type "Company map" or no model is referenced, the default value "00:000:00:00:00" is displayed.

Note: The attribute value is automatically updated and cannot be changed manually.

• Aggregated costs (Simulation results): This attribute contains the aggregated costs of an activity with respect to one year or one business process (more information about the relevant period can be found in the attribute "Info on results").

If a model of type "Company map" or no model is referenced, the default value "0,000000" is displayed.

Note: The attribute value is automatically updated and cannot be changed manually.

• Aggregated personnel costs (Simulation results): This attribute contains the aggregated personnel costs of an activity with respect to one year or one business process (more information about the relevant period can be found in the attribute "Info on results").

If a model of type "Company map" or no model is referenced, the default value "0,000000" is displayed.

Note: The attribute value is automatically updated and cannot be changed manually.

- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung des Prozesses ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung des Prozesses ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar zum Prozeß ein. Dient der Dokumentation.

2.15 Class "Performance indicator overview"



The class "Performance indicator overview" provides an overview of all performance indicators defined in a business process or a company map.

In each business process model or a company map with performance indicators, exactly one object of type "Performance indicator overview" has to be defined in order to perform initialisation and calculation of current values.

For the class "Performance indicator overview" the following attributes are defined:

- Name (Description):
- Description (Description): Enter a description of the "Performance indicator overview".
 For documentation purposes.
- Comment (Description): Enter a comment.

For documentation purposes.

• Performance indicator overview (Performance indicators): In each business process model or a company map with performance indicators, exactly one object of type "Performance indicator overview" has to be defined in order to perform initialisation and calculation of current values.

Otherwise a corresponding message is displayed during initialisation or calculation.

Add references to performance indicators using the add button. After the calculation the detailed information about each performance indicator (target value, current value, status, score and updated) will be displayed on the drawing area.

• **Data access (Database parameter):** Enter the instance name of the operational database. Access to this database will be established during the calculation of performance indicators of this business process model or company map.

Enter the user name to connect to the database. Enter the password of the user to access the database.

- **Planning period (Period configuration):** Enter a start of the planning period. Enter a lengh of the planning period.
- **Bezeichnung (Deutsch):** Geben Sie die Bezeichnung ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie die Beschreibung ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar ein. Dient der Dokumentation.

2.16 Class "Performance indicator"



Use the class "Performance indicator" to define performance indicators in business process models and company maps.

Performance indicators can be assigned to an activity and process objects using the "Owns" relation.

For the class "Performance indicator" the following attributes are defined:

- Name (Description):
- Order (Description):
- **Description (Description):** Enter a description of the "Performance indicator". For documentation purposes;
- **Comment (Description):** Enter a comment. For documentation purposes.
- **Periodicity (Details):** Define the periodicity of the performance indicator. You can select one of the following values: "Year", "Half-year", "Quarter", "Month", "Week", "Day".

Please note that the target values have to be entered with the selected periodicity!

• Change of referenced date (year) (Details): By using this attribute you can determine which year is used to calculate the current values.

An entry of 0 results in a calculation corresponding to the current year.

If you choose -1 the calculation corresponds to the previous year.

• Change of referenced date (month) (Details): By using this attribute you can determine which month is used to calculate the current values.

An entry of 0 results in a calculation corresponding to the current month.

If you choose -1 the calculation corresponds to the previous month.

• Indicator type (Details): Determines whether the indicator is an absolute or relative indicator.

Absolute indicators are measured in a specific unit of measurement (e.g. revenue).

Relative indicators represent a ratio e.g. ROE (return on equity).

In case of absolute indicators the current value of the performance indicator concerning the period which should be updated, is compared with the aggregated target values.

In case of relative indicators the current value of the performance indicator is compared with the target value of the period which should be updated. In this case the target values are NOT aggregated.

- Unit (Details): Enter the unit of measurement.
- Limit type (Details): Influence the calculation of status with the attribute "limit type". The following options are possible:
 - Less is better: current values higher than the target value are not desired (e.g. costs).

- More is better: Current values lower than the target value are not desired (e.g. revenue)period; The threshold limits will be subtracted from the target values.

- Two-sided: The threshold types have an effect in both directions around the target value.
- **Threshold green/yellow (Details):** Enter the value from which the status of the performance indicator should be displayed with a yellow traffic light.

Examples: Target value = 150

Threshold green/yellow = 10

Threshold yellow/red = 20

Limit type = More is better

The following traffic light colours will be displayed:

- green: if current value > 135
- yellow: if current value <= 135 and > 120
- red: if current value <= 120

The performance indicator value = 140 is displayed with a green traffic light.

Enter an absolute target value.

• **Threshold yellow/red (Details):** Enter the value from which the status of the performance indicator should be displayed with a yellow traffic light:

Examples: Target value = 150

Threshold green/yellow = 10

Threshold yellow/red = 20

Limit type = More is better

The following traffic light colours will be displayed:

- green: if current value > 140
- yellow: if current value <= 140 and > 120

- red: if current value <= 120

The performance indicator value 140 is displayed with a green traffic light.

Enter an absolute target value.

- **Responsibility (Details):** Enter a person defined in working environment models who is responsible for the performance indicator.
- **History (History):** This table is used to represent the results of the target/current comparisons.

The menu entry "Current value initialisation" prepares the table. Afterwards the target values for each time period can be entered.

The menu entry "Current value calculation" enters the current values in the corresponding rows of the table. Additional target level achievements and score's are calculated.

Current values are entered in the column "Current value" and target values in the column "Target value".

The Status is calculated using the current value, target value, limit type and threshold values and is entered in the column "Status".

The Score is entered in the "Score" column and the calculation date in the column "Updated".

• Data source (DB Data source): Decide whether the value of the performance indicator from files of a relational database, from files of an Excel sheet or from files of the attribute "Manual data input" should be calculated.

If a "Database" is declared as a data source, the data access must be defined on the level of the class "Performance indicator overview" either in the business process model, or the company map. It should be done in the attribute "Database access". Additionally the attribute "SELECT-Statement" in the class "Performance indicator" must be filled.

If an Excel sheet is declared as a data source, the attributes: "Table", "Sheet" and "Cell" should be filled.

If the "Manual data input" is declared as a data source, the value entered into the attribute "Manual data input" in chapter "Manual data source" is calculated.

• **SELECT-Statement (DB data source):** You determine the value of the indicator with this statement.

The SQL-statement must be entered only if a database is defined as the data source.

The interface to the operational database is entered for each business process model or a company map in the object "Performance indicator overview" in the chapter "Database parameter".

• Data source (Excel data source): Decide whether the value of the performance indicator from files of a relational database, from files of an Excel sheet or from files of the attribute "Manual data input" should be calculated.

If a "Database" is declared as a data source, the data access must be defined on the level of the class "Performance indicator overview" either in the business process model, or the company map. It should be done in the attribute "Database access". Additionally the attribute "SELECT-Statement" in the class "Performance indicator" must be filled.

If an Excel sheet is declared as a data source, the attributes: "Table", "Sheet" and "Cell" should be filled.

If the "Manual data input" is declared as a data source, the value entered into the attribute "Manual data input" in chapter "Manual data source" is calculated.

• **Table (Excel data source):** Select the Excel file containing the data for the performance indicator. The formula in "Cell" references to this table.

The table must only be selected if an Excel sheet is used as a data source.

- **Sheet (Excel data source):** Please define the name of the Excel sheet of the referenced Excel file.
- **Cell (Excel data source):** The attribute "cell" determines the value of the indicator. The format of the cell reference has to be as follows <Column>,<Row>. Allowed values for columns and rows are numerical figures or expressions.

Example: the cell reference "4,(1+2*(MONTH_END))" indicates the fourth column of an Excel sheet. The indicated row is calculated by the current month * 2 + 1.

In this example, if the calculation takes place in MAY 2004, the result will be:

column 4 and row 11 (5 * 2 + 1 = 11).

The cell reference corresponds to the attributes "Sheet" and has to be defined only if "Excel file" is chosen as data source.

The following values are available to create a dynamic cell reference, which depends on the selected actualisation date. They can be used as described in the example above.

Year: \$(YEAR_END)

Month: \$(MONTH_END)

Week: \$(WEEK)

Day: \$(DAY)

The used value is replaced by an appropriate date/number value while actualising.

Example: for the actualisation date 08.09.2004 the variable \$(YEAR_END) is replaced by the value 2004, \$(MONTH_END) by is replaced by 9 etc.

Note: The Excel functions can be used in the cell reference.

• Data source (Manual data input): Decide whether the value of the performance indicator from files of a relational database, from files of an Excel sheet or from files of the attribute "Manual data input" should be calculated.

If a "Database" is declared as a data source, the data access must be defined on the level of the class "Performance indicator overview" either in the business process model, or the company map. It should be done in the attribute "Database access". Additionally the attribute "SELECT-Statement" in the class "Performance indicator" must be filled.

If an Excel sheet is declared as a data source, the attributes: "Table", "Sheet" and "Cell" should be filled.

If the "Manual data input" is declared as a data source, the value entered into the attribute "Manual data input" in chapter "Manual data source" is calculated.

- **Manual data input (Manual data source):** Enter the value of the indicator. This value is used to calculate the current values of performance indicators for a specific time period in the case of manual data input.
- Font size (Representation): Choose the appropriate font size to display the description text.
- Font style (Representation): Choose the appropriate font style to display the description text.
- **Display current value (Representation):** Choose whether the current value below the performance indicator should be displayed or not.
- **Display score (Representation):** Choose whether the score above the performance indicator should be displayed or not.
- **Display periodicity (Representation):** Choose whether the periodicity should be displayed with the performance indicator or not.
- **Display status (Representation):** Choose whether the status should be displayed or not.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie die Beschreibung ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar ein. Dient der Dokumentation.

2.17 Class "Document"



A "Document" contains information and supports the execution of an activity.

The required documents are referenced to from the activities of a business process model.

For the class "Document" the following attributes are defined:

- Name (Description):
- **Referenced document (Description):**"Referenced document" enables the integration of existing documents, as well as external documents.
- Description (Description): Enter a description of the "Document".

For documentation purposes.

- **Comment (Description):** Enter a comment. For documentation purposes.
- **Responsible role (Description):** Select a role from a working environment model that is responsible for the current document.
- **Referenced document model (Description):** Enter the name of a document model to display the current document in more detailed form.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung des Dokuments ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung des Dokuments ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zum Dokument ein. Dient der Dokumentation.

2.18 Class "Note"



The "Note" allows free text to be placed within a model.

For the class "Note" the following attributes are defined:

- Text (Description): Enter the text of this note.
- Font size (Description): Select the font size for the text that is displayed on the drawing area.
- Font style (Description): Select the font style for the text that is displayed on the drawing area.
- **Color (Description):** You can define the object colour as follows:

- Select a colour in the "Color" window which can be opened by clicking on the dialogue button (on the right above the attribute field)

- Enter a colour name (e.g. "cornflowerblue"; a list of the colour names can be found in the user documentation or in the online help)

- Enter an hexidecimal value (e.g. "\$FFFFF" for white), where the value begins with "\$" and contains then the red, green and blue values with respectively two digits.

• **External graphic (Description):** Reference a Bitmap-file (*.bmp) which should be integrated.

If the file should be opened with a special tool, declare this in the selection. Otherwise the default settings will be chosen "<automatically>".

Enter the path and the file name into the field "Program arguments".

• **Calculate size of graphic automatically (Description):** This function allows it to calculate the exact area a referenced graphic needs.

It is recommended to activate the automatic calculation before referencing an external graphic.

If this function is activated, the size of the object "Note" is automatically adjusted to the objects' size. When changing the size the aspect ratio will be kept.

If this function is deactivated, the graphic will be inserted minimised. The graphic must be adjusted manually without keeping the aspect ratio.

• Notiz (Deutsch): Geben Sie die Notiz ein.

2.19 Class "Aggregation"



The aggregation supports the logical structure of model contents on the drawing area.

From an object that is placed on Aggregation, there is an automatic creation of connnections between the Aggregation and the objects in the model with the relation "Is inside". The relation "Is inside" is not visualised!.

For the class "Aggregation" the following attributes are defined:

- Name (Description):
- **Display name (Description):** Select whether the object name should be displayed on the drawing area.
- **Representation (Description):** Select whether the object name should be displayed inside or outside the aggregation.

- Font size (Description): Select the font size for the text that is displayed on the drawing area.
- Font style (Description): Select the font style for the text that is displayed on the drawing area.
- **Description (Description):** Enter a description of the "Aggregation". For documentation purposes.
- **Comment (Description):** Enter a comment. For documentation purposes.
- Color (Object display): You can define the object colour as follows:

- Select a colour in the "Color" window, which can be opened by clicking on the dialogue button (on the right above the attribute field)

- Enter a colour name (e.g. "cornflowerblue"; a list of the colour names can be found in the user documentation or in the online help)

- Enter an hexadecimal value (e.g. "\$FFFFF" for white), where the value begins with "\$" and contains then the red, green and blue values with respectively two digits.

- Lines (Object display): Select the type of representation for the framework.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung der Aggregation ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Aggregation ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar zur Aggregation ein. Dient der Dokumentation.

2.20 Class "Swimlane (horizontal)"



"Swimlanes" are areas of responsibilities (e.g. workgroups, units etc.).

Is a process executed in different areas of responsibilities, each area becomes its own swimlane where each object can be placed according to its area.

In each swimlane the responsible role, performer or organisational unit from the working environment can be referenced.

For the class "Swimlane (horizontal)" the following attributes are defined:

- Name (Description):
- **Working environment (Description):** Enter the instance (role, performer or organisational unit) responsible for the process area.
- **Description (Description):** Enter a description of the "Swimlane (horizontal)".

For documentation purposes.

• **Comment (Description):** Enter a comment.

For documentation purposes.

• **Open questions (Description):** You can enter here questions that are still open for this object.

If you enter text here, a red question mark appears above the object symbol on the drawing area.

• **Color (Representation):** You can define the object colour as follows:

- Select a colour in the "Color" window which can be opened by clicking on the dialogue button (on the right above the attribute field)

- Enter a colour name (e.g. "cornflowerblue"; a list of the colour names can be found in the user documentation or in the online help)

Enter an hexadecimal value (e.g. "\$FFFFF" for white), where the value begins with "\$" and contains then the red, green and blue values with respectively two digits.

- Display water marks (Representation):
- Alignment (Representation):
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung zur Schimmbahn ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung zur Schimmbahn ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur Schimmbahn ein. Dient der Dokumentation.

2.21 Class "Swimlane (vertical)"



"Swimlanes" are areas of responsibilities (e.g. workgroups, units etc.).

Is a process executed in different areas of responsibilities, each area becomes its own swimlane where each object can be placed according to its area.

In each swimlane the responsible role, performer or organisational unit from the working environment can be referenced.

For the class "Swimlane (vertical)" the following attributes are defined:

- Name (Description):
- **Working environment (Description):** Enter the instance (role, performer or organisational unit) responsible for the process area.
- Description (Description): Enter a description of the "Swimlane (vertical)".

For documentation purposes.

- **Comment (Description):** Enter a comment. For documentation purposes.
- **Open questions (Description):** You can enter questions that are still open for this object. If you enter text here, a red question mark appears above the object symbol on the drawing area.
- Color (Representation): You can define the object colour as follows:

- Select a colour in the "Color" window which can be opened by clicking on the dialogue button (on the right above the attribute field)

- Enter a colour name (e.g. "cornflowerblue"; a list of the colour names can be found in the user documentation or in the online help)

- Enter an hexadecimal value (e.g. "\$FFFFF" for white), where the value begins with "\$" and contains then the red, green and blue values with respectively two digits.

- Display water marks (Representation):
- Alignment (Representation):
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung zur Schimmbahn ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung zur Schimmbahn ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur Schimmbahn ein. Dient der Dokumentation.

2.22 Class "Organizational unit"



The integration of the organisational units enables you to describe transparently the hierarchy of your working environment.

- Performers belong to an organisational unit
- An organisational unit can have a manager
- Several organisational units can be subordinated by another organisational unit
- A organisational unit can use one or more resources

For the class "Organizational unit" the following attributes are defined:

- Name (Desription):
- **Order (Desription):** This attribute can be set by the "Object numbering" function, which numbers the objects of the business process model.

This can be useful for example within the component "Documentation", to ensure that all objects are documented in the required order.

- **Desription (Desription):** Enter a description of the "Organizational unit". For documentation purposes.
- **Comment (Desription):** Enter a comment. For documentation purposes.
- **Model reference (Desription):** Select a working environment model, to break down further the organisational structure of the organisation.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung der Organisationseinheit einperiod; Dient der Dokumentation&.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Organisationseinheit ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur Organisationseinheit ein. Dient der Dokumentation.

2.23 Class "Performer"



An object of this class represents a performer within a working environment. Each performer can:

- have one or more role(s)
- belong to one or more organisational unit(s)
- be charged to one or more cost center(s)
- manage one or more organisational unit(s) and cost center(s)
- use one or more resource(s)

For the class "Performer" the following attributes are defined:

- Name (Description):
- **Description (Description):** Enter a description of the "Performer". For documentation purposes.
- **Comment (Description):** Enter a comment. For documentation purposes.
- **Further education (Description):** Enter the title of the seminar (course) for further education of the employees in the column "Seminar title".

The column "Participated in" contains the time of the participation in the format MM.YYYY, i.e. month and year of participation in the seminar/course (e.g. 02.2000 for a course made in February 2000).

• **Presence (Description):** The presence indicates how many days per week and how many hours per day the performer is present - i.e. available for work.

The entry of the values ("Days per week" and "Hours per day") occurs by selecting the appropriate presence profiles.

Note: If none of the available presence profiles are appropriate, please ask your ADONIS administrator to create the required profile.

- Hourly wages (Simulation data): Enter the hourly wages of the performer.
- Availability (Simulation data): The value "Availability" is referenced in the simulation algorithm "Capacity analysis".

The availability is automatically calculated based on the presence.

Formula: Days per week × Hours per day \div 40 × 100 (round number).

If necessary you can define the availability with an integer between 0 and 100.

• **Calendar (Simulation data):** The value of the attribute "Calendar" is evaluated in the simulation algorithm "Workload analysis".

It defines when a person is available for executing business processes respectively activities.

You can define the so-called "day profiles" and assign them to the days of a year.

- **Time dependent costs (Simulation data):** The "time dependent costs" are evaluated in the process cost analysis.
- **Personnel costs (Simulation results):** The personnel costs are the product of working time and hourly wage of the performer.

More information about the relevant period can be found in the attribute "Info on results".

• **Capacity (Simulation results):** The capacity is the ratio of time a performer spent working on activities to the time he was actually present.

Because the capacity analysis does not simulate on the time-axis, the capacity of more than 100% can occur.

More information about the relevant period can be found in the attribute "Info on results".

• Workload (Simulation results): The workload is the ratio of time one performer spent working on activities compared to the time he at his disposal in one year.

The performer cannot spend more time working on activities than he spends at work.

More information about the relevant period can be found in the attribute "Info on results".

- Info on results (Simulation results): The value of this attribute gives more information about the last evaluation carried out.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung des Bearbeiters ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung des Bearbeiters ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zum Bearbeiter ein. Dient der Dokumentation.

2.24 Class "Role"



A "Role" describes the range of tasks of a performer.

- Each performer can have one or more role(s)
- Several performers can have the same role

For the class "Role" the following attributes are defined:

- Name (Description):
- **Description (Description):** Enter a description of the "Role". For documentation purposes.
- **Comment (Description):** Enter a comment. For documentation purposes.
- **Referenced actor (Description):** Please select an "actor" from a use case diagram.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung der Rolle ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Rolle ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar zur Rolle ein. Dient der Dokumentation.

2.25 Class "Resource" (__WE_Resource__)



Resources are considered during the simulation (capacity and workload analysis).

For the class "Resource" the following attributes are defined:

- Name (Description):
- **Description (Description):** Enter a description of the "Resource". For documentation purposes.

- **Comment (Description):** Enter a comment. For documentation purposes.
- **Type of resource (Description):** Select the type of resource. The graphical Representation on the drawing area will be adjusted accordingly.
- Hourly wages (Description): Enter the hourly wages for using this resource.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung zur Ressource ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Ressource ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur Ressource ein. Dient der Dokumentation.

2.26 Class "Cost center"

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A "Cost center" is evaluated in the simulation (Cost Cutting Component).

For the class "Cost center" the following attributes are defined:

- Name (Description):
- **Order (Description):** This attribute can be set by the "Object numbering" function, which numbers the objects of the business process model.

This can be useful for example within the component "Documentation", to ensure that all objects are documented in the required order.

- **Description (Description):** Enter a description of the "Cost center". For documentation purposes.
- **Comment (Description):** Enter a comment. For documentation purposes.
- **Budget (Data for analysis):** Enter the budget of the Cost center . The value in this field is used by the Cost Cutting Component.
- **ON time (Data for analysis):** Enter the output neutral times. The value in this field is used by the Cost Cutting Component.
- **ON fixed costs (Data for analysis):** Enter the output neutral fixed costs. The value in this field is used by the Cost Cutting Component.
- **ON processes (Data for analysis):** Enter the output neutral processes of the Cost center. The value in this field is used by the Cost Cutting Component.

- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung der Kostenstelle ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung der Kostenstelle ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar zur Kostenstelle ein. Dient der Dokumentation.

3. Relations

The following section contains all the relations needed to create models. Its availability in a model depends on the chosen **Model type** (see chap. 1., p. 7)and on the selected view mode.

Note: The description of the **view modes** you can find in the chapters on particular model types Company map (see chap. 1.1, p. 8), Business Process Model (see chap. 1.2, p. 9), Working Environments model (see chap. 1.3, p. 10), Document model (see chap. 1.4, p. 11) and Use case diagram (see chap. 1.5, p. 11).

3.1 Relation "Subsequent"



The relation "Subsequent" defines the flow of activities and decisions in a Business Process. It can be used to link all types of objects with the exception of "Variable", "Random generator", "Resource", "Aggregation", "Performance indicator" and "Performance indicator overview". The "Subsequent" relation may contain a transition condition when it follows a Decision or Parallelity.

For the relation "Subsequent" the following attributes are defined:

• **Denomination (Description):** Enter a characterising denomination.

For documentation purposes.

• **Description (Description):** Enter a description of the "Subsequent".

For documentation purposes.

• Comment (Description): Enter a comment.

Optional. For documentation purposes.

• **Transition condition (Details):** A transition condition consists either of one elementary expression or several elementary expressions which are linked together by OR, AND or NOT. The linking is succeeded with the expression NOT, OR or AND.

Examples:

- (a) (<elementary expression1>) AND (<elementary expression2>)
- (b) (<elementary expression1>) AND (<elementary expression2>)
- (c) NOT (<elementary expression1>)
- (d) (<elementary expression1>) AND (NOT (<elementary expression2>))

An elementary expression is defined as:

- <Variable name><Operator><Constant>, where
- <Variable name> the name of an instantiated variable,
- <Operator> may be <,> or =

- <Constant> - a numeric or alphanumeric expression (a numeric expression may only consist of integers; an alphanumeric expression must be delimited by single quotes).

Examples:

(a) X="YES" - this condition is fulfilled if the variable X has the value "Yes" (X is assigned values through a discrete distribution!)

(b) (X="YES") AND (Y="YES") - this condition is fulfilled where variables X and Y have the value "Yes" (X dnd Y are discrete distributed!)

(c) Z<1000 - this condition is fulfilled if Z is less than 1000 (Z is continually distributed!)

(d) NOT(Z<1000) - this condition is fulfilled if Z is greater or equal 1000 is (complementary to Z<1000, Z is continually distributed!)

(e) (X="NO") OR (NOT (Z=1000)) - this condition is fulfilled if either X has the value "NO" or Z is not equal to 1000 (X is discrete, Z is continually distributed!)

• **Transition probability (Details):** Please enter the transition probability into this attribute (if the transition probability should be defined instead of the transition condition).

The value must be between 0 and 1. The sum of all transition probabilities must be 1.

- Visualied values (Details): Choose which attributes should be displayed.
- **Representation (Details):** Choose where (relative to the relation) the transition condition should be displayed.
- Font colour (Details): Select the colour for the display of the transition condition resp. of the transition probability.
- Info zur Übergangsbedingung (Deutsch): Geben Sie Info zur Übergangsbedingung ein. Dient der Dokumentation.
- **Bezeichnung (Deutsch):** Geben Sie einen Namen ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine Beschreibung ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar ein. Dient der Dokumentation.

3.2 Relation "Sets variable"



The relation "Sets variable" connects 1 object of the class "Random generator" with 1 object of the class "Variable". The relation is used from the random generator to the variable.

Note: For the relation "Sets variable" no attributes are defined.

3.3 Relation "Sets"

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The relation "Sets" connects 1 object of the class "Random generator" with one object of "Process start", "Subprocess", "Activity", "Decision", "Parallelity" or "Merging". The relation is used from random generator to the target.

Note: For the relation "Sets" no attributes are defined.

3.4 Relation "Uses"



The relation "Uses" connects 1 object of the class "Activity" with 1 object of the class "Resource". The relation is used from the activity to the resource.

Note: For the relation "Uses" no attributes are defined.

3.5 Relation "communicates"

The relation "communicates" connects "actors" with "Use Cases". It denotes that the "actor" communicates with the "Use Case" but does not define how.

For the relation "communicates" the following attributes are defined:

- Name (Description):
- **Description (Description):** Enter a description of the "communicates".

For documentation purposes.

- **Comment (Description):** Enter a comment. Optional. For documentation purposes.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung ein. Dient der Dokumentation.
- Beschreibung (Deutsch): Geben Sie eine charakterisierende Beschreibung zur "kommuniziert"-Beziehung ein.
 Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur "kommuniziert"-Beziehung ein. Dient der Dokumentation.

3.6 Relation "contains"

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The relation "contains" hierarchically connects 2 objects of the class "use case". The relation "contains" indicates the execution of a "use case" will implicitly trigger the execution of another "use case". This relation is used to describe the parts separately, which occur often and are referenced by other use cases. The contained use case is only a part of the whole in this case (cp. "uses"). The relation is always used from the super ordered use case to the called use case.

For the relation "contains" the following attributes are defined:

- Name (Description):
- **Description (Description):** Enter a description of the "contains". For documentation purposes.
- **Comment (Description):** Enter a comment. Optional. For documentation purposes.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine charakterisierende Beschreibung zur "beinhaltet"-Beziehung ein. Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar zur "beinhaltet"-Beziehung ein. Dient der Dokumentation.

3.7 Relation "extends"



The relation "extends" hierarchically connects 2 objects of the class "use case". One of the "use case" is seen as the "normal case" and the second one (its extension) is an addition, which occurs only under certain conditions. The relation is used from the extending "use case" to the "normal case". The relation "extends" is used to describe the variable of the normal behaviour as well as to create specific regulations.

For the relation "extends" the following attributes are defined:

- Name (Description):
- Description (Description): Enter a description of the "extends".
 For documentation purposes.
- **Comment (Description):** Enter a comment. Optional. For documentation purposes.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine charakterisierende Beschreibung zur "erweitert"-Beziehung ein.

Dient der Dokumentation.

• Kommentar (Deutsch): Geben Sie einen Kommentar zur "erweitert"-Beziehung ein. Dient der Dokumentation.

3.8 Relation "Generalisation"



The relation "Generalisation" hierarchically connects 2 objects of the class "use case". The relation "Generalisation" means that one "use case" is a special case of another general "use case". The relation "Generalisation" is used to describe and execute the discrepancy between the "special case" and the "normal case" as the hole. The special case contains all features of the general use case. The relation is used from the "special case" to the "general case".

For the relation "Generalisation" the following attributes are defined:

- Name (Description):
- **Description (Description):** Enter a description of the "Generalisation". For documentation purposes.
- **Comment (Description):** Enter a comment. Optional. For documentation purposes.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung ein. For documentation purposes.
- Beschreibung (Deutsch): Geben Sie eine charakterisierende Beschreibung zur "Generalisierung"-Beziehung ein.
 Dient der Dokumentation.
- Kommentar (Deutsch): Geben Sie einen Kommentar zur "Generalisierung"-Beziehung ein. Dient der Dokumentation.

3.9 Relation "uses"

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The relation "uses" hierarchically connects 2 objects of the class "use case". One "use case" uses another "use case" and its features while executing. The used "use case" can occur independently (see. "contains"). The relation is used from the user (the using "use case") to the used "use case".

For the relation "uses" the following attributes are defined:

- Name (Description):
- **Description (Description):** Enter a description of the "uses". For documentation purposes.
- **Comment (Description):** Enter a comment. Optional. For documentation purposes.
- **Bezeichnung (Deutsch):** Geben Sie eine Bezeichnung ein. Dient der Dokumentation.
- **Beschreibung (Deutsch):** Geben Sie eine charakterisierende Beschreibung zur "benutzt"-Beziehung ein. Dient der Dokumentation.
- **Kommentar (Deutsch):** Geben Sie einen Kommentar zur "benutzt"-Beziehung ein. Dient der Dokumentation.

3.10 Relation "Has process"



The relation "Has process" hierarchically connects 2 objects of the class "Process". The relation is used from the object which is super ordered to the lower ordered one.

Note: For the relation "Has process" no attributes are defined.

3.11 Relation "has Subdocument"



The relation "has Subdocument" hierarchically connects 2 objects of the class "Document". The relation "has Subdocument" is used between an upper graded Document to a subordinated Document.

Note: For the relation "has Subdocument" no attributes are defined.

3.12 Relation "Owns"



The relation "Owns" connects the flow objects in a Business Process Model or objects of the class "Process" in a company map with an object of the class "Performance indicator".

Note: For the relation "Owns" no attributes are defined.

3.13 Relation "has Note"

The relation $\$ by the solution $\$ base of the class (also "Note") with 1 object of the class "Note". The relation is used from any object to the note.

Note: For the relation "has Note" no attributes are defined.

3.14 Relation "Is subordinated"

 \longrightarrow

The relation "Is subordinated" hierarchically connects 2 objects of the class "Organizational unit. The relation is used from the super ordered organisational unit to the subordinated one.

Note: For the relation "Is subordinated" no attributes are defined.

3.15 Relation "has Resource"

e_____e

The relation "has Resource" connects 1 object of the class "Organizational unit" with 1 object of the class "Resource". It is used from the organisational unit to the resource.

Note: For the relation "has Resource" no attributes are defined.

3.16 Relation "Belongs to"



The relation "Belongs to" connects 1 object of the class "Performer" with 1 object of the class "Organizational unit". The relation is used from the performer to the organisational unit.

Note: For the relation "Belongs to" no attributes are defined.

3.17 Relation "Is manager"



The relation "Is manager" connects 1 object of the class "Performer" with 1 object of the class "Organizational unit". The relation is used from the performer to the organisational unit.

Note: For the relation "Is manager" no attributes are defined.

3.18 Relation "Has role"



The relation "Has role" connects 1 object of the class "Performer" with 1 object of the class "Role. The relation is used from the performer to the role.

Note: For the relation "Has role" no attributes are defined.

3.19 Relation "Uses resource"



The relation "Uses resource" connects 1 object of the class "Performer" with 1 object of the class "Resource". The relation is used from the performer to the resource.

Note: For the relation "Uses resource" no attributes are defined.

3.20 Relation "Is charged to"



The relation "Is charged to" connects 1 object of the class "Performer" with 1 object of the class "Cost center". The relation is used from the performer to the cost center.

Note: For the relation "Is charged to" no attributes are defined.

3.21 Relation "Is cost center manager"



The relation "Is cost center manager" connects 1 object of the class "Performer" with 1 object of the class "Cost center". The relation is used from the performer to the cost center.

Note: For the relation "Is cost center manager" no attributes are defined.

4. Predefined queries and relation tables

The predefined queries are specific queries for defined model types which deliver results. Predefined relation tables are used to show relations between objects.

In the ADONIS standard application library predefined queries and relation tables are offered in the Analysis component (see chap. 4.1.1, p. 58) and the Evaluation component (see chap. 4.2, p. 70).

4.1 Analysis component

In the analysis component of the ADONIS standard application library 3.81 the following is available

- Queries:
 - Evaluation of the open questions in company maps (see chap. 4.1.1, p. 58)
 - Consistency checks on Business Process Models (see chap. 4.1.2, p. 59)
 - Predefined queries on Business Process Models (see chap. 4.1.3, p. 61)
 - the Evaluation of the open questions in Business Process Models (see chap. 4.1.4, p. 62)
 - Predefined queries on Working Environment models (see chap. 4.1.5, p. 63)
 - Evaluation of the open questions in use case diagrams (see chap. 4.1.6, p. 65)
- Relation tables:
 - Activity-Resource table (see chap. 4.1.7, p. 66)
 - Activity-Document table (see chap. 4.1.8, p. 67)
 - Variable-Activity table (see chap. 4.1.11, p. 68)
 - Role table (see chap. 4.1.12, p. 69)
 - Organisational hierarchy table (see chap. 4.1.13, p. 69)

4.1.1 Evaluation of the open questions in company maps

To evaluate the open questions in company maps select in the menu "Analysis" the item "Queries on Company maps" and the sub-menu point "Evaluation of the open questions in company maps".

In the window "Evaluation of the open questions in company maps - Model selection" select the models to be analysed and click on the OK button.

In the window "Evaluation of the open questions in company maps - Queries" (see fig. 2, p. 59) the predefined query will be shown.

Evaluation of the open questions in company maps - Queries	×
C Queries	
Evaluation of the open questions in company maps	
All processes with open questions.	
Query specification Please confirm the guery "Execute".	
r lease commin the query Execute .	
Show attributes in columns	
	1
Execute Model info Cancel Help	

Figure 2: Evaluation of the open questions in company maps - Queries

Select the query "Evaluation of the open questions in company maps.", to show all processes which have input into the field "Open questions" and click on the button "Execute".

The result of your query will be shown in the ADONIS browser.

4.1.2 **Consistency checks on Business Process Models**

To perform consistency checks for Business Process Models select in the menu "Analysis" the item "Queries on Business Process Models" and the sub-menu point "Consistency checks on Business Process Models".

In the window "Consistency checks on Business Process Models - Model selection" select the models to be analysed and click on the OK button.

In the window "Consistency checks on Business Process Models - Queries" (see fig. 3, p. 60) the predefined queries will be shown.

-	Consistency check on business process models All activities without entry in attribute 'Description'. All activities without entry in attribute 'Performer'. All activities without execution time.	
	 All process start objects without quantity. All process start objects without mainly responsible. 	
1000	pecification confirm the query "Execute".	

Figure 3: Consistency checks on Business Process Models - Queries

To run a consistency check select one of the predefined queries from the list "Queries".

The following queries for consistency checks are available:

- All activities without entry in the attribute 'Description'. This query lists all activities which do not contain information in the attribute "Description".
- All activities without entry in the attribute 'Performer'. This query lists all activities which have no performer assigned in the attribute "Performer".
- All activities without Execution time.

This query enables you to identify which activities have no execution time assigned.

• All process start objects without quantity.

This query will find all process start objects without a quantity.

• All process start objects without mainly responsible.

This query will identify all process start objects where no mainly responsible had been defined.

Run the consistency check by clicking on the button **"Execute"**, the result of your query will be shown in the ADONIS browser.

4.1.3 **Predefined queries on Business Process Models**

To perform predefined queries for Business Process Models select in the menu "Analysis" the item "Queries on Business Process Models" and the sub-menu point "Predefined queries on Business Process Models".

In the window "Predefined queries on Business Process Models - Model selection" select the models to be analysed and click on the OK button.

In the window "Predefined queries on Business Process Models - Queries" (see fig. 4, p. 61) the predefined queries will be shown.

	Prodefined queries on husiness process models
	Predefined queries on business process models All activities with an execution time greater than
	All activities with a resting time greater than
	All activities with costs greater than
	 All activities which are executed by a performer of type
	All activities which use the resource
uery s	pecification
All acti	vities with an execution time greater than 00:000:00:00:00 🗖
	at: yy:ddd:hh:mm:ss)

Figure 4: Predefined queries on Business Process Models - Queries

To run a predefined query select one from the list of predefined queries. In the next window of the query an empty input field (text with a gap) will be shown. Enter the necessary information (e.g. Execution time, Resting time, Costs, Type of Performer).

The following queries are available as predefined queries on Business Process Models:

• All activities with an execution time greater than [input].

This query lists all activities with an execution time greater than the value provided.

Example: By providing the input "00:000:03:45:00" all activities will be shown with an execution time greater than 03 hour 45 minutes.

All activities with a resting time greater than [input] .

This query lists all activities with a resting time greater than the value provided.

Example: By providing the input "00:000:05:20:00" all activities will be shown with a resting time greater than 05 hours 20 minutes.

• All activities with costs greater than [input] .

This query will determine all activities where the costs exceed the value.

Example: Input the value "10000" to show all activities with costs higher than 10000,00.

• All activities which are executed by a type of performer [input] .

This query will determine all activities where a specific type of performer has been assigned.

Example: The input "Clerk" determines all activities which are performed by clerks.

• All activities which use the resource [input] .

This query will list all activities which use a specific type of resource for their execution.

Run the completed predefined query by clicking on the button **"Execute"**; the result of your query will be shown in the ADONIS browser.

By enabling the option **"Show attributes in columns"** the objects are shown in rows and the corresponding attributes in columns.

4.1.4 Evaluation of the open questions in Business Process Models

To evaluate the open questions in Business Process Models select in the menu "Analysis" the item "Queries on Business Process Models" and the sub-menu point "Evaluation of the open questions in Business Process Models".

In the window "Evaluation of the open questions in Business Process Models - Model selection" select the models to be analysed and click on the OK button.

In the window "Evaluation of the open questions in Business Process Models - Queries" (see fig. 5, p. 63) the open questions will be shown.

Evaluation of the one	en questions in use case diagrams	
All actors with open of		
All use case diagram	s with open questions.	
All system boundaries	s with open questions.	
uery specification Please confirm the query "Exe	scute".	
	ecute".	
	cute".	
	ecute".	
	ecute".	
	cute".	

Figure 5: Evaluation of the open questions in Business Process Models - Queries

To analyse the open questions select one of the queries from the list and confirm it by clicking on the button "Execute".

The following queries are available for determining open questions in the ADONIS standard application library 3.81:

All activities with open questions

This query lists all activities with text in the attribute "Open questions".

All process start objects with open questions

This query determines all process start objects with text in the attribute "Open questions".

All subprocess objects with open questions

This query enables you to identify all subprocess objects with text in the attribute "Open questions".

All decisions with open questions

This query lists all decisions with text in the attribute "Open questions".

4.1.5 **Predefined queries on Working Environment models**

To run predefined queries for Working Environment models select in the menu "Analysis" the item "Queries on Working Environment models" and the sub-menu point "Predefined queries on Working Environment models".

In the window "Predefined queries on Working Environment models - Model selection" select the models to be analysed and click on the OK button.

In the window "Predefined queries on Working Environment models - Queries" (see fig. 6, p. 64) the predefined queries will be shown.

3 ն	Predefined queries on working environment models
- 1	All performers.
	All performers with the role
	 All performers belonging to the organizational unit
	 All performers with an availability greater than
	 All performers with hourly wages greater than
	Give all performers using the resource
	 All performers who still have not made a further education seminar.
ase	confirm the query "Execute".

Figure 6: Predefined queries on Working Environment models - Queries

To run a query select one of the predefined queries from the list. In the next window of the query an empty input field (text with a gap) will be shown. Enter the necessary information (e.g. role, organisational unit).

The following predefined queries are available for Working Environment models:

All performers.

This query lists all performers in the selected model(s).

• All performers with the role. [input].

This query lists all performers assigned to the selected role.

Example: By providing the input "Clerk" all performers assigned to the role clerk will be shown.

• All performers belonging to the organisational unit [input].

This query determines all performers who are members of selected organisational unit.

Example: By providing the input "Sales" all performers belonging to the sales department in the selected (models) will be listed.

• All performers with an availability greater than [input].
This query determines all performers with an availability greater than the percentage value provided.

Example: By providing the input "50" all performers with an availability greater than 50 percent will be listed in the result spreadsheet.

All performers with a hourly wage rate greater than [input].

This query determines all performers with a hourly wage rate greater than the value provided.

Example: By providing the input "15" all performers with a hourly wage rate greater than 15,00 will be shown.

• All performers using the resource [input].

This query lists all performers using a specific resource.

Example: By providing the input "Telephone" all performers are listed who are using the telephone.

• All performers who still have not completed a further education seminar.

This query lists all performers who not yet had any further education.

Run the completed predefined query by clicking the button **"Execute"**; the result of your query will be shown in the ADONIS browser.

By enabling the option "Show attributes in columns" the objects are shown in rows and the corresponding attributes in columns.

4.1.6 Evaluation of the open questions in Use Case diagrams

To evaluate open questions in use case diagrams select in the menu "Analysis" the item "Queries on Use case diagrams" and the sub-menu item "Evaluation of the open questions in use case diagrams".

In the window "Evaluation of the open questions in use case diagrams - Model selection" select the models to be analysed and click on the OK button.

In the window "Evaluation of the open questions in use case diagrams - Queries" (see fig. 7, p. 66) the available queries will be displayed.

	 Evaluation of the open questions in use case diagrams All actors with open questions. All use case diagrams with open questions. All system boundaries with open questions.
luery sp	pecification

Figure 7: Evaluation of the open questions in use case diagrams - Queries

To analyse the open questions select a query from the list.

The following queries are available to determine open questions in use case diagrams:

• All actors with open questions.

This query will list all actors with text in the attribute "Open questions".

• All use cases with open questions.

This query will list all use cases with text in the attribute "Open questions".

• All system boundaries with open questions.

This query will list all system boundaries with text in the attribute "Open questions".

4.1.7 Activity-Resource table

Create an activity-resource table by selecting in the menu "Relation tables" the item "Relation tables on Business Process Models" and the sub-menu item "Activity-Resource table".

In the window "Activity-Resource table - Model selection" select the model for which you want to create the table and click on the OK button.

If the relations exist in the selected model, the window "Activity-Resource table for model *<Model name>*" (see fig. 8, p. 67) will show the existing relations between activities and resources in the ADONIS browser.

Check application form x File application x Inform applicant x Process application form x Update vacation files x		PC-1	PC-2	PC-3	PC-4	PC-5	
Inform applicant x Process application form x	Check application form		×				
Process application form x	File application			x			
	nform applicant					x	
Update vacation files ×	Process application form	x					
	Update vacation files				x		
		4					Þ

Figure 8: Activity-Resource table (Example)

4.1.8 Activity-Document table

Create an activity-document table by selecting in the menu "Relation tables" the item "Relation tables on Business Process Models" and the sub-menu item "Activity-Document table".

In the window "Activity-Document table - Model selection" select the model for which you want to create the table and click on the OK button.

If the relations exist in the selected model, the window "Activity-Document table for model *<Model name>*" (see fig. 9, p. 67) will show the existing relations between activities and documents in the ADONIS browser.

Activity-Document table for model SP Treatment of application						
	Application	Application data				
Add completion remark	x			*		
Check application formally	x					
Check content of application data		×				
Enter application data		×				
Lay the application in the act of the day	x					
				-		
	<			▶		
Save Print	Search	n Close		Help		

Figure 9: Activity-Document table (Example)

4.1.9 Activity-Input document table

Create an activity-input document table by selecting in the menu "Relation tables" the item "Relation tables on Business Process Models" and the sub-menu item "Activity-Input document table".

In the window "Activity-Input document table - Model selection" select the model for which you want to create the table and click on the OK button.

If the relations exist in the selected model the window "Activity-Input document table for model *<Model name>*" (see fig. 9, p. 67) will show the existing relations between activities and input documents in the ADONIS browser.

Activity-Input document table for model BP Post-paid settleme 💶 🗙							
	Application data						
complete and print application	x		*				
			-				
·			_				
Save Print	Search	Close	Help				

Figure 10: Activity-Input document table (Example)

4.1.10 Activity-Output document table

Create an activity-output document table by selecting in the menu "Relation tables" the item "Relation tables on Business Process Models" and the sub-menu item "Activity-Output document table".

In the window "Activity-Output document table - Model selection" select the model for which you want to create the table and click on the OK button.

If the relations exist in the selected model the window "Activity-Output document table for model *<Model name>*" (see fig. 9, p. 67) will show the existing relations between activities and output documents in the ADONIS browser.

Activity-Output document table for model BP Post-paid settlem 💶 🔲 🗙							
	Application						
complete and print application	х				*		
					4		
Save Print	Sea	irch	Close	Help			

Figure 11: Activity-Output document table (Example)

4.1.11 Variable-Activity table

Create a variable-activity table by selecting in the menu "Relation tables" the item "Relation tables on Business Process Models" and the sub-menu item "Variable-Activity table".

In the window "Variable-Activity table - Model selection" select the model for which you want to create the table and click on the OK button

If the relations exist in the selected model the window "Variable-Activity table for model *<Model* name>" (see fig. 12, p. 69) will show the existing relations between variables and activities in the ADONIS browser.

Variable-Activity table for model SP Control signature/blocks							
	Check if account is blocked	Check signature	Decide on the release				
Block	х						
Release			x				
Signature		×					
				_			
	4						
	Save Print	Search	Close	Help			

Figure 12: Variable-Activity table (Example)

4.1.12 Role table

Create a role table by selecting in the menu "Relation tables" the item "Relation tables on Working Environment models" and the sub-menu item "Role table".

In the window "Role table - Model selection" select the model for which you want to create the table and click on the OK button.

If the relations exist in the selected model the window "Role table for model *<Model name>*" (see fig. 13, p. 69) will show the existing relations between performers and roles in the ADONIS browser.

Role table	for m	odel Customer	Service D	ept		
	Clerk	Head of Dept. 5	Secretary			
Manager		x				
Performer-1	x					
Performer-2	x					
Performer-3			x			
Performer-4			x			
						-
						►
Save.		Print	Search.		Close	Help

Figure 13: Role table (Example)

4.1.13 Organisational hierarchy table

Create an organisational hierarchy table by selecting in the menu "Relation tables" the item "Relation tables on Working Environment models" and the sub-menu item "Organisational hierarchy table".

In the window "Organisational hierarchy table - Model selection" select the model for which you want to create the table and click on the OK button.

If the relations exist in the selected model the window "Organisational hierarchy table for model <Model name>" (see fig. 14, p. 70) will show the existing relations between organisational units in the ADONIS browser.

Organizational hierarchy table for model Patient administration 📃 🔲 🛛							
	Admission administration	Patient service/Reception					
Patient administration	х	х	*				
	T						
Save	Print Search.	Close	<u>H</u> elp				

Figure 14: Organisational hierarchy table (Example)

4.2 Evaluation component

The evaluation component in the ADONIS standard application library 3.81 provides:

- process-oriented queries on Business Process Models (see chap. 4.2.1, p. 70)
- Activity-oriented queries on Business Process Models (see chap. 4.2.2, p. 72)
- Queries on Working Environment models (see chap. 4.2.3, p. 73)

4.2.1 **Process-oriented queries on Business Process Models**

To run process-oriented queries on Business Process Models select in the menu "Evaluation" the item "Evaluation queries on Business Process Models" and the sub-menu point "Processoriented queries on Business Process Models".

In the window "Process-oriented queries on Business Process Models - Model selection" select the model for which you want to create the table and click on the OK button.

In the window "Process-oriented queries on Business Process Models - Queries" (see fig. 15, p. 71) the process related queries will be shown.

Process-oriented queries on business process models - Queries
Queries Process-oriented queries on business process models All business processes with an execution time greater than All business processes with a cycle time greater than All business processes with costs greater than All business processes with costs greater than
Query specification All business processes with an execution time greater than 00:000:00:00:00 □ . (Format: yy:ddd:hh:mm:ss)
Show attributes in columns Execute Model info Cancel Help

Figure 15: Process-oriented queries on Business Process Models - Queries

To run a query select one of the predefined queries from the list.

The following queries are available for process-oriented queries on Business Process Models:

• All business processes with an execution time greater than [input] .

This query lists all business processes with an execution time greater than the value provided.

Example: By providing the input "00:023:04:55:00" all business processes will be determined with an execution time greater than 23 days 04 hours and 55 minutes.

• All business processes with a cycle time greater than [input].

The results of this query are all business processes with a cycle time greater than the value provided.

Example: By providing the input "00:000:05:00" all business processes with a cycle time greater than 5 minutes will be determined.

• All business processes with costs greater than [input] .

This query lists all business processes that have costs that are greater than your specified value.

Example: By providing the input "50000" all business processes will be shown with costs greater than 50000.00.

Run the completed predefined query by clicking the button **"Execute"**; the result of your query will be shown in the ADONIS browser.

By enabling the option **"Show attributes in columns"** the objects are shown in rows and the corresponding attributes in columns.

4.2.2 Activity-oriented queries on Business Process Models

To run process-oriented queries on Business Process Models select in the menu "Evaluation" the item "Evaluation queries on Business Process Models" and the sub-menu item "Activity-oriented queries on Business Process Models".

In the window "Activity-oriented queries on Business Process Models - Model selection" select the model for which you want to create the table and click on OK.

In the window "Activity-oriented queries on Business Process Models - Queries" (see fig. 16, p. 72) the activity-oriented queries will be shown.

Predefined queries on business process models - Queries	×
Queries	٦
E C Predefined queries on business process models	
All activities with an execution time greater than All activities with a resting time greater than	
All activities with costs greater than	
All activities which are executed by a performer of type	
All activities which use the resource	
Query specification	
All activities with an execution time greater than 00:000:00:00:00	
. (Format: yy:ddd:hh:mm:ss)	
Show attributes in columns	
J Show attributes in columns	
Execute Model info Cancel Help	
	-

Figure 16: Activity-oriented queries on Business Process Models - Queries

To run a query select one of the predefined queries from the list. In the next window of the query an empty input field (text with a gap) will be shown. Enter the necessary information (e.g. Aggregated execution time, Aggregated resting time, Aggregated costs, etc.).

The following queries are available for activity-oriented queries on Business Process Models:

• All activities called more often than [input].

This query determines all activities which are "used" (called) more often than the value provided.

Example: Providing the value "25" all activities will be shown which are called more than 25 times.

• All activities with an aggregated resting time greater than [input].

This query determines all activities with an aggregated resting time greater than the value provided.

Example: By providing the input "00:000:02:20:00" all activities are shown with an aggregated resting time greater than 2 hours and 20 minutes.

• All activities with aggregated costs greater than [input].

This query determines all activities with costs higher than the value provided.

Example: Enter "50" to determine all activities with costs greater than 50.00.

Run the completed predefined query by clicking the button **"Execute"**; the result of your query will be shown in the ADONIS browser.

By enabling the option **"Show attributes in columns"** the objects are shown in rows and the corresponding attributes in columns.

4.2.3 **Queries on Working Environment models**

To run process-oriented queries on Working Environment models select in the menu "Evaluation" the item "Evaluation queries on Working Environment models" and the sub-menu item "Queries on Working Environment models".

In the window "Queries on Working Environment models - Model selection" select the model for which you want to create the table and click on the OK button.

In the window "Queries on Working Environment models - Queries" (see fig. 17, p. 74) the queries will be shown.

⊡ −	Predefined queries on working environment models
	All performers.
	All performers with the role
	All performers belonging to the organizational unit
	All performers with an availability greater than
	All performers with hourly wages greater than
	Give all performers using the resource
	All performers who still have not made a further education seminar.
10000	confirm the query "Execute".

Figure 17: Queries on Working Environment models - Queries

To run a query select one of the predefined queries from the list. In the next window of the query an empty input field (text with a gap) will be shown. Enter the necessary information (e.g. Aggregated execution time, Aggregated resting time, Aggregated costs, etc.).

The following queries are available for Working Environment models:

• All performers with a capacity greater than [input].

This query determines all performers with a capacity greater than the value provided.

Example: Enter "1" to find all performers who are used beyond their capacity.

• All performers with a workload greater than [input].

This query determines all performers with a workload greater than the value provided.

Example: Enter "0.5" to find all performers who have a workload greater than 50%.

• All performers with personnel costs greater than [input].

This query determines all performers with personnel costs greater than the value provided.

Example: Enter "65000" to determine all performers with personnel costs greater than 65,000.00.

• All performers with the role [input] and who have a capacity greater than [input] .

This query determines all performers with a specific role and a capacity greater than the value provided.

Example: Enter "secretary" and "1" to find all secretaries who are used beyond their capacity.

• All performers belonging to the organisational unit [input] and who have a workload smaller than [input].

This query will list all performers belonging to the specified organisational unit and who have a workload smaller than the values provided.

Example: Enter "PR" and "1" to find all PR employees who have a workload smaller than 100%.

Run the completed predefined query by clicking the button **"Execute"**; the result of your query will be shown in the ADONIS browser.

By enabling the option **"Show attributes in columns"** the objects are shown in rows and the corresponding attributes in columns.

5. Library specific functions

The library specific functions are defined in the ADONIS-Standard-Application library 3.81 and are available in following components of ADONIS business process management toolkit:

- Acquisition (see chap. 5.1, p. 76)
- Modelling (see chap. 5.2, p. 78)
- **Simulation** (see chap. 5.3, p. 93)
- Import/Export (see chap. 5.5, p. 97)

5.1 Acquisition component

In the acquisition component the library specific functions are defined in the form of HOMER scenarios (see chap. 5.1.1, p. 76) supporting the data acquisition.

5.1.1 HOMER scenarios

For the data acquisition with HOMER you can either use one of the following scenarios or use the HOMER scenario manager to adapt the scenario according to your needs:

H	OMER: Scenario manager	
F.	OMER: Scenario manager	New Import Export Edit Delete Close
		Help

Figure 18: HOMER scenarios for ADONIS Standard Application Library

- Acquisition of activity information (general)
- Acquisition of activity information (quantitative)

- Acquisition of profiles of presence
- Acquisition of performer information
- Acquisition of employee education
- Acquisition of documents
- Acquisition of organisational units
- Acquisition of roles

The scenario "Acquisition of activity information (general)" scenario collects information for activities in Business Process Models (see chap. 1.2, p. 9) and the following attributes:

- Description
- Comment

In addition it is possible to collect the author of a particular model.

The **"Acquisition of activity information (quantitative)" scenario** collects information for activities in Business Process Models (see chap. 1.2, p. 9) and the following attributes:

- Execution time
- Waiting time
- Resting time
- Transport time
- Costs
- EDP transaction costs
- EDP batch costs
- Print costs
- Postal costs

The **scenario** "Acquisition of profiles of presence" scenario collects attribute profiles of the class "Presence" with the following attributes:

- Days per week
- Hours per day

The **"Acquisition of performer information" scenario** collects information for performers in Working Environment models (see chap. 1.3, p. 10) and the following attributes:

- Description
- Comment

The **"Acquisition of employee education"** collects information for performers in Working Environment models (see chap. 1.3, p. 10)and their further education with the attributes:

- Seminar title
- Participation in

The **scenario** "Acquisition of documents" collects documents for the document models (see chap. 1.4, p. 11)and the following attributes:

- Description
- Comment

The **"Acquisition of organisational units"** scenario collects the organisational units for the Working Environment models (see chap. 1.3, p. 10) and the following attributes:

- Description
- Comment

The **"Acquisition of roles"** scenario collects roles for Working Environment models (see chap. 1.3, p. 10) and the following attributes:

- Description
- Comment

5.2 Modelling component

Modelling component provides the following library specific functionalities:

- Class cardinality (see chap. 5.2.1, p. 78)
- Intermodel references (multiple models) (see chap. 5.2.2, p. 80)
- Number objects (see chap. 5.2.3, p. 82)
- Reset object numbering (see chap. 5.2.4, p. 83)
- Object conversion (see chap. 5.2.5, p. 84)
- Display visualised attributes in English/German (see chap. 5.2.6, p. 85)
- Page layout (see chap. 5.2.7, p. 90)
- Process Stepper (see chap. 5.2.8, p. 90)

5.2.1 Class cardinality

The table (see Table 1, p. 79) lists all classes with defined cardinality rules. Cardinality rules help to determine how many objects should be contained in the model and how many incoming and outgoing connectors of relation class should be assigned to the object.

Note: During cardinality check (Menu "Model" - item "Check cardinalities") models are examined with respect to defined cardinality rules.

Note: Cardinality check does not occur during modelling, but it has to be performed explicitly. i.e. while modelling you do not need to consider cardinality rules (modelling can be also performed without considering cardinality rules).

Class	Description			
Process start	It has to be exactly one object in a model.			
(Business Process Model)	No incoming connector of relation "subsequent" is allowed to lead to the object and it has to be exactly one connector of relation "Subsequent" that is coming out from the object.			
Subprocess	At least one incoming connector of relation "subsequent" has			
(Business Process Model)	o lead to the object and it has to be exactly one connector of elation "Subsequent" that is coming out from the object			
Activity	At least one incoming connector of relation "subsequent" has			
(Business Process Model)	to lead to the object and it has to be exactly one connector of relation "Subsequent" that is coming out of the object.			
	At most one connector of relation "uses" is allowed to come out from the object.			
Decision	At least one incoming connector of relation "subsequent" has			
(Business Process Model)	to lead to the object and at least two object of relation "subsequent" have to come out from the object.			
Parallelity	At least one incoming connector of relation "subsequent" has			
(Business Process Model)	to lead to the object and at least two object of relation "subsequent" have to come out from the object.			
Merging	At least two incoming connectors of relation "subsequent"			
(Business Process Model)	have to lead to the object and exactly one connector of relation "Subsequent" has to come out from the object.			
End	At least two objects have to be in a model.			
(Business Process Model)	At least one incoming connector of relation "subsequent" has to lead to the object and no connector of relation "subsequent" is allowed to come out from the object.			
Variable	At least one incoming connector of relation "sets variable" has			
(Business Process Model)	to lead to the object.			
Random generator (Business Process Model)	At least one incoming connector of relation "sets variable" has to come out from the object.			
	At least one incoming connector of relation "sets" has to come out from the object.			
Performance indicator overview	Maximum of one object of relation "performance indicator overview" is allowed to be in a model.			
(Company Map and Business Process Model model)	No connector of relation "owns" is allowed to come out from the object.			
Cost center	Maximum one incoming connector of relation " is cost center			
(Working Environment model)	manager " is allowed to lead to the object model .			

Table 1: Description of the cardinality rules

5.2.2 Intermodel references (multiple models)

This function checks if outgoing references (in any number of models and model types) are still valid (not broken) or if there are invalid references (broken). In addition, it is possible to open source or target model directly from the result window to fix the problem.

Checking inter model references

Select item "Inter model references (multiple models)" from "model" menu. A window with model hierarchy appears (see fig. 19, p. 80).

ADONIS: Inter model references (multiple models)	
Models: M	ок
🖃 🧰 Models 📃 🔺	
🖃 🗁 Example - Application for vacation 👘 👘	Cancel
🗉 🛅 01.Company Maps	
🖃 🗀 02.Business Process Models	
BP Application for vacation	
SP Decline application	
😑 🗀 03. Working Environment Models	
Application department	
📄 📄 Example - Application for vacation (including re	
🕀 🧰 01.Company Maps	
🖨 🗁 02. Business Process Models	
BP Application for vacation (resource)	
SP Decline application (resource)	
🖻 🧰 03.Working Environment Models	
Application department (resource)	
😑 🧰 Example - Bank (Voucher-bound transfer)	
🗉 🧰 01.Company maps	
Lineluding inter model references outgoing from model	
Including inter model references outgoing from model	11.

Figure 19: Model selection for checking references

Select models that you want to check. The option **"including inter model references outgoing from the model"** will check all models in the model hierarchy. Click **"OK"** to begin.

ADONIS now checks all references of selected models. It may take some time depending on the data size and computer's computing capability. Afterwards a window with a list of all references appears (valid and broken ones). To improve result view you can expand or collapse branches (see fig. 20, p. 81).



Figure 20: Result window (without broken references)

It is possible to open (in the background) the source or target model of a displayed reference (with write access). To do so, click on the reference and on the button **"open target model"** or **"open source model"**. The relevant object will be highlighted in the model (see fig. 21, p. 81).



Figure 21: Target model (Highlighted use case "Enter new address"

5.2.3 Number objects

The function "number objects" assigns to the object of model type "Business Process Model", "Company Map" and "Working Environment model" a unique number with respect to its position in the diagram.

The numbering function is defined for objects of the following classes:

- <u>Business Process Models</u> (using the relation "Subsequent")
 - Process start
 - Subprocess
 - Activity
 - Decision
 - Parallelity
 - Merging
 - End
- <u>Company Maps</u> (using the relation "Has process")
 - Process
- <u>Working Environment models</u> (using the relation "Is subordinated")
 - Organisational unit

The number that is assigned to the object is stored in the attribute "Order" and at the same time it is displayed in object's graphical representation.

Performing numbering

In menu "edit", select item "update attributes" and its sub menu item " Number objects".

Objects will be numbered and the object number will be displayed in the graphical form (see fig. 22, p. 82).



Figure 22: Numbered objects in a Business Process Model

All newly numbered objects will be listed in the window "enumeration - info" (see fig. 23, p. 83).

Enumeration function - Info	
The following objects have been renumbered: - Application for vacation (Process start) - Check application form (Activity) - Application accepted? (Decision) - Parallelity (Parallelity) - File application (Activity) - Update vacation files (Activity) - Inform applicant (Activity) - Inform applicant (Activity) - End Application for vacation (End) - Decline application form (Activity) - Process application form (Activity)	Close Find Find next Print Help
469 characters	11.

Figure 23: List of numbered objects

Note: At anytime you can undo (see chap. 5.2.4, p. 83) the object numeration.

Note: The object numeration should always be done **before** generation of RTF documentation (see chap. 5.5.4, p. 102). It is very important in the business process models, where object description could be generated with respect to the numbering order, therefore, it makes documentation easier to read.

5.2.4 Reset object numbering

The function "reset object numbering" removes numbers from objects (see chap. 5.2.3, p. 82) that are located in the actual model. The value of particular objects will be set to null in the attribute "order" and numbering will be removed from the model's graphical representation.

To reset object numbering, select in menu **"edit"**, item **"update attributes"** and its sub menu item **"reset object numbering"**. Reset will be followed by appropriate safety question (see fig. 24, p. 83).

ADONIS: I	Business Process Management Toolkit (user 1)
?	You really want to reset the object numbering? When performing this function, all values of the attribute "Order" will be reset to null. (There is no undo available for this function.)

Figure 24: Security question before resetting the object numbers

Click on the button "yes" to continue. The object numbering in the model will be set to null and numbers displayed in the model's graphical representation will be deleted (see fig. 22, p. 82).



Figure 25: Unnumbered objects in a Business Process Model

5.2.5 Object conversion

In Business Process Model, it is possible to convert an object of the class "activity" into an object of the class "subprocess" and the other way around..

By converting an activity into a subprocess, it is possible to model the activity in detail (by presenting the activity as a subprocess). While converting a subprocess into an activity, it is possible to reduce the complexity of the process. It is very useful in case of going through simulation and analysing its results, as the results of subprocesses cannot be calculated separately, but taken over aggregated.

During object conversion the following information (attributes) will be over taken:

• "Activity" <-> "Process call"

- Name (Description)
- Order (Description)
- Description (Description)
- Commentary (Description)
- Questions (Description)
- Performer (working environment)
- "Process call" --> "Activity"
 - Located Execution time (evaluation result) --> Execution time (time/Costs)
 - Located waiting time (evaluation result) --> waiting time (time/Costs)
 - Located resting time (evaluation result) --> resting time (time/Costs)
 - Located transport time (evaluation result) --> transport time (time/Costs)
 - Located Costs (evaluation result) --> Costs (time/Costs)
 - **Note:** The evaluation results in the subprocess contain the (taken over) simulation result of referenced processes. Pay attention to the referenced values (e.g. per year, per process) in the simulation result.

Note: While converting subprocess into activity, the referenced process will be internally saved, so that during re-conversion into subprocess, the reference will be displayed again.

Performing object conversion

To convert the object of class "activity" into the object of class "subprocess" select from the object's **context menu** (right mouse click) item **"convert"** and then its sub menu item **"subprocess"**.

To convert the object of class "subprocess" into the object of class "activity" select from the object's context menu (right mouse click) item **"convert"** and then its sub menu item **"activity"**.

5.2.6 Display visualised attributes in English/German

By default, visualised attributes (object names, notes, random generators etc.) are displayed in English (see fig. 26, p. 85).



Figure 26: Model representation in English

Additionally, it is possible - after successful translation of attributes (see chap. 5.2.6.1, p. 86) - to display those attributes in German (see fig. 27, p. 86).



Figure 27: Model representation in German

Note: Before visualising attributes in German (see chap. 5.2.6.2, p. 88), see requirements to change a language (see chap. 5.2.6.1, p. 86).

5.2.6.1 Requirements

When visualising the attribute value, the given attribute value of a particular object (at least the value of the attribute 'name') is displayed on the drawing area. In order to display English attribute value, it is necessary to translate the other attributes.

To change the attribute language following requirements must be satisfied:

- All models that will be translated have to have write access.
- All attribute values that will be visualised on the drawing area, have to have translated corresponding (German) attribute (see p. 86).
- Optionally attributes "description" and "comment" can be translated in the model documentation (see p. 88) (for example HTML documentation).

Requirements for model representation

To show attributes in German the following objects' attributes need to be translated:

Class	Attribute (English)	Attribute (German)
Process start	Name	Bezeichnung
Subprocess	Name	Bezeichnung
Activity	Name	Bezeichnung
Decision	Name	Bezeichnung
Parallelism	Name	Bezeichnung
Merging	Name	Bezeichnung
End	Name	Bezeichnung
Variable	Name	Bezeichnung
Random generator	Value	Info for Value of Random Generator
Resource (BP-Model)	Name	Bezeichnung

Process	Name	Bezeichnung
Document	Name	Bezeichnung
Organizational unit	Name	Bezeichnung
Performer	Name	Bezeichnung
Role	Name	Bezeichnung
Resource (WE-Model)	Name	Bezeichnung
Cost centre	Name	Bezeichnung
Use case	Name	Bezeichnung
Actor	Name	Bezeichnung
System boundary	Name	Bezeichnung
Note	Text	Notiz
Aggregation	Name	Bezeichnung

Table 2: Visualized objects' attributes in English/German

Note: In the object of the class "random generator" the value is translated as text only i.e. during simulation, the entered expression in the attribute "Value" (in German) is taken into account during analysis.

To fully show attributes in German the following connectors' attributes need to be translated.

Relation	Attribute (English)	Attribute (German)
Subsequent	Transition condition	Info zur Übergangsbedingung
Communicates	Name	Bezeichnung
Contains	Name	Bezeichnung
Extends	Name	Bezeichnung
Generalisation	Name	Bezeichnung
Uses	Name	Bezeichnung

Table 3: Visualized connectors' attributes in English/German

- **Note:** In the connector of the relation "Subsequent", the transition condition is translated as text only i.e. during simulation, the entered expression in the attribute "transition condition" (in German) is taken into account during analysis .
- **IMPORTANT:** While using model references (for example a referenced process in a company map), model names (see p. 87) should be translated in the model attribute "keywords"

Translation of model names

Translation of model names is necessary if model references (for example subprocess in the business process models, process in company map) have to be used.

In the model references, the name of the model is used instead of object name that is contained in the reference.

The model name translation has to be done in the model attribute "denomination" (see fig. 28, p. 88). To translate, select the menu item **"model attributes"** (or <Alt>+"Enter") from the **"model"** menu.

BP /	Application for vacation (Business process model)	
Ę	Bezeichnung:	
5	Urlaubsantrag	Description
峊	Beschrejbung:	User attributes
<u>₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩</u>		System attributes
Ę		D <u>e</u> utsch
Ē.		
Ę	Kommentar:	
I.		
È.		
Ę		
Ē.		
Ę	Charles - Reserve	
7	<u>Close</u> <u>R</u> eset	
F		

Figure 28: Model names translation

Note:

While arranging the language settings (see chap. 5.2.6.2, p. 88) the model **attribute "Bezeichnung"** automatically pops-up. This name should be taken into account during document generation to create the model documentation in the currently selected language.

Requirements for documentation

Besides translation of visualised attribute's values, it is also possible to translate attributes "description" and "comments" into the corresponding attributes "beschreibung" and "kommentar".

It is very important, if you generate model documentation, with the language set to "English" .

5.2.6.2 Implementation

Note: You must have write access to models you whish to translate.

To change the language of visualised attributes, select the item "views" from the menu "view" and its sub menu item "Select the language for the visualising attributes".

All opened models will be listed in the window "select language - model selection" (see fig. 29, p. 89).

Select language - Model selection	
Select language - Model selection Models: Business process models BP Application for vacation (resource) SP Decline application SP Decline application (resource) Company maps Applying for vacation Applying for vacation Document models Use case diagrams Working environment models Application department Application department (resource)	Cancel
	//

Figure 29: Selecting models for language settings

Select models, you want to use and click OK button.

Select the language for the visualised attribute values in the window "select language" (see fig. 30, p. 89).

Select language					×
Selection:					
German English					
English	 	 			
	ОК		Cano	el	

Figure 30: Language selection window

Click OK button to continue.

The appropriate message will be displayed after successful language selection.

Note:

While selecting the language, **the attribute "key words"** with appropriate identifier (**LANGUAGE='DE'**; for German or **LANGUAGE='EN'**; for English) automatically pops-up. This identifier is further used to generate model documentation with the current set language.

5.2.7 Page layout

The option **"full page (without header and footer)"** prints the model without a header of footer (see fig. 31, p. 90). The option **"ADONIS standard page layout"**, adds a header and footer to the printing document.



Figure 31: Page layout "full page (without header and footer) "

5.2.8 Process Stepper

Process stepper is a small tool that animates the process flow and also allows to correctly reconstruct the execution time of each process path, each decision can be made by the user. The following functions are available:

```
Process animation (see chap. 5.2.8.1, p. 91)
Starts the process flow, the result can be saved.
```

Play back process animation (see chap. 5.2.8.2, p. 92) Open and play process animation.

Remove marking of objects (see chap. 5.2.8.3, p. 92) Delete marks in the animated model.

Settings (see chap. 5.2.8.3, p. 92)

Change the animation speed and turn the execution time on or off.

5.2.8.1 Process animation

This function manually creates process animation. It can be saved in XML files.

IMPORTANT: The animation always occurs in the currently active model. The animation may not begin if the model of the other type is opened in the background.

Starting the process animation:

To start the animation, select item **"process animation"** from the **"process stepper"** menu. It will be executed in a step-by-step manner beginning from the process start object.

Note: While the stepper flows, the objects on the drawing area will be highlighted (one by the other).

Once the stepper encounters the decision a selection window appears, where you can choose further stepper path:

Decision: Application accepted?	×І
Which path?:	
1 , Acceptance='no'	
2 , Acceptance='yes'	
OK Cancel	
	//

Figure 32: Process stepper - decision

Select further path and click **"OK"**. If the stepper encounters a subprocess, there is a possibility to link an animation to this subprocess or to continue without it:

ADONIS Process	Stepper		×
😲 Go to th	ne subprocess	?	
Tak	Nie	Anuluj	

Figure 33: Process stepper - subprocess

If you want a subprocess to be part of animation click "yes", otherwise "no".

Saving process animation:

At the end of animation, the results dialogue will be displayed. It will show the execution time of the process and there is also the possibility to save the result of the animation::



Figure 34: Process stepper - result

Click on "yes", to save the animation. Otherwise click on "no" or "cancel". The result will be deleted and stepper will stop.

5.2.8.2 Play back process animation

It is possible to load and play the saved animation at anytime. The exact process flow will be reconstructed as it was recorded. However, there is a difference - by playback, the execution time considered for calculation will be taken from the saved models (i.e. changes after saving the animation will not apply).

Launching the process animation :

Select the option **"playback process animation"** from the **"process stepper"** menu. A dialogue will be displayed, where you can choose the desirable animation file (*.step.xml format). After selection, stepper will be executed with the model that is necessary for animation.

While the animation flows, the individual steps are displayed as it was saved in the animation file. At the same time, the actual execution time is calculated. At the end, an information dialogue with the actual execution time is shown:



Figure 35: The result

5.2.8.3 Additional functions

Besides recording and playback functions, the other functions are available:

Remove marking of objects:

Select the option **"Remove marking of objects"** from the **"Process Stepper"** menu to hide marked process path and re-set to a standard view. Marks will be hidden.

Note: Closing models or starting a new animation will automatically remove markings.

Settings:

With the use of settings you can adjust the process steppers to fit your needs. To do so, select **"setting"** option from **"process stepper"** menu and the following dialogue appears:

Process Stepper - settings	×
Playback speed: © fast © medium © slow	OK Cancel
Display execution times	

Figure 36: Process stepper - settings

By clicking on the appropriate radio button, you can set a desirable animation **speed**.

Note: At the first time, the speed of process stepper is set to "medium". Later on it will run with lastly selected speed.

Generally, the process animation will be recorded to show the execution time for specific path. If necessary, deactivate the option **"display execution times"** to hide the display of execution times.

Note: With the same function, you can activate the display of execution time.

5.3 Simulation component

The simulation component contains the following library specific functions:

- Activation of manual random generator (see chap. 5.3.1, p. 93)
- Activation of automatic random generator (see chap. 5.3.2, p. 94)

5.3.1 Activation of manual random generator

A manual random generator can be activated in the simulation component. To activate it, select the **"Edit"** menu, its submenu **Random generator** and then click on the menu point **Manual random generator**.

The "Activate manual random generator - model selection" window (see fig. 37, p. 94) will be displayed, in which you can select models that should be used for the generation.

Activate manual random generator - Model selection	
Models: Business process models BP Application for vacation BP Application for vacation (resource)	OK Cancel

Figure 37: Selection of models for manual variable assignment

Note: Only open models with write access are available for selection!

The activation of a manual random generator will be confirmed by the appropriate hint window.

All "Manual random generator" attributes in the "random generator" objects of the selected model will be occupied with value "yes" (the representation occurs through checkmark in the notebook). On the drawing area a hand symbol will appear next to objects.

The user can decide, whether to activate manual random generator, by selecting the value of the random generator during the simulation.

5.3.2 Activation of automatic random generator

An automatic random generator can be activated in the simulation component. For activation click on the **"Edit"** menu and then select **"Random generator"** submenu and choose the menu point **Automatic random generator**

The "Activate automatic random generator - model selection" window will be displayed (see fig. 38, p. 95), in which you can select the models that should be used for the generation.

Activate automatic random generator - Model selection	
Models:	ОК
BP Change Name of Policy Holder	Cancel
BP Change of address	
	///

Figure 38: Selection of models for automatic random generator

Deactivation of the manual random generator will be confirmed by the appropriate hint window.

All "Manual random generator" attributes in "random generator" objects of the selected model will be occupied with value "no".

If the automatic random generator is activated, the value of the random generator will be assigned automatically during the simulation.

5.4 Evaluation component

Evaluation component contains the library specific function "monitoring" (see chap. 5.4.1, p. 95).

5.4.1 Monitoring

5.4.1.1 Current value initialisation

During the initialisation the current value will be created in rows and columns of performance indicator's table target value in the selected models depending on performance indicator's periodicity. References in the "Performance indicator overview" table will determine, what ratio should be initialised.

Note: Take under consideration the requirements for current value initiation (see p. 96).

The current value initialisation is carried out as follows:

- 1. Select the "current value initialisation" from the "monitoring" menu that is located in the evaluation component.
- 2. Select the model or models and click on the "initialisation" button.

<u>Note:</u> If there is not exactly one object of the class "performance indicator overview" per model, then the appropriate window is displayed and initialisation cannot be performed.

Note: If no planning period is defined, initialisation can be interrupted.

After initialisation, the rows of the referenced performance indicator (defined periodicity) will be initialised.

The current value calculation (see chap. 5.4.1.2, p. 96) is possible now.

Requirements for current value initialisation

- 1. Define performance indicators in the Business Process Model.
- 2. Arrange the periodicity for the performance indicators.

Following periodicities are available:

- Day
- Week
- Month
- Quarter
- Half year
- Year
- 3. Define exactly one object of the class "performance indicators overview" per model.
- 4. Define references on the performance indicator, that are in the "performance indicators overview" table in the "performance indicator" chapter.

By the model initialisation, only those performance indicators that have defined references in the table 'performance indicator overview' will be initiated. In this manner, selective initialisations and the actualisations can be carried out.

5. Establish the period configuration in the object "performance indicator overview".

The settings in the chapter "period configuration" influence current value initialisation.

5.4.1.2 Current value calculation

After successful initialisation of current value (see chap. 5.4.1.1, p. 95), it is possible to calculate the current value.

There are three calculation options:

- manual coupling
- excel coupling
- database coupling

Independently from the data source that will be used for calculation of performance indicators the actualisation will be carried out as follows:

1. Select the "current value calculation" from the monitoring menu that is located in the evaluation component.

2. Select the model with actualised performance indicators.

Option "show warnings": Warnings encountered during actualisation can be shown or can remain hidden.

Option "use system date": If this attribute is selected, the actualisation is made with use of system date. If you want to use a different date for actualisation, activate the actualisation button and select the date through the date dialogue:

3. Data selection through the data dialogue.

Note: If there is more than one object of the class "performance indicator overview" per model, following hint will be displayed.

Note: If the selected data is out of defined planning period (for the actualisation), the performance indicators of respective models will not be actualised and the corresponding message will be displayed.

The appropriate hint will be displayed after current value actualisation.

5.5 Import-/Export-Component

The import/export component contains the following library specific functions:

- HTML-Generation (see chap. 5.5.1, p. 97)
- RTF-Generation (see chap. 5.5.4, p. 102)
- Settings (see chap. 5.5.5, p. 104) for documentation generation
- Attribute and class filter (see chap. 5.5.6, p. 109) for documentation generation

5.5.1 HTML-Generation

Note: Before generating HTML documentation, the language of all models that are contained in the documentation (see chap. 5.2.6, p. 85) should be unified (German or English). It can be achieved by arranging the language for the attribute display.

To start the HTML-generation, select the **"HTML-generation"** from the **"documentation"** menu or click on the smart-icon in the quick access bar **S**.

In the "HTML-Generation" window (see fig. 39, p. 98) select the models to be used in the documentation.

1odels Models:	M
 Models Example - Application for vacation Company Maps Company Maps<td>s ion idels in (including resources) I transfer)</td>	s ion idels in (including resources) I transfer)
Export	
 Including models Including referenced models 	References
Including models	References
 Including models Including referenced models Including model groups 	References

Figure 39: Model selection for the HTML Generation

Activate the option **"including referenced models"** if all selected models and their referenced models should be carried over. To change settings for references click on the **"references"** button.

In the "export file" field, type a name and destination path for the exported data and click OK to start documentation process with current settings (see chap. 5.5.5, p. 104).

After successful generation, the appropriate hint window appears and the HTML documentation will be available at the earlier specified location. Open the documentation and the export data (in specified HTML-files) will be displayed in the HTML browser (see fig. 40, p. 99).

Information for ADONIS users



Figure 40: Generated HTML document (in the Internet Explorer)

5.5.2 HTML Generation (copy referenced documents)

Note: Before HTML generation, the language of all models that will be used in the documentation should be unified by arranging the language for the attribute display (see chap. 5.2.6, p. 85).

To start the HTML generation, select the "HTML-generation (copy referenced documents)" from the "documentation" menu.

In the (see fig. 41, p. 100) "HTML-generation" window select the models that should be contained in the documentation.

Models:	<u>~</u>
Models Example - Application for vacation Dillompany Maps Dillompany	s ion odels on (including resources)
Example - Telecommunication (A) E	pplication mobile phone)
Export Including models Including referenced models	References
Including referenced models Including model groups Recursive (model groups)	
Including referenced attribute profiles	
-ile	

Figure 41: Model selection for the HTML Generation

Activate the option **"including referenced models"** to carry over all selected models and their referenced models. To change settings for references click on the **"references"** button.

In the "export file" field, type a name and destination path for the exported data and click OK to start documentation process with current settings (see chap. 5.5.5, p. 104).

If it does not exist, ADONIS suggests to create the folder for the referenced documents. Accept this suggestion.

After successful generation, the appropriate hint window appears and the HTML documentation will be available at the earlier specified location. Open the documentation and the export data (in specified HTML-files) will be displayed in the HTML browser (see fig. 40, p. 99).
5.5.3 Delta generation (HTML)

Note: Before every HTML generation (also delta generation), the language of all models that are contained in the documentation should be unified (German or English) by arranging the language for the attribute display (see chap. 5.2.6, p. 85).

The delta generation is a special form of the HTML generation that is designed for complex model structures. The difference between delta generation and plain HTML generation lies in the generation mechanism: at the first time of appliance, a whole generated HTML structure is registered and saved in the database. With every next delta generation, only the changes in structures or models will be generated and saved. The advantage of this solution is shorter generation time.

- **Note:** Changed references (i.e. on the other documents or models, on the new version number of existing model etc.) are **not** counted as changes in terms of ADONIS and therefore they will **not** be recognised by the delta generation (rule of thumb: "all changes, that require model re-saving will be considered in the delta generation)
- **Note:** It is **not** possible to complement HTML documentation generated in the classical way by the delta generation. Only HTML files that were originally generated via delta generation can be extended.

To start the generation of HTML documents (see fig. 42, p. 101), select the **"delta generation** (HTML)" from the "documentation" menu.

In the window "ADONIS Delta generation", select the models that should be enclosed in the documentation and click **OK**. The referenced models will be processed automatically.

ADONIS delta generation	
Select a start model: 🥢	Continue
🖃 🗁 Models	
🖨 🧰 Example - Application for vacation	Cancel
😑 🧰 01. Company Maps	
Applying for vacation	
Description: De	
C3.Working Environment Models	
Example - Application for vacation (including resou	
Example - Bank (Voucher-bound transfer)	
Example - Health Sector	
Example - Insurance	
Example - Public Sector	
🟵 🧰 Example - Telecommunication (Application mobile	
	11

Figure 42: Model selection for the delta generation

In the "export file" field, type a name and destination path for the exported data and click OK to start documentation process with current settings (see chap. 5.5.5, p. 104).

If it does not exist, ADONIS suggests creating the folder for the referenced documents, accept this suggestion to continue.

After successful generation, the appropriate hint window appears and the HTML documentation will be available at the earlier specified location. Open the documentation and the export data (in specified HTML-files) will be displayed in the HTML browser (see fig. 40, p. 99).

5.5.4 **RTF** Generation

- **Note: Before RTF generation**, the language of all models that will be used in the documentation should be unified by arranging the language for the attribute display (see chap. 5.2.6, p. 85).
- **Note:** It is recommended, to number objects of models to be generated (relevant only for business process model, working environment model and company map) before generation begins. In the RTF documentation, especially in the business process model, objects description will be generated with respect to the number order and therefore documentation is easer to read.

To start generation of RTF documents, select the item "RTF generation" from the "documentation" menu or click on the smart icon 🗒 in the quick access bar.

In the "RTF generation" window (see fig. 43, p. 103) select models to be used for the generation.

odels 1odels:	A
 Models Example - Application for vacation 01. Company Maps 02. Business Process Models BP Application for vacation SP Decline application SP Decline application Example - Application for vacation Example - Application for vacation Example - Bank (Voucher-bound trained) Example - Health Sector Example - Insurance Example - Public Sector Example - Telecommunication (App Project A 	els (including resources) ansfer)
Export Including models Including referenced models Including model groups Recursive (model groups) Including referenced attribute profiles	References
le Export file: C:\RTF documentation.rtf	Search

Figure 43: Model selection for the RTF generation

Activate the option **"including referenced models"** if all selected models and their referenced models should be carried over. To change settings for references click on the **"references"** button.

In the "export file" field, type a name and destination path for the exported files and click OK to start the documentation process using the current settings (see chap. 5.5.5, p. 104).

After successful generation, the appropriate hint window appears and RTF documentation will be available in the earlier specified location. Open the documentation and export files will be displayed in Microsoft word (see fig. 44, p. 104).

Part III



Figure 44: Generated RTF document (displayed in Microsoft Word)

5.5.5 Options (Documentation)

To open the ADONIS notebook for documentation settings, select "options" menu point from "documentation" menu (see fig. 45, p. 105).

Options - documentation	Options - documentation
✓ Apply model type specific settings Attribute settings Language: Indic: Mode: Documentation Attribute mode: Documentation Attribute and class filter Graphic settings ✓ Cigate graphics Graphic settings ✓ Cigate graphics Graphic file mode: İdo not change Settings for RTF Graphic files Diregitation: İdo not change	Settings for HTML: Graphic format for HTML: Model tree: with applet Copy referenced documents Copy referenced documents Quese Cancel 2/2 2/2 1/2 1/2 1/2 1/2 1/2 1/2

Figure 45: Documentation settings of the ADONIS standard application library

Next to the "general settings" chapter, there are additional chapters for each model type.

Note: Options "mode", "attribute mode", mode for "graphic file mode", "orientation", "page layout" and "graphic generation" are available in every notebook chapter..

While using ADONIS standard application library, you can carry out the following options:

General options:

Option "apply model specific settings"

By default, the standard settings apply to all models, however it is possible to adjust the settings for the given model by clicking on the "apply model specific options" option. If this option is activated, the options from the corresponding chapter will be used during generation of documents to the given model type.

Option "Language"

Selected language does not have any influence on the graphical representation of exported models. To adjust the language to the graphical representation, select the "views" from the "view" menu and click on the "select the language for visualising attributes" menu point. Follow the further instructions.

General options / Model specific settings:

Mode

The documentation component supports the model view i.e. the result of generation can be represented in the similar way to the models and modelling components through the view mode. By choosing a mode, only objects of the given modelling class, will be taken in the document generation.

Example:

In the working environment model, the "standard" mode will display objects of classes "organizational unit", "performer" and "role" whereas the "role diagram" mode limits objects representation to "performer" and "role" (see fig. 46, p. 106). In "role diagram" options, only objects of classes "performer" and "role" and their attributes will be taken in the documents generation.



Figure 46: Modes in the Working Environment

Note: The mode options only influence text representation of the model content. The model's graphical representation is handled by the option "Modes for graphics generation".

Attribute mode

An active attribute mode determines which object's attributes will be used in the document generation.

Example:

Object of the "performer" class (see fig. 47, p. 107) contains the following represented attributes. Attribute mode "Documentation" limits the output to attributes "name", "description" and "comment".



Figure 47: Attributes of the "performer class"

Attribute and class filter

Attribute and class filter (see chap. 5.5.6, p. 109) determines, what information (classes, relations, and attributes) should be exported to the document generation.

Option "Create graphics"

If the document should not contain any graphics, deactivate this option. The document will be then generated without graphics and will not contain any references to the graphics.

Graphic format for RTF

Here you can determine what file format should be used for RTF generation. There are two file formats available: .emf (default) and .bmp.

Graphic format for HTML

Here you can determine what file format should be used for HTML generation. There are two file formats available: .png (default) and .jpg.

Graphic file mode

Documentation components support the model view in a similar way to modelling components through view modes. By choosing a mode, only objects of the given modelling class, will be taken to the model graphics generation.

Note: In contrast to view modes in the modelling of a single model, chosen settings will apply to all models of the given type.

The selected graphic file mode does not affect view mode in the modelling.

Example:

In working environment model, mode "standard" will display objects of classes "organizational unit", "performer" and "role" whereas mode "role diagram" limits objects representation to "performer" and "role" (see fig. 46, p. 106). In "role diagram" options, only objects of classes "performer" and "role" and their attributes will be taken in the documents generation.

Note: "Graphic file mode" option influences only the graphical representation of the model content. The text representation of the model is controlled by the option "Modes".

Part III

Orientation

Graphic file can be generated without rotation, rotation by 90° (left or right), or rotation by 180° (upside down). Select and adapt the orientation of the graphic files (layout) to the page layout setting.

Note: The option "orientation" has an effect exclusively on the RTF generation. The model graphics in the HTML documentation will always remain unchanged.

Example:

Following figure (see fig. 48, p. 108) illustrates an example of the graphics orientation in the document. RTF document on the left side contains unchanged graphics. On right side, RTF document has graphics rotated by 90° (counter clockwise direction). Rotated graphics is displayed in a bigger format and therefore is easier to read.



Figure 48: Example of RTF generation (unchanged - left side, rotated by 90° - right side)

Page layout

Select this option to adjust page layout for graphics to be generated.

- **IMPORTANT:** On this position, selected page layout refers exclusively on graphics of generated model, not on the documentation's page layout itself.
- **Note:** The option "page layout" has an effect exclusively on the RTF generation. The model graphics in the HTML documentation will always remain unchanged.

Example:

Following figure (see fig. 49, p. 109) illustrates an example of the graphic's page layout in the documentation. RTF document is generated with standard ADONIS page layout settings, whereby the graphics size is set to fit on two pages.

Note: Connector marks that were represented on the figure have to be explicitly created.



Figure 49: Example of RTF generation with page layout settings

To save current settings, click on the "close" button. If you click on "cancel" button, changes will not be saved.

5.5.6 Attribute and class filter

To edit settings for the document generation select the **"attribute and class filter"** menu point from **"documentation"**.

In the window "Documentation - Attribute and class filter" (see fig. 50, p. 110), you can select that information (classes, relations and attributes) that should be exported to the document generation.

Documentation - Attribute and class	filter	
Model type specific		Load mode
Model type:		Assign
Business process model	~	
Classes:	Relation classes:	Change
	E I Subsequent	Close
E Subprocess	Sets variable	Help
I → I Activity		
E Decision		
■ Parallelity		
E Merging	✓ has Note	
End □-☑ Description		
Description		
Comment		
✓ Language		
🗈 🛅 Deutsch		
∃ ⊟ ─ □ Random generator		
Image: Besource		
Performance indicator overview		
Performance indicator		
🗄 🗹 Aggregation		
Swimlane (horizontal)		
Swimlane (vertical)		
✓ Use settings from attribut and class filter		
Use attribute and class filter for graphics		

Figure 50: Attribute and class filter for the documentation (settings in the ADONIS standard application library)

Activate the box **"Model specific type"** if you want to defined an individual criteria for each model type. Deactivate this option if the same rules should be applied for the whole library.

If the box is activated (\checkmark), select every **model type**, for which you wish to set information for export.

Now, you see both lists - classes and relations with all selected objects and connectors.

The symbol \checkmark infront of a class, relation or an attribute indicates that class, relation or attribute will be taken in the documentation. Classes, relations or other attributes that will not be exported to the documentation are marked with \Box .

To deselect a particular class, relation or attribute click on the symbol \mathbf{V} (check mark will disappear) i.e. this particular element will not be taken in the documentation.

Click on the symbol \Box (the check mark will appear), to select particular class, relation or attribute i.e. this particular element will be taken in the documentation.

If you want to change several elements at once, select them and then click on the button **"change"**. The status of all selected elements (either blank or marked) will change at the same time.

To activate or deactivate an individual object, click on the box, or select its name and then click on the **"change"** button.

To obtain a mode, that is also available in the modelling component, click on the **"load mode"** button. A small dialogue window appears (see fig. 51, p. 111), where you can set model type, mode and attribute mode. Modes that are displayed there, correspond to the view modes. As soon as you approve settings, the corresponding mode will be imported and applied. In terms of documentation it means, that only those classes and relations, that are visible in the selected mode (in modelling component) and attributes that are visible in attribute mode will be also included in the generation.

The box **"use settings from attribute and class filter"** has to be activated if selected settings have to be applied. Otherwise selected options from the "Option - documentation" menu remain valid (see fig. 45, p. 105).

Similarly, the box **"use attribute and class filter for graphics"** has to be activated in order to initiate settings for graphics.

Attribute and class filter - b	oad m	node	×
Modeltype:		ОК	٦
Business process model	~	Cancel	Ĩ
Mode: Flow	~	Help	
Attribute mode:			
Documentation	~		

Figure 51: Attribute and class filter - loading mode

Click on the **"assign"** button, to save your settings and press **"Close"** to close the dialogue

6. Expressions

In the ADONIS-Standard-Application library 3.81 the following attributes of "expression" type are defined:

• **Activity (see chap. 2.6, p. 19)**

- Performer

The value of the attribute "performer" is calculated on the basis of attribute "responsible role" in the object of "activity" class. From the content of this attribute, a valid AQL expression will be created in the attribute "performer". Alternatively, the value can be defined by the ADONIS-user.

• Process (see chap. 2.14, p. 31)

- Aggregated execution time
- Aggregated cycle time
- Aggregated costs
- Aggregated resting time
- Aggregated personal costs
- Aggregated transport time
- Aggregated waiting time

The value of this attribute is calculated on the basis of simulation results that were entered into the process start object of referenced Business Process Model. If the other model type is referenced, those attributes are empty. The ADONIS user cannot change the entered value.

• A Subprocess (see chap. 2.5, p. 17)

- Performer

While switching between classes "Activity" and "Sub process" the value of the "activity" class attribute is taken over. Alternatively, the value can also be defined by the ADONIS-user.

- Aggregated execution time
- Aggregated cycle time
- Aggregated costs
- Aggregated resting time
- Aggregated personal costs
- Aggregated transport time
- Aggregated waiting time

The value of this attribute is calculated on the basis of simulation results that were entered into the process start object of a referenced Business Process Model. The ADONIS user cannot change the entered value.

• **A** Process start (see chap. 2.4, p. 15)

- Quantity

There is no expression defined. ADONIS user can decide by itself what value to enter.

• **B** Resource (see chap. 2.13, p. 30)

- Selection

There is no expression defined. ADONIS user can decide by itself what value to enter.

• **F** Performer (see chap. 2.23, p. 43)

- Availability

The value of this attribute is calculated from values of attributes: "Days per week" and "Hours per day". The number of week hours is set to 40 (=100 percent).

7. Attribute profiles

Attribute profiles are used for the central management of common attributes that can be referenced in the notebook.

In objects of "Performer" (working environment model) (see chap. 2.23, p. 43) can create references in the attribute "presence" on the attribute profile of the **"presence"** class. The attribute profile class "presence" contains attributes "days per week" and "hours per day" (see fig. 52, p. 114). The work time of the particular performer can be set by reference to the corresponding attribute profile.

Mar	nager (Performer)	
-	Name:	1 🖬 🖨
E.	Manager	Description
Ę	Description:	Simulation data
<u>╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌╖╌</u>		Simulation results
5	·	
	Comment:	
Ę	•	
Ę	Further education: 🔶 🛨 🖬	
2	Seminar title Participation	
E		
Ę		
Ę		
E		
5	Presence	
È.	Days per week: 1	
g.	5,000000	
È.	Hours per day:	
5	8,000000	
þ.		
B		
Ę.		
P	Close Reset	

Figure 52: A window "editing attribute profile"

To assign the attribute profile to performer, open performer's notebook and click on the **"add"** icon **+** in the "presence" section. The window "Adonis-standard-application library 3.81 attribute profile selection" will be displayed (see fig. 53, p. 115).

Attribute profiles: 🛛 🥢 🗌 🖂 🖉 🖂 🖉	Add profile
full time (Presence)	Add folder
Operative data (Excel file)	
 part time (Presence) Planning period 2004 (Planning period) 	Rename
Presence (Presence)	Сору
	Move
	Delete
	Usage
	Queries
	Close
	Help

Figure 53: A window "attribute profile selection"

Select one of the existing profiles from the list or create a new one by clicking on the "add profile" button.

Note: Only user with special rights can create a new attribute profile. If you do not have those rights, there will be no "new attribute profile" button in the window "ADONIS standard application library 3.81 - attribute profile selection". If necessary, contact your ADONIS administrator.

After selection of desirable attribute profile press "assign" button, to assign selected profile to the performer. Attributes "days per week" (by default 5, if no attribute profile will be referenced) and "hours per day" (by default 8, if no attribute profile will be referenced) of assigned attribute profile will be displayed in the notebook

To delete the reference of attribute profile, click on the "delete' icon in the presence section 🔀.

8. Tables

Tables are located in the Business Process Model "process start" class (see chap. 2.4, p. 15) and in the Working Environment "performer" class (see chap. 2.23, p. 43). They will be centrally managed and assigned to the notebook.

Fur	ther education:	+×□i
	Seminar title	Participation
1	ADONIS 1a - Process Modeller	03.2004 🔺
2	ADONIS 1b - Process Modeller Expert	03.2004
3	ADONIS 2a - Process Manager	03.2004
4	ADONIS 3a - Administrator	05.2004
		v

Figure 54: An example of a table in the "performer" class

To **add a row**, open the notebook and click on the **"add"** button above the particular attribute (+).

To **delete a row**, open the notebook, click on the particular row number and then on **"delete"** button (**X**).

To see the entire content of the table, open the particular notebook and click on the icon "window" that is above particular attribute (\Box).

In a "dialogue" window there is an option, to save a table for printing purposes or search for browser contents.

	Seminar title	Participation in	
1	ADONIS 1a - Process Modeller	03.2004	
2	ADONIS 1b - Process Modeller Expert	03.2004	
3	ADONIS 2a - Process Manager	03.2004	
4	ADONIS 3a - Administrator	05.2004	
	1		×

Figure 55: Table - "dialogue" (example)

9. Example models

During installation of ADONIS Business Process Management toolkit, the following ADL files will be copied in the ADONIS folder:

- Example-General.adl (see chap. 9.1, p. 117)
- Example-General_incl_resources.adl (see chap. 9.2, p. 123)
- Example-Assurance.adl (see chap. 9.3, p. 127)
- Example-Bank.adl (see chap. 9.4, p. 139)
- Example-Health.adl (see chap. 9.5, p. 140)
- Example-PublicServices.adl (see chap. 9.6, p. 141)
- Example-Telecommunication.adl (see chap. 9.7, p. 141)

Above files contain exemplary models of the ADONIS standard application library that can be imported to ADONIS.

When models are described in this document, some details are omitted to improve clarity. More detailed information about the business process management toolkit you will find in the ADONIS user manual.

9.1 Models of the file Example-General.adl

The file Example - General.adl is consisted of

Company map

• "Application for vacation" (see chap. 9.1.2, p. 118).

Business Process Models

- "Application for vacation" (see chap. 9.1.2.3, p. 120) and
- "Decline application" (see chap. 9.1.2.4, p. 122)

Working Environment model

• "Application department" (see chap. 9.1.2.2, p. 119).

Problem description (see chap. 9.1.1, p. 118) documents the organisation structure and a flow of business processes.

Defining application model:

If you want to simulate models of the file "example-general", you have to define a use case diagram before execution of "capacity analysis" or "workload analysis".

Application models consists of a <u>Business Process Model</u>

"Application for vacation"

and the Working Environment model

• "Department 5".

9.1.1 **Problem description**

An enterprise has the application department (named "Application department") with 5 workers. It employs a department manager, two specialists and two secretaries (remark: all of them belong to the same cost centre).

Each employee's vacation application goes to the personal department and is handled by one of the department workers. The department clerk passes an application to the department manager. The department manager checks the application and makes the decision upon approval (80% of applications will be approved).

If the application is approved, the department manager gives the application to the office. The office archives the application, updates the vacation file and informs the applicant about the decision.

If the vacation application is declined, it will be sent to the office and filed there. The applicant is informed about rejection.

9.1.2 Modelling in ADONIS

A solution to the problem description (see chap. 9.1.1, p. 118) also takes place in the working environment model "application department" (see chap. 9.1.2.2, p. 119), where the personal department "department 5" will be modelled as in the business process models "application for vacation" (see chap. 9.1.2.3, p. 120) (modelling the application flow) and "Declining" (see chap. 9.1.2.4, p. 122)(modelling the rejection).

9.1.2.1 Company map "Applying for vacation"

The company map contains the process models in the hierarchical structure (see fig. 56, p. 119).



Figure 56: Company Map "Applying for vacation"

9.1.2.2 WE Model "Department 5"

A modelling of organisation structure takes place in the working environment model (see fig. 57, p. 119).



Figure 57: Working Environment model "Department 5"

The model contains an organisational with five performers. The organisational unit appears where name "application department" and performers are anonymous: "manager", "performer-1", "performer-2", "performer-3" and "performer-4".

Performer duties are modelled as "roles". The performer "manager" is assigned to the role "head of department", "performer-1" and "performer-2" to the role "clerk", "performer-3" and "performer-4" to the role "secretary".

The relation "is manager" connects the performer "manager" to the organisational unit "application department". The relation "belongs to" assigns all performers to the application department.

Note: The relation "is manager" complements relation "belongs to". It does *not* replace it.

Object's notebook, contains varied information. Next to described attributes, objects of the class "performer" contain simulation data. Following table (see fig. 58, p. 120) presents employee's hourly wages.

	Hourly wages
Manager	100,00
Performer-1	50,00
Performer-2	50,00
Performer-3	60,00
Performer-4	70,00

Figure 58: Employee's hourly wages in the department 5

The performer's calendar shows the structure of regular working week or absent time (weekend, holydays or vacation). This calendar information will be analysed by the workload simulation.

Note: Performer's calendar is set with default value (working time: Monday - Friday, 9.00 - 12.00 and 12:30 - 16:30, free days and vacations etc. are not considered).

9.1.2.3 BP Model "Application for vacation"

Subprocess modelling takes place in the Business Process Model (see fig. 59, p. 120).



Figure 59: Business Process Model "application for vacation"

The process begins with class object "process start" named "application for vacation".

Next there are two objects of the class **"activity"**: "process application form" and "check application form". The activity "process application form" is assigned to the performer with the role "Clerk" (i.e. performer-1 or performer-2), while the activity "check application form" has to be carried out by the "head of department 5".

After activities "process application form" and "check application form" the process branches out into two paths through the class object "decision" ("application accepted?").

• Path 1:

In case of application approval, activities "update vacation files", "inform applicant", "file application" are carried out simultaneously (not sequentially). Parallelism will be symbolised by the class "parallelism", that has three outgoing branches to activities. The performer with the role "secretary" (i.e. performer-3 or performer - 4) carries out three parallel activities. Parallel activities, that are carried out by the same performer can only be completed in the sequential manner.

After parallel processes, the object of the class **"merge"** will merge the individual branches after the business process ends in the class object "end".

• Path 2:

The second path describes an application rejection. As written in the problem description, many business processes carry out declination of application in the identical form, independently from the business process "application for vacation".

Hence, "decline application" is modelled as the separated business process, to be used by different business processes.

For that purpose, an object of the class "subprocess" (with the name "decline the application) will be modelled in the business process model "Application for vacation". The reference on the model "decline application" is arranged in the object's "decline application" notebook. The name of the referenced model is entered in the section "referenced process" (in this case it is "decline application" (see chap. 9.1.2.4, p. 122)).

After execution of the subprocess "decline the application" (see chap. 9.1.2.4, p. 122), the main process will continue. The branch ends, because there are no further activities.

The logic flow - time and logic flow of the business processes, is represented by the relation "subsequent".

After the decision "application accepted?", both paths are required to define **"variable"** to enable the simulation of the business process model "application for vacation" with the referenced subprocess "decline the application". They will be described with the name "acceptance".

The relation "sets variable" assigns the class object **"random generator"** to this variable.

The discrete distribution "Discrete (YES 0.8, NO 0.2)" (the attribute "value" in the class object "random generator") that is referenced on the object "application accepted?", is arranged in the transition condition of both relations "sets variable". Through this distribution, the object "acceptance" of the class "variable" is occupied with probabilities 0,8 for the value "yes" and 0,2 for the value "no".

The object of the class "random generator" is connected to the flow via relation "sets". It has to be arranged **before** the object of the class "decision" (for example in the activity "check application form").

The flow conditions of the individual path are defined in the transition condition of the relation "subsequent", after the decision "application accepted?". In the transition condition of the acceptance proposal path the acceptance is set to yes (acceptance=yes). In decline application path the acceptance is set to no (acceptance=no). The transition condition consists of variable name "acceptance", the logical operator '=' and the constants from the object of the class "random generator") (YES or NO).

The objects notebook stores the information (attributes) such as technical descriptions of activities.

The below table (see fig. 60, p. 122) presents values of the attributes "execution time", "waiting time", "resting time", "transport time" and costs of all objects in the activity class. The represented attributes are required for simulation.

	Execution time	Waiting time	Resting time	Transport time	Costs
⊖ 1. BP Application for vacation					
드 Check application form	00:000:00:00:30	00:003:00:00:00	00:003:00:00:00	00:000:00:00:00	0,00
E File application	00:000:00:01:00	00:000:00:00:00	00:000:00:00:00	00:000:01:00:00	6,00
드 Inform applicant	00:000:00:00:10	00:000:00:10:00	00:000:01:00:00	00:000:01:00:00	1,00
Process application form	00:000:00:01:00	00:000:00:00:00	00:000:00:00:00	00:000:00:00:00	0,00
🛄 Update vacation files	00:000:00:05:00	00:000:00:00:00	00:000:00:00:00	00:000:00:00:00	30,00

Figure 60: Simulation data of the activity in the business process model "application for vacation""

The attribute "performer" in the class object "activity" carries out the assignment to the performer of organisational structure. Assignment of the performer is done by AQL-query (AQL = ADONIS Query Language). ADONIS offers input supporting dialogs for entering data. The table below (see fig. 61, p. 122) shows performer assignment in objects of the class "activity" in the model "application for vacation".

	Performer
\ominus 1. BP Application for vacation	
Check application form	({"Head of Dept. 5" : "Role"} <- "Has role")
E File application	({"Secretary" : "Role"} <- "Has role")
💻 Inform applicant	({"Secretary" : "Role"} <- "Has role")
E Process application form	({"Clerk" : "Role"} <- "Has role")
🛄 Update vacation files	({"Secretary" : "Role"} <- "Has role")

Figure 61: Performer assignment in the business process model "application for vacation"

9.1.2.4 BP model Decline application"

The subprocess "decline application" is modelled as a separate business process (see fig. 62, p. 122).



Figure 62: Business Process Model "decline application"

The flow within models starts from the object "decline application" of the class "process start". It follows the parallel activities "file application", "inform applicant" which will be carried out by the performer with the role "secretary (i.e. performer-3 or performer-4).

Parallelism starts with the object of the class "paralelity" and ends with the object of the class "merge".

The business process ends after performing all parallel activities.

The logic is created by the connection of illustrated objects via the relation "subsequent".

The notebook of objects "file application" and "inform applicant", contains the value of attributes "execution time", "waiting time", "resting time", "transport time" and costs that are presented on the table below (see fig. 63, p. 123).

	Execution time	Waiting time	Resting time	Transport time	Costs
\ominus 1. SP Decline application					
E File application	00:000:00:05:00	00:000:01:00:00	00:000:00:00:00	00:000:01:00:00	30,00
💻 Inform applicant	00:000:00:00:10	00:000:00:00:00	00:000:00:00:00	00:000:00:00:00	1,00

Figure 63: Simulation data of the activity in the business process model "decline application"

The attribute "performer" of the class object "activity" carries out the assignment to the performer of organisational structure. Assignment of the performer is done by AQL-query (AQL = ADONIS Query Language). ADONIS offers input supporting dialogs for entering data. The table below (see fig. 64, p. 123) shows performer assignment in objects of the class "activity" in the model "decline application".

	Performer
\ominus 1. SP Decline application	
E File application	({"Secretary" : "Role"} <- "Has role")
🛄 Inform applicant	({"Secretary" : "Role"} <- "Has role")

Figure 64: Performer assignment in the business process model "decline application"

9.2 Models from the file Example-General with resources.adl

The file "Example-General_with_resources.adl" consists of

Company map

• ""Application for vacation (resource)" (see chap. 9.2.2, p. 124).

Business process management model

- "Application for vacation (resource)" (see chap. 9.2.2.3, p. 126) and
- "Decline application (resource)" (see chap. 9.2.2.4, p. 127)

and Working Environment model

• "Application department" (see chap. 9.2.2.2, p. 125).

This file contains the same models as the file "Example-General.adl" (see chap. 9.1, p. 117) and additionally **resources** that are required to execute activities.

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Defining application model:

If you want to simulate models of the file "example - general", you have to define the application model before running "capacity analysis" or "workload analysis".

The application model consists of a **Business Process Model**

• "Application for vacation (resource)"

as well as a <u>Working Environment model</u>

• "Department 5 (resource)".

9.2.1 **Problem description**

In addition to the problem statement, there are also the following requirements:

- Each performer in the "Application department" has their own PC. There is an additional PC for the department as well.
- Activities in the business process "Application for vacation" and in subprocess "Decline application" are performed with support of resources (PC).
- Simulation run should assure that the performer uses its own PC to carry out the activity.

9.2.2 Modelling in ADONIS

The described problem (see chap. 9.2.1, p. 124) is implemented through the working environmental model "Application department" (see chap. 9.2.2.2, p. 125), (where the "department 5" is modelled), Business Process Model "Application for vacation (resource)" (see chap. 9.2.2.3, p. 126) and "Decline application (resource)" (see chap. 9.2.2.4, p. 127).

9.2.2.1 Company map "Application for vacation (resource)"

Company map "Application for vacation (resources)" contains the process models in their hierarchical structure (see fig. 65, p. 125).



Figure 65: Company map "Application for vacation (resources)"

9.2.2.2 WE Model "Application department (resource)"

The Working Environment model "Application department (Resource) 3.81" (see fig. 66, p. 125) is the same as "Application department" (see chap. 9.1.2.2, p. 119) but also includes resources.



Figure 66: Working Environment model "Application department (resource)"

Objects of the class "resource" upgrade the working environment model.

The relation "uses resource" assigns performer to their "own" PC.

The relation "has resource" is used to assign "PC-depart." to the "department 5".

The below table (see fig. 67, p. 126) shows values of individual resource that are located in the attribute "hourly wages".

	Hourly wages
⊖ 1. Application department	
🍽 Manager	100,00
Performer-1	50,00
Performer-2	50,00
Performer-3	60,00
■ Performer-4	70,00

Figure 67: Hourly wages of resource in application department

9.2.2.3 BP Model "Application for vacation (resource)""

BP Model "Application for vacation (resource)" (see fig. 68, p. 126) represents the business process model "application for vacation" (see chap. 9.1.2.3, p. 120) expanded with resources.



Figure 68: Business process model "Application for vacation (resource)"

To show that activities are supported by resources, objects of class "activity" are connected with resources via relation "uses". Those resources are considered as placeholders.

Then in the attribute "selection" of class object "resource" a particular resource is assigned from the appropriate working environment model (see fig. 69, p. 126).

	Selection
⊖ 1. BP Application for vacation (resource)	
🔟 PC-1	(current performer -> "Uses resource")
🔟 PC-2	(current performer -> "Uses resource")
🔟 PC-3	(current performer -> "Uses resource")
🔟 PC-4	(current performer -> "Uses resource")
🔟 PC-5	(current performer -> "Uses resource")

Figure 69: Resource assignment in the business process model "Application for vacation (resource)"

To ensure that a performer carries out an activity with their own PC, the value (current performer -> "uses resource") is entered in the attribute "selection".

9.2.2.4 BP Model "Decline application (resource)"

BP Model "Decline application (resource)" (see fig. 70, p. 127) contains the business process model "Decline application" (see chap. 9.1.2.4, p. 122) updated by resources.



Figure 70: Business process model "Decline application (resource)"

Relation "uses" assigns a resource to objects "decline application (resources)" and "inform applicant" of the class "activity". Those resources (PC-6 and PC-7) are placeholders for assigned resources in the working environment model.

In the attribute "selection" of the object "PC-6" and "PC-7" the activity will assign a concrete resource from the corresponding working environmental model (see fig. 71, p. 127).

	Selection
\ominus 1. SP Decline application (resource)	
📕 PC-6	(current performer -> "Uses resource")
📕 PC-7	(current performer -> "Uses resource")

Figure 71: Resources assignment in the business process model "Decline application (resource)"

To ensure that performer uses its own PC to perform the activity, the attribute "selection" of the class "resource" contains the value "(current performer -> uses resource)".

9.3 Models from the file "example-insurance.adl"

The file "example-insurance.adl" consists of:

Company map

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• "Processes in customer service dep. Life assurance" (see chap. 9.3.2, p. 129),

Business process models

- "BP Contract value enquires (written)" (see chap. 9.3.2.2, p. 131),
- "BP Change of address" (see chap. 9.3.2.3, p. 133),
- "BP Change name of policy holder" (see chap. 9.3.2.4, p. 134),
- "BP Change of beneficiary" (see chap. 9.3.2.5, p. 135),
- "SP Policy update" (see chap. 9.3.2.6, p. 136),
- "SP Dispatch written evaluation" (see chap. 9.3.2.7, p. 137)

Working Environments model

• "Customer Service Dept" (see chap. 9.3.2.1, p. 130).

Document model

• "Customer service dept Life assurance" (see chap. 9.3.2.8, p. 138).

and <u>User case diagram</u>

• "Customer database" (see chap. 9.3.2.9, p. 138).

With use of those models, it is not possible to represent business processes of the life insurance company. You will find detailed model descriptions in the chapter modelling in ADONIS (see chap. 9.3.2, p. 129).

Defining application model:

If you want to simulate models of the file "example - assurance", you have to define the application model before running "capacity analysis" or "workload analysis".

The application model consists of: Business process models

- "BP Change of address",
- BP Change name of policy holder",
- BP "Change of beneficiary"
- BP "Contract value enquires (written)"

as well as Working environmental model

• "Customer service dept".

9.3.1 Problem description

A branch of an insurance company has a "customer service department" with 2 departments: "services" and "enquires". One performer works in the "enquires" department and 3 performers in the "services" department.

A performer in "enquires" manages customers' questions regarding current contracts. The clerk gets performance data and responds to clients in the form of letters. Department "services" updates clients' data (addresses, names or beneficiary). Applied changes are sent to clients by mail. All clerks in the "service" department have the possibility to perform corrections on client's data.

During **the contract value enquiries** the existing contract is checked. The established values are checked and obtained performance data is reported to customers (in written form). The process of "writing letters" occurs in the identical form however in a different department of the enterprise. If the performance data does not exist, the customer and agent will be informed (in written form).

The business process *change of beneficiary* describes, that changed application will be issued to the existing beneficiary right. Then the check has to be performed to examine if changes have been applied or not. There are two possible results: either it is possible to change and apply beneficiary or it cannot be changed and the business process ends, because the request cannot be fulfilled.

In the case of an address change, the address will be searched for in the address database to check if it exists and a decision made about the address origin (home or foreign). If it is a home address, a new address can be entered into the system. If the address is foreign, authorization of delivery has to be checked before entering the data into the system. The business process ends with the letter preparation that informs customer about the change.

If a policy holder requests to change his name, the existing name will be searched in the address database and the name will be changed. A letter regarding the change will be sent to the customer.

The flow of the process "writing a letter" is the same in every department.

9.3.2 Modelling in ADONIS

The modelling of problem description (see chap. 9.3.1, p. 128) occurs

- In the working environmental model "Customer service dept", where both departments "services" and "enquiries" are established,
- In the business processes "BP Contract value enquiries (written)", "BP Change of address", "BP Change name of policy holder" and "BP Change of beneficiary", as well as in sub processes "SP dispatch written evaluation" and "SP policy update".
- in the document model "customer service dept. Life Assurance" and
- in use case diagram "customer database"

A connection between processes and subprocesses and appropriate departments are represented in the company map (see fig. 72, p. 130):



Figure 72: Company map "processes in the customer service dept."

9.3.2.1 WE Model "customer service dept.""

Modelling of organisational structure occurs in a working environment model (see fig. 73, p. 130).



Figure 73: WE Model "customer service dept."

The model contains three organisation units and four performers. Organisation units have following names "Services", "Enquires" and "Customer service dept. Life assurance". This time, performers have names: "Edward Spring" from "Enquiries" department and "Jack Summer", "Henry Autumn" and "Tom Winter" from "services" department.

Area of a performer's responsibility is modelled as a "role". Performer of "enquires" has the role "Clerk Enquires". Three performers from the department "Services" have the role "Clerk Service". The role assignment is arranged by the relations "has role" and the assignment to the department is arranged by the relation "belongs to".

The below table (see fig. 74, p. 131) shows the assignment of performers to the activity in all business process models.

		Performer
\ominus	1. BP Change Name of Policy Holder	
	💳 Enter new name into database	done by "Service Clerk"
	E Search for customer in customer database	({"Clerk" : "Role"} <- "Has role")
\ominus	2. SP Policy Update	
	Send endorsement	({"Clerk" : "Role"} <- "Has role")
	Write policy endorsement	({"Clerk" : "Role"} <- "Has role")
Θ	3. BP Change of beneficiary	
	💳 Check change request	({"Clerk" : "Role"} <- "Has role")
	Check contract	({"Clerk" : "Role"} <- "Has role")
	E Determine creditor	({"Clerk" : "Role"} <- "Has role")
	💳 Enter new names in system	({"Clerk" : "Role"} <- "Has role")
	Information to agent	({"Clerk" : "Role"} <- "Has role")
	E Search for customer in customer database	({"Clerk" : "Role"} <- "Has role")
θ	4. BP Contract value enquiries (written)	
	Check contract	({"Clerk" : "Role"} <- "Has role")
	Information to agent	({"Clerk" : "Role"} <- "Has role")
	Valuating the contract	({"Clerk" : "Role"} <- "Has role")
\ominus	5. SP Dispatch written evaluation	
	💳 Dispatch letter	({"Clerk" : "Role"} <- "Has role")
	💶 Write letter	({"Clerk" : "Role"} <- "Has role")
Θ	6. BP Change of address	
	Check address (domestic/foreign)	({"Clerk" : "Role"} <- "Has role")
	Check country in risk table	({"Clerk" : "Role"} <- "Has role")
	Contact the customer	({"Clerk" : "Role"} <- "Has role")
	💻 Enter new address in system	({"Clerk" : "Role"} <- "Has role")
	E Search for customer in customer database	({"Clerk" : "Role"} <- "Has role")

Figure 74: Performers assignment in the business process models

In the main business process model ("BP Application for Vacation"), the performer with the role "clerk" (services or enquires) is assigned to the activity. At the same time, the attribute "done by" of this activity will be occupied with the value "Service clerk" or "Enquires clerk". It guarantees, that the performer that is assigned to the first activity also performs all following activities thus there is no performer exchange.

Note: It is possible to create a performers calendar for each performer. Check hints in the example model "Application for vacation" (see chap. 9.1.2.3, p. 120).

9.3.2.2 BP Model "Contract value enquires (written)"

The modelling of a process flow occurs in the business process model, where "BP contract value enquires" is represented (see fig. 75, p. 132).



Figure 75: Business process model "BP contract value enquires"

Process flow starts with the object "process start" named "Contract value enquires".

Next, follows objects of the class "activity": "check contract" and "valuating the contract". Both activities will be carried out by the performer with the role "information clerk". In this example, there is only one performer with such status.

If the performance value is calculated, the flow splits into parallel streams. It is arranged by the "parallelism" object.

Path 1: The "SP Dispatch written evaluation" is called in most cases. As described in the problem description, the process of "Writing letters" is consistently activated. Therefore this activity is represented as the separate business process model (subprocess) to be used by different business process models.

In the business process model "contract value enquires", an object of the class "sub process" (SP dispatch written evaluation) is modelled for the process "writing letters". The reference on the model "SP dispatch written evaluation" is arranged in the ADONIS-Notebook of objects "SP dispatch written evaluation" (business process model), in the attribute "referenced subprocess" (in this case it is "SP dispatch written evaluation").

Path 2: If no performance values are present, what happens in 20% of cases where business process model is activated, it will be then presented by the random generator. The path, you have to choose will be shown by the transition condition "Value=None". This value is displayed on the connector (or relation "subsequent"). If there is no performance value, it is necessary to get the written agreement from the agent regarding the missing performance value.

The "conditional parallelism" will be brought together by the object "organization". The process flows directly to the object "end", because there are no further activities.

The logic flow, the timing and logic flow of the business processes is represented by the relation "subsequent".

A "variable" is defined to enable simulation capabilities of the business process model of the "BP Contact value enquires" including referenced subprocess "SP Dispatch written evaluation". The variable is named "value". The object of the class "random generator" (statistical distribution) will be assigned to this variable by the relation "assign variable".

The discrete distribution (exist: 0,8; not exist 0,2) (the attribute "Value" in the "random generator" class object) is referenced on the object "X" of the "parallelism" class in the "transition condition" of both relations of the "subsequent" type. With this distribution, the object "Value" of the class "variable" with probability 0,8 is set to "exists" and with probability 0,2 is set for "none". The transition condition is consisted of variables "Value", logical operator "=" and a constant from the class object "Random generator" ('exists' or 'none'). In this example only transition condition "none" is modelled.

The relation "sets" connects an object of the class "random generator" with the flow. It has to be done before the object of the class "decision". In this example the "random generator" is arranged in the "parallelism" object.

Object's notebooks contain information about the objects. For example: Technical description in activities.

Note: The performer's assignment to the activity is presented in the description of the working environmental model (see fig. 74, p. 131).

9.3.2.3 "BP Model "Change of address"

Modelling of process flows is arranged in the BP model "BP change of address" (see fig. 76, p. 133).



Figure 76: Business process model "BP change of address"

The flow begins with the object " change of address" of the class "process start".

After process start object, there are two activities: "Search for customer in customer database" and "Check address (domestic/foreign)". Those activities are performed by the performer with the role "clerk".

After the activity "Check address (domestic/foreign)", the flow branches out into two paths (through the object "Domestic or foreign?" of the class "decision").

Path 1: If the address is domestic, the activity "Enter new address in system" will be immediately carried out.

Path 2: If the address is foreign, the flow is extended by some class objects. The activity "Check country in risk table" follows the class "decision" (Name: "Authorization required?") that again provides two possibilities of the process flow.

Path 3: The "decision" permits that no authorization is required. Then the flow path goes directly to the activity "Enter new address in system", that can be carried out without additional activities in the path 1.

Path 4: If the "decision" indicates that the authorisation is required, the process path goes through the activity "Contact the customer" and then to the "Enter new address in system".

After the end of activity "Enter new address in system", the process of "Writing letters" is shown in the form of "subprocess" ("SP Policy update"). In a different business process, the process of

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"Writing letters" is performed in the same form. Therefore the "Sending letters" activity is modelled on the basis of business process models in the form of subprocesses.

If the subprocess "SP Policy update" ends, the main process "BP Change of address" continues. Because there is no further activities, it ends in the object "end".

To enable the simulation capability of the business process model "BP Change of address", including its subprocess "SP Policy update", the variables (in this case "Address" and "AuthNeeded") have to be defined for three optional paths. It has to be arranged before decisions "Domestic or foreign?" and "Authorization required?".

The relation "sets variable" assigns the variable to the "random generator" (statistical distribution).

The statistical distribution "Discrete (domestic 0,9; foreign 0,1) (attribute "value" in the class object "random generator") is referenced after the decision class object "Domestic or foreign?" in the "transition condition" of both relations "subsequent". Through this distribution, the object "Address" of the class "Variable" is occupied with probabilities 0,8 for the value "Domestic" and 0,2 for the value "Foreign".

The relation "sets" connects the class object "random generator" with the flow. It should be arranged in the "decision" class object. Optionally you can arrange it in the activity right before the decision.

Conditions for each path (after the decision "Domestic or foreign?") are defined in the "transition condition" of the relation type "subsequent". In case of path 1, where address is domestic, the value "Address='Domestic" is entered. If address is "foreign", in the case the field is occupied with the value "Address='Foreign" (path 2). The transition condition is consisted of variables "Address", logical operator "=" and a constant from the class object "random generator" ('domestic' or 'foreign').

Note: The performers assignment to the activity is presented by a description of a working environmental model (see fig. 74, p. 131).

Note: Also notice other's models description entered in ADONIS Notebook.

9.3.2.4 BP Model "Change name of policy holder"

The modelling of process flow is arranged in the BP Model "BP Change name of policy holder" (see fig. 77, p. 134).



Figure 77: Business process model "BP Change name of policy holder"

The flow begins with the object " change of address" of the class "Process start".

The process flow is a sequence that begins with activities "Search for customer in customer database" and "Enter new name into database". The flow path navigates through the sub process "SP Policy Update". The object "sub process" ("SP Update policy (business process model)") is modelled.

The reference on the model "SP Policy Update" is arranged in the notebook of the object "SP Policy Update", where the attribute "referenced subprocess" contains the name of referenced business process model (in this case it is SP Policy Update).

After completing the subprocess "SP Policy Update", the flow returns to the main process "BP Change name of policy holder" and ends in the class object "end".

- **Note:** Performance assignment is presented in the description of the working environment model (see fig. 74, p. 131).
- **Note:** The object's notebook contains information (attributes) such as a technical description of a given activity or number and appearance frequency of a given "process start" object (see fig. 60, p. 122). They show attributes value's of "execution times", "waiting time", "resting time", "transport time" and "costs" in all objects of the "activity" class. The above attributes are required for simulation.

9.3.2.5 BP Model "BP change of beneficiary""

Modelling of the process flow is arranged in the business process model and presents the BP model "BP change of beneficiary" (see fig. 78, p. 135).



Figure 78: Business process model "BP change of beneficiary"

The flow begins with the object "Check change request" of the class "process start".

The activity "Check change request" follows process start. The activity is carried out by a "Service clerk" performers.

After the activity "Check change request", the flow branches out into two paths (through the object "Can changes be made?").

Path 1: The flow branches out in the object "Parallelism". It specifies what activities should be executed at the time. Execution order within parallelism is arbitrary. Activities can be also accomplished by different performers (in this example there are two activities: "Check contract" and "Search for customer in customer database"). If both activities are performed, the flow reaches the object "Merging".

After merging, all objects have to be executed in the sequence. The process flows to the decision object "Right to life assurance unchangeable?", with two optional flow paths.

Path 3: Beneficiary is revocable and the activity "Enter new names in system" is immediately executed.

Path 4: The beneficiary is revocable and the activity "Determine creditor" is executed. After that, the activity "Enter new names in system" is performed.

Because two branches in the activity "Enter new names in system" run together, the main process continues and flows into the subprocess "SP Correspondence (Policy update)".

The reference on the "SP Correspondence (Policy update)" is arranged in the object's "SP Correspondence (Policy update)" notebook (the name of the process is entered in the attribute "referenced subprocess" - in this case it is SP Correspondence (Policy update). After completing the subprocess "SP Correspondence (Policy update)" the flow returns to the main process "BP change of beneficiary" and ends in the class object "end".

Path 2: If changes cannot be made, the activity "Information to agent" is performed and the flow returns to the main process "BP change of beneficiary" and ends in the class object "end".

The flow logic - the chronological and logic flow of the business processes is represented by the relation "subsequent".

"Variables" for three optional paths (after decisions "Can changes be made?" and "Right to life assurance unchangeable?") need to be defined to enable simulations capability of the business process model "BP change of beneficiary", including the sub process "SP Policy update"..

The relation "sets variable" assigns variable to the class object "random generator" (statistical distribution).

The discrete distributions "Discrete (yes 0.99; no 0.01)" and "Discrete (yes 0.3; no 0.7)" (attribute "value" in the Object of the class "random generator") are referenced in the "transition condition" section of relation "subsequent". The reference is arranged before objects "Domestic or foreign?" and "Authorization required?". Through this distribution the object "execution" of the class "variable" sets the value "yes" with the probability 0.99 and the value "no" with probability 0.01. The object "unchangeable" of the class "variable" sets the value "yes" with the probability 0.3 and the value "no" with the probability 0.7.

The relation "sets" connects objects of the class "random generator" with the flow. Ideally it is arranged at the particular decision.

The flow conditions of particular paths are defined in the "transition condition" section of the relation "subsequent" (after the decisions "Can changes be made?" and "Right to life assurance unchangeable?"). In the transition condition of the path that is coming out of the "Can changes be made?", the execution value is set to "yes". In path 2, (changes are unavailable), the execution value is set to "no". In case of unchangeable right to the life assurance, the unchangeable "no", if changes are possible the value is set to "yes" path 4).

The transition condition is consisted of variable name "execution" or "unchangeable", logical operator "=" and the constant from the class object "random generator" "yes or no".

- **Note:** The performer's assignment to the activities is represented by the description of the working environment model (see fig. 74, p. 131).
- **Note:** See details regarding ADONIS notebook entry in the description of the other models.

9.3.2.6 BP Model "SP Dispatch written evaluation"

The subprocess "SP Dispatch written evaluation" is displayed as the independent business process model (see fig. 79, p. 137).


Figure 79: Business process model "SP Dispatch written evaluation"

The flow within the model begins with the process start object "Dispatch written evaluation". Following the start object there are two activity objects "Write letter" and "Dispatch letter". Both activities are carried out by the class object "performer" with the role "clerk" from the enquiry department.

After completing both activities, the subprocess ends.

The logic flow is created by connecting displayed objects with the relation type "subsequent".

Note: The performer's assignment to the activities is represented by the description of the working environment model (see fig. 74, p. 131).

Note: See details regarding ADONIS notebook entry in the description of other models.

9.3.2.7 BP Model "SP Policy update"

The subprocess "SP Policy update" is displayed as the independent business process management (see fig. 80, p. 137).



Figure 80: Business process management "SP Policy update"

The flow within the model begins with the process start object "Policy update". Following the start object there are two activity objects: "Write policy endorsement" and "Send endorsement". Both activities are carried out by the class object "performer" with the role "clerk" from the services department.

After completing both activities, the subprocess ends.

The logic flow is created by connecting displayed objects with the relation type "subsequent".

- **Note:** The performer's assignment to the activities is represented by the description of the working environment model (see fig. 74, p. 131).
- **Note:** See details regarding ADONIS notebook entry in the description of others models.

9.3.2.8 Document model "Customer service department"

The document model "Customer service department" contains all documents that are required for these modelled processes (see fig. 81, p. 138).



Figure 81: Document model "Customer service department

The six documents: "Contract", "Policy endorsement", "Endorsement", "Change request", "Risk table" and "Letter" are modelled without connectors, because they are independent from each other.

In the process models, documents are referenced in the corresponding activities. On the graphics surface area, the reference is displayed as the symbol on top of the activity.

9.3.2.9 Use case diagrams "Customer database"

A use case diagram "Customer database" shows the EDP solution "Customer database" with its possibilities available for the user (role "Service clerk") (see fig. 82, p. 139).



Figure 82: Use case diagram "Customer database"

Every use case diagram: "Search for customer", "Enter new address", "Enter new name" can be requested at the same time by the system and the option in the program.

The role "clerk" in service department references this actor in the working environment model.

9.4 Models of the example-bank.adl

The ADL file "Example-Bank.adl" consists of

Company map

• "Voucher-bound transfer",

Business Process Models

- "BP Voucher-bound transfer",
- "Control signature/blocks",
- "Digitalize transfer",
- "SP Accept transfer",

Working Environment model

• "Organisational structure bank",

Document model

• "Documents (transfer)"

and User Case Diagram

• "Use cases (bank)".

These models show the voucher-bound transfer in the bank and its interrelations.

Definition of an application model:

If you want to simulate models of the file "example-bank.adl", you have to define an application model before execution of "Capacity analysis" or "Workload analysis".

The application model consists of the **Business Process Model**

• "Voucher-bound transfer",

as well as a Working Environment model

• "Organizational structure bank".

9.5 Models of the file "Example - Public Sector.adl"

The ADL file "example-bank.adl" consists of

Company map

• "Construction approval",

Business Process Models

- "BP Construction Approval Application",
- "SP Establishment of a new customer",
- "SP Sending of documents",
- "SP Treatment of application",

Working Environment model

• "Organisational structure (Construction office)"

and the Document model

• "Document (Construction approval)".

Those models illustrate the flow of creation of construction approval. This is displayed for the public sector and its interrelations.

Definition of application model:

If you want to simulate models of the file "example-bank.adl", you have to define a use case diagram before execution of "capacity analysis" or "workload analysis".

Business Process Model

• "BP Construction Approval Application",

and Working Environment model

• "Organisational structure (Construction office)".

9.6 Models of the "example-health.adl"

The ADL file "example-bank.adl" consists of

Company map

• "Patient administration",

Business Process Models

- "BP Patient admission",
- "SP Diagnosis planning",
- "SP Issue first aid certificate",
- "SP Patent entry",
- "SP Ward reception"

and Working Environment model

• "Patient administration".

Those models show the flow and its interrelations of patient administration in a hospital.

Definition of application model:

If you want to simulate models of the file "example-health.adl", you have to define an application model before execution of "capacity analysis" or "workload analysis".

The application model consists of **Business Process Model**

"Patient administration",

and Working Environment model

• "Patient administration".

9.7 Models of the file "example-telecomunication.adl"

The file "example-telecomunication.adl" consists of

Company map

• "Application and settlement for the post-paid phones",

Business Process Models

- "BP Post-paid phones",
- "SP Post-paid activation",
- "SP Post-paid finalisation",

Part III

Document model

• "Documents (post-paid settlement)".

and the Working Environment model

• "New applications".

These models show the creation and interrelations of application and settlement for the postpaid phones.

Definition of application model:

If you want to simulate models of the file "example-telecomunications.adl", you have to an define application model before execution of "capacity analysis" or "workload analysis".

The application model consists of **Business Process Model**

• "Post-paid settlement",

and Working Environment model

• "New applications".

Part IV Information for ADONIS administrators

If you change attributes, the program call can be helpful to recover default settings. In this situation you can use this chapter as the reference manual to compare the default settings with your current status.

In this chapter following topics are described:

- Class attributes (see chap. 1., p. 143)
- Library attributes (see chap. 2., p. 214)

1. The class attributes

ADONIS Standard BP Library 3.81 contains the following class attributes:

- **GraphRep** (see chap. 1.1, p. 143)
- AttrRep (see chap. 1.2, p. 193)
- Model pointer (see chap. 1.3, p. 209)
- Class cardinality (see chap. 1.4, p. 210)
- **Conversion** (see chap. 1.5, p. 212)

1.1 GraphRep

The class attribute "GraphRep" is set for the following classes of the ADONIS Standard BP Library 3.81:

- Actor (see chap. 1.1.1, p. 145)
- C Use case (see chap. 1.1.2, p. 145)
- System boundary (see chap. 1.1.3, p. 146)
- A Process start (see chap. 1.1.4, p. 146)
- Subprocess (see chap. 1.1.5, p. 147)
- Activity (see chap. 1.1.6, p. 148)
- Decision (see chap. 1.1.7, p. 150)
- Parallelism (see chap. 1.1.8, p. 151)
- Merging (see chap. 1.1.9, p. 152)
- End (see chap. 1.1.10, p. 152)
- Variable (see chap. 1.1.11, p. 153)
- Random generator (see chap. 1.1.12, p. 153)
- Resource (see chap. 1.1.13, p. 154)

- Process (see chap. 1.1.14, p. 155)
- Performance indicator overview (see chap. 1.1.15, p. 157)
- Performance indicator (see chap. 1.1.16, p. 158)
- Document (see chap. 1.1.17, p. 159)
- Note (see chap. 1.1.18, p. 162)
- Aggregation (see chap. 1.1.19, p. 164)
- Swimlane (horizontal) (see chap. 1.1.20, p. 165)
- □ Swimlane (vertical) (see chap. 1.1.21, p. 172)

The class attribute "GraphRep" is set for the following relations of the ADONIS Standard BP Library 3.81:

- **Subsequent (see chap. 1.1.29, p. 186)**
- 🕨 🌤 🔹 Sets variable (see chap. 1.1.30, p. 187)
- **h + Sets (see chap. 1.1.31, p. 188)**
- Uses (see chap. 1.1.32, p. 188)
- Communicates (see chap. 1.1.33, p. 188)
- Contains (see chap. 1.1.34, p. 188)
- Extends (see chap. 1.1.35, p. 189)
- -> Generalisation (see chap. 1.1.36, p. 189)
- Uses (use case) (see chap. 1.1.37, p. 189)
- Has process (see chap. 1.1.38, p. 190)
- Has subdocument (see chap. 1.1.39, p. 190)
- Has note (see chap. 1.1.41, p. 191)

The class attribute "GraphRep" is set for the following classes of the ADONIS Standard WE Library 3.81:

- Organisational unit (see chap. 1.1.22, p. 180)
- Performer (see chap. 1.1.23, p. 180)
- Role (see chap. 1.1.24, p. 181)
- Resource (see chap. 1.1.25, p. 181)
- Cost center (see chap. 1.1.26, p. 182)
- Aggregation (see chap. 1.1.27, p. 183)
- Note (see chap. 1.1.28, p. 184)

The class attribute "GraphRep" is set for the following relations of the ADONIS Standard WE Library 3.81:

- Is subordinated (see chap. 1.1.42, p. 191)
- Has resource (see chap. 1.1.43, p. 191)
- Belongs to (see chap. 1.1.44, p. 191)

- Is manager (see chap. 1.1.45, p. 191)
- Has role (see chap. 1.1.46, p. 192)
- **Uses resource (see chap. 1.1.47, p. 192)**
- Lis charged to (see chap. 1.1.48, p. 192)
- Is cost center manager (see chap. 1.1.49, p. 193)
- Has note (see chap. 1.1.50, p. 193)

1.1.1 Class "Actor"

ADONIS Standard BP Library 3.81:

```
GRAPHREP
AVAL sp:\"Language\"
FILL color:white
SHADOW off
PEN w:0.02cm
ELLIPSE x:0.00cm y:-.72cm rx:0.23cm ry:0.23cm
POLYGON 15 x1:-.46cm y1:-.46cm x2:.46cm y2:-.46cm x3:.6cm y3:.2cm
x4:.47cm y4:.23cm x5:.35cm y5:-.25cm x6:.2cm y6:0cm x7:.53cm y7:.805cm
x8:.3cm y8:.805cm x9:0cm y9:.23cm x10:-.3cm y10:.805cm x11:-.53cm
y11:.805cm x12:-.2cm y12:0cm x13:-.35cm y13:-.25cm x14:-.47cm y14:.23cm
x15:-.6cm y15:.2cm
IF (sp = \"English \")
 ATTR \"Name\" x:c:0.0cm y:.9cm w:c h:t
ELSE
 ATTR \"Bezeichnung\" x:c:0.0cm y:.9cm w:c h:t
ENDIF
AVAL oF:\"Open questions\"
IF (
 LEN(replall(replall((oF), \" \", \"\"), \"
\langle ", \langle " \rangle \rangle > 0
)
  FONT \"Helvetica\" h:10.0pt bold color:red
 TEXT \"?\" x:.45cm y:-1.2cm
ENDIF
```

1.1.2 Class "Use case"

```
GRAPHREP
AVAL sp:\"Language\"
PEN w:0.02cm
SHADOW off
FILL color:white
ELLIPSE x:0.00cm y:0.00cm rx:2.00cm ry:1.00cm
IF (sp = \"English\")
ATTR \"Name\" x:0.0cm y:0.0cm w:c:3.5cm h:c
ELSE
ATTR \"Bezeichnung\" x:0.0cm y:0.0cm w:c:3.5cm h:c
ENDIF
AVAL v:\"Details\"
IF (LEN v)
FONT color:lightgray h:8pt
```

```
IF (sp = \"English")
     ATTR \"Details\" x:c y:1cm format:\">> %m\" h:t w:c:3.5cm
  ELSE
     AVAL sub:\"Submodelname\"
     TEXT (\">> \"+sub) x:c y:1cm h:t w:c:3.5cm
   TEXTBOX (sub) x:c y:1cm h:t w:c:3.5cm
PEN style:null
   FILL style:null
   HOTSPOT \"Details\" text:(\"Klicken um zu öffnen:\\n\" + sub) x:(textx1)
y:(texty1) w:(textw) h:("
"texth)
   PEN
   FILL
   FILL style:null
ENDIF
ENDIF
AVAL oF:\"Open questions\"
IF (LEN (replall (replall ((oF), ", ", ", "), ", ")) > 0)
 FONT \"Arial\" h:10.0pt bold color:red
 TEXT \"?\" x:1.7cm y:-0.95cm
ENDIF
```

1.1.3 Class "System boundary"

ADONIS Standard BP Library 3.81:

```
GRAPHREP layer:-2 sizing:asymmetrical
SHADOW off
FILL color:white
RECTANGLE x:-4cm y:-3cm w:8.0cm h:6.0cm
AVAL set-default:\"inside\" d:\"Representation\"
AVAL sp:\"Language\"
IF (d = \"inside\")
  IF (sp = \"English")
     ATTR \"Name\" x:0cm y:-3cm w:c:8cm h:t
  ELSE
     ATTR \"Bezeichnung\" x:0cm y:-3cm w:c:8cm h:t
  ENDIF
ELSE
  IF (sp = \"English")
     ATTR \"Name\" x:0cm y:-3cm w:c:8cm h:b
   ELSE
     ATTR \"Bezeichnung\" x:0cm y:-3cm w:c:8cm h:b
  ENDIF
ENDIF
AVAL oF:\"Open questions\"
IF (
LEN(replall(replall((oF), ", ", "), "
\", \" \) > 0
)
 FONT \"Arial\" h:10.0pt bold color:red
 TEXT \"?\" x:3.95cm y:-3cm w:r h:b
ENDIF
```

1.1.4 Class "Process start"

```
ADONIS Standard BP Library 3.81:
```

```
GRAPHREP
AVAL sp:"Language"
AVAL set-default:"@" ext:"External Documentation"
AVAL rdok: "Referenced documents"
PEN w:0.05cm
FILL color:yellow
POLYGON 3 x1:-.7cm y1:.7cm x2:.7cm y2:.7cm x3:0cm y3:-.7cm
IF (sp = "English")
 ATTR "Name" y:.8cm w:c:2.8cm h:t
ELSE
 ATTR "Bezeichnung" y:.8cm w:c:2.8cm h:t
ENDIF
AVAL i:"Order"
IF (i > "0")
 FONT "Helvetica" h:10.0pt bold
 ATTR "Order" x:0.00cm y:0.00cm w:c:1.00cm h:c
ENDIF
AVAL oF: "Open guestions"
IF ( LEN(replall(replall((oF), "", ""),"
", ""))>0
)
  FONT "Helvetica" h:10.0pt bold color:red
 TEXT "?" x:-0.55cm y:-0.50cm
ENDIF
IF ((NOT ((ext = "@") OR (search(ext, "param: ", 0) >=0) OR (ext = "Winword@") OR
(ext = "Excel@") OR (ext = "Powerpnt@") OR (ext = "Editor@") OR (ext = "Wordpad@")
OR (ext = "Notepad@"))) OR (rdok != ""))
 FONT "Wingdings" h:18.0pt color:black
 TEXT "4" x:.8cm y:-.3cm w:r h:b
ENDIF
```

1.1.5 Class "Subprocess"

```
GRAPHREP
AVAL sp:"Language"
AVAL col:"fontcolor"
AVAL set-default:"x" p:"Referenced subprocess"
AVAL sub: "Referenced subprocess"
AVAL anzeige: "Display name and reference"
AVAL i:"Order"
AVAL sn:"Subprocessname"
FILL color:dodgerblue
PEN w:0.05cm
POLYGON 3 x1:-.7cm y1:.7cm x2:.7cm y2:.7cm x3:0cm y3:-.7cm
SHADOW mode:off
IF (NOT LEN p)
 PEN style:dot
ENDIF
LINE x1:-.4cm y1:.5cm x2:.4cm y2:.5cm
LINE x1:.1cm y1:.4cm x2:.4cm y2:.5cm
LINE x1:.1cm y1:.6cm x2:.4cm y2:.5cm
FONT color: (col)
IF (sub = "")
  IF (sp = "English")
   ATTR "Name" y:.8cm w:c:2.8cm h:t
  ELSE
    ATTR "Bezeichnung" y:.8cm w:c:2.8cm h:t
```

```
ENDIF
ELSE
  IF (sp = "English")
   IF (display = "yes")
     ATTR "Name" y:.8cm w:c:2.8cm h:t
     ATTRBOX "Name" y:.8cm w:c:2.8cm h:t
     FONT "Arial" h:8pt bold
     ATTR "Referenced subprocess" y: (texty2 + .1cm) w:c:2.8cm h:t format:"%m"
      FONT
    ELSE
     ATTR "Referenced subprocess" y:.8cm w:c:2.8cm h:t format:"%m"
    ENDIF
  ELSE
    IF (display = "yes")
     ATTR "Bezeichnung" y:.8cm w:c:2.8cm h:t
     ATTRBOX "Bezeichnung" y:.8cm w:c:2.8cm h:t
     FONT "Arial" h:8pt bold
      ATTR "Referenced subprocess" text: (sn) y: (texty2 + .1cm) w:c:2.8cm h:t
      FONT
    ELSE
     ATTR "Referenced subprocess" text: (sn) y:.8cm w:c:2.8cm h:t
    ENDIF
  ENDIF
ENDIF
IF (i > "0")
 FONT "Arial" h:10.0pt bold color:white
 ATTR "Order" x:0.00cm y:0.00cm w:c:1.00cm h:c
ENDIF
AVAL oF: "Open questions"
IF (
 LEN(replall(replall((oF), "", ""),"
",""))>0
)
 FONT "Arial" h:10.0pt bold color:red
 TEXT "?" x:0.55cm y:-0.50cm
ENDIF
```

1.1.6 Class "Activity"

```
GRAPHREP
AVAL sp:"Language"
AVAL rr:"Verantwortliche Role"
AVAL set-default:"@" ext:"External documentation"
AVAL rdok: "Referenced documents"
AVAL indok:"Input"
AVAL outdok: "Output"
AVAL col:"fontcolor"
PEN w:0.05cm
FILL color:dodgerblue
RECTANGLE x:-1.4cm y:-.7cm w:2.8cm h:1.4cm
FONT color: (col)
IF (sp = "English")
 ATTR "Name" y:.8cm w:c:2.8cm h:t
ELSE
 ATTR "Bezeichnung" y:.8cm w:c:2.8cm h:t
ENDIF
AVAL k:"Classification"
```

```
IF (search(k, "manual", 0) >=0 AND LEN(k)=8)
 FONT "Wingdings" h:20pt color:whitesmoke
 TEXT "?" x:-1.35cm y:-.80cm
ELSIF (search(k, "automatic", 0) >=0 AND LEN(k)=11)
  FONT "Wingdings" h:18pt color:whitesmoke
 TEXT ":" x:-1.35cm y:-.65cm
ELSIF (search(k,"planning",0) >=0 AND LEN(k)=10)
 FONT "Webdings" h:18pt color:whitesmoke
 TEXT "?" x:-1.35cm y:-.65cm
ELSIF (search(k, "checking", 0) >=0 AND LEN(k)=10)
  FONT "Webdings" h:20pt color:whitesmoke
 TEXT "N" x:-1.35cm y:-.70cm
ELSIF (search(k, "administrating", 0) >=0 AND LEN(k)=16)
 FONT "Wingdings" h:16pt color:whitesmoke
 TEXT "1" x:-1.35cm y:-.65cm
ELSIF (search(k,"executing",0) >=0 AND LEN(k)=11)
 FONT "Webdings" h:18pt color:whitesmoke
  TEXT "@" x:-1.35cm y:-.65cm
ELSIF (search(k, "value adding", 0) >=0 AND LEN(k)=14)
  FONT "Arial" h:14pt color:whitesmoke
TEXT "$$" x:-1.30cm y:-.65cm
ELSIF (search(k, "communicating", 0) >=0 AND LEN(k)=15)
  FONT "Wingdings" h:18pt color:whitesmoke
 TEXT "(" x:-1.35cm y:-.65cm
ELSIF (search(k,"external",0) >=0 AND LEN(k)=10)
 FONT "Webdings" h:16pt color:whitesmoke
 TEXT "ü" x:-1.30cm y:-.65cm
ELSIF (search(k, "manual", 0) >=0 AND search(k, "automatic", 0) >=0)
 FONT "Webdings" h:18pt color:whitesmoke
 TEXT "+" x:-1.35cm y:-.72cm
 FONT "Arial" h:7pt color:whitesmoke
 TEXT "Error" x:-1.35cm y:-.26cm
ENDIF
AVAL oF: "Open questions"
IF ( LEN(replall(replall((oF), " ", ""), "
",""))>0)
 FONT "Arial" h:10.0pt bold color:red
 TEXT "?" x:1.20cm y:-1.10cm
 IF ((NOT ((ext = "@") OR (search(ext,"param:\"\"",0) >=0) OR (ext = "Winword@")
OR (ext = "Excel@") OR (ext = "Powerpnt@") OR (ext = "Editor@") OR (ext =
"Wordpad@") OR (ext = "Notepad@"))) OR ((rdok != "") OR (indok != "") OR (outdok !=
"")))
    FONT "Wingdings" h:18.0pt color: (col)
    TEXT "4" x:1.1cm y:-.62cm w:r h:b
 ENDIF
ELSE
IF ((NOT ((ext = "@") OR (search(ext,"param:\"\"",0) >=0) OR (ext = "Winword@") OR
(ext = "Excel@") OR (ext = "Powerpnt@") OR (ext = "Editor@") OR (ext = "Wordpad@")
OR (ext = "Notepad@"))) OR ((rdok != "") OR (indok != "") OR (outdok != "")))
   FONT "Wingdings" h:18.0pt color:(col)
   TEXT "4" x:1.5cm y:-.62cm w:r h:b
 ENDIF
ENDIF
SET order_ypos:0cm
AVAL set-default:"" vRv:"Display responsible role"
AVAL set-default:"" vR:"Responsible role"
AVAL set-default:"" eD:"Done by"
IF (vRv = "Yes")
IF (eD = "")
 IF (VR != "")
  FILL color:lightskyblue
```

```
RECTANGLE x:-1.4cm y:0.0cm w:2.8cm h:.7cm
  FONT "Arial" h:8pt
IF (sp = "English")
   ATTR "Responsible role" line-break:rigorous y:0.35cm w:c:2.8cm h:c:.7cm
format:"%o"
  ELSE
    ATTR "Responsible role" text:(rr) line-break:rigorous y:0.35cm w:c:2.8cm
h:c:.7cm format:"%o"
ENDIF
  PEN w:.3cm color:black
  POINT x:-1.65cm y:.35cm
  PEN w:.25cm color:lightskyblue
  POINT x:-1.65cm y:.35cm
  PEN w:0.05cm
SHADOW off
  FONT "Arial" h:6pt
  TEXT "R" x:-1.70cm y:.25cm
SHADOW on
  PEN
   SET order_ypos:-0.25cm
  PEN style:null
  FILL style:null
  HOTSPOT "Responsible role" x:-1.8cm y:.2cm w:.3cm h:.3cm
PEN
  FILL
 ENDIF
 ELSE
  FILL color:lightskyblue
  RECTANGLE x:-1.4cm y:0.0cm w:2.8cm h:.7cm
  FONT "Arial" h:8pt
  ATTR "Done by" line-break:rigorous y:0.35cm w:c:2.8cm h:c:.7cm
  SET order ypos:-0.25cm
ENDIF
ELSE
ENDIF
AVAL i:"Order"
IF (i > "0")
 FONT "Arial" h:10.0pt bold color:white
 ATTR "Order" w:c:1cm h:c y:(order_ypos)
ENDIF
```

1.1.7 Class "Decision"

```
GGRAPHREP
AVAL sp:\"Language\"
AVAL set-default:\"1\" su:\"Sum\"
AVAL col:\"fontcolor\"
PEN w:0.05cm
FILL color:yellow
POLYGON 4 x1:-1cm y2:.7cm x3:1cm y4:-.7cm
FONT color:(col)
IF (sp = \"English\")
ATTR \"Name\" y:.8cm w:c:2.8cm h:t
ELSE
ATTR \"Bezeichnung\" y:.8cm w:c:2.8cm h:t
ENDIF
```

```
AVAL i:\"Order\"
IF (i > \"0\")
FONT \"Arial\" h:10.0pt bold color:black
ATTR \"Order\" w:c:1.00cm h:c
ENDIF
AVAL oF:\"Open questions\"
IF (LEN(replall(replall((oF),\" \",\"\"),\"\",\"\"))>0)
FONT \"Arial\" h:10.0pt bold color:red
TEXT \"?\" x:0.60cm y:-.60cm h:c
ENDIF
IF (VAL (replall (su, \",\", \".\")) 1)
FONT \"Arial\" h:10.0pt bold color:red
TEXT \"!\" x:1.0cm y:-.60cm h:c
ENDIF"
```

1.1.8 Class "Parallelity"

```
GRAPHREP
AVAL sp:"Language"
AVAL mr: "Modeling direction"
AVAL d: "Representation"
AVAL i:"Order"
AVAL col:"fontcolor"
PEN w:0.05cm
FILL color:yellow
IF (mr = "from left to right")
  POLYGON 3 x1:-.4cm x2:.3cm y2:.7cm x3:.3cm y3:-.7cm
ELSE
 POLYGON 3 x1:0cm y1:-.35cm x2:-.7cm y2:.35cm x3:.7cm y3:.35cm
ENDIF
IF (d = "with name")
  FONT color: (col)
  IF (mr = "from left to right")
   IF (sp = "English")
     ATTR "Name" y:.8cm w:c:1.00cm h:t
    ELSE
     ATTR "Bezeichnung" y:.8cm w:c:1.00cm h:t
   ENDIF
  ELSE
    IF (sp = "English")
     ATTR "Name" y:.45cm w:c:1.00cm h:t
    ELSE
     ATTR "Bezeichnung" y:.45cm w:c:1.00cm h:t
   ENDIF
  ENDIF
ENDIF
IF (i > "0")
  FONT "Arial" h:10.0pt bold color: (col)
  IF (mr = "from left to right")
   ATTR "Order" w:c:1.00cm h:c
  ELSE
   ATTR "Order" y:.05cm w:c:1.00cm h:c
  ENDIF
ENDIF
```

1.1.9 Class "Merging"

ADONIS Standard BP Library 3.81:

```
GRAPHREP
AVAL sp:"Language"
AVAL mr: "Modeling direction"
AVAL d: "Representation"
AVAL i:"Order"
AVAL col:"fontcolor"
PEN w:0.05cm
FILL color:yellow
IF (mr = "from left to right")
 POLYGON 3 x1:.4cm y1:0cm x2:-.3cm y2:.7cm x3:-.3cm y3:-.7cm
ELSE
 POLYGON 3 x1:-.7cm y1:-.35cm x2:0cm y2:.35cm x3:.7cm y3:-.35cm
ENDIF
IF (d = "with name")
 FONT color:(col)
 IF (mr = "from left to right")
IF (sp = "English")
       ATTR "Name" y:.8cm w:c:1.00cm h:t
ELSE
        ATTR "Bezeichnung" y:.8cm w:c:1.00cm h:t
    ENDIF
ELSE
    IF (sp = "English")
       ATTR "Name" y:.45cm w:c:1.00cm h:t
ELSE
       ATTR "Bezeichnung" y:.45cm w:c:1.00cm h:t
    ENDIF
ENDIF
ENDIF
IF (i > "0")
 FONT "Arial" h:10.0pt bold color: (col)
IF (mr = "from left to right")
    ATTR "Order" x:0.00cm y:0.00cm w:c:1.00cm h:c
  ELSE
    ATTR "Order" y:-.045m w:c:1.00cm h:c
ENDIF
ENDIF
\
```

1.1.10 Class "End"

```
GRAPHREP
AVAL sp:"Language"
AVAL t:"Type"
AVAL i:"Order"
AVAL d:"Representation"
AVAL col:"fontcolor"
PEN w:0.05cm
FILL color:yellow
ELLIPSE rx:.7cm ry:.7cm
IF (t="global")
FILL style:null
ELLIPSE rx:.6cm ry:.6cm
```

```
ENDIF
IF (d = "with name")
FONT color:(col)
IF (sp = "English")
ATTR "Name" y:.8cm w:c:1.00cm h:t
ELSE
ATTR "Bezeichnung" y:.8cm w:c:1.00cm h:t
ENDIF
ENDIF
IF (i > "0")
FONT "Arial" h:10.0pt bold color:black
ATTR "Order" x:0.00cm y:0.00cm w:c:1.00cm h:c
ENDIF
```

1.1.11 Class "Variable"

ADONIS Standard BP Library 3.81:

```
GRAPHREP
FILL color:mediumspringgreen
ELLIPSE rx:0.70cm ry:0.70cm
AVAL sp:"Language"
AVAL t: "Variable scope"
AVAL col:"fontcolor"
FONT color: (col)
IF (sp = "English")
  ATTR "Name" y:0.8cm w:c:1.4cm h:t
ELSE
  ATTR "Bezeichnung" y:0.8cm w:c:1.4cm h:t
ENDIF
IF (t = "global")
 ELLIPSE rx:0.6cm ry:0.6cm
ENDIF
FONT "Arial" h:32pt color:black
TEXT "V" y:0.13cm w:c h:c
```

1.1.12 Class "Random generator"

```
GRAPHREP
AVAL set-default:"Normal" w:"Value"
AVAL set-default:"No" m:"Manual random generator"
AVAL col:"fontcolor"
FILL color:mediumspringgreen
ELLIPSE rx:.7cm ry:.7cm
PEN w:0.025cm
SHADOW mode:off
FILL color:mediumseagreen
AVAL sp:"Language"
FONT color: (col)
IF (sp = "English")
 ATTR "Value" y:.8cm w:c:2.8cm h:t
ELSE
 ATTR "Info zum Wert der Variablenbelegung" y:.8cm w:c:2.8cm h:t
ENDIF
IF (search (w, "Discrete", 0) >= 0)
```

```
POLYLINE 7 x1:-.3cm y1:.3cm x2:-.3cm y2:.1cm x3:-.1cm y3:.1cm x4:-.1cm y4:-.2cm
x5:.2cm y5:-.2cm x6:.2cm y6:-.3cm x7:.5cm y7:-.3cm
 LINE x1:-.5cm y1:.3cm x2:.5cm y2:.3cm
LINE x1:0cm y1:-.4cm x2:0cm y2:.4cm
ELSIF (search (w, "Exponential", 0) >= 0)
 COMPOUND 2
 CURVE "t" fx:(t) fy:(-.6*exp(-(3.8*(t+.4)))+.3) from:-.4 to:.5
 LINE x1:.5cm y1:.3cm x2:-.4cm y2:.3cm
 LINE x1:-.5cm y1:.3cm x2:-.4cm y2:.3cm
 LINE x1:-.4cm y1:.4cm x2:-.4cm y2:-.4cm
ELSIF (search (w, "Uniform",0) >= 0 )
 RECTANGLE x:-.3cm y:-.1cm w:.7cm h:.4cm
 LINE x1:-.5cm y1:.3cm x2:.5cm y2:.3cm
 LINE x1:0cm y1:-.4cm x2:0cm y2:.4cm
ELSIF (search (w, "Normal", 0) >= 0)
 COMPOUND 1
  CURVE "t" fx:(t) fy:(-.7*exp(-14*t*t)+.2) from:-.6 to:.6
 LINE x1:0cm y1:-.6cm x2:0cm y2:.3cm
ELSE
  FONT "Arial" h:16pt
  TEXT "=" x:-0.50cm y:0.03cm w:l h:c
 FONT "Arial" h:16pt italic
 TEXT "f" x:-0.15cm y:0.03cm w:l h:c
FONT "Arial" h:16pt
 TEXT "()" x:0.09cm y:0.03cm w:l h:c
ENDIF
IF (m = "Yes")
 FONT "Wingdings" h:16pt color:crimson
 TEXT "I" y:-.9cm x:-.9cm
ENDIF
```

1.1.13 Class "Resource"

```
GRAPHREP
AVAL sp:"Language"
AVAL set-default: "EDP system" rt: "Type of resource"
AVAL col:"fontcolor"
IF (rt = "EDP system")
 FILL color:lightgray
 RECTANGLE x:-.6cm y:-.7cm w:1.2cm h:1.05cm
 RECTANGLE x:-.7cm y:.35cm w:1.4cm h:.35cm
  SHADOW mode:off
 FILL color:lightskyblue
 RECTANGLE x:-.45cm y:-.55cm w:.9cm h:.75cm
  FILL color:navy
 RECTANGLE x:-.3cm y:-.45cm w:.4cm h:.05cm
  FILL color:white
 RECTANGLE x:-.3cm y:-.4cm w:.4cm h:.2cm
 FILL color:navy
 RECTANGLE x:-.1cm y:-.15cm w: .4cm h:.05cm
  FILL color:white
 RECTANGLE x:-.1cm y:-.1cm w: .4cm h:.2cm
  FILL color:lightgreen
 RECTANGLE x:-.57cm y:.48cm w:.09cm h:.09cm
 FILL color:black
 RECTANGLE x:.15cm y:.48cm w:.45cm h:.03cm
ELSIF (rt = "Communication system")
```

```
FILL color:slategray
 RECTANGLE x:-.275cm y:-.7cm w:.55cm h:1.4cm
  FILL color:black
 RECTANGLE x:.14cm y:-1cm w:.05cm h:.3cm
 SHADOW off
 FILL color:palegreen
 RECTANGLE x:-.225cm y:-.55cm w:.45cm h:.3cm
 FILL color:black
 RECTANGLE x:-.20cm y:-.15cm w:.075cm h:.05cm
 RECTANGLE x:-.05cm y:-.15cm w:.075cm h:.05cm
RECTANGLE x:0.10cm y:-.15cm w:.075cm h:.05cm
 RECTANGLE x:-.20cm y:-.03cm w:.075cm h:.05cm
 RECTANGLE x:-.05cm y:-.03cm w:.075cm h:.05cm
RECTANGLE x:0.10cm y:-.03cm w:.075cm h:.05cm
 RECTANGLE x:-.20cm y:0.09cm w:.075cm h:.05cm
 RECTANGLE x:-.05cm y:0.09cm w:.075cm h:.05cm
RECTANGLE x:0.10cm y:0.09cm w:.075cm h:.05cm
 RECTANGLE x:-.20cm y:0.21cm w:.075cm h:.05cm
 RECTANGLE x:-.05cm y:0.21cm w:.075cm h:.05cm
RECTANGLE x:0.10cm y:0.21cm w:.075cm h:.05cm
 RECTANGLE x:-.05cm y:.55cm w:.1cm h:.03cm
 RECTANGLE x:-.05cm y:-.65cm w:.1cm h:.03cm
ELSE
 FILL color:whitesmoke
  POLYGON 3 x1:-.7cm y1:.6cm x2:-1cm y2:-.2cm x3:.5cm y3:-.4cm
  POLYGON 4 x1:-.9cm y1:-.4cm x2:.7cm y2: -.6cm x3:.9cm y3:.4cm x4:-.7cm y4:.6cm
 FILL color:lightsteelblue
 POLYGON 3 x1:-.72cm y1:.15cm x2:.72cm y2:.15cm y3:-.6cm
 FILL color:whitesmoke
 POLYGON 3 x1:-.35cm x2:.35cm y3:-.35cm
 FILL color:forestgreen
 PEN 0.025cm
POLYGON 4 x1:-.5cm y1:.4cm x2:.4cm y2:-.5cm x3:.5cm y3:-.4cm x4:-.4cm y4:.5cm
  FILL color:mistyrose
  POLYGON 3 x1:-.5cm y1:.4cm x2:-.4cm y2:.5cm x3:-.65cm y3:.65cm
 FILL color:lightgray
 POLYGON 4 x1:.4cm y1:-.5cm x2:.5cm y2:-.4cm x3:.55cm y3:-.45cm x4:.45cm y4:-.55cm
 FILL color:orangered
 POLYGON 4 x1:.55cm y1:-.45cm x2:.45cm y2:-.55cm x3:.525cm y3:-.625cm x4:.625cm
y4:-.525cm
ENDIF
FONT color: (col)
IF (sp = "English")
  ATTR "Name" y:.8cm w:c:2.8cm h:t
ELSE
  ATTR "Bezeichnung" y:.8cm w:c:2.8cm h:t
ENDIF
```

1.1.14 Class "Process"

```
GRAPHREP
PEN w:0.03cm
FILL color:royalblue
POLYGON 6 x1:-1.50cm y1:-.7cm x2:1.50cm y2:-.7cm x3:1.75cm x4:1.50cm y4:.7cm x5:-
1.50cm y5:.7cm x6:-1.30cm
AVAL sp:"Language"
AVAL rp:"Referenced process"
```

```
AVAL anzeige: "Display name and reference"
AVAL i:"Order"
AVAL col:"fontcolor"
AVAL sn:"Subprocessname"
FONT color: (col)
IF (search(rp,"(Business process model)",0) >= 0)
 FILL color:dodgerblue
RECTANGLE x:-0.27cm y:-.25cm w:1cm h:.5cm
 FILL color:yellow
 POLYGON 3 x1:-1.1cm y1:.25cm x2:-.85cm y2:-.25cm x3:-.6cm y3:.25cm
 ELLIPSE x:1.3cm rx:.25cm ry:.25cm
 LINE x1:.73cm x2:1.05cm
 LINE x1:.95cm y1:.06cm x2:1.05cm
 LINE x1:.95cm y1:-.06cm x2:1.05cm
 LINE x1:-.72cm x2:-.27cm
 LINE x1:-.37cm y1:.06cm x2:-.27cm
 LINE x1:-.37cm y1:-.06cm x2:-.27cm
ELSIF (search(rp,"(Company map)",0) >= 0)
 FILL color:dodgerblue
 POLYGON 6 x1:-1cm y1:-.25cm x2:-.2cm y2:-.25cm x3:-.1cm x4:-.2cm y4:.25cm x5:-1cm
y5:.25cm x6:-.9cm
  POLYGON 6 x1:1.35cm y1:-.25cm x2:.65cm y2:-.25cm x3:.75cm x4:.65cm y4:.25cm
x5:1.35cm y5:.25cm x6:1.45cm
LINE x2:.65cm
 LINE x1:.55cm y1:.06cm x2:.65cm
 LINE x1:.55cm y1:-.06cm x2:.65cm
 LINE y1:-.06cm y2:.06cm
ENDIF
FONT color: (col)
IF (rp = "")
   IF (sp = "English")
    ATTR "Name" y:.8cm w:c:3.00cm h:t
ELSE
    ATTR "Bezeichnung" y:.8cm w:c:3.00cm h:t
  ENDIF
ELSE
IF (sp = "English")
    IF (anzeige = "yes")
      ATTR "Name" y:.8cm w:c:3.00cm h:t
      ATTRBOX "Name" y:.8cm w:c:3.00cm h:t
      FONT "Arial" h:8pt bold
      ATTR "Referenced process" y:(texty2 + .1cm) w:c:3.00cm h:t format:"%m"
      FONT
     ELSE
      ATTR "Referenced process" y:.8cm w:c:3.00cm h:t format:"%m"
     ENDIF
ELSE
     IF (anzeige = "yes")
      ATTR "Bezeichnung" y:.8cm w:c:3.00cm h:t
      ATTRBOX "Bezeichnung" y:.8cm w:c:3.00cm h:t
      FONT "Arial" h:8pt bold
      TEXT (sn) y:(texty2 + .1cm) w:c:3.00cm h:t line-break:words
      TEXTBOX (sn) y:(texty2 + .1cm) w:c:3.00cm h:t line-break:words
      PEN style:null
      FILL style:null
HOTSPOT "Referenced process" text:("Klicken um zu öffnen:\n" + sn) x:(textx1)
y:(textyl) w:(textw) h:(texth)
      PEN
      FILL
      FONT
ELSE
```

```
TEXT (sn) y:.8cm w:c:3.00cm h:t line-break:words
TEXTBOX (sn) y:.8cm w:c:3.00cm h:t line-break:words
      PEN style:null
FILL style:null
      HOTSPOT "Referenced process" text:("Klicken um zu öffnen:\n" + sn)
x:(textx1) y:(texty1) w:(textw) h:(texth)
      PEN
FILL
    ENDIF
  ENDIF
ENDIF
IF (i > "0")
 FONT "Arial" h:10.0pt color:white bold
 ATTR "Order" x:1.4cm y:.7cm w:r:1cm h:b
ENDIF
AVAL oF: "Open questions"
IF ( LEN(replall(replall((oF), " ", ""),"
", ""))>0)
 FONT "Arial" h:10.0pt bold color:red
 TEXT "?" x:1.35cm y:-1.10cm
ENDIF
```

1.1.15 Class "Performance indicator overview"

```
GRAPHREP
AVAL funkt: "calc probe overview visualization"
AVAL sp:"Language"
AVAL score: "probe overview score"
AVAL state: "probe overview status"
PEN w:0.05cm
FILL color:royalblue
POLYGON 3 x1:.2cm y1:0cm x2:-.3cm y2:.3cm x3:-.3cm y3:-.3cm
IF (funkt = "true")
 FONT color:black h:10pt
ATTRBOX "probe_overview_ref"
                               x:0.7cm y:0cm
                                                     w:l h:t
 IF (sp = "English")
   ATTR "probe overview ref"
                                 x:(textx1) y:0cm w:(textw) h:c:(texth)
 ELSE
   ATTR "probe overview ref deu" x:(textx1) y:0cm w:(textw) h:c:(texth)
 ENDIF
 SET y: (texty1)
 ATTRBOX "probe overview status" x:(textx2 + 0.3cm) y:(texty2) w:l h:t
  IF (copy (state,0,12) "[acoexpar-04")
   ATTR "probe_overview_status" x:(textx1) y:0cm w:(textw) h:c:(texth)
 ELSE
   TEXT "[acoexpar-04] There are broken references in the performance indicator
overview." x:(textx1) y:0cm w:(textw) h:c:(texth)
 ENDIF
 ATTRBOX "probe_overview_score" x:(textx2 + 0.3cm) y:(texty2) w:l h:t
  IF (copy (score,0,12) "[acoexpar-04")
   ATTR "probe overview score"
                                 x:(textx1) y:0cm w:(textw) h:c:(texth)
 ENDIF
```

1.1.16 Class "Performance indicator"

```
GRAPHREP
AVAL grad: "Font size"
AVAL typ: "Font style"
AVAL istwert:"Entry_IST-Wert"
AVAL me:"Unit"
AVAL strState: "Entry Status"
AVAL score:"Scorevalue"
AVAL sp:"Language"
AVAL k:"Periodicity"
AVAL set-default: ("0") vist: "Display current value"
AVAL set-default: ("0") vs: "Display periodicity"
AVAL set-default: ("0") vscore: "Display score"
AVAL set-default: ("0") visstat: "Display status"
IF (typ = "Standard")
 FONT h:(PT grad)
ELSIF (typ = "Italic")
 FONT h:(PT grad) italic
ELSIF (typ = "Bold")
 FONT h: (PT grad) bold
ELSIF (typ = "Underlined")
 FONT h: (PT grad) underline
ELSIF (typ = "Bold italic")
 FONT h: (PT grad) bold italic
ELSIF (typ = "Bold underlined")
 FONT h: (PT grad) bold underline
ENDIF
IF (VAL visstat 1)
 SET strState:""
ENDIF
IF (sp = "English")
 ATTR "Name" x:0cm y:t:.9cm w:c:2cm h:t
  ATTRBOX "Name" x:0cm y:t:.9cm w:c:2cm h:t
ELSE
  ATTR "Bezeichnung" x:0cm y:t:.9cm w:c:2cm h:t
 ATTRBOX "Bezeichnung" x:0cm y:t:.9cm w:c:2cm h:t
ENDIF
FILL color:dodgerblue
ELLIPSE rx:.7cm ry:.7cm
SHADOW off
FILL color:white
ELLIPSE rx:.5cm ry:.5cm
FILL color:yellow
ELLIPSE rx:.3cm ry:.3cm
SHADOW off
IF (VAL vist = 1)
  FONT h:10pt
  AVAL istwert: "Entry IST-Wert"
 ATTRBOX "Entry IST-Wert" text: (istwert) x: (-0.05cm) y: (texty2+0.1cm) w:c h:t
 ATTR "Entry_IST-Wert" text:(istwert) x:(textx1) y:(texty1) w:l h:t
ENDIF
       "")
TF (me
 ATTRBOX "Unit" x:(-.15cm) y:(texty2+0.1cm) w:c h:t
 ATTR "Unit" text:("["+me+"]") x:(textx1) y:(texty1) w:l h:t
ENDIF
IF (VAL vs = 1)
 FONT h:10pt
  IF (k = "Year")
```

```
TEXT "Y"
 x:-0.75cm y:-1.1cm
  ELSIF (k = "Half-year")
 TEXT "HY"
 x:-0.75cm y:-1.1cm
ELSIF (k = "Quarter")
 TEXT "Q"
 x:-0.75cm y:-1.1cm
  ELSIF (k = "Month")
 TEXT "M"
 x:-0.75cm y:-1.1cm
 ELSIF (k = "Week")
 TEXT "W"
 x:-0.75cm y:-1.1cm
 ELSIF (k = "Day")
 TEXT "D"
 x:-0.75cm y:-1.1cm
 ENDIF
ENDIF
IF (VAL vscore =1)
 FONT h:10pt
TEXT (score) x:0.55cm y:-1.1cm
ENDIF
IF ( strState "" )
 IF ( strState = "Red" )
   FILL color:red
 ELSIF ( strState = "Green" )
FILL color:lime
  ELSIF ( strState = "Yellow" )
   FILL color:yellow
ELSE
   FILL color:lightgray
 ENDIF
 ELLIPSE x:0.85cm y:.55cm rx:0.15cm ry:0.15cm
ENDIF
```

1.1.17 Class "Document"

```
GRAPHREP
FILL color:white
COMPOUND 2
LINE x1:1cm y1:-.5cm x2:-1cm y2:-.5cm
CURVE "t" f:(t) g:(-.2*sin(3.14*(t+2))+1.2) from:-1 to:1
AVAL set-default:"English" sp:"Language"
AVAL set-default:"" a:"Referenced document"
AVAL col:"fontcolor"
SET s:(search(a,"@",0) + 1)
SET e: (LEN a)
IF (search(a, "Winword", 0) >= 0)
   PEN w:0.06cm
  FILL r:0 g:255 b:255
  POLYGON 21
x1:-.17cm y1:.23cm
x2:-.17cm y2:.26cm
x3:-.14cm y3:.29cm
x4:-.14cm y4:.59cm
x5:-.05cm y5:.59cm
```

x6:.04cm y6:.41cm x7:.04cm y7:.59cm x8:.14cm y8:.59cm x9:.3cm y9:.29cm x10:.34cm y10:.26cm x11:.34cm y11:.23cm x12:.18cm y12:.23cm x13:.1cm y13:.26cm x14:.22cm y14:.29cm x15:.13cm y15:.47cm x16:.13cm y16:.23cm x17:.07cm y17:.23cm x18:-.05cm y18:.47cm x19:-.05cm y19:.29cm x20:-.02cm y20:.26cm x21:-.02cm y21:.23cm IF (search(a,".doc",0) >=0 OR search(a,".DOC",0) >=0 OR search(a,".rtf",0) >=0 OR search(a,".RTF",0) >=0 OR search(a,".txt",0) >=0 OR search(a,".TXT",0) >=0) PEN style:solid FILL color:white POLYGON 5 x1:.4cm y1:.23cm x2:.4cm y2:.53cm x3:.62cm y3:.53cm x4:.62cm y4:.32cm x5:.5cm y5:.23cm POLYGON 3 x1:.62cm y1:.32cm x2:.5cm y2:.23cm x3:.5cm y3:.32cm LINE x1:.45cm y1:.36cm x2:.55cm y2:.36cm LINE x1:.45cm y1:.42cm x2:.55cm y2:.42cm LINE x1:.45cm y1:.48cm x2:.55cm y2:.48cm ENDIF ELSIF (search(a, "Powerpnt", 0) >= 0) PEN w:.06cm r:132 g:132 b:132 FILL r:132 g:132 b:132 RECTANGLE x:-.06cm y:.27cm w:.41cm h:.33cm PEN w:.06cm color:black FILL color:white RECTANGLE x:-.17cm y:.21cm w:.45cm h:.36cm PEN w:.06cm r:132 g:132 b:132 POLYLINE 3 x1:-.17cm y1:.57cm x2:-.17cm y2:.21cm x3:.28cm y3:.21cm PEN w:.05cm r:132 g:132 b:132 FILL r:0 g:255 b:255 RECTANGLE x:-.11cm y:.27cm w:.33cm h:.24cm PEN style:null FILL color:red PIE x:.05cm y:.39cm rx:0.1cm ry:0.07cm x1:.05cm y1:.32cm x2:.15cm y2:.39cm IF (search(a,".ppt",0) >=0 OR search(a,".PPT",0) >=0) PEN style:solid FILL color:white POLYGON 5 x1:.4cm y1:.23cm x2:.4cm y2:.53cm x3:.62cm y3:.53cm x4:.62cm y4:.32cm x5:.5cm y5:.23cm

```
POLYGON 3
x1:.62cm y1:.32cm
x2:.5cm y2:.23cm
x3:.5cm y3:.32cm
LINE x1:.45cm y1:.36cm x2:.55cm y2:.36cm
      LINE x1:.45cm y1:.42cm x2:.55cm y2:.42cm
      LINE x1:.45cm y1:.48cm x2:.55cm y2:.48cm
ENDIF
ELSIF (search(a, "Excel", 0) >= 0)
  PEN w:0.06cm
  FILL r:0 g:132 b:132
  POLYGON 9
x1:.16cm y1:.23cm
x2:-.17cm y2:.56cm
x3:-.17cm y3:.59cm
x4:.19cm y4:.59cm
x5:.31cm y5:.44cm
x6:.13cm y6:.44cm
x7:.13cm y7:.44cm
x8:.31cm y8:.26cm
x9:.31cm y9:.23cm
FILL r:0 g:255 b:255
   POLYGON 6
x1:-.17cm y1:.23cm
x2:-.17cm y2:.26cm
x3:.16cm y3:.62cm
x4:.34cm y4:.62cm
x5:.34cm y5:.59cm
x6:-.01cm y6:.23cm
   IF (search(a,".xl",0) >= 0 OR search(a,".XL",0) >=0)
      PEN style:solid
     FILL color:white
     POLYGON 5
x1:.4cm y1:.23cm
x2:.4cm y2:.53cm
x3:.62cm y3:.53cm
x4:.62cm y4:.32cm
x5:.5cm y5:.23cm
     POLYGON 3
x1:.62cm y1:.32cm
x2:.5cm y2:.23cm
x3:.5cm y3:.32cm
      LINE x1:.45cm y1:.36cm x2:.55cm y2:.36cm
      LINE x1:.45cm y1:.42cm x2:.55cm y2:.42cm
      LINE x1:.45cm y1:.48cm x2:.55cm y2:.48cm
   ENDIF
ENDIF
IF (a = "@")
FONT color: (col)
 IF (sp = "English")
   ATTR "Name" y:1.6cm w:c:2.8cm h:t
 ELSE
   ATTR "Bezeichnung" y:1.6cm w:c:2.8cm h:t
ENDIF
ELSE
  IF (sp = "English")
   ATTR "Name" y:1.6cm w:c:2.8cm h:t
   ATTRBOX "Name" y:1.6cm w:c:2.8cm h:t
   FONT "Arial" h:8pt bold color:(col)
   ATTR "Referenced document" text:(copy (a, s, e)) y:(texty2 + .1cm) w:c:2.8cm
h:t
```

```
ELSE

ATTR "Bezeichnung" y:1.6cm w:c:2.8cm h:t

ATTRBOX "Bezeichnung" y:1.6cm w:c:2.8cm h:t

FONT "Arial" h:8pt bold color:(col)

ATTR "Referenced document" text:(copy (a, s, e)) y:(texty2 + .1cm) w:c:2.8cm

h:t

ENDIF

ENDIF
```

1.1.18 Class "Note"

```
GRAPHREP layer:0 sizing:asymmetrical
AVAL set-default:"" a:"External graphic"
AVAL sp:"Language"
AVAL set-default: "No" autoB: "Calculate size of graphic automatically"
AVAL set-default: "lemonchiffon" f: "Color"
SET found: (search(a, "\"", 0))
IF (found \geq = 0)
 IF (found = (LEN a - 1))
SET s:(search(a,"@",0) + 1)
   SET e:((LEN a) - 1)
 ELSE
   SET s: ((found) + 1)
   SET foundend: (search(a, "\"", s))
   IF (foundend \geq = 0)
     SET e: ((LEN a) - 1)
   ELSE
     SET e:(LEN a)
ENDIF
 ENDIF
ELSE
 SET e:(LEN a)
 SET s:(search(a,"@",0) + 1)
ENDIF
SET grfk:(copy (a, s, e - s))
SET s:((LEN grfk) - 4)
SET e:((LEN grfk))
SET ext:(copy (grfk, s, e))
# -- build obj --
IF (autoB = "No")
 IF ((ext = ".bmp") OR (ext = ".BMP") OR (ext = ".bmP") OR (ext = ".bMp") OR (ext
= ".Bmp") OR (ext = ".bMP") OR (ext = ".BMp") OR (ext = ".BmP"))
   BITMAP (grfk) w:1cm h:1cm
 ELSE
   PEN color:darkgray outline
   FILL color:(rgbval (f))
   RECTANGLE w:4.5cm h:4.5cm
TABLE w:4.5cm h:4.5cm cols:3 rows:3
   w1:.15cm w2:100% w3:.15cm
h1:.15cm h2:100% h3:.15cm
   STRETCH off
   AVAL grad: "Font size"
AVAL typ:"Font style"
   IF (typ = "Standard")
     FONT h:(PT grad)
   ELSIF (typ = "Italic")
```

```
FONT h:(PT grad) italic
ELSIF (typ = "Bold")
     FONT h:(PT grad) bold
   ELSIF (typ = "Underline")
     FONT h: (PT grad) underline
   ELSIF (typ = "Bold Italic")
     FONT h:(PT grad) bold italic
   ELSIF (typ = "Bold Underline")
     FONT h: (PT grad) bold underline
   ENDIF
   IF (sp="English")
     ATTR "Text" x:(tabx1) y:(taby1) w:(tabw2) h:(tabh2)
ELSE
     ATTR "Notiz" x: (tabx1) y: (taby1) w: (tabw2) h: (tabh2)
ENDIF
 ENDIF
ELSIF (autoB = "Yes")
  SET d:4.5cm # default width and height
  PEN color:white
 FILL style:null
 SHADOW off
 RECTANGLE w:(d) h:(d) # a border marking the object's size
 SHADOW on
 IF ((ext = ".bmp") OR (ext = ".BMP") OR (ext = ".bmP") OR (ext = ".bMp") OR (ext
= ".Bmp") OR (ext = ".bMP") OR (ext = ".BMp") OR (ext = ".BmP"))
   TABLE w:(d) h:(d) rows:1 cols:1 w1:100% h1:100% # get the current size of the
object
   BITMAPINFO (grfk) # get the bitmap size
   STRETCH off
IF (bmpwidth / CMS tabw1 < bmpheight / CMS tabh1)
# use maximum height, space left and right
     SET w:(tabh1 * (bmpwidth / bmpheight))
     BITMAP (grfk) x:((tabw1 - w) / 2) y:0cm w:(w) h:(tabh1)
   ELSE
# use maximum width, space at top and bottom
     SET h:(tabw1 * (bmpheight / bmpwidth))
     BITMAP (grfk) x:0cm y:((tabh1 - h) / 2) w:(tabw1) h:(h)
ENDIF
 ELSE
   PEN color:darkgray outline
   FILL color:(rgbval (f))
   RECTANGLE w: (d) h: (d)
   TABLE w:(d) h:(d) cols:3 rows:3
w1:.15cm w2:100% w3:.15cm
   h1:.15cm h2:100% h3:.15cm
   STRETCH off
   AVAL grad: "Font size"
   AVAL typ: "Font style"
   IF (typ = "Standard")
     FONT h:(PT grad)
   ELSIF (typ = "Italic")
FONT h:(PT grad) italic
   ELSIF (typ = "Bold")
     FONT h: (PT grad) bold
   ELSIF (typ = "Underline")
     FONT h: (PT grad) underline
ELSIF (typ = "Bold Italic")
     FONT h: (PT grad) bold italic
   ELSIF (typ = "Bold Underline")
     FONT h: (PT grad) bold underline
```

```
ENDIF
    IF (sp="English")
    ATTR "Text" x:(tabx1) y:(taby1) w:(tabw2) h:(tabh2)
    ELSE
    ATTR "Notiz" x:(tabx1) y:(taby1) w:(tabw2) h:(tabh2)
    ENDIF
    ENDIF
ENDIF
```

1.1.19 Class "Aggregation"

```
GRAPHREP layer:-1 sizing:asymmetrical
AVAL sp:"Language"
AVAL set-default: "lightgray" f: "Color"
AVAL s:"Lines"
SHADOW off
IF (s = "Dots")
 PEN style:dot
ELSIF (s = "Lines")
 PEN style:dash
ELSIF (s = "Dots/Lines")
 PEN style:dashdot
ELSIF (s = "Bold")
 PEN w:0.05cm
ELSIF (s = "None")
 PEN style:null
ENDIF
FILL color:(rgbval (f))
RECTANGLE x:0.0cm y:0.0cm w:6.0cm h:9.0cm
TABLE x:0.0cm y:0.0cm w:6.0cm h:9.0cm
      rows:3 cols:3
      w1:0.15cm w2:100% w3:.15cm
     h1:.1cm h2:100% h3:.1cm
STRETCH off
FONT h:10pt
AVAL d: "Representation"
AVAL n:"Display name"
IF (d = "inside")
 AVAL col: "Fontcolor"
ELSE
AVAL col:"fontcolor"
ENDIF
IF (n = "Yes")
 AVAL grad: "Font size"
  AVAL typ: "Font style"
  IF (typ = "Standard")
    FONT h: (PT grad)
  ELSIF (typ = "Italic")
    FONT h:(PT grad) italic
  ELSIF (typ = "Bold")
    FONT h: (PT grad) bold
  ELSIF (typ = "Underline")
FONT h: (PT grad) underline
  ELSIF (typ = "Bold Italic")
    FONT h: (PT grad) bold italic
  ELSIF (typ = "Bold Underline")
    FONT h: (PT grad) bold underline
```

```
ENDIF
 IF (d = "inside")
     IF (sp = "English")
       ATTR "Name" x:(tabx1) y:(taby1) w:(tabw2) h:(tabh2)
ELSE
       ATTR "Bezeichnung" x:(tabx1) y:(taby1) w:(tabw2) h:(tabh2)
ENDIF
  ELSE
      IF (sp = "English")
       ATTR "Name" x:(tabx1) y:-.05cm w:(tabw2) h:b
      ELSE
       ATTR "Bezeichnung" x:(tabx1) y:-.05cm w:(tabw2) h:b
     ENDIF
  ENDIF
ENDIF
F
```

1.1.20 Class "Swimlane (horizontal)"

```
GRAPHREP swimlane:horizontal
SHADOW off
AVAL o: "Working environment"
PEN style:null
AVAL set-default:"$ffffff" c:"Color"
AVAL cl: "Fontcolor"
AVAL or: "Alignment"
AVAL w:"Display water marks"
AVAL sp:"Language"
FILL color:(rgbval (c))
PEN color:black
RECTANGLE w:6cm h:4cm
TABLE rows:3 cols:2 w:6cm h:4cm w1:4cm w2:100% h1:0.1cm h2:100% h3:0.1cm
STRETCH off
FONT color: (cl) h:14pt bold
IF (o="")
 IF (sp = "English")
   IF (or = "center")
ATTR "Name" x:(tabx0 + (tabw1 / 2)) y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2)
line-break:rigorous
   ELSIF (or = "top")
     ATTR "Name" x:(tabx0 + (tabw1 / 2)) y:(taby1) w:c:(tabw1) h:t:(tabh2) line-
break:rigorous
   ELSE
     ATTR "Name" x:(tabx0 + (tabw1 / 2)) y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
   ENDIF
    IF (w="yes")
      IF ((tabw1 + tabw2) > 30cm)
       SET cl:$b5b5b5
FONT color: (cl) h:14pt bold
       IF (or = "center")
         ATTR "Name" x:19.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2)
line-break:rigorous
        ELSIF (or = "top")
                "Name" x:19.0cm
                                    y:(taby1)
                                                w:c:(tabw1) h:t:(tabh2)
         ATTR
                                                                            line-
break:rigorous
ELSE
```

"Name" x:19.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-ATTR break:rigorous ENDIF ENDIF IF ((tabw1 + tabw2) > 50cm)IF (or = "center") ATTR "Name" x:38.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2) line-break:rigorous ELSIF (or = "top") ATTR "Name" x:38.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) linebreak:rigorous ELSE ATTR "Name" x:38.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) linebreak:rigorous ENDIF ENDIF IF ((tabw1 + tabw2) > 70cm)IF (or = "center") ATTR "Name" x:57.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2) line-break:rigorous ELSIF (or = "top") ATTR "Name" x:57.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous ELSE "Name" x:57.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-ATTR break:rigorous ENDIF ENDIF IF ((tabw1 + tabw2) > 90cm) IF (or = "center") ATTR "Name" x:76.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2) line-break:rigorous ELSIF (or = "top") ATTR "Name" x:76.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) linebreak:rigorous ELSE ATTR "Name" x:76.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) linebreak:rigorous ENDIF ENDIF IF ((tabw1 + tabw2) > 110cm)IF (or = "center") ATTR "Name" x:95.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2) line-break:rigorous ELSIF (or = "top") ATTR "Name" x:95.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous ELSE "Name" x:95.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-ATTR break:rigorous ENDIF ENDIF IF ((tabw1 + tabw2) > 130cm) IF (or = "center") ATTR "Name" x:114.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2) line-break:rigorous ELSIF (or = "top") ATTR "Name" x:114.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) linebreak:rigorous ELSE ATTR "Name" x:114.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) linebreak:rigorous ENDIF

```
ENDIF
     IF ((tabw1 + tabw2) > 150 \text{ cm})
       IF (or = "center")
        ATTR "Name" x:133.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2)
line-break:rigorous
      ELSIF (or = "top")
ATTR "Name" x:133.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
ELSE
        ATTR "Name" x:133.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
      ENDIF
     ENDIF
     IF ((tabw1 + tabw2) > 170cm)
       IF (or = "center")
        ATTR "Name" x:152.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2)
line-break:rigorous
ELSIF (or = "top")
         ATTR "Name"
                       x:152.0cm
                                   y:(taby1) w:c:(tabw1)
                                                           h:t:(tabh2)
                                                                          line-
break:rigorous
       ELSE
        ATTR "Name" x:152.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
ENDIF
     ENDIF
     IF ((tabw1 + tabw2) > 190cm)
       IF (or = "center")
        ATTR "Name" x:171.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2)
line-break:rigorous
      ELSIF (or = "top")
ATTR "Name" x:171.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
ELSE
        ATTR
                "Name" x:171.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
      ENDIF
     ENDIF
     IF ((tabw1 + tabw2) > 210cm)
       IF (or = "center")
        ATTR "Name" x:190.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2)
line-break:rigorous
ELSIF (or = "top")
        ATTR "Name"
                       x:190.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2)
                                                                         line-
break:rigorous
       ELSE
        ATTR
                "Name" x:190.0cm
                                   y:(taby2) w:c:(tabw1)
                                                           h:b:(tabh2)
                                                                         line-
break:rigorous
ENDIF
     ENDIF
     IF ((tabw1 + tabw2) > 230cm)
       IF (or = "center")
        ATTR "Name" x:209.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2)
line-break:rigorous
      ELSIF (or = "top")
ATTR "Name" x:209.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
ELSE
              "Name" x:209.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
        ATTR
break:rigorous
      ENDIF
     ENDIF
   ENDIF
 ELSE
IF (or = "center")
```

```
ATTR "Bezeichnung" x:(tabx0 + (tabw1 / 2)) y:(taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
   ELSIF (or = "top")
     ATTR "Bezeichnung" x:(tabx0 + (tabw1 / 2)) y:(taby1) w:c:(tabw1) h:t:(tabh2)
line-break:rigorous
   ELSE
     ATTR "Bezeichnung" x:(tabx0 + (tabw1 / 2)) y:(taby2) w:c:(tabw1) h:b:(tabh2)
line-break:rigorous
ENDIF
   IF (w="yes")
     IF ((tabw1 + tabw2) > 30cm)
       SET cl:$b5b5b5
       FONT color: (cl) h:14pt bold
       IF (or = "center")
         ATTR "Bezeichnung" x:19.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1)
h:c:(tabh2) line-break:rigorous
       ELSIF (or = "top")
ATTR "Bezeichnung" x:19.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
       ELSE
         ATTR "Bezeichnung" x:19.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabw1 + tabw2) > 50cm)
       IF (or = "center")
ATTR "Bezeichnung" x:38.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1) h:c:(tabh2) line-
break:rigorous
       ELSIF (or = "top")
         ATTR "Bezeichnung" x:38.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-
break:rigorous
ELSE
         ATTR "Bezeichnung" x:38.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
       ENDIF
     ENDIF
     IF ((tabw1 + tabw2) > 70cm)
       IF (or = "center")
         ATTR "Bezeichnung" x:57.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1)
h:c:(tabh2) line-break:rigorous
ELSIF (or = "top")
        ATTR "Bezeichnung" x:57.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-
break:rigorous
       ELSE
         ATTR "Bezeichnung" x:57.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
ENDIF
     ENDIF
     IF ((tabw1 + tabw2) > 90cm)
       IF (or = "center")
        ATTR "Bezeichnung" x:76.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1)
h:c:(tabh2) line-break:rigorous
      ELSIF (or = "top")
ATTR "Bezeichnung" x:76.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
       ELSE
         ATTR "Bezeichnung" x:76.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabw1 + tabw2) > 110cm)
       IF (or = "center")
```

```
ATTR "Bezeichnung" x:95.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1)
h:c:(tabh2) line-break:rigorous
       ELSIF (or = "top")
ATTR "Bezeichnung" x:95.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
       ELSE
        ATTR "Bezeichnung" x:95.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabw1 + tabw2) > 130cm)
       IF (or = "center")
         ATTR "Bezeichnung" x:114.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1)
h:c:(tabh2) line-break:rigorous
       ELSIF (or = "top")
ATTR "Bezeichnung" x:114.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
       ELSE
         ATTR "Bezeichnung" x:114.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabw1 + tabw2) > 150cm)
       IF (or = "center")
        ATTR "Bezeichnung" x:133.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1)
h:c:(tabh2) line-break:rigorous
       ELSIF (or = "top")
ATTR "Bezeichnung" x:133.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
       ELSE
         ATTR "Bezeichnung" x:133.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabw1 + tabw2) > 170cm)
       IF (or = "center")
        ATTR "Bezeichnung" x:152.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1)
h:c:(tabh2) line-break:rigorous
       ELSIF (or = "top")
ATTR "Bezeichnung" x:152.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
       ELSE
        ATTR "Bezeichnung" x:152.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabw1 + tabw2) > 190 cm)
       IF (or = "center")
        ATTR "Bezeichnung" x:171.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1)
h:c:(tabh2) line-break:rigorous
       ELSIF (or = "top")
ATTR "Bezeichnung" x:171.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
       ELSE
        ATTR "Bezeichnung" x:171.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabw1 + tabw2) > 210cm)
       IF (or = "center")
        ATTR "Bezeichnung" x:190.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1)
h:c:(tabh2) line-break:rigorous
       ELSIF (or = "top")
ATTR "Bezeichnung" x:190.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
       ELSE
```

```
ATTR "Bezeichnung" x:190.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabw1 + tabw2) > 230cm)
       IF (or = "center")
         ATTR "Bezeichnung" x:209.0cm y:(taby1 + (tabh2 / 2)) w:c:(tabw1)
h:c:(tabh2) line-break:rigorous
       ELSIF (or = "top")
ATTR "Bezeichnung" x:209.0cm y:(taby1) w:c:(tabw1) h:t:(tabh2) line-break:rigorous
       ELSE
         ATTR "Bezeichnung" x:209.0cm y:(taby2) w:c:(tabw1) h:b:(tabh2) line-
break:rigorous
       ENDIF
ENDIF
  ENDIF
 ENDIF
ELSE
  IF (or = "center")
   ATTR "Working environment" format: "%o" x:(tabx0 + (tabw1 / 2)) y:(taby1 +
(tabh2 / 2)) w:c:(tabw1) h:c:(tabh2) line-break:rigorous
  ELSIF (or = "top")
ATTR "Working environment" format: "%o" x:(tabx0 + (tabw1 / 2)) y:(taby1)
w:c:(tabw1) h:t:(tabh2) line-break:rigorous
 ELSE
   ATTR "Working environment" format: "%o" x:(tabx0 + (tabw1 / 2)) y:(taby2)
w:c:(tabw1) h:b:(tabh2) line-break:rigorous
 ENDIF
 IF (w="yes")
   IF ((tabw1 + tabw2) > 30cm)
     SET cl:$b5b5b5
     FONT color: (cl) h:14pt bold
     IF (or = "center")
       ATTR "Working environment" format: "%o" x:19.0cm y: (taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
     ELSIF (or = "top")
       ATTR "Working environment" format: "%o" x:19.0cm y:(taby1) w:c:(tabw1)
h:t:(tabh2) line-break:rigorous
     ELSE
       ATTR "Working environment" format: "%o" x:19.0cm y:(taby2) w:c:(tabw1)
h:b:(tabh2) line-break:rigorous
ENDIF
   ENDIF
   IF ((tabw1 + tabw2) > 50cm)
     IF (or = "center")
       ATTR "Working environment" format: "%o" x:38.0cm y: (taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
     ELSIF (or = "top")
       ATTR "Working environment" format: "%o" x:38.0cm y:(taby1) w:c:(tabw1)
h:t:(tabh2) line-break:rigorous
     ELSE
       ATTR "Working environment" format: "%o" x:38.0cm y:(taby2) w:c:(tabw1)
h:b:(tabh2) line-break:rigorous
     ENDIF
   ENDIF
   IF ((tabw1 + tabw2) > 70cm)
     IF (or = "center")
       ATTR "Working environment" format: "%o" x:57.0cm y: (taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
     ELSIF (or = "top")
```

```
ATTR "Working environment" format: "%o" x:57.0cm y:(taby1) w:c:(tabw1)
h:t:(tabh2) line-break:rigorous
     ELSE
       ATTR "Working environment" format: "%o" x:57.0cm y: (taby2) w:c: (tabw1)
h:b:(tabh2) line-break:rigorous
ENDIF
   ENDIF
   IF ((tabw1 + tabw2) > 90cm)
      IF (or = "center")
       ATTR "Working environment" format: "%o" x:76.0cm y: (taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
     ELSIF (or = "top")
       ATTR "Working environment" format: "%o" x:76.0cm y: (taby1) w:c: (tabw1)
h:t:(tabh2) line-break:rigorous
     ELSE
       ATTR "Working environment" format: "%o" x:76.0cm y: (taby2) w:c: (tabw1)
h:b:(tabh2) line-break:rigorous
     ENDIF
   ENDIF
   IF ((tabw1 + tabw2) > 110cm)
      IF (or = "center")
       ATTR "Working environment" format: "%o" x:95.0cm y: (taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
     ELSIF (or = "top")
       ATTR "Working environment" format: "%o" x:95.0cm y:(taby1) w:c:(tabw1)
h:t:(tabh2) line-break:rigorous
     ELSE
       ATTR "Working environment" format: "%o" x:95.0cm y: (taby2) w:c: (tabw1)
h:b:(tabh2) line-break:rigorous
ENDIF
   ENDIF
   IF ((tabw1 + tabw2) > 130cm)
      IF (or = "center")
       ATTR "Working environment" format: "%o" x:114.0cm y: (taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
     ELSIF (or = "top")
       ATTR "Working environment" format:"%o" x:114.0cm y:(taby1) w:c:(tabw1)
h:t:(tabh2) line-break:rigorous
     ELSE
       ATTR "Working environment" format:"%o" x:114.0cm y:(taby2) w:c:(tabw1)
h:b:(tabh2) line-break:rigorous
     ENDIF
   ENDIF
   IF ((tabw1 + tabw2) > 150cm)
     IF (or = "center")
       ATTR "Working environment" format: "%o" x:133.0cm y: (taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
     ELSIF (or = "top")
       ATTR "Working environment" format:"%o" x:133.0cm y:(taby1) w:c:(tabw1)
h:t:(tabh2) line-break:rigorous
     ELSE
       ATTR "Working environment" format:"%o" x:133.0cm y:(taby2) w:c:(tabw1)
h:b:(tabh2) line-break:rigorous
ENDIF
   ENDIF
   IF ((tabw1 + tabw2) > 170cm)
     IF (or = "center")
       ATTR "Working environment" format: "%o" x:152.0cm y: (taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
     ELSIF (or = "top")
```

```
ATTR "Working environment" format:"%o" x:152.0cm y:(taby1) w:c:(tabw1)
h:t:(tabh2) line-break:rigorous
     ELSE
       ATTR "Working environment" format:"%o" x:152.0cm y:(taby2) w:c:(tabw1)
h:b:(tabh2) line-break:rigorous
     ENDIF
   ENDIF
   IF ((tabw1 + tabw2) > 190cm)
     IF (or = "center")
       ATTR "Working environment" format: "%o" x:171.0cm y: (taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
     ELSIF (or = "top")
       ATTR "Working environment" format: "%o" x:171.0cm y: (taby1) w:c: (tabw1)
h:t:(tabh2) line-break:rigorous
     ELSE
       ATTR "Working environment" format:"%o" x:171.0cm y:(taby2) w:c:(tabw1)
h:b:(tabh2) line-break:rigorous
ENDIF
   ENDIF
   IF ((tabw1 + tabw2) > 210cm)
     IF (or = "center")
       ATTR "Working environment" format: "%o" x:190.0cm y: (taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
     ELSIF (or = "top")
       ATTR "Working environment" format:"%o" x:190.0cm y:(taby1) w:c:(tabw1)
h:t:(tabh2) line-break:rigorous
     ELSE
       ATTR "Working environment" format:"%o" x:190.0cm y:(taby2) w:c:(tabw1)
h:b:(tabh2) line-break:rigorous
     ENDIF
   ENDIF
   IF ((tabw1 + tabw2) > 230cm)
     IF (or = "center")
       ATTR "Working environment" format: "%o" x:209.0cm y: (taby1 + (tabh2 / 2))
w:c:(tabw1) h:c:(tabh2) line-break:rigorous
     ELSIF (or = "top")
       ATTR "Working environment" format:"%o" x:209.0cm y:(taby1) w:c:(tabw1)
h:t:(tabh2) line-break:rigorous
     ELSE
       ATTR "Working environment" format:"%o" x:209.0cm y:(taby2) w:c:(tabw1)
h:b:(tabh2) line-break:rigorous
ENDIF
   ENDIF
 ENDIF
ENDIF
LINE x1:(tabx1) y1:(taby0) x2:(tabx1) y2:(taby3)
```

1.1.21 Class "Swimlane (vertical)"

```
GRAPHREP swimlane:vertical
SHADOW off
AVAL o:"Organizational unit"
PEN style:null
AVAL set-default:"$ffffff" c:"Color"
AVAL cl:"Fontcolor"
AVAL or:"Alignment"
AVAL w:"Display water marks"
```
```
AVAL sp:"Language"
FILL color:(rgbval (c))
PEN color:black
RECTANGLE w:4cm h:6cm
TABLE rows:2 cols:3 w:4cm h:6cm h1:4cm h2:100% w1:.1cm w2:100% w3:.1cm
STRETCH off
FONT color: (col) h:14pt bold
IF (o="")
IF (sp = "English")
   IF (or = "center")
     ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:(taby0 + tabh1 / 2) w:c:(tabw2)
h:c:(tabh1) line-break:rigorous
   ELSIF (or = "left")
     ATTR "Name" x:(tabx1) y:(taby0 + tabh1 / 2) w:l:(tabw2) h:c:(tabh1) line-
break:rigorous
ELSE
     ATTR "Name" x:(tabx2) y:(taby0 + tabh1 / 2) w:r:(tabw2) h:c:(tabh1) line-
break:rigorous
   ENDIF
   IF (w="yes")
     IF ((tabh1 + tabh2) > 20cm)
        SET cl:$b5b5b5
        FONT color: (cl) h:14pt bold
       IF (or = "center")
         ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:14cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
       ELSIF (or = "left")
         ATTR "Name" x:(tabx1) y:14cm w:1:(tabw2) h:c:(tabh1) line-break:rigorous
        ELSE
         ATTR "Name" x:(tabx2) y:14cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous
       ENDIF
ENDIF
      IF ((tabh1 + tabh2) > 35cm)
       IF (or = "center")
ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:28cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
       ELSIF (or = "left")
         ATTR "Name" x:(tabx1) y:28cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
       ELSE
ATTR "Name" x:(tabx2) y:28cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous
ENDIF
     ENDIF
      IF ((tabh1 + tabh2) > 50cm)
       IF (or = "center")
         ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:42cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
       ELSIF (or = "left")
         ATTR "Name" x:(tabx1) y:42cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
ELSE
         ATTR "Name" x:(tabx2) y:42cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous
       ENDIF
     ENDIF
      IF ((tabh1 + tabh2) > 65cm)
       IF (or = "center")
         ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:56cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
       ELSIF (or = "left")
         ATTR "Name" x: (tabx1) y:56cm w:l: (tabw2) h:c: (tabh1) line-break:rigorous
       ELSE
         ATTR "Name" x:(tabx2) y:56cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous
       ENDIF
```

```
ENDIF
     IF ((tabh1 + tabh2) > 80cm)
       IF (or = "center")
ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:70cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
       ELSIF (or = "left")
         ATTR "Name" x:(tabx1) y:70cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
        ELSE
ATTR "Name" x: (tabx2) y:70cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous
ENDIF
     ENDIF
      IF ((tabh1 + tabh2) > 95cm)
       IF (or = "center")
         ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:84cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
       ELSIF (or = "left")
         ATTR "Name" x:(tabx1) y:84cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
ELSE
         ATTR "Name" x:(tabx2) y:84cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous
       ENDIF
     ENDIF
      IF ((tabh1 + tabh2) > 110cm)
        IF (or = "center")
         ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:98cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
ELSIF (or = "left")
         ATTR "Name" x:(tabx1) y:98cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
        ELSE
         ATTR "Name" x:(tabx2) y:98cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous
ENDIF
     ENDIF
      IF ((tabh1 + tabh2) > 125cm)
       IF (or = "center")
         ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:112cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
       ELSIF (or = "left")
         ATTR "Name" x:(tabx1) y:112cm w:1:(tabw2) h:c:(tabh1) line-break:rigorous
ELSE
         ATTR "Name" x:(tabx2) y:112cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous
       ENDIF
     ENDIF
      IF ((tabh1 + tabh2) > 140cm)
       IF (or = "center")
         ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:126cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
ELSIF (or = "left")
         ATTR "Name" x:(tabx1) y:126cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
        ELSE
         ATTR "Name" x:(tabx2) y:126cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous
ENDIF
     ENDIF
      IF ((tabh1 + tabh2) > 155cm)
       IF (or = "center")
         ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:140cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
       ELSIF (or = "left")
         ATTR "Name" x:(tabx1) y:140cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
ELSE
         ATTR "Name" x:(tabx2) y:140cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous
       ENDIF
     ENDIF
```

```
IF ((tabh1 + tabh2) > 170 \text{ cm})
       IF (or = "center")
         ATTR "Name" x:(tabx1 + (tabw2 / 2)) y:154cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
ELSIF (or = "left")
         ATTR "Name" x:(tabx1) y:154cm w:1:(tabw2) h:c:(tabh1) line-break:rigorous
       ELSE
         ATTR "Name" x:(tabx2) y:154cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous
ENDIF
     ENDIF
   ENDIF
 ELSE
   IF (or = "center")
ATTR "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:(taby0 + tabh1 / 2) w:c:(tabw2)
h:c:(tabh1) line-break:rigorous
   ELSIF (or = "left")
     ATTR "Bezeichnung" x:(tabx1) y:(taby0 + tabh1 / 2) w:l:(tabw2) h:c:(tabh1)
line-break:rigorous
   ELSE
     ATTR "Bezeichnung" x:(tabx2) y:(taby0 + tabh1 / 2) w:r:(tabw2) h:c:(tabh1)
line-break:rigorous
   ENDIF
   IF (w="yes")
     IF ((tabh1 + tabh2) > 20cm)
       SET cl:$b5b5b5
FONT color: (cl) h:14pt bold
       IF (or = "center")
         ATTR "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:14cm w:c:(tabw2) h:c:(tabh1)
line-break:rigorous
       ELSIF (or = "left")
         ATTR "Bezeichnung" x:(tabx1) y:14cm w:l:(tabw2) h:c:(tabh1) line-
break:rigorous
ELSE
         ATTR
              "Bezeichnung" x:(tabx2) y:14cm w:r:(tabw2) h:c:(tabh1)
                                                                            line-
break:rigorous
       ENDIF
     ENDIF
     IF ((tabh1 + tabh2) > 35cm)
       IF (or = "center")
         ATTR "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:28cm w:c:(tabw2) h:c:(tabh1)
line-break:rigorous
ELSIF (or = "left")
         ATTR
               "Bezeichnung" x:(tabx1) y:28cm w:l:(tabw2) h:c:(tabh1)
                                                                            line-
break:rigorous
       ELSE
         ATTR
              "Bezeichnung" x:(tabx2) y:28cm w:r:(tabw2) h:c:(tabh1)
                                                                            line-
break:rigorous
ENDIF
     ENDIF
     IF ((tabh1 + tabh2) > 50cm)
       IF (or = "center")
        ATTR "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:42cm w:c:(tabw2) h:c:(tabh1)
line-break:rigorous
       ELSIF (or = "left")
ATTR "Bezeichnung" x:(tabx1) y:42cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
       ELSE
         ATTR "Bezeichnung" x:(tabx2) y:42cm w:r:(tabw2) h:c:(tabh1) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabh1 + tabh2) > 65cm)
```

```
IF (or = "center")
ATTR "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:56cm w:c:(tabw2) h:c:(tabh1) line-
break:rigorous
       ELSIF (or = "left")
        ATTR "Bezeichnung" x:(tabx1) y:56cm w:l:(tabw2) h:c:(tabh1) line-
break:rigorous
ELSE
        ATTR
              "Bezeichnung" x:(tabx2) y:56cm w:r:(tabw2) h:c:(tabh1) line-
break:rigorous
      ENDIF
     ENDIF
     IF ((tabh1 + tabh2) > 80cm)
       IF (or = "center")
         ATTR "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:70cm w:c:(tabw2) h:c:(tabh1)
line-break:rigorous
ELSIF (or = "left")
         ATTR "Bezeichnung" x:(tabx1) y:70cm w:l:(tabw2) h:c:(tabh1) line-
break:rigorous
       ELSE
              "Bezeichnung" x:(tabx2) y:70cm w:r:(tabw2) h:c:(tabh1) line-
         ATTR
break:rigorous
ENDIF
     ENDIF
     IF ((tabh1 + tabh2) > 95cm)
       IF (or = "center")
         ATTR "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:84cm w:c:(tabw2) h:c:(tabh1)
line-break:rigorous
       ELSIF (or = "left")
ATTR "Bezeichnung" x:(tabx1) y:84cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
       ELSE
         ATTR "Bezeichnung" x:(tabx2) y:84cm w:r:(tabw2) h:c:(tabh1) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabh1 + tabh2) > 110cm)
       IF (or = "center")
         ATTR "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:98cm w:c:(tabw2) h:c:(tabh1)
line-break:rigorous
       ELSIF (or = "left")
ATTR "Bezeichnung" x:(tabx1) y:98cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
       ELSE
        ATTR
              "Bezeichnung" x:(tabx2) y:98cm w:r:(tabw2) h:c:(tabh1) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabh1 + tabh2) > 125cm)
       IF (or = "center")
        ATTR "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:112cm w:c:(tabw2)
h:c:(tabh1) line-break:rigorous
      ELSIF (or = "left")
ATTR "Bezeichnung" x:(tabx1) y:112cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
       ELSE
         ATTR "Bezeichnung" x:(tabx2) y:112cm w:r:(tabw2) h:c:(tabh1) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabh1 + tabh2) > 140cm)
       IF (or = "center")
        ATTR "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:126cm w:c:(tabw2)
h:c:(tabh1) line-break:rigorous
       ELSIF (or = "left")
```

```
ATTR "Bezeichnung" x:(tabx1) y:126cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
       ELSE
        ATTR "Bezeichnung" x:(tabx2) y:126cm w:r:(tabw2) h:c:(tabh1) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabh1 + tabh2) > 155cm)
       IF (or = "center")
         ATTR "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:140cm w:c:(tabw2)
h:c:(tabh1) line-break:rigorous
       ELSIF (or = "left")
ATTR "Bezeichnung" x:(tabx1) y:140cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
       ELSE
        ATTR "Bezeichnung" x:(tabx2) y:140cm w:r:(tabw2) h:c:(tabh1) line-
break:rigorous
       ENDIF
ENDIF
     IF ((tabh1 + tabh2) > 170cm)
       IF (or = "center")
              "Bezeichnung" x:(tabx1 + (tabw2 / 2)) y:154cm w:c:(tabw2)
        ATTR
h:c:(tabh1) line-break:rigorous
       ELSIF (or = "left")
ATTR "Bezeichnung" x:(tabx1) y:154cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous
       ELSE
        ATTR "Bezeichnung" x:(tabx2) y:154cm w:r:(tabw2) h:c:(tabh1) line-
break:rigorous
       ENDIF
ENDIF
  ENDIF
 ENDIF
ELSE
 IF (or = "center")
   ATTR "Working environment" format: "%o" x: (tabx1 + (tabw2 / 2)) y: (taby0 + tabh1
/ 2) w:c:(tabw2) h:c:(tabh1) line-break:rigorous
 ELSIF (or = "left")
   ATTR "Working environment" format: "%o" x: (tabx1) y: (taby0 + tabh1 / 2)
w:l:(tabw2) h:c:(tabh1) line-break:rigorous
 ELSE
   ATTR "Working environment" format:"%o" x:(tabx2) y:(taby0 + tabh1 / 2)
w:r:(tabw2) h:c:(tabh1) line-break:rigorous
 ENDIF
  IF (w="yes")
   IF ((tabh1 + tabh2) > 20cm)
     SET cl:$b5b5b5
     FONT color: (cl) h:14pt bold
     IF (or = "center")
       ATTR "Working environment" format:"%o" x:(tabx1 + (tabw2 / 2)) y:14cm
w:c:(tabw2) h:c:(tabh1) line-break:rigorous
     ELSIF (or = "left")
       ATTR "Working
                       environment" format:"%o" x:(tabx1) y:14cm w:1:(tabw2)
h:c:(tabh1) line-break:rigorous
     ELSE
       ATTR "Working environment" format: "%o" x:(tabx2) y:14cm w:r:(tabw2)
h:c:(tabh1) line-break:rigorous
     ENDIF
   ENDIF
    IF ((tabh1 + tabh2) > 35cm)
     IF (or = "center")
       ATTR "Working environment" format: "%o" x:(tabx1 + (tabw2 / 2)) y:28cm
w:c:(tabw2) h:c:(tabh1) line-break:rigorous
     ELSIF (or = "left")
```

ATTR "Working environment" format: "%o" x:(tabx1) y:28cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous ELSE ATTR "Working environment" format: "%o" x:(tabx2) y:28cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous ENDIF ENDIF IF ((tabh1 + tabh2) > 50cm)IF (or = "center") ATTR "Working environment" format: "%o" x: (tabx1 + (tabw2 / 2)) y:42cm w:c:(tabw2) h:c:(tabh1) line-break:rigorous ELSIF (or = "left") ATTR "Working environment" format: "%o" x:(tabx1) y:42cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous ELSE ATTR "Working environment" format:"%o" x:(tabx2) y:42cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous ENDIF ENDIF IF ((tabh1 + tabh2) > 65cm)IF (or = "center") ATTR "Working environment" format: "%o" x:(tabx1 + (tabw2 / 2)) y:56cm w:c:(tabw2) h:c:(tabh1) line-break:rigorous ELSIF (or = "left") ATTR "Working environment" format: "%o" x:(tabx1) y:56cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous ELSE ATTR "Working environment" format: "%o" x:(tabx2) y:56cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous ENDIF ENDIF IF ((tabh1 + tabh2) > 80cm)IF (or = "center") ATTR "Working environment" format:"%o" x:(tabx1 + (tabw2 / 2)) y:70cm w:c:(tabw2) h:c:(tabh1) line-break:rigorous ELSIF (or = "left") ATTR "Working environment" format: "%o" x:(tabx1) y:70cm w:l:(tabw2) h:c:(tabh1) line-break:rigorous ELSE ATTR "Working environment" format:"%o" x:(tabx2) y:70cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous ENDIF ENDIF IF ((tabh1 + tabh2) > 95cm)IF (or = "center") ATTR "Working environment" format: "%o" x:(tabx1 + (tabw2 / 2)) y:84cm w:c:(tabw2) h:c:(tabh1) line-break:rigorous ELSIF (or = "left") ATTR "Working environment" format: "%o" x:(tabx1) y:84cm w:1:(tabw2) h:c:(tabh1) line-break:rigorous ELSE ATTR "Working environment" format: "%o" x:(tabx2) y:84cm w:r:(tabw2) h:c:(tabh1) line-break:rigorous ENDIF ENDIF IF ((tabh1 + tabh2) > 110cm)IF (or = "center") ATTR "Working environment" format: "%o" x:(tabx1 + (tabw2 / 2)) y:98cm w:c:(tabw2) h:c:(tabh1) line-break:rigorous ELSIF (or = "left")

```
ATTR "Working environment" format: "%o" x:(tabx1) y:98cm w:l:(tabw2)
h:c:(tabh1) line-break:rigorous
     ELSE
       ATTR "Working environment" format: "%o" x:(tabx2) y:98cm w:r:(tabw2)
h:c:(tabh1) line-break:rigorous
     ENDIF
   ENDIF
   IF ((tabh1 + tabh2) > 125cm)
     IF (or = "center")
       ATTR "Working environment" format:"%o" x:(tabx1 + (tabw2 / 2)) y:112cm
w:c:(tabw2) h:c:(tabh1) line-break:rigorous
     ELSIF (or = "left")
       ATTR "Working environment" format: "%o" x:(tabx1) y:112cm w:1:(tabw2)
h:c:(tabh1) line-break:rigorous
     ELSE
       ATTR "Working environment" format:"%o" x:(tabx2) y:112cm w:r:(tabw2)
h:c:(tabh1) line-break:rigorous
ENDIF
   ENDIF
   IF ((tabh1 + tabh2) > 140cm)
     IF (or = "center")
       ATTR "Working environment" format: "%o" x:(tabx1 + (tabw2 / 2)) y:126cm
w:c:(tabw2) h:c:(tabh1) line-break:rigorous
     ELSIF (or = "left")
       ATTR "Working environment" format:"%o" x:(tabx1) y:126cm w:1:(tabw2)
h:c:(tabh1) line-break:rigorous
     ELSE
       ATTR "Working environment" format: "%o" x:(tabx2) y:126cm w:r:(tabw2)
h:c:(tabh1) line-break:rigorous
     ENDIF
   ENDIF
   IF ((tabh1 + tabh2) > 155cm)
     IF (or = "center")
       ATTR "Working environment" format:"%o" x:(tabx1 + (tabw2 / 2)) y:140cm
w:c:(tabw2) h:c:(tabh1) line-break:rigorous
     ELSIF (or = "left")
       ATTR "Working environment" format: "%o" x: (tabx1) y:140cm w:1: (tabw2)
h:c:(tabh1) line-break:rigorous
     ELSE
       ATTR "Working environment" format:"%o" x:(tabx2) y:140cm w:r:(tabw2)
h:c:(tabh1) line-break:rigorous
ENDIF
   ENDIF
   IF ((tabh1 + tabh2) > 170cm)
     IF (or = "center")
       ATTR "Working environment" format: "%o" x:(tabx1 + (tabw2 / 2)) y:154cm
w:c:(tabw2) h:c:(tabh1) line-break:rigorous
     ELSIF (or = "left")
       ATTR "Working environment" format: "%o" x:(tabx1) y:154cm w:1:(tabw2)
h:c:(tabh1) line-break:rigorous
     ELSE
       ATTR "Working environment" format: "%o" x: (tabx2) y:154cm w:r: (tabw2)
h:c:(tabh1) line-break:rigorous
     ENDIF
   ENDIF
ENDIF
ENDIF
FONT
LINE x1:(tabx0) y1:(taby1) x2:(tabx3) y2:(taby1)
```

1.1.22 Class "Organizational unit"

ADONIS Standard WE Library 3.81:

```
GRAPHREP
AVAL sp:"Language"
AVAL sub: "Model reference"
AVAL col:"fontcolor"
AVAL sn:"Submodelname"
PEN w:0.025cm
FONT color: (col)
FILL color:whitesmoke
RECTANGLE x:-1.2cm y:-.75cm w:2.4cm h:1.5cm
FILL color:black
RECTANGLE x:-1.1cm y:-.65cm w:2.2cm h:0.06cm
IF (sub = "")
  IF (sp = "English")
     ATTR "Name" y:.9cm w:c:2.8cm h:t
   ELSE
     ATTR "Bezeichnung" y:.9cm w:c:2.8cm h:t
ENDIF
ELSE
   IF (sp = "English")
     ATTR "Model reference" format:"%m" y:.9cm w:c:2.8cm h:t
  ELSE
    TEXT (sn) y:.9cm w:c:2.8cm h:t
    TEXTBOX (sn) y:.9cm w:c:2.8cm h:t
    PEN style:null
    FILL style:null
    HOTSPOT "Model reference" text: ("Klicken um zu öffnen:
" + sn) x:(textx1) y:(texty1) w:(textw) h:(texth)
    PEN
    FILL
ENDIF
ENDIF
AVAL i:"Order"
IF (i > "0")
 FONT "Arial" h:10.0pt bold color:black
 ATTR "Order" x:1.1cm y:.6cm w:r:1cm h:b
ENDIF
```

1.1.23 Class "Performer"

```
GRAPHREP
AVAL sp:"Language"
AVAL col:"fontcolor"
PEN w:0.025cm
FILL color:peru
RECTANGLE x:-1.1cm y:-.50cm w:2.2cm h:.15cm
RECTANGLE x:-1.0cm y:-.35cm w:.12cm h:1.0cm
RECTANGLE x:0.88cm y:-.35cm w:.12cm h:1.0cm
RECTANGLE x:.3cm y:-.35cm w:.7cm h:.7cm
SHADOW mode:off
LINE x1:.3cm x2:1.0cm
FILL color:black
RECTANGLE x:.55cm y:-.21cm w:.2cm h:.03cm
RECTANGLE x:.55cm y:0.15cm w:.2cm h:.03cm
```

```
FONT color:(col)
IF (sp = "English")
ATTR "Name" y:.8cm w:c:2.8cm h:t
ELSE
ATTR "Bezeichnung" y:.8cm w:c:2.8cm h:t
ENDIF
```

1.1.24 Class "Role"

ADONIS Standard WE Library 3.81:

```
GRAPHREP
AVAL sp:"Language"
AVAL col:"fontcolor"
FILL color:lightskyblue
ELLIPSE rx:.75cm ry:.65cm
FONT color:(col)
IF (sp = "English")
ATTR "Name" y:.8cm w:c:2.8cm h:t
ELSE
ATTR "Bezeichnung" y:.8cm w:c:2.8cm h:t
ENDIF
FONT "Arial" h:32pt color:black
TEXT "R" y:.1cm w:c h:c
```

1.1.25 Class "Resource"

```
GRAPHREP layer:2
AVAL set-default:"EDP system" rt:"Type of resource"
AVAL sp:"Language"
AVAL col:"fontcolor"
IF (rt = "EDP system")
  FILL color:lightgray
  RECTANGLE x:-.6cm y:-.7cm w:1.2cm h:1.05cm
  RECTANGLE x:-.7cm y:.35cm w:1.4cm h:.35cm
  SHADOW mode:off
FILL color:lightskyblue
  RECTANGLE x:-.45cm y:-.55cm w:.9cm h:.75cm
FILL color:navy
  RECTANGLE x:-.3cm y:-.45cm w:.4cm h:.05cm
  FILL color:white
 RECTANGLE x:-.3cm y:-.4cm w:.4cm h:.2cm
 FILL color:navy
 RECTANGLE x:-.1cm y:-.15cm w: .4cm h:.05cm
  FILL color:white
  RECTANGLE x:-.1cm y:-.1cm w: .4cm h:.2cm
  FILL color:lightgreen
  RECTANGLE x:-.57cm y:.48cm w:.09cm h:.09cm
  FILL color:black
 RECTANGLE x:.15cm y:.48cm w:.45cm h:.03cm
ELSIF (rt = "Communication system")
  FILL color:slategray
  RECTANGLE x:-.275cm y:-.7cm w:.55cm h:1.4cm
  FILL color:black
  RECTANGLE x:.14cm y:-1cm w:.05cm h:.3cm
  SHADOW off
```

```
FILL color:palegreen
 RECTANGLE x:-.225cm y:-.55cm w:.45cm h:.3cm
 FILL color:black
 RECTANGLE x:-.20cm y:-.15cm w:.075cm h:.05cm
 RECTANGLE x:-.05cm y:-.15cm w:.075cm h:.05cm
RECTANGLE x:0.10cm y:-.15cm w:.075cm h:.05cm
 RECTANGLE x:-.20cm y:-.03cm w:.075cm h:.05cm
 RECTANGLE x:-.05cm y:-.03cm w:.075cm h:.05cm
RECTANGLE x:0.10cm y:-.03cm w:.075cm h:.05cm
 RECTANGLE x:-.20cm y:0.09cm w:.075cm h:.05cm
 RECTANGLE x:-.05cm y:0.09cm w:.075cm h:.05cm
RECTANGLE x:0.10cm y:0.09cm w:.075cm h:.05cm
 RECTANGLE x:-.20cm y:0.21cm w:.075cm h:.05cm
 RECTANGLE x:-.05cm y:0.21cm w:.075cm h:.05cm
RECTANGLE x:0.10cm y:0.21cm w:.075cm h:.05cm
 RECTANGLE x:-.05cm y:.55cm w:.1cm h:.03cm
 RECTANGLE x:-.05cm y:-.65cm w:.1cm h:.03cm
ELSE
  FILL color:whitesmoke
  POLYGON 3 x1:-.7cm y1:.6cm x2:-1cm y2:-.2cm x3:.5cm y3:-.4cm
  POLYGON 4 x1:-.9cm y1:-.4cm x2:.7cm y2: -.6cm x3:.9cm y3:.4cm x4:-.7cm y4:.6cm
  FILL color:lightsteelblue
  POLYGON 3 x1:-.72cm y1:.15cm x2:.72cm y2:.15cm y3:-.6cm
 FILL color:whitesmoke
  POLYGON 3 x1:-.35cm x2:.35cm y3:-.35cm
 FILL color:forestgreen
 PEN w:0.025cm
POLYGON 4 x1:-.5cm y1:.4cm x2:.4cm y2:-.5cm x3:.5cm y3:-.4cm x4:-.4cm y4:.5cm
 FILL color:mistyrose
 POLYGON 3 x1:-.5cm y1:.4cm x2:-.4cm y2:.5cm x3:-.65cm y3:.65cm
 FILL color:lightgray
 POLYGON 4 x1:.4cm y1:-.5cm x2:.5cm y2:-.4cm x3:.55cm y3:-.45cm x4:.45cm y4:-.55cm
 FILL color:orangered
  POLYGON 4 x1:.55cm y1:-.45cm x2:.45cm y2:-.55cm x3:.525cm y3:-.625cm x4:.625cm
y4:-.525cm
ENDIF
FONT color: (col)
IF (sp = "English")
  ATTR "Name" y:.8cm w:c:2.8cm h:t
ELSE
  ATTR "Bezeichnung" y:.8cm w:c:2.8cm h:t
ENDIF
```

1.1.26 Class "Cost center"

```
GRAPHREP
AVAL sp:"Language"
AVAL col:"fontcolor"
FILL color:lightseagreen
RECTANGLE x:-lcm y:-.7cm w:2cm h:.4cm
FILL color:gray
RECTANGLE x:-lcm y:-.3cm w:.68cm h:1cm
FILL color:white
RECTANGLE x:-.32cm y:-.3cm w:1.32cm h:1cm
SHADOW mode:off
LINE x1:-lcm y1:-.35cm x2:1cm y2:-.35cm
LINE x1:-lcm y1:-.05cm x2:1cm y2:-.05cm
```

```
LINE x1:-1cm y1:.2cm x2:1cm y2:.2cm
LINE x1:-1cm y1:.45cm x2:1cm y2:.45cm
LINE x1:.12cm y1:-.3cm x2:.12cm y2:.7cm
LINE x1:.56cm y1:-.3cm x2:.56cm y2:.7cm
FONT color: (col)
IF (sp = "English")
ATTR "Name" y:.9cm w:c:2.8cm h:t
ELSE
  ATTR "Bezeichnung" y:.9cm w:c:2.8cm h:t
ENDIF
FONT "Arial" h:9pt bold color:black
IF (sp = "English")
  TEXT "Cost center" y:-.7cm w:c:2cm h:t
ELSE
  TEXT "Kostenstelle" y:-.7cm w:c:2cm h:t
ENDIF
```

1.1.27 Class "Aggregation"

```
GRAPHREP layer:-1 sizing:asymmetrical
AVAL sp:"Language"
AVAL set-default:"lightgray" f:"Color"
AVAL s:"Lines"
SHADOW off
IF (s = "Dots")
 PEN style:dot
ELSIF (s = "Lines")
  PEN style:dash
ELSIF (s = "Dots/Lines")
 PEN style:dashdot
ELSIF (s = "Bold")
 PEN w:0.05cm
ELSIF (s = "None")
 PEN style:null
ENDIF
FILL color:(rgbval (f))
RECTANGLE x:0.0cm y:0.0cm w:6.0cm h:9.0cm
TABLE x:0.0cm y:0.0cm w:6.0cm h:9.0cm
      rows:3 cols:3
      w1:0.15cm w2:100% w3:.15cm
      h1:.1cm h2:100% h3:.1cm
STRETCH off
FONT h:10pt
AVAL d: "Representation"
AVAL n:"Display name"
IF (d = "inside")
  AVAL col: "Fontcolor"
ELSE
AVAL col: "fontcolor"
ENDIF
IF (n = "Yes")
  AVAL grad: "Font size"
  AVAL typ: "Font style"
  IF (typ = "Standard")
   FONT h:(PT grad)
  ELSIF (typ = "Italic")
    FONT h: (PT grad) italic
```

```
ELSIF (typ = "Bold")
   FONT h: (PT grad) bold
 ELSIF (typ = "Underline")
FONT h: (PT grad) underline
 ELSIF (typ = "Bold Italic")
   FONT h: (PT grad) bold italic
  ELSIF (typ = "Bold Underline")
   FONT h: (PT grad) bold underline
 ENDIF
 IF (d = "inside")
     IF (sp = "English")
        ATTR "Name" x:(tabx1) y:(taby1) w:(tabw2) h:(tabh2)
ELSE
       ATTR "Bezeichnung" x:(tabx1) y:(taby1) w:(tabw2) h:(tabh2)
ENDIF
  ELSE
      IF (sp = "English")
       ATTR "Name" x:(tabx1) y:-.05cm w:(tabw2) h:b
      ELSE
       ATTR "Bezeichnung" x:(tabx1) y:-.05cm w:(tabw2) h:b
     ENDIF
   ENDIF
ENDIF
```

1.1.28 Class "Note"

```
GRAPHREP layer:0 sizing:asymmetrical
AVAL set-default:"" a:"External graphic"
AVAL sp:"Language"
AVAL set-default: "No" autoB: "Calculate size of graphic automatically"
AVAL set-default:"lemonchiffon" f:"Color"
SET found:(search(a, "\"", 0))
IF (found \geq = 0)
 IF (found = (LEN a - 1))
SET s:(search(a,"@",0) + 1)
   SET e: ((LEN a) - 1)
 ELSE
   SET s: ((found) + 1)
    SET foundend: (search(a, "\"", s))
   IF (foundend \geq = 0)
     SET e:((LEN a) - 1)
   ELSE
     SET e:(LEN a)
ENDIF
 ENDIF
ELSE
 SET e: (LEN a)
 SET s:(search(a,"@",0) + 1)
ENDIF
SET grfk:(copy (a, s, e - s))
SET s:((LEN grfk) - 4)
SET e:((LEN grfk))
SET ext:(copy (grfk, s, e))
# -- build obj --
# --- --- --- --- --- --- --- --- ---
IF (autoB = "No")
```

```
IF ((ext = ".bmp") OR (ext = ".BMP") OR (ext = ".bmP") OR (ext = ".bMp") OR (ext
= ".Bmp") OR (ext = ".bMP") OR (ext = ".BMp") OR (ext = ".BmP"))
   BITMAP (grfk) w:1cm h:1cm
 ELSE
   PEN color:darkgray outline
   FILL color:(rqbval (f))
   RECTANGLE w:4.5cm h:4.5cm
TABLE w:4.5cm h:4.5cm cols:3 rows:3
   w1:.15cm w2:100% w3:.15cm
h1:.15cm h2:100% h3:.15cm
   STRETCH off
   AVAL grad: "Font size"
AVAL typ: "Font style"
   IF (typ = "Standard")
     FONT h: (PT grad)
   ELSIF (typ = "Italic")
     FONT h:(PT grad) italic
ELSIF (typ = "Bold")
     FONT h: (PT grad) bold
   ELSIF (typ = "Underline")
     FONT h:(PT grad) underline
   ELSIF (typ = "Bold Italic")
     FONT h: (PT grad) bold italic
   ELSIF (typ = "Bold Underline")
     FONT h: (PT grad) bold underline
   ENDIF
   IF (sp="English")
     ATTR "Text" x:(tabx1) y:(taby1) w:(tabw2) h:(tabh2)
ELSE
     ATTR "Notiz" x: (tabx1) y: (taby1) w: (tabw2) h: (tabh2)
ENDIF
 ENDIF
ELSIF (autoB = "Yes")
 SET d:4.5cm # default width and height
 PEN color:white
 FILL style:null
 SHADOW off
 RECTANGLE w:(d) h:(d) # a border marking the object's size
 SHADOW on
 IF ((ext = ".bmp") OR (ext = ".BMP") OR (ext = ".bmP") OR (ext = ".bMp") OR (ext
= ".Bmp") OR (ext = ".bMP") OR (ext = ".BMp") OR (ext = ".BmP"))
   TABLE w:(d) h:(d) rows:1 cols:1 w1:100% h1:100% # get the current size of the
object
   BITMAPINFO (grfk) # get the bitmap size
   STRETCH off
IF (bmpwidth / CMS tabw1 < bmpheight / CMS tabh1)
# use maximum height, space left and right
     SET w:(tabh1 * (bmpwidth / bmpheight))
     BITMAP (grfk) x:((tabw1 - w) / 2) y:0cm w:(w) h:(tabh1)
   ELSE
# use maximum width, space at top and bottom
     SET h:(tabw1 * (bmpheight / bmpwidth))
     BITMAP (grfk) x:0cm y:((tabh1 - h) / 2) w:(tabw1) h:(h)
ENDIF
 ELSE
   PEN color:darkgray outline
   FILL color:(rgbval (f))
   RECTANGLE w:(d) h:(d)
   TABLE w:(d) h:(d) cols:3 rows:3
w1:.15cm w2:100% w3:.15cm
```

```
h1:.15cm h2:100% h3:.15cm
    STRETCH off
    AVAL grad: "Font size"
    AVAL typ: "Font style"
    IF (typ = "Standard")
     FONT h:(PT grad)
    ELSIF (typ = "Italic")
FONT h: (PT grad) italic
    ELSIF (typ = "Bold")
     FONT h: (PT grad) bold
    ELSIF (typ = "Underline")
     FONT h: (PT grad) underline
ELSIF (typ = "Bold Italic")
     FONT h:(PT grad) bold italic
    ELSIF (typ = "Bold Underline")
     FONT h: (PT grad) bold underline
ENDIF
    IF (sp="English")
     ATTR "Text" x: (tabx1) y: (taby1) w: (tabw2) h: (tabh2)
    ELSE
     ATTR "Notiz" x:(tabx1) y:(taby1) w:(tabw2) h:(tabh2)
    ENDIF
  ENDIF
ENDIF
```

1.1.29 Relation "Subsequent"

```
GRAPHREP rounded:0.1cm
PEN w:0.05cm
EDGE
END
LINE x1:-.3cm y1:.1cm x2:0cm y2:0cm
LINE x1:-.3cm y1:-.1cm x2:0cm y2:0cm
MIDDLE
AVAL v:"Visualized values"
AVAL d: "Representation"
AVAL sp:"Language"
AVAL cl: "Font colour"
IF (cl="black")
 FONT color:black
ELSE
 FONT color:white
ENDIF
IF (d = "above/below")
 IF (v = "Denomination" OR v = "Transition probability and denomination" OR v =
"Transition condition and denomination")
    IF (sp = "English")
     ATTR "Denomination" y:.1cm w:c:3cm h:t
    ELSE
     ATTR "Bezeichnung" y:.1cm w:c:3cm h:t
ENDIF
  ENDIF
  IF (v = "Transition condition" OR v = "Transition probability and transition
condition")
    IF (sp = "English")
      ATTR "Transition condition" y:.1cm w:c:3cm h:t
    ELSE
```

```
ATTR "Info zur Übergangsbedingung" y:.1cm w:c:3cm h:t
   ENDIF
 ENDIF
  IF (v = "Transition condition and denomination")
   IF (sp = "English")
ATTR "Transition condition" y:-.05cm w:c:3cm h:b
   ELSE
     ATTR "Info zur Übergangsbedingung" y:-.05cm w:c:3cm h:b
   ENDIF
 ENDIF
 IF (v = "Transition probability" OR v = "Transition probability and transition
condition" OR v = "Transition probability and denomination")
   ATTR "Transition probability" y:-.05cm w:c:3cm h:b
 ENDIF
ENDIF
IF (d = "left/right")
 IF (v = "Denomination" OR v = "Transition probability and denomination" OR v =
"Transition condition und Denomination")
   IF (sp = "English")
     ATTR "Denomination" x:0.15cm w:1:3cm h:c
   ELSE
ATTR "Bezeichnung" x:0.15cm w:l:3cm h:c
   ENDIF
 ENDIF
 IF (v = "Transition condition" OR v = "Transition probability and transition
condition")
   IF (sp = "English")
     ATTR "Transition condition" x:0.15cm w:1:3cm h:c
   ELSE
     ATTR "Info zur Übergangsbedingung" x:0.15cm w:l:3cm h:c
   ENDIF
  ENDIF
  IF (v = "Transition condition and denomination")
   IF (sp = "English")
     ATTR "Transition condition" x:-.10cm w:r:3cm h:c
   ELSE
     ATTR "Info zur Übergangsbedingung" x:-.10cm w:r:3cm h:c
   ENDIF
 ENDIF
 IF (v = "Transition probability" OR v = "Transition probability and transition
condition" OR v = "Transition probability and denomination")
   ATTR "Transition probability" x:-.10cm w:r:3cm h:c
 ENDIF
ENDIF
```

1.1.30 Relation "Sets variable"

```
GRAPHREP rounded:0.1cm

PEN style:dot

EDGE

PEN style:solid

START

LINE x1:0cm y1:.1cm x2:0cm y2:-.1cm

END

LINE x1:-.3cm y1:.1cm x2:0cm y2:0cm

LINE x1:-.3cm y1:-.1cm x2:0cm y2:0cm
```

1.1.31 Relation "Sets"

ADONIS Standard BP Library 3.81:

GRAPHREP rounded:0.1cm
PEN style:dot
EDGE
PEN style:solid
START
LINE x1:0cm y1:.1cm x2:0cm y2:-.1cm
END
FILL color:black
POLYGON 3 x1:-.3cm y1:.1cm x2:0cm y2:0cm x3:-.3cm y3:-.1cm

1.1.32 Relation "uses"

ADONIS Standard BP Library 3.81:

GRAPHREP START FILL color:black ELLIPSE x:-.1cm rx:.1cm ry:.1cm END FILL color:black ELLIPSE x:-.1cm rx:.1cm ry:.1cm

1.1.33 Relation "communicates"

ADONIS Standard BP Library 3.81:

```
GRAPHREP
SHADOW mode:off
PEN w:0.02cm
EDGE
MIDDLE
AVAL sp:"Language"
IF (sp = "English")
   ATTR "Name" y:0.00cm w:c:2.00cm h:b
ELSE
   ATTR "Bezeichnung" y:0.00cm w:c:2.00cm h:b
```

1.1.34 Relation "contains"

```
GRAPHREP
SHADOW mode:off
PEN style:dash w:0.02cm
EDGE
PEN style:solid w:0.02cm
MIDDLE
AVAL sp:"Language"
IF (sp = "English")
ATTR "Name" x:0.00cm y:0.00cm w:c:2.00cm h:b
ELSE
```

```
ATTR "Bezeichnung" x:0.00cm y:0.00cm w:c:2.00cm h:b
ENDIF
AVAL set-default:"small" s:"State"
IF (s = "small")
FONT h:8.0pt
TEXT "includes" x:0.00cm y:0.00cm w:c:2.00cm h:t
ELSE
TEXT "<
```

1.1.35 Relation "extends"

ADONIS Standard BP Library 3.81:

```
GRAPHREP
SHADOW mode:off
PEN w:0.02cm
EDGE
MIDDLE
AVAL sp:"Language"
IF (sp = "English")
 ATTR "Name" x:0.00cm y:0.00cm w:c:2.00cm h:b
ELSE
 ATTR "Bezeichnung" x:0.00cm y:0.00cm w:c:2.00cm h:b
ENDIF
AVAL set-default:"small" s:"State"
IF (s = "small")
 FONT h:8.0pt
  TEXT "extends" x:0.00cm y:0.00cm w:c:2.00cm h:t
ELSE
  TEXT "<
```

1.1.36 Relation "Generalisation"

ADONIS Standard BP Library 3.81:

```
GRAPHREP
SHADOW mode:off
PEN w:0.02cm
EDGE
MIDDLE
AVAL sp:"Language"
IF (sp = "English")
   ATTR "Name" x:0.00cm y:0.00cm w:c:2.00cm h:b
ELSE
   ATTR "Bezeichnung" x:0.00cm y:0.00cm w:c:2.00cm h:b
ENDIF
END
FILL color:white
POLYGON 3 x1:-.4cm y1:.2cm x2:0cm y2:0cm x3:-.4cm y3:-.2cm
```

1.1.37 Relation "Uses (use case)"

```
GRAPHREP
SHADOW mode:off
```

```
PEN style:solid w:0.02cm
EDGE
MIDDLE
AVAL sp:"Language"
IF (sp = "English")
ATTR "Name" x:0.00cm y:0.00cm w:c:2.00cm h:b
ELSE
ATTR "Bezeichnung" x:0.00cm y:0.00cm w:c:2.00cm h:b
ENDIF
AVAL set-default:"small" s:"State"
IF (s = "small")
FONT h:8.0pt
TEXT "uses" x:0.00cm y:0.00cm w:c:2.00cm h:t
ELSE
TEXT "<</pre>
```

1.1.38 Relation "Has process"

ADONIS Standard BP Library 3.81:

```
GRAPHREP
PEN w:0.025cm
EDGE
START
LINE x1:0.00cm y1:-.14cm x2:0.00cm y2:0.14cm
END
LINE x1:-.3cm y1:-.1cm x2:0.00cm y2:0.00cm
LINE x1:-.3cm y1:0.1cm x2:0.00cm y2:0.00cm
```

1.1.39 Relation "has Subdocument"

ADONIS Standard BP Library 3.81:

```
GRAPHREP
SHADOW mode:off
PEN w:0.02cm
EDGE
START
FILL color:white
ELLIPSE x:-0.1cm y:0cm rx:0.1cm ry:0.1cm
END
FILL color:black
POLYGON 3 x1:-0.28cm y1:0.11cm x2:0cm y2:0cm
x3:-0.28cm y3:-0.11cm
```

1.1.40 Relation "Owns"

```
GRAPHREP
SHADOW mode:off
PEN w:0.02cm
EDGE
START
FILL color:dodgerblue
ELLIPSE x:-0.05cm y:0cm rx:0.05cm ry:0.05cm
```

```
END
FILL color:dodgerblue
POLYGON 3 x1:-0.2cm y1:0.11cm x2:0cm y2:0cm
x3:-0.2cm y3:-0.11cm
```

1.1.41 Relation "has Note"

ADONIS Standard BP Library 3.81:

```
GRAPHREP
PEN w:0.02cm color:lightyellow outline style:dot
EDGE
```

1.1.42 Relation "Is subordinated"

ADONIS Standard WE Library 3.81:

```
GRAPHREP rounded:0.1cm
PEN w:0.03cm
EDGE
END
LINE x1:-.3cm y1:.1cm x2:0cm y2:0cm
LINE x1:-.3cm y1:-.1cm x2:0cm y2:0cm
```

1.1.43 Relation "has Resource"

ADONIS Standard WE Library 3.81:

```
GRAPHREP rounded:0.1cm

FILL color:dimgray

START

POLYGON 4 x1:-.16cm y1:-.08cm x2:0cm y2:-.08cm x3:0cm y3:.08cm x4:-.16cm y4:.08cm

END

POLYGON 4 x1:-.16cm y1:-.08cm x2:0cm y2:-.08cm x3:0cm y3:.08cm x4:-.16cm y4:.08cm
```

1.1.44 Relation "Belongs to "

ADONIS Standard WE Library 3.81:

```
GRAPHREP rounded:0.1cm
PEN w:0.03cm
EDGE
FILL color:black
START
ELLIPSE x:-.1cm rx:.1cm ry:.1cm
END
POLYGON 3 x1:-.3cm y1:.1cm x2:0cm y2:0cm x3:-.3cm y3:-.1cm
```

1.1.45 Relation "Is manager"

```
GRAPHREP rounded:0.1cm
PEN w:0.03cm
EDGE
START
LINE x1:0cm y1:-.1cm x2:0cm y2:.1cm
LINE x1:-.1cm y1:-.05cm x2:-.1cm y2:.05cm
END
LINE x1:-.3cm y1:.1cm x2:0cm y2:0cm
LINE x1:-.3cm y1:-.1cm x2:0cm y2:0cm
```

1.1.46 Relation "Has role"

ADONIS Standard WE Library 3.81:

```
GRAPHREP rounded:0.1cm
PEN style:dot
EDGE
PEN style:solid
START
LINE x1:-.18cm y1:-.1cm y2:-.1cm
LINE x1:-.18cm y1:.1cm y2:.1cm
END
LINE x1:-.3cm y1:.1cm x2:0cm y2:0cm
LINE x1:-.3cm y1:-.1cm x2:0cm y2:0cm
```

1.1.47 Relation "Uses resource"

ADONIS Standard WE Library 3.81:

```
GRAPHREP rounded:0.1cm
FILL color:dimgray
START
ELLIPSE x:-.1cm rx:.1cm ry:.1cm
END
ELLIPSE x:-.1cm rx:.1cm ry:.1cm
```

1.1.48 Relation "Is charged to"

```
GRAPHREP rounded:0.1cm

PEN w:.04cm

START

LINE x1:-.15cm x2:0cm

LINE x1:-.075cm y1:-.075cm x2:-.075cm y2:.075cm

PEN w:0.01cm

END

LINE x1:-.2cm y1:.1cm x2:0cm y2:0cm

LINE x1:-.2cm y1:-.1cm x2:0cm y2:0cm

LINE x1:-.2cm x2:0cm
```

1.1.49 Relation "Is cost center manager"

ADONIS Standard WE Library 3.81:

GRAPHREP rounded:0.1cm PEN w:.04cm START LINE x1:-.2cm x2:0cm LINE x1:-.1cm y1:-.075cm x2:-.1cm y2:.075cm LINE y1:-.1cm y2:.1cm PEN w:.01cm END LINE x1:-.2cm y1:.1cm x2:0cm y2:0cm LINE x1:-.2cm y1:-.1cm x2:0cm y2:0cm LINE x1:-.2cm x2:0cm

1.1.50 Relation "has Note"

ADONIS Standard WE Library 3.81:

```
GRAPHREP
PEN w:0.02cm color:lightyellow outline style:dot
EDGE
```

1.2 AttrRep

The class attriubte "Attrrep" is set for the following **classes of the ADONIS Standard BP Library 3.81**:

Ŕ	Actor (see chap. 1.2.1, p. 194)
\circ	Use case (see chap. 1.2.2, p. 195)
	System boundary (see chap. 1.2.3, p. 195)
Δ	Process start (see chap. 1.2.4, p. 195)
A	Subprocess (see chap. 1.2.5, p. 196)
	Activity (see chap. 1.2.6, p. 197)
\diamond	Decision (see chap. 1.2.7, p. 198)
٩	Parallelity (see chap. 1.2.8, p. 198)
⊳	Merging (see chap. 1.2.9, p. 199)
•	End (see chap. 1.2.10, p. 199)
0	Variable (see chap. 1.2.11, p. 199)
۹	Random generator (see chap. 1.2.12, p. 200)
<u>2</u>	Resource (see chap. 1.2.13, p. 200)
	Process (see chap. 1.2.14, p. 200)
Þ	Performance indicator overview (see chap. 1.2.15, p. 201)
٥	Performance indicator (see chap. 1.2.16, p. 202)

- Document (see chap. 1.2.17, p. 202)
- Note (see chap. 1.2.18, p. 203)
- Aggregation (see chap. 1.2.19, p. 203)
- Swimlane (horizontal) (see chap. 1.2.20, p. 204)
- □ Swimlane (vertical) (see chap. 1.2.21, p. 204)

The class attriubte "Attrrep" is set for the following **relations of the ADONIS Standard BP Library 3.81**::

+	Subsequent (see chap. 1.2.29, p. 207)
---	---------------------------------------

- Communicates (see chap. 1.2.30, p. 208)
- Contains (see chap. 1.2.31, p. 208)
- Extends (see chap. 1.2.32, p. 208)
- -> Generalisation (see chap. 1.2.33, p. 208)
- Uses (see chap. 1.2.34, p. 209)

The class attribute "Attrrep" is set for the following **classes of the ADONIS Standard WE Library 3.81**:

- Organisational unit (see chap. 1.2.22, p. 204)
- Performer (see chap. 1.2.23, p. 205)
- 8 Role (see chap. 1.2.24, p. 205)
- Resource (see chap. 1.2.25, p. 206)
- Cost center (see chap. 1.2.26, p. 206)
- Aggregation (see chap. 1.2.27, p. 206)
- Note (see chap. 1.2.28, p. 207)

Note: The class attribute "Attrrep" is set for the following relations of the ADONIS Standard WE Library 3.81.

1.2.1 Class "Actor"

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Open questions" lines:5
CHAPTER "Deutsch"
GROUP "Akteur"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.2 Class "Use case"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "External documentation"
ATTR "Details"
ATTR "Details"
ATTR "Details"
GROUP "Anwendungsfall"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.3 Class "System boundary"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Representation"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Open questions" lines:5
CHAPTER "Deutsch"
GROUP "Systemgrenze"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.4 Class "Process start"

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Order"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Trigger" lines:3
ATTR "Result" lines:3
ATTR "External documentation"
ATTR "Referenced documents" lines:5
ATTR "Process responsibility"
ATTR "Open questions" lines:5
CHAPTER "Input/Output"
ATTR "Input"
ATTR "Output"
CHAPTER "Simulation data"
```

```
GROUP "Capacity analysis"
ATTR "Quantity"
ATTR "Time period" ctrltype:radio
ENDGROUP
GROUP "Workload analysis"
ATTR "Process calendar" dialog:processstart-calendar
ATTR "Tolerance waiting time"
ATTR "Abandon after tolerance waiting time"
                                                ctrltype:check checked-value:"yes"
unchecked-value:"no"
ENDGROUP
GROUP "Process cost analysis"
ATTR "Cost driver"
ATTR "Cost driver quantity"
ENDGROUP
CHAPTER "Simulation results"
GROUP "Time"
ATTR "Aggregated cycle time" write-protected
ATTR "Aggregated execution time" write-protected
ATTR "Aggregated waiting time" write-protected
ATTR "Aggregated resting time" write-protected
ATTR "Aggregated transport time" write-protected
ENDGROUP
GROUP "Costs"
ATTR "Aggregated costs" write-protected
ATTR "Aggregated personnel costs" write-protected
ENDGROUP
ATTR "Info on results" write-protected lines:5
CHAPTER "Deutsch"
GROUP "Prozeßstart"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.5 Class "Subprocess"

```
NOTEBOOK
CHAPTER "Description"
GROUP "Representation"
ATTR "Name"
ATTR "Referenced subprocess"
ATTR "Display name and reference" ctrltype:check checked-value:"yes" unchecked-
value:"no"
ENDGROUP
ATTR "Order"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Open questions" lines:5
CHAPTER "Working environment"
ATTR "Performer" dialog:actor lines:3
CHAPTER "Simulation results"
GROUP "Time"
ATTR "Aggregated execution time" write-protected
ATTR "Aggregated waiting time" write-protected
ATTR "Aggregated resting time" write-protected
ATTR "Aggregated transport time" write-protected
ENDGROUP
```

```
GROUP "Costs"
ATTR "Aggregated costs" write-protected
CHAPTER "Deutsch"
GROUP "Prozeßaufruf"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.6 Class "Activity"

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Order"
ATTR "Description" lines:5
ATTR "Comment" lines:5
GROUP "Responsible role"
ATTR "Responsible role"
ATTR "Display responsible role" ctrltype:check checked-value:"Yes" unchecked-
value:"No"
ENDGROUP
ATTR "Classification"
ATTR "External documentation"
ATTR "Referenced documents" lines:5
ATTR "Referenced use cases"
ATTR "Open questions" lines:5
CHAPTER "Input/Output"
ATTR "Input"
ATTR "Output"
CHAPTER "Time/Costs"
GROUP "Activity times"
ATTR "Execution time"
ATTR "Waiting time"
ATTR "Resting time"
ATTR "Transport time"
ENDGROUP
GROUP "Activity costs"
ATTR "Costs"
ENDGROUP
GROUP "Process cost analysis"
ATTR "EDP transaction costs"
ATTR "EDP batch costs"
ATTR "Print costs"
ATTR "Postal costs"
ENDGROUP
CHAPTER "Working environment"
GROUP "Simulation"
ATTR "Performer" dialog:actor lines:3
ATTR "Continuous execution" ctrltype:check checked-value:"yes" unchecked-value:"no"
ATTR "Execution interruptable" ctrltype:check checked-value:"yes" unchecked-
value:"no"
ATTR "Task stack"
ATTR "Done by"
ENDGROUP
CHAPTER "Other simulation data"
GROUP "Cooperation"
```

```
ATTR "Cooperative" ctrltype:check checked-value:"yes" unchecked-value:"no"
ATTR "Cooperation mode" ctrltype:radio
ATTR "Average number of participants"
ATTR "Min. quota of presence"
ATTR "Max. start period"
ENDGROUP
GROUP "Conflict strategies"
ATTR "Priority"
ATTR "Max. resource waiting time"
ENDGROUP
CHAPTER "Simulation results"
ATTR "Number" write-protected
GROUP "Aggregated times"
ATTR "Aggregated execution time" write-protected
ATTR "Aggregated waiting time" write-protected
ATTR "Aggregated resting time" write-protected
ATTR "Aggregated transport time" write-protected
ENDGROUP
GROUP "Aggregated costs"
ATTR "Aggregated costs" write-protected
ATTR "Aggregated personnel costs" write-protected
ENDGROUP
ATTR "Info on results" write-protected lines:5
CHAPTER "External tool coupling"
ATTR "External tool coupling" write-protected
CHAPTER "Deutsch"
GROUP "Aktivität"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.7 Class "Decision"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Order"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Open questions" lines:5
CHAPTER "Deutsch"
GROUP "Entscheidung"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.8 Class "Parallelity"

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Representation"
```

```
ATTR "Order"
ATTR "Modeling direction" ctrltype:radio
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Deutsch"
GROUP "Parallelität"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.9 Class "Merging"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Representation"
ATTR "Order"
ATTR "Modeling direction" ctrltype:radio
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Deutsch"
GROUP "Vereinigung"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.10 Class "End"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Representation"
ATTR "Order"
ATTR "Type" ctrltype:radio
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Deutsch"
GROUP "Ende"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.11 Class "Variable"

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
```

```
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Variable type"
ATTR "Variable scope"
CHAPTER "Deutsch"
GROUP "Variable"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.12 Class "Random generator"

ADONIS Standard BP Library 3.81:

NOTEBOOK

```
CHAPTER "Description"

ATTR "Value" dialog:distribution

ATTR "Description" lines:5

ATTR "Comment" lines:5

ATTR "Information on data collection"

ATTR "Manual random generator" ctrltype:check checked-value:"Yes" unchecked-

value:"No"

CHAPTER "Deutsch"

ATTR "Info zum Wert der Variablenbelegung"

ATTR "Info zum Wert der Variablenbelegung"

ATTR "Beschreibung" lines:5

ATTR "Kommentar" lines:5
```

1.2.13 Class "Resource"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Order"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Type of resource"
ATTR "Selection" dialog:resource lines:3
CHAPTER "Deutsch"
GROUP "Ressource"
ATTR "Bezeichnung"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.14 Class "Process"

```
NOTEBOOK
CHAPTER "Description"
GROUP "Representation"
ATTR "Name"
ATTR "Referenced process"
```

```
ATTR "Display name and reference" ctrltype:check checked-value:"yes" unchecked-
value:"no"
ENDGROUP
ATTR "Order"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Open questions" lines:5
CHAPTER "Input/Output"
ATTR "Input"
ATTR "Output"
CHAPTER "Simulation results"
GROUP "Time"
ATTR "Aggregated cycle time" write-protected
ATTR "Aggregated execution time" write-protected
ATTR "Aggregated waiting time" write-protected
ATTR "Aggregated resting time" write-protected
ATTR "Aggregated transport time" write-protected
ENDGROUP
GROUP "Costs"
ATTR "Aggregated costs" write-protected
ATTR "Aggregated personnel costs" write-protected
ENDGROUP
CHAPTER "Deutsch"
GROUP "Prozeß"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.15 Class "Performance indicator overview"

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Performance indicators"
ATTR "Performance indicator overview" lines:5
CHAPTER "Database parameter"
ATTR "Database access"
CHAPTER "Period configuration"
ATTR "Planning period"
CHAPTER "Cockpit"
GROUP "Visualization"
ATTR "Display current value" ctrltype:check checked-value:"1" unchecked-value:"0"
ATTR "Display score" ctrltype:check checked-value:"ja" unchecked-value:"nein"
ATTR "Display periodicity" ctrltype:check checked-value:"1" unchecked-value:"0"
ATTR "Display status" ctrltype:check checked-value:"1" unchecked-value:"0"
ATTR "Display weighting" ctrltype:check checked-value:"1" unchecked-value:"0"
ENDGROUP
CHAPTER "Deutsch"
GROUP "Kennzahlenübersicht"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.16 Class "Performance indicator"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Order"
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Details"
GROUP "Indicator details"
ATTR "Periodicity" ctrltype:dropdown
ATTR "Change of referenced date (year)"
ATTR "Change of referenced date (month)"
ENDGROUP
ATTR "Indicator type"
ATTR "Unit"
ATTR "Limit type" ctrltype:dropdown
ATTR "Threshold green/yellow"
ATTR "Threshold yellow/red"
ATTR "Responsibility"
ATTR "Data source" ctrltype:dropwon
ENDGROUP
CHAPTER "History"
ATTR "History" lines:15
CHAPTER "DB data source"
#ATTR "Data source" ctrltype:dropwon
ATTR "SELECT-Statement" lines:13
CHAPTER "Excel data source"
#ATTR "Data source" ctrltype:dropwon
ATTR "Table"
ATTR "Sheet"
ATTR "Cell"
CHAPTER "Manual data source"
#ATTR "Data source" ctrltype:dropwon
ATTR "Manual data input"
CHAPTER "Representation"
ATTR "Font size"
ATTR "Font style"
GROUP "Visualization"
ATTR "Display current value" ctrltype:check checked-value:"1" unchecked-value:"0"
ATTR "Display score" ctrltype:check checked-value:"1" unchecked-value:"0"
ATTR "Display periodicity" ctrltype:check checked-value:"1" unchecked-value:"0"
ATTR "Display status" ctrltype:check checked-value:"1" unchecked-value:"0"
ENDGROUP
CHAPTER "Deutsch"
GROUP "Kennzahlendetails"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.17 Class "Document"

```
NOTEBOOK
CHAPTER "Description"
```

```
ATTR "Name"
ATTR "Referenced document"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Responsible role"
ATTR "Referenced document model"
CHAPTER "Deutsch"
GROUP "Dokument"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.18 Class "Note"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Text" lines:15
ATTR "Font size"
ATTR "Font style"
ATTR "Color" dialog:color
ATTR "Color" dialog:color
ATTR "External graphic"
ATTR "Calculate size of graphic automatically" ctrltype:check checked-value:"Yes"
unchecked-value:"No"
CHAPTER "Deutsch"
ATTR "Notiz" lines:15
```

1.2.19 Class "Aggregation"

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
GROUP "Name display"
ATTR "Display name" ctrltype:check checked-value:"Yes" unchecked-value:"No"
ATTR "Representation"
ATTR "Font size"
ATTR "Font style"
ENDGROUP
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Object display"
ATTR "Color" dialog:color
ATTR "Lines"
CHAPTER "Deutsch"
GROUP "Aggregation"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.20 Class "Swimlane (horizontal)"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Working environment"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Open questions" lines:5
CHAPTER "Representation"
GROUP "Swimlane"
ATTR "Color" dialog:color
ATTR "Display water marks" ctrltype:check unchecked-value:"nein" checked-value:"ja"
ENDGROUP
GROUP "Text"
ATTR "Alignment" ctrltype:dropdown
ENDGROUP
CHAPTER "Deutsch"
GROUP "Schimmbahneigenschaften"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.21 Class "Swimlane (vertical)"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Working environment"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Open questions" lines:5
CHAPTER "Representation"
GROUP "Swimlane"
ATTR "Color" dialog:color
ATTR "Display water marks" ctrltype:check unchecked-value:"nein" checked-value:"ja"
ENDGROUP
GROUP "Text"
ATTR "Alignment" ctrltype:dropdown
ENDGROUP
CHAPTER "Deutsch"
GROUP "Schimmbahneigenschaften"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.22 Class "Organizational unit"

ADONIS Standard WE Library 3.81:

NOTEBOOK

```
CHAPTER "Description"
ATTR "Name"
ATTR "Order"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Model reference"
CHAPTER "Deutsch"
GROUP "Organisationseinheit"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.23 Class "Performer"

ADONIS Standard WE Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Description" lines:5
ATTR "Comment" lines:4
ATTR "Further education"
ATTR "Presence"
CHAPTER "Simulation data"
ATTR "Hourly wages"
GROUP "Capacity analysis"
ATTR "Availability"
ENDGROUP
GROUP "Workload analysis"
ATTR "Calendar" dialog:person-calendar
ENDGROUP
GROUP "Process cost analysis"
ATTR "Time dependent costs"
ENDGROUP
CHAPTER "Simulation results"
ATTR "Personnel costs" write-protected
ATTR "Capacity" write-protected
ATTR "Workload" write-protected
ATTR "Info on results" write-protected lines:5
CHAPTER "Deutsch"
GROUP "Bearbeiter"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.24 Class "Role"

```
NOTEBOOK
CHAPTER "Beschreibung"
ATTR "Name"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Referenced actor"
CHAPTER "Deutsch"
```

```
GROUP "Rolle"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.25 Class "Resource"

ADONIS Standard WE Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ATTR "Resourcentyp"
ATTR "Stundensatz"
CHAPTER "English"
GROUP "Resource Characteristics"
ATTR "Name (english)"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ENDGROUP
```

1.2.26 Class "Cost center"

ADONIS Standard WE Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Description" lines:5
ATTR "Comment" lines:5
ATTR "Type of resource"
ATTR "Hourly wages"
CHAPTER "Deutsch"
GROUP "Resource"
ATTR "Bezeichnung"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
```

1.2.27 Class "Aggregation"

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Order"
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Data for analysis"
ATTR "Budget"
GROUP "ON processes"
ATTR "ON time"
```

```
ATTR "ON fixed costs"
ATTR "ON processes" lines:5
ENDGROUP
CHAPTER "Deutsch"
GROUP "Kostenstelle"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.28 Class "Note"

ADONIS Standard WE Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Text" lines:15
ATTR "Font size"
ATTR "Font style"
ATTR "Color" dialog:color
ATTR "Color" dialog:color
ATTR "External graphic"
ATTR "Calculate size of graphic automatically" ctrltype:check checked-value:"Yes"
unchecked-value:"No"
CHAPTER "Deutsch"
ATTR "Notiz" lines:15
```

1.2.29 Relation "Subsequent"

```
NOTEBOOK
CHAPTER "Description"
ATTR "Denomination"
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Details"
GROUP "Simulation"
ATTR "Transition condition" dialog:transcond
ENDGROUP
GROUP "Analytical evaluation"
ATTR "Transition probability"
ENDGROUP
GROUP "View"
ATTR "Visualized values" ctrltype:dropdown
ATTR "Representation"
ATTR "Font colour"
ENDGROUP
CHAPTER "Deutsch"
GROUP "Nachfolger"
ATTR "Info zur Übergangsbedingung"
ENDGROUP
GROUP "Einstellungen"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
ENDGROUP
```

1.2.30 Relation "communicates"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Deutsch"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
```

1.2.31 Relation "contains"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Deutsch"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
```

1.2.32 Relation "extends"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Deutsch"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
```

1.2.33 Relation "Generalisation"

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Deutsch"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
```
1.2.34 Relation "uses"

ADONIS Standard BP Library 3.81:

```
NOTEBOOK
CHAPTER "Description"
ATTR "Name"
ATTR "Description" lines:5
ATTR "Comment" lines:5
CHAPTER "Deutsch"
ATTR "Bezeichnung"
ATTR "Beschreibung" lines:5
ATTR "Kommentar" lines:5
```

1.3 Model pointer

The class attribute "Modellzeiger" is set for the following classes of ADONIS Standard BP Library 3.81:

 \bigcirc

Use case (see chap. 1.3.1, p. 209)

A

Process (see chap. 1.3.3, p. 209)

Subprocess (see chap. 1.3.2, p. 209)

Note: The class attribute is not set for any relations of the ADONIS Standard BP Library 3.81.

The class attribute "Modellzeiger" is set for the following classes of ADONIS Standard WE Library 3.81:

Organisational unit (see chap. 1.3.4, p. 210)

Note: The class attribute is not set for any relations of the ADONIS Standard WE Library 3.81.

1.3.1 Class "Use case"

ADONIS Standard BP Library 3.81:

Details

1.3.2 Class "Subprocess"

ADONIS Standard BP Library 3.81:

Called process

1.3.3 Class "Process"

ADONIS Standard BP Library 3.81:

Referenced process

1.3.4 Class "Organizational unit"

ADONIS Standard WE Library 3.81:

Model reference

1.4 Class cardinality

The class attribute "class cardinality" is set for the following classes of ADONIS Standard BP Library $\bf 3.81$:

- A Process start (see chap. 1.4.1, p. 210)
- Subprocess (see chap. 1.4.2, p. 210)
- Activity (see chap. 1.4.3, p. 211)
- Decision (see chap. 1.4.4, p. 211)
- Parallelity (see chap. 1.4.5, p. 211)
- Merging (see chap. 1.4.6, p. 211)
- C End (see chap. 1.4.7, p. 211)
- Variable (see chap. 1.4.8, p. 212)
- Random generator (see chap. 1.4.9, p. 212)
- Performance indicator overview (see chap. 1.4.10, p. 212)

Note: The class attribute "class cardinality" is not set for any relations of the ADONIS Standard BP Library 3.81.

The class attribute "class cardinality" is set for the following **classes of ADONIS Standard WE** Library 3.81:

Cost center (see chap. 1.4.11, p. 212)

Note: The class attribute "class cardinality" is not set for any relations of the ADONIS Standard WE Library 3.81.

1.4.1 Class "Process start"

ADONIS Standard BP Library 3.81:

```
CCARDINALITIES
max-objects:1
min-objects:1
RELATION "Subsequent"
max-outgoing:1
min-outgoing:1
max-incoming:0
```

1.4.2 Class "Subprocess"

```
ADONIS Standard BP Library 3.81:
```

CARDINALITIES RELATION "Subsequent" max-outgoing:1 min-outgoing:1

1.4.3 Class "Activity"

ADONIS Standard BP Library 3.81:

```
CARDINALITIES
RELATION "Subsequent"
max-outgoing: 1
min-outgoing:1
min-incoming:1
RELATION "verwEndt"
max-outgoing: 1
```

1.4.4 Class "Decision"

ADONIS Standard BP Library 3.81:

```
CARDINALITIES
RELATION "Subsequent"
min-outgoing:2
min-incoming:1
```

1.4.5 Class "Parallelity"

ADONIS Standard BP Library 3.81:

```
CARDINALITIES
RELATION "Subsequent"
min-outgoing:2
min-incoming:1
```

1.4.6 Class "Merging"

ADONIS Standard BP Library 3.81:

```
CARDINALITIES
RELATION "Subsequent"
max-outgoing:1
min-incoming:2
```

1.4.7 Class "End"

ADONIS Standard BP Library 3.81:

```
CARDINALITIES
min-objects:1
RELATION "Subsequent"
max-outgoing:0
```

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min-incoming:1

1.4.8 Class "Variable"

```
ADONIS Standard BP Library 3.81:
```

```
CARDINALITIES
RELATION "Sets variable"
min-incoming:1
```

1.4.9 Class "Random generator"

ADONIS Standard BP Library 3.81:

```
CARDINALITIES
RELATION "Sets variable"
min-outgoing:1
RELATION "belegt"
min-outgoing:1
```

1.4.10 Class "Performance indicator overview"

ADONIS Standard BP Library 3.81:

```
CARDINALITIES
max-objects: 1
max-imcoming: 0
RELATION "Owns"
max-outgoing:0
```

1.4.11 Class "Cost center"

ADONIS Standard WE Library 3.81:

```
CARDINALITIES
RELATION "Is cost center manager"
max-incoming:1
```

1.5 Conversion

The class attribute "Conversion" is set for the following **classes of the ADONIS Standard BP** Library 3.81:



Subprocess (see chap. 1.5.1, p. 213) Activity (see chap. 1.5.2, p. 213)

Note: The class attribute "Conversion" is not set for any relations of ADONIS Standard BP Library 3.81.

Note: The class attribute "Conversion" is not set for any classes of ADONIS Standard WE Library 3.81.

Note: The class attribute "Conversion" is not set for any relations of ADONIS Standard WE Library 3.81..

1.5.1 Class "Subprocess"

ADONIS Standard BP Library 3.81:

```
CLASS "Activity"
ATTR "Name"
ATTR "Order"
ATTR "Description"
ATTR "Comment"
ATTR "Open questions"
ATTR "Execution time" from: "Aggregated execution time"
ATTR "Waiting time" from: "Aggregated waiting time"
ATTR "Resting time" from: "Aggregated resting time"
ATTR "Transport time" from: "Aggregated transport time"
ATTR "Costs" from: "Aggregated costs"
ATTR "referenced subprocess" from: "Referenced subprocess"
ATTR "Language"
ATTR "Bezeichnung"
ATTR "Beschreibung"
ATTR "Kommentar"
ATTR "Performer"
ATTR "Responsible role"
ATTR "Classification"
ATTR "External documentation"
ATTR "Referenced documents"
ATTR "Referenced use cases"
```

1.5.2 Class "Subprocess"

```
CLASS "Subprocess"
ATTR "Name"
ATTR "Order"
ATTR "Description"
ATTR "Comment"
ATTR "Open questions"
ATTR "Referenced subprocess" from: "referenced subprocess"
ATTR "Language"
ATTR "Bezeichnung"
ATTR "Beschreibung"
ATTR "Kommentar"
ATTR "Performer"
ATTR "Responsible role"
ATTR "Classification"
ATTR "External documentation"
ATTR "Referenced documents"
ATTR "Referenced use cases"
```

2. Library attributes

• Chapter "Description"

- Key words (see chap. 2.1, p. 215)
- Description (see chap. 2.2, p. 215)
- Comments (see chap. 2.3, p. 215)
- Service (see chap. 2.4, p. 215)
- Author (see chap. 2.5, p. 216)
- Creation date (see chap. 2.6, p. 216)
- Last user (see chap. 2.7, p. 216)
- Date last changed (see chap. 2.8, p. 216)

• Chapter "Layout"

- Modes (see chap. 2.9, p. 216)
- Versioning format (see chap. 2.10, p. 219)
- External coupling (see chap. 2.13, p. 220)

• Chapter "Modelling"

- Default settings (see chap. 2.19, p. 237)
- Page layout (see chap. 2.11, p. 219)
- Connector marks:
 - Numbering (see chap. 2.14, p. 225)
 - Graphical representation (see chap. 2.15, p. 225)
- Object arrangement (see chap. 2.12, p. 219)

• Chapter "Analysis"

- Relation analysis (see chap. 2.20, p. 237)

• Chapter "Simulation"

- Simulation definition:
 - Simtext (see chap. 2.21, p. 238)
 - Simmapping (see chap. 2.22, p. 239)
 - Simresult mapping (see chap. 2.23, p. 239)
 - Variable check (see chap. 2.24, p. 240)
- Agent definition (see chap. 2.25, p. 240)
- Enterprise:
 - Days per year (see chap. 2.26, p. 241)
 - Hours per day (see chap. 2.27, p. 241)
- Chapter "Evaluation"
 - Process cost analysis

- CCC mapping (see chap. 2.28, p. 241)
- CCC default setting (see chap. 2.29, p. 242)
- Dynamic evaluation modules (see chap. 2.30, p. 242)

• Chapter "Documentation"

- Documentations-Configuration (see chap. 2.18, p. 226)

2.1 Key words (Description)

ADONIS Standard BP Library 3.81:

ADONIS Standard Business Process Library for version ADONIS 3.81

ADONIS Standard WE Library 3.81:

ADONIS Standard Working Environmental Library for version ADONIS 3.81

2.2 Description (Description)

ADONIS Standard BP Library 3.81:

This BP-library is defined for ADONIS version 3.81. It contains the model types:

- 'Company map'
- 'Business process model'
- 'Document model'
- 'Use case diagram'

ADONIS Standard WE Library 3.81:

This WE library is defined for ADONIS version 3.81. It contains the model type 'Working environment model'

2.3 Comments (Comments)

ADONIS Standard BP Library 3.81:

This library is defined for being used under the operating system MS Windows, since any GraphRep attributes require the font "Wingdings".

ADONIS Standard WE Library 3.81:

This library is defined for being used under the operating system MS Windows, since any GraphRep attributes require the font "Wingdings".

2.4 Service (Description)

```
Address:
BOC ITC Ltd
80 Haddington Road
```

```
Dublin 4, Ireland
Hotline (email):
boc@boc-irl.com
```

ADONIS Standard WE Library 3.81:

This attribute is not set for the ADONIS Standard WE Library 3.81.

2.5 Author (Description)

ADONIS Standard BP Library 3.81:

Admin

ADONIS Standard WE Library 3.81:

Admin

2.6 Creation date (Description)

ADONIS Standard BP Library 3.81:

27.05.2004, 18:08

ADONIS Standard WE Library 3.81:

27.05.2004, 18:08

2.7 Last user (Description)

ADONIS Standard BP Library 3.81:

Admin

ADONIS Standard WE Library 3.81:

Admin

2.8 Date last changed (Description)

ADONIS Standard BP Library 3.81:

27.05.2004, 18:09

ADONIS Standard WE Library 3.81:

27.05.2004, 18:10

2.9 Modes (Layout)

ADONIS Standard BP Library 3.81:

page 216

MODELTYPE "Business process model" from:all plural: "Business process models" pos:1 attrrep:"BP Model Attributes" EXCL "actor" EXCL "use case" EXCL "system boundary" EXCL "Process" EXCL "Parameter" EXCL "Call parameter" EXCL "Document" EXCL "Has process" EXCL "communicates" EXCL "contains" EXCL "extends" MODE "Flow" from:all EXCL "Variable" EXCL "Random generator" EXCL "Resource" EXCL "Performance indicator" EXCL "Performance indicator overview" EXCL "Sets variable" EXCL "Sets" EXCL "Uses" MODE "Flow - including Variables and Random generators" from:"Flow" INCL "Variable" INCL "Random generator" INCL "Sets variable" INCL "Sets" MODE "Flow - including Resources" from: "Flow" INCL "Resource" INCL "Uses" MODE "Flow - including Performance indicators" from: "Flow" INCL "Performance indicator overview" INCL "Performance indicator" INCL "Owns" MODE "All modeling objects" from:all no-documentation MODE "Documentation" from: none no-modeling INCL "Subprocess" INCL "Process start" INCL "Activity" INCL "Decision" INCL "Subsequent" INCL "Resource" INCL "Performance indicator overview" INCL "Performance indicator" MODELTYPE "Company map" from:none plural:"Company maps" pos:0 not-simulateable bitmap:"db:\\compmap.bmp" attrrep:"BP Model Attributes" INCL "Process" INCL "Aggregation" INCL "Note" INCL "Has process" INCL "Is inside" INCL "has Note" INCL "Performance indicator overview" INCL "Performance indicator" INCL "Owns" MODE "Standard" from:all EXCL "Performance indicator overview" EXCL "Performance indicator" EXCL "Owns" MODE "Standard - including Performance indicators" from: "Standard" INCL "Performance indicator overview"

```
INCL "Performance indicator"
INCL "Owns"
MODE "All modeling objects" from: "Standard"
INCL "Performance indicator overview"
INCL "Performance indicator"
INCL "Owns"
MODE "Documentation" from:all no-modeling
INCL "Process"
INCL "Performance indicator overview"
INCL "Performance indicator"
MODELTYPE "Document model" from:none plural: "Document models" pos:3 not-
simulateable bitmap:"db:\\doc_mod.bmp" attrrep:"BP Model Attributes"
INCL "Document"
INCL "Aggregation"
INCL "Note"
INCL "has Subdocument"
INCL "has Note"
MODE "Standard" from:all
MODE "Documentation" from:all no-modeling
EXCL "Aggregation"
EXCL "Note"
MODELTYPE "Use case diagram" from:none plural:"Use case diagrams" pos:4 not-
simulateable bitmap:"db://uml use.bmp" attrrep:"BP Model Attributes"
INCL "actor"
INCL "use case"
INCL "system boundary"
INCL "Note"
INCL "communicates"
INCL "contains"
INCL "uses"
INCL "extends"
INCL "has Note"
INCL "Is inside"
INCL "Generalisation"
MODE "Standard" from:all
MODE "Documentation" from:all no-modeling
EXCL "Note"
EXCL "system boundary"
```

```
MODELTYPE "Working environment model" from:all plural: "Working environment models"
pos:2 attrrep:"WE Model Attributes"
MODE "Standard" from:all
EXCL "Resource"
EXCL "Cost center"
MODE "Standard - including Resources" from:all
EXCL "Cost center"
MODE "Standard - with cost center" from:all
EXCL "Resource"
MODE "Organization" from: "Standard"
EXCL "Performer"
EXCL "Role"
MODE "Role diagram" from: "Standard"
EXCL "Organizational unit"
MODE "Resource diagram" from:"Standard"
INCL "Resource"
EXCL "Role"
EXCL "Belongs to"
EXCL "Is manager"
EXCL "Is subordinated"
```

```
MODE "All modeling objects" from:all
MODE "Documentation" from:none no-modeling
INCL "Role"
INCL "Organizational unit"
INCL "Performer"
INCL "Cost center"
INCL "Resource"
```

2.10 Versioning format (Layout)

ADONIS Standard BP Library 3.81:

This attribute is not set in the ADONIS Standard BP Library 3.81.

ADONIS Standard WE Library 3.81:

This attribute is not set in the ADONIS Standard WE Library 3.81.

2.11 Page layout (Layout)

ADONIS Standard BP Library 3.81:

LAYOUT "Full page (without header/footer)" PAGE w:p h:p

ADONIS Standard WE Library 3.81:

LAYOUT "Full page (without header/footer)" PAGE w:p h:p

2.12 Object arrangement (Layout)

```
DISABLE edit arrange
PROFILE "Standard (horizontal)" type:"std"
DEFMODELTYPE "Business process model"
DEFMODELTYPE "Company map"
MINCROSS upon upcount:10 dwnon dwncount:10
PENDULUM upon upcount:10 dwnon dwncount:10
FLIPFLY mirrhor toright
DOUBLEBP dist:3
CHNGSIZE vertdist:5 hordist:5
CLASSMODELTYPE "Business process model"
CLASSPAR "Subsequent" space:1 turn:0 priority:1
CLASSPAR "Sets" space:1 turn:1 priority:1
CLASSPAR "Uses" space:1 turn:0 priority:1
CLASSPAR "Sets variable" space:1 turn:0 priority:1
CLASSPAR "Uses" space:1 turn:0 priority:1
CLASSMODELTYPE "Company map"
CLASSPAR "Has process" space:1 turn:0 priority:1
PROFILE "Standard (vertikal)" type:"std"
DEFMODELTYPE "Business process model"
DEFMODELTYPE "Company map"
MINCROSS upon upcount:10 dwnon dwncount:10
PENDULUM upon upcount:10 dwnon dwncount:10
FLIPFLY dwn
```

```
DOUBLEBP dist:3
CHNGSIZE vertdist:5 hordist:5
CLASSMODELTYPE "Business process model"
CLASSPAR "Subsequent" space:1 turn:0 priority:1
CLASSPAR "Sets" space:1 turn:1 priority:1
CLASSPAR "Uses" space:1 turn:0 priority:1
CLASSPAR "Sets variable" space:1 turn:0 priority:1
CLASSPAR "Uses" space:1 turn:0 priority:1
CLASSMODELTYPE "Company map"
CLASSPAR "Has process" space:1 turn:0 priority:1
PROFILE "Hierarchy" type: "hier"
DEFMODELTYPE "Company map"
MINCROSS upon upcount:10 dwnon dwncount:10
PENDULUM upon upcount:10 dwnon dwncount:10
FLIPFLY dwn
DOUBLEBP dist:3
CHNGSIZE vertdist:5 hordist:4
CLASSMODELTYPE "Company map"
CLASSPAR "Has process" space:1 turn:0 priority:1
HIERPROFILE "BP-Hierarchy" use: "Hierarchy"
HIERMODELTYPE "Business process model" usetype: "Company map"
HIERATTRIB "Referenced subprocess"
HIERCLASS "Subprocess"
HIERUSECLASS "Process"
HIERUSEREL "Has process"
HIERUSEATTRIB "Referenced process"
ENUMPROFILE "Numbering"
ENUMMODELTYPE "Business process model"
ENUMREL "Subsequent"
ENUMCLASS "Activity" attrib:"Order" inflow
ENUMCLASS "Decision" attrib: "Order" inflow
ENUMCLASS "Parallelity" attrib: "Order" inflow
ENUMCLASS "Merging" attrib: "Order" inflow
ENUMCLASS "Subprocess" attrib: "Order" inflow
ENUMCLASS "Process start" attrib: "Order" inflow
ENUMCLASS "End" attrib: "Order" inflow
ENUMMODELTYPE "Company map"
ENUMREL "Has process" turn:0
ENUMCLASS "Process" attrib: "Order" inflow
ENUMMODELTYPE "Working environment model"
ENUMREL "Is subordinated" turn:0
ENUMCLASS "Organizational unit" attrib: "Order" inflow
```

ADONIS Standard WE Library 3.81:

This attribute is not set in the ADONIS Standard WE Library 3.81.

2.13 External coupling (Layout)

```
SETG g_str_ps_speed:"medium"
```

```
SETG g b filesInDB:1
 # declare and init label for const strings
SETG g_b_strings_initialized:0
 # declare path variable to ADONIS
SETG g_path ado:""
 #Get path to ADONIS
 CC "Application" GET PATH
 SET g path ado: (path)
 #Erase trailing blanks
 SET a: (LEN (g path ado) - 1)
 WHILE (a > 0 AND (g_path_ado SUB a) = " ")
{
  SET a:(a - 1)
 }
 IF (a \ge 0)
 {
  SET g path ado: (copy (g path ado, 0, a + 1))
 }
 ELSE
 {
   CC "AdoScript" MSGWIN hide
   CC "AdoScript" ERRORBOX ("The path to the customer directory could not be
determined. AdoScript-AddOn capabilities are not available.")
  EXIT
 }
 # Read script for global settings
CC "AdoScript" FREAD file:("db:\\globals.asc")
# CC "AdoScript" FREAD file:(g_path_ado + "\\TEMP\\globals.asc")
 IF (text = "")
 {
CC "AdoScript" MSGWIN hide
   CC "AdoScript" ERRORBOX ("AdoScript could not be initialized. AdoScript-AddOn
capabilities are not available.")
EXIT
 }
 # Init global settings
 EXECUTE (text)
 # Set Icon for HTML-generation
 CC "Application" raw SET_ICON_CLICK_HDL component:"importexport" name:"HTML"
 {
   CC "AdoScript" FREAD file:(g_path_asc + "make_html.asc")
   IF (text = "")
   {
    CC "AdoScript" ERRORBOX ("AdoScript could not be initialized. AdoScript-AddOn
capabilities are not available.")
    EXIT
   }
EXECUTE (text)
#--SIMULATION--#
#-----
ITEM separator
   simulation:"~Edit" pos2:4
#-----
#-----
ITEM "Activate manual random generator"
    sub-of:"Random generator" pos2:4
simulation:"~Edit"
```

```
#_____
CC "AdoScript" FREAD file:(g_path_asc + "var_set_man.asc")
EXECUTE (text)
#------
ITEM "Activate automatic random generator"
  sub-of:"Random generator"
simulation:"~Edit"
#-----
CC "AdoScript" FREAD file: (g_path_asc + "var_set_aut.asc")
EXECUTE (text)
#--IMPORT/EXPORT--#
#-----
                 _____
ITEM "HTML generation"
  importexport:"~Documentation" pos2:2
#-----
CC "AdoScript" FREAD file:(g_path_asc + "make_html.asc")
EXECUTE (text)
#-----
ITEM "Delta generation (HTML) ... "
   importexport:"~Documentation" pos2:3
#------
CC "AdoScript" FREAD file: (g path asc + "delta gen2.asc")
EXECUTE (text)
ITEM "Attribute and class filter..."
   importexport:"~Documentation" pos2:13
#_____
CC "Documentation" EXEC ACFILTER attribute:"Attribute and class filter"
#
# [AGu 25.05.2004]
# - -
           #ITEM "XML Import (V. 2.0)..."
# importexport:"~Model" pos2:3
#______
#CC "AdoScript" FREAD file:(g path asc + "xmlimp2.asc")
#EXECUTE (text)
#_____
#ITEM "XML Export (V. 2.0)..."
# importexport:"~Model" pos2:4
#------
#CC "AdoScript" FREAD file:(g_path_asc + "xmlexp2.asc")
#EXECUTE (text)
#-----
           _____
#ITEM separator
  importexport:"~Model" pos2:5
#
#-----
#--MODELING--#
#______
ITEM "Inter model references (multiple models)..."
  modeling:"~Model" pos2:14
#-----
CC "AdoScript" FREAD file:(g_path_asc + "check_references_main.asc")
EXECUTE (text)
#-----
ITEM "Select the language for visualizing the attributes..."
  sub-of:"Views"
modeling:"~View" pos2:4
#-----
CC "AdoScript" FREAD file: (g path asc + "lang views.asc")
EXECUTE (text)
#_____
```

```
ITEM separator
   sub-of:"Update attributes"
   modeling:"~Edit" pos3:1
#-----
#-----
ITEM "Reset object numbering"
   sub-of: "Update attributes"
modeling:"~Edit" pos3:1
#-----
                 _____
CC "AdoScript" FREAD file:(g_path_asc + "reset_numbering.asc")
EXECUTE (text)
#-----
           _____
ITEM "Show responsible role..."
   sub-of:"Views"
  modeling:"~View" pos2:4
#-----
                     _____
SETG g_strRoleOption:("Yes")
CC "AdoScript" FREAD file:(g_path_asc + "show_responsible_role.asc")
EXECUTE (text)
#-----
ITEM "Hide responsible role..."
   sub-of:"Views"
   modeling:"~View" pos2:4
#_____
                      _____
SETG g strRoleOption:("No")
CC "AdoScript" FREAD file:(g_path_asc + "show_responsible_role.asc")
EXECUTE (text)
#--EVALUATION--#
ITEM "Current value initialisation..."
evaluation: "~Monitoring"
#______
CC "AdoScript" FREAD file: (g_path_asc + "resettargets.asc")
EXECUTE (text)
#-----
ITEM "Current value calculation..."
evaluation: "~Monitoring"
#------
CC "AdoScript" FREAD file:(g_path_asc + "updactval.asc")
EXECUTE (text)
#--DIVERSE--#
#______
ITEM "ADONIS standard method"
   acquisition:"~Help"
modeling:"~Help"
   analysis:"~Help"
   simulation:"~Help"
evaluation:"~Help"
importexport:"~Help"
#-----
CC "Application" GET PATH "adostd.hlp"
START ("\"" + path + "\"")
#-----
ITEM separator acquisition:"~Help" pos2:5
ITEM separator modeling: "~Help" pos2:5
ITEM separator analysis:"~Help" pos2:5
ITEM separator simulation: "~Help" pos2:5
ITEM separator evaluation: "~Help" pos2:5
ITEM separator importexport:"~Help" pos2:5
#-----
#-----
```

```
ITEM "BOC home page"
   acquisition:"~Help" pos2:5
   modeling:"~Help" pos2:5
   analysis:"~Help" pos2:5
   simulation:"~Help" pos2:5
evaluation:"~Help" pos2:5
  importexport:"~Help" pos2:5
#-----
START ("http://www.boc-eu.com")
#-- P R O C E S S - S T E P P E R --#
#------
# 1. Process animation
ITEM "1. Process animation" modeling: "~Process stepper"
SETG parameter: (1)
CC "AdoScript" FREAD file:(g_path_asc + "stepper_animation.asc")
IF (text = "")
{
 CC "AdoScript" INFOBOX "The function can not be executed. The required external
files are not available."
 EXIT
}
EXECUTE (text)
#-----
                 _____
# 2. Play-back process animation
ITEM "2. Play-back process animation..." modeling:"~Process stepper"
#------
CC "AdoScript" FREAD file:(g_path_asc + "stepper_play.asc")
IF (text = "")
{
 CC "AdoScript" INFOBOX "The function can not be executed. The required external
files are not available."
 EXIT
}
EXECUTE (text)
# 3. Remove marking of objects
ITEM "3. Remove marking of objects" modeling: "~Process stepper"
#------
CC "AdoScript" FREAD file:(g_path_asc + "undye_all_obj.asc")
IF (text = "")
{
 CC "AdoScript" INFOBOX "The function can not be executed. The required external
files are not available."
 EXIT
}
EXECUTE (text)
ITEM separator modeling:"~Process stepper"
#------
#-----
# Settings
ITEM "Settings..." modeling:"~Process stepper"
#-----
SETG global_check:"yes"
SETG namegeneration running:"yes"
CC "AdoScript" FREAD file:(g_path_asc + "stepper_settings_dlg.asc")
EXECUTE (text)
SETG global check:"no"
SETG namegeneration_running:"no"
```

ADONIS Standard WE Library 3.81:

This attribute is not set in the ADONIS Standard WE Library 3.81.

2.14 Connector marks - Numbers (Layout)

```
ADONIS Standard BP Library 3.81:
```

numeric

```
ADONIS Standard WE Library 3.81:
```

numeric

2.15 Connector marks - Graphical representation (Layout)

ADONIS Standard BP Library 3.81:

```
GRAPHREP
FILL color:aliceblue
RECTANGLE x:-.3cm y:-.3cm w:.6cm h:.6cm
```

ADONIS Standard WE Library 3.81:

```
GRAPHREP
FILL color:powderblue
RECTANGLE x:-.3cm y:-.3cm w:.6cm h:.6cm
```

2.16 Quick access bars - User defined (Layout)

ADONIS Standard BP Library 3.81:

yes

ADONIS Standard WE Library 3.81:

yes

2.17 Quick access bars - Library bars (Layout)

ADONIS Standard BP Library 3.81:

This attribute is not set in the ADONIS Standard BP Library 3.81.

ADONIS Standard WE Library 3.81:

This attribute is not set in the ADONIS Standard WE Library 3.81.

2.18 Configuration of documentation (Layout)

```
ATTRIBUTEMODI "@Documentation@@Doku@@Documentation with simulation data@@DokuSim@"
#@Cockpit@@Cockpit
EXPORT "RTF generation"
smarticon:rtf
 menuname: "~RTF generation..."
  filedescription: "RTF files"
  fileextension: "*.rtf"
  filename:attribute: "filename"
temp1: "tempfilename"
  requirefile1:"db:\\std2rtf4.dsl"
requirefile2:"db:\\ger2rtf4.dsl"
  requirefile3:"db:\\eng2rtf4.dsl"
requirefile4:"db:\\ado utl.dsl"
  requirefile5:"db:\\boclogo.bmp"
requirefile6:"db:\\make rtf.asc"
  copy1: "db:\\boclogo.bmp"
SOURCE "Model2SGML"
   filename:attribute: "tempfilename"
basename:attribute: "filename"
   libraryspecific:attribute: "Apply model type specific settings"
    subprocesses:attribute: "Display subprocesses"
    acfilter:attribute: "Attribute and class filter"
LIBRARY
      gfxformat:attribute: "Graphic format for RTF"
      gfxdpi: 96.000000
     notebookattr:attribute: "Attribute mode"
graphics:attribute: "Create graphics"
      gfxorientation:attribute: "Orientation"
      gfxlayout:attribute: "Page layout"
mode:attribute: "Mode"
     gfxmode:attribute: "Graphic file mode"
LIBRARY "Company map"
     gfxformat:attribute: "Graphic format for RTF (CM)"
      gfxdpi: 96.000000
      notebookattr:attribute: "Attribute mode (CM)"
      graphics:attribute: "Create graphics (CM)"
gfxorientation:attribute: "Orientation (CM)"
      gfxlayout:attribute: "Page layout (CM)"
      mode:attribute: "Mode (CM)"
      gfxmode:attribute: "Graphic file mode (CM)"
    LIBRARY "Business process model"
gfxformat:attribute: "Graphic format for RTF (BP)"
      gfxdpi: 96.000000
      notebookattr:attribute: "Attribute mode (BP)"
```

```
graphics:attribute: "Create graphics (BP)"
      gfxorientation:attribute: "Orientation (BP)"
      gfxlayout:attribute: "Page layout (BP)"
mode:attribute: "Mode (BP)"
      gfxmode:attribute: "Graphic file mode (BP)"
    LIBRARY "Working environment model"
      gfxformat:attribute: "Graphic format for RTF (WE)"
      gfxdpi: 96.000000
notebookattr:attribute: "Attribute mode (WE)"
     graphics:attribute: "Create graphics (WE)"
      gfxorientation:attribute: "Orientation (WE)"
gfxlayout:attribute: "Page layout (WE)"
     mode:attribute: "Mode (WE)"
gfxmode:attribute: "Graphic file mode (WE)"
    LIBRARY "Document model"
gfxformat:attribute: "Graphic format for RTF (DOC)"
      gfxdpi: 96.000000
      notebookattr:attribute: "Attribute mode (DOC)"
graphics:attribute: "Create graphics (DOC)"
      gfxorientation:attribute: "Orientation (DOC)"
      gfxlayout:attribute: "Page layout (DOC)"
mode:attribute: "Mode (DOC)"
      gfxmode:attribute: "Graphic file mode (DOC)"
    LIBRARY "Use case diagram"
      gfxformat:attribute: "Graphic format for RTF (UC)"
      gfxdpi: 96.000000
      notebookattr:attribute: "Attribute mode (UC)"
      graphics:attribute: "Create graphics (UC)"
gfxorientation:attribute: "Orientation (UC)"
      gfxlayout:attribute: "Page layout (UC)"
      mode:attribute: "Mode (UC)"
      gfxmode:attribute: "Graphic file mode (UC)"
  SOURCE "UserVariable"
filename:attribute:"tempfilename"
   var1:attribute:"Language"
SOURCE "AdoScript"
   name: "Jade Converter"
   var1:attribute: "tempfilename"
   var2:attribute: "filename"
   var3:attribute: "homedir"
{
 SETG filename: (filename)
 SETG homedir: (homedir)
SETG tempfilename:(tempfilename)
 CC "AdoScript" FREAD file:("db:\\make rtf.asc")
 EXECUTE (text)
EXPORT "HTML generation"
  smarticon:html
  visible:0
 menuname: "~HTML generation..."
 filedescription: "HTML files"
 fileextension: "*.htm"
 filename:attribute: "filename"
 temp1: "tempfilename"
requirefile1:"db:\\help.htm"
 requirefile2:"db:\\help men eng.htm"
requirefile3:"db:\\boclogo.png"
 requirefile4:"db:\\instr.gif"
requirefile5:"db:\\instr_en.gif"
 requirefile6:"db:\\help_pnt.gif"
```

requirefile7:"db:\\design.gif" requirefile8:"db:\\resize.gif" requirefile9:"db:\\std2htm8.dsl" requirefile10:"db:\\ger2htm8.dsl" requirefile11:"db:\\eng2htm8.dsl" requirefile12:"db:\\make-x-fi.dsl" requirefile13:"db:\\ado utl.dsl" requirefile14:"db:\\tree.jar" requirefile15:"db:\\BOCJavaVM.jar" requirefile16:"db:\\BOCTree.jar" requirefile17:"db:\\applet.js" requirefile18:"db:\\parallel.js" requirefile19:"db:\\std func.js" requirefile20:"db:\\browser functions.js" requirefile21:"db:\\ievminclude.js" requirefile22:"db:\\svg_functions.js" requirefile23:"db:\\mkmap.exe" requirefile24:"db:\\make html.asc" requirefile25:"db:\\header1.htm" requirefile26:"db:\\header2.htm" requirefile27:"db:\\search eng.htm" requirefile28:"db:\\search pnt.gif" requirefile29:"db:\\print pnt.gif" requirefile30:"db:\\jumper_action.gif" requirefile31:"db:\\transred.gif" requirefile32:"db:\\transblue.gif" requirefile33:"db:\\mo.css" requirefile34:"db:\\help.css" requirefile35:"db:\\boclogowhite.png" requirefile36:"db:\\help men ger.htm" requirefile37:"db:\\search ger.htm" requirefile38:"db:\\blue.htm" requirefile39:"db:\\menu funcs.js" copy1:"db:\\help.htm" copy2:"db:\\help men eng.htm" copy3:"db:\\boclogo.png" copy4:"db:\\instr.gif" copy5:"db:\\instr en.gif" copy6:"db:\\help_pnt.gif" copy7:"db:\\design.gif" copy8:"db:\\resize.gif" copy9:"db:\\tree.jar" copy10:"db:\\BOCJavaVM.jar" copy11:"db:\\BOCTree.jar" copy12:"db:\\applet.js" copy13:"db:\\parallel.js" copy14:"db:\\std func.js" copy15:"db:\\browser_functions.js" copy16:"db:\\ievminclude.js" copy17:"db:\\svg functions.js" copy18:"db:\\header1.htm" copy19:"db:\\header2.htm" copy20:"db:\\search_eng.htm" copy21:"db:\\search_pnt.gif" copy22:"db:\\print_pnt.gif" copy23:"db:\\jumper action.gif" copy24:"db:\\transred.gif" copy25:"db:\\transblue.gif" copy26:"db:\\mo.css" copy27:"db:\\help.css"

copy28:"db:\\boclogowhite.png"

```
copy29:"db:\\help men ger.htm"
copy30:"db:\\search ger.htm"
 copy31:"db:\\blue.htm"
copy32:"db:\\std2htm8.dsl"
 copy33:"db:\\ger2htm8.dsl"
copy34:"db:\\eng2htm8.dsl"
 copy35:"db:\\make-x-fi.dsl"
copy36:"db:\\ado utl.dsl"
 copy37:"db:\\menu funcs.js"
  SOURCE "Model2SGML"
   filename:attribute: "tempfilename"
basename:attribute: "filename"
    libraryspecific:attribute: "Apply model type specific settings"
    subprocesses:attribute: "Display subprocesses"
    acfilter:attribute: "Attribute and class filter"
copydocuments:attribute: "Copy referenced documents"
#copydocuments:"documents\\"
    LIBRARY
      gfxformat:attribute: "Graphic format for HTML"
      gfxdpi: 75.000000
notebookattr:attribute: "Attribute mode"
      graphics:attribute: "Create graphics"
      gfxorientation: "do not change"
      gfxlayout:"do not split graphic files"
      gfxmode:attribute: "Graphic file mode"
mode:attribute: "Mode"
   LIBRARY "Company map"
gfxformat:attribute: "Graphic format for HTML (CM)"
      gfxdpi: 100.000000
      notebookattr:attribute: "Attribute mode (CM)"
graphics:attribute: "Create graphics (CM)"
      gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
     mode:attribute: "Mode (CM)"
      gfxmode:attribute: "Graphic file mode (CM)"
    LIBRARY "Business process model"
     gfxformat:attribute: "Graphic format for HTML (BP)"
      gfxdpi: 75.000000
     notebookattr:attribute: "Attribute mode (BP)"
      graphics:attribute: "Create graphics (BP)"
gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
      mode:attribute: "Mode (BP)"
      gfxmode:attribute: "Graphic file mode (BP)"
    LIBRARY "Working environment model"
gfxformat:attribute: "Graphic format for HTML (WE)"
      gfxdpi: 75.000000
      notebookattr:attribute: "Attribute mode (WE)"
graphics:attribute: "Create graphics (WE)"
      gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
      mode:attribute: "Mode (WE)"
      gfxmode:attribute: "Graphic file mode (WE)"
    LIBRARY "Document model"
      gfxformat:attribute: "Graphic format for HTML (DOC)"
      gfxdpi: 75.000000
     notebookattr:attribute: "Attribute mode (DOC)"
      graphics:attribute: "Create graphics (DOC)"
gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
      mode:attribute: "Mode (DOC)"
```

```
gfxmode:attribute: "Graphic file mode (DOC)"
    LIBRARY "Use case diagram"
gfxformat:attribute: "Graphic format for HTML (UC)"
      gfxdpi: 75.000000
     notebookattr:attribute: "Attribute mode (UC)"
graphics:attribute: "Create graphics (UC)"
      gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
      mode:attribute: "Mode (UC)"
     gfxmode:attribute: "Graphic file mode (UC)"
  SOURCE "ModelGroups"
   filename:attribute:"tempfilename"
exportall:0
  SOURCE "UserVariable"
filename:attribute:"tempfilename"
   var1:attribute:"Language"
var2:attribute:"str_TopModelID"
 SOURCE "AdoScript"
   name: "Jade Converter"
   var1:attribute: "tempfilename"
    var2:attribute: "filename"
   var3:attribute: "homedir"
{
 SETG filename:(filename)
 SETG homedir: (homedir)
  SETG tempfilename: (tempfilename)
 SET nPos:(bsearch (filename , "\\", -1))
  #when char is found save path and file name into different vars
 IF (nPos > 0)
    SET dest path:(copy (filename, 0, nPos))
    SET file name: (copy (filename, nPos, LEN (filename) - 1))
}
  ELSE
  {
   SET dest_path: (filename)
   SET file_name: (filename)
  }
 CC "AdoScript" FCOPY from:(tempfilename) to:(dest_path + "\\out0.sgm")
}
EXPORT "Delta generation (Menu)"
visible:0
 menuname: "Delta generation (Menu)"
  filedescription: "HTML files"
  fileextension: "*.htm"
  filename:attribute: "filename"
temp1: "tempfilename"
 requirefile1:"db:\\help.htm"
requirefile2:"db:\\help_men_ger.htm"
 requirefile3:"db:\\boclogo.png"
requirefile4:"db:\\instr.gif"
 requirefile5:"db:\\instr en.gif"
requirefile6:"db:\\help_pnt.gif"
 requirefile7:"db:\\design.gif"
requirefile8:"db:\\resize.gif"
 requirefile9:"db:\\dmen std2htm8.dsl"
requirefile10:"db:\\dmen ger2htm8.dsl"
requirefile11:"db:\\dmen eng2htm8.dsl"
requirefile12:"db:\\dmod std2htm8.dsl"
requirefile13:"db:\\dmod_ger2htm8.dsl"
requirefile14:"db:\\dmod_eng2htm8.dsl"
```

requirefile15:"db:\\make-x-fi.dsl" requirefile16:"db:\\ado utl.dsl" requirefile17:"db:\\tree.jar" requirefile18:"db:\\BOCJavaVM.jar" requirefile19:"db:\\BOCTree.jar" requirefile20:"db:\\applet.js" requirefile21:"db:\\parallel.js" requirefile22:"db:\\std func.js" requirefile23:"db:\\browser functions.js" requirefile24:"db:\\ievminclude.js" requirefile25:"db:\\svg functions.js" requirefile26:"db:\\mkmap.exe" requirefile27:"db:\\clean dir.bat" requirefile28:"db:\\make delta.asc" requirefile29:"db:\\help_men_eng.htm" requirefile30:"db:\\header1.htm" requirefile31:"db:\\header2.htm" requirefile32:"db:\\boclogowhite.png" requirefile33:"db:\\search ger.htm" requirefile34:"db:\\search eng.htm" requirefile35:"db:\\search pnt.gif" requirefile36:"db:\\print pnt.gif" requirefile37:"db:\\mo.css" requirefile38:"db:\\help.css" requirefile39:"db:\\jumper action.gif" requirefile40:"db:\\transred.gif" requirefile41:"db:\\transblue.gif" requirefile42:"db:\\dtree_std2htm8.dsl" requirefile43:"db:\\blue.htm" requirefile44:"db:\\frameset.htm" copy1:"db:\\help.htm" copy2:"db:\\help men ger.htm" copy3:"db:\\boclogo.png" copy4:"db:\\instr.gif" copy5:"db:\\instr en.gif" copy6:"db:\\help_pnt.gif" copy7:"db:\\design.gif" copy8:"db:\\resize.gif" copy9:"db:\\tree.jar" copy10:"db:\\BOCJavaVM.jar" copy11:"db:\\BOCTree.jar" copy12:"db:\\applet.js" copy13:"db:\\parallel.js" copy14:"db:\\std func.js" copy15:"db:\\browser functions.js" copy16:"db:\\ievminclude.js" copy17:"db:\\mkmap.exe" copy18:"db:\\clean_dir.bat" copy19:"db:\\help men eng.htm" copy20:"db:\\header1.htm" copy21:"db:\\header2.htm" copy22:"db:\\boclogowhite.png" copy23:"db:\\search_ger.htm" copy24:"db:\\search eng.htm" copy25:"db:\\search pnt.gif" copy26:"db:\\print pnt.gif" copy27:"db:\\mo.css" copy28:"db:\\help.css" copy29:"db:\\jumper action.gif" copy30:"db:\\transred.gif" copy31:"db:\\transblue.gif"

```
copy32:"db:\\blue.htm"
 copy33:"db:\\frameset.htm"
copy34:"db:\\svg_functions.js"
 SOURCE "Model2SGML"
filename:attribute: "tempfilename"
   basename:attribute: "filename"
libraryspecific:attribute: "Apply model type specific settings"
subprocesses:attribute: "Display subprocesses"
   acfilter: attribute: "Attribute and class filter"
   LIBRARY
     gfxformat:attribute: "Graphic format for HTML"
     gfxdpi: 75.000000
notebookattr:attribute: "Attribute mode"
     graphics:0
gfxorientation:"do not change"
     gfxlayout:"do not split graphic files"
     mode:attribute: "Mode"
      gfxmode:attribute: "Graphic file mode"
   LIBRARY "Company map"
      gfxformat:attribute: "Graphic format for HTML (CM)"
      gfxdpi: 75.000000
      notebookattr:attribute: "Attribute mode (CM)"
     graphics:0
     gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
     mode:attribute: "Mode (CM)"
     gfxmode:attribute: "Graphic file mode (CM)"
   LIBRARY "Business process model"
     gfxformat:attribute: "Graphic format for HTML (BP)"
     gfxdpi: 75.000000
     notebookattr:attribute: "Attribute mode (BP)"
     graphics:0
     gfxorientation:"do not change"
gfxlayout:"do not split graphic files"
     mode:attribute: "Mode (BP)"
gfxmode:attribute: "Graphic file mode (BP)"
   LIBRARY "Working environment model"
     gfxformat:attribute: "Graphic format for HTML (WE)"
gfxdpi: 75.000000
     notebookattr:attribute: "Attribute mode (WE)"
graphics:0
     gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
     mode:attribute: "Mode (WE)"
gfxmode:attribute: "Graphic file mode (WE)"
   LIBRARY "Document model"
gfxformat:attribute: "Graphic format for HTML (DOC)"
     gfxdpi: 75.000000
     notebookattr:attribute: "Attribute mode (DOC)"
graphics:0
      gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
     mode:attribute: "Mode (DOC)"
gfxmode:attribute: "Graphic file mode (DOC)"
   LIBRARY "Use case diagram"
     gfxformat:attribute: "Graphic format for HTML (UC)"
gfxdpi: 75.000000
     notebookattr:attribute: "Attribute mode (UC)"
graphics:0
     gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
```

```
mode:attribute: "Mode (UC)"
gfxmode:attribute: "Graphic file mode (UC)"
 SOURCE "ModelGroups"
filename:attribute:"tempfilename"
   exportall:0
  SOURCE "UserVariable"
   filename:attribute:"tempfilename"
var1:attribute:"Language"
  SOURCE "AdoScript"
   name: "Jade Converter"
   var1:attribute: "tempfilename"
   var2:attribute: "filename"
   var3:attribute: "homedir"
{
  SETG filename:(filename)
  SETG homedir: (homedir)
  SETG tempfilename: (tempfilename)
 CC "AdoScript" FREAD file:("db:\\make delta.asc")
 EXECUTE (text)
EXPORT "Delta generation (Model)"
  visible:0
 menuname: "Delta generation (Model)"
filedescription: "HTML files"
  fileextension: "*.htm"
filename:attribute: "filename"
 temp1: "tempfilename"
requirefile1:"db:\\help.htm"
 requirefile2:"db:\\help men ger.htm"
requirefile3:"db:\\boclogo.png"
 requirefile4:"db:\\instr.gif"
requirefile5:"db:\\instr en.gif"
 requirefile6:"db:\\help pnt.gif"
requirefile7:"db:\\design.gif"
 requirefile8:"db:\\resize.gif"
requirefile9:"db:\\dmen std2htm8.dsl"
requirefile10:"db:\\dmen_ger2htm8.dsl"
requirefile11:"db:\\dmen eng2htm8.dsl"
requirefile12:"db:\\dmod_std2htm8.dsl"
requirefile13:"db:\\dmod_ger2htm8.dsl"
requirefile14:"db:\\dmod eng2htm8.dsl"
requirefile15:"db:\\make-x-fi.dsl"
 requirefile16:"db:\\ado utl.dsl"
requirefile17:"db:\\tree.jar"
 requirefile18:"db:\\BOCJavaVM.jar"
requirefile19:"db:\\BOCTree.jar"
 requirefile20:"db:\\applet.js"
requirefile21:"db:\\parallel.js"
 requirefile22:"db:\\std func.js"
requirefile23:"db:\\browser functions.js"
requirefile24:"db:\\ievminclude.js"
 requirefile25:"db:\\mkmap.exe"
requirefile26:"db:\\clean_dir.bat"
 requirefile27:"db:\\make delta.asc"
requirefile28:"db:\\header1.htm"
 requirefile29:"db:\\header2.htm"
requirefile30:"db:\\help men eng.htm"
requirefile31:"db:\\boclogowhite.png"
requirefile32:"db:\\search ger.htm"
 requirefile33:"db:\\search_eng.htm"
requirefile34:"db:\\search_pnt.gif"
```

```
requirefile35:"db:\\print pnt.gif"
requirefile36:"db:\\mo.css"
 requirefile37:"db:\\help.css"
requirefile38:"db:\\jumper_action.gif"
requirefile39:"db:\\transred.gif"
requirefile40:"db:\\transblue.gif"
  SOURCE "Model2SGML"
filename:attribute: "tempfilename"
    basename:attribute: "filename"
libraryspecific:attribute: "Apply model type specific settings"
subprocesses:attribute: "Display subprocesses"
    acfilter: attribute: "Attribute and class filter"
    LIBRARY
      gfxformat:attribute: "Graphic format for HTML"
      gfxdpi: 75.000000
notebookattr:attribute: "Attribute mode"
      graphics:attribute: "Create graphics"
      gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
     mode:attribute: "Mode"
      gfxmode:attribute: "Graphic file mode"
    LIBRARY "Company map"
      gfxformat:attribute: "Graphic format for HTML (CM)"
      gfxdpi: 75.000000
notebookattr:attribute: "Attribute mode (CM)"
      graphics:attribute: "Create graphics (CM)"
      gfxorientation:"do not change"
gfxlayout:"do not split graphic files"
     mode:attribute: "Mode (CM)"
gfxmode:attribute: "Graphic file mode (CM)"
    LIBRARY "Business process model"
      gfxformat:attribute: "Graphic format for HTML (BP)"
gfxdpi: 75.000000
     notebookattr:attribute: "Attribute mode (BP)"
graphics:attribute: "Create graphics (BP)"
      gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
     mode:attribute: "Mode (BP)"
      gfxmode:attribute: "Graphic file mode (BP)"
    LIBRARY "Working environment model"
     gfxformat:attribute: "Graphic format for HTML (WE)"
      gfxdpi: 75.000000
      notebookattr:attribute: "Attribute mode (WE)"
      graphics:attribute: "Create graphics (WE)"
gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
      mode:attribute: "Mode (WE)"
      gfxmode:attribute: "Graphic file mode (WE)"
    LIBRARY "Document model"
      gfxformat:attribute: "Graphic format for HTML (DOC)"
      gfxdpi: 75.000000
notebookattr:attribute: "Attribute mode (DOC)"
      graphics:attribute: "Create graphics (DOC)"
      gfxorientation:"do not change"
gfxlayout:"do not split graphic files"
     mode:attribute: "Mode (DOC)"
gfxmode:attribute: "Graphic file mode (DOC)"
   LIBRARY "Use case diagram"
     gfxformat:attribute: "Graphic format for HTML (UC)"
gfxdpi: 75.000000
      notebookattr:attribute: "Attribute mode (UC)"
```

ATTR \"Create graphics (CM) \" ctrltype:check

graphics:attribute: "Create graphics (UC)"

```
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```

```
gfxorientation:"do not change"
      gfxlayout:"do not split graphic files"
      mode:attribute: "Mode (UC)"
     gfxmode:attribute: "Graphic file mode (UC)"
  SOURCE "ModelGroups"
   filename:attribute:"tempfilename"
exportall:0
  SOURCE "UserVariable"
filename:attribute:"tempfilename"
   var1:attribute:"Language"
SOURCE "AdoScript"
   name: "Jade Converter"
   var1:attribute: "tempfilename"
    var2:attribute: "filename"
    var3:attribute: "homedir"
{
  SETG filename: (filename)
  SETG homedir: (homedir)
SETG tempfilename:(tempfilename)
  CC "AdoScript" FREAD file: ("db:\\make delta.asc")
  EXECUTE (text)
EXPORT "Load settings ..."
  visible:0
  menuname:"Load settings ...."
filedescription:"HTML-Files"
  fileextension:"*.htm"
filename:attribute:"filename"
DTALOG
notebook: "NOTEBOOK
CHAPTER \"General Settings\"
ATTR \"Apply model type specific settings\" ctrltype:check
GROUP \"Attribute settings\"
ATTR \"Language\" ctrltype:dropdown
ATTR \"Mode\" ctrltype:dropdown
ATTR \"Attribute mode\" ctrltype:dropdown
ATTR \"Attribute and class filter\" dialog:acfilter
ENDGROUP
GROUP \"Graphic settings\"
ATTR \"Create graphics\" ctrltype:check
ATTR \"Graphic file mode\" ctrltype:dropdown
ENDGROUP
GROUP \"Settings for RTF\"
ATTR \"Graphic format for RTF\" ctrltype:dropdown
ATTR \"Page layout\" ctrltype:dropdown
ATTR \"Orientation\" ctrltype:dropdown
ENDGROUP
GROUP \"Settings for HTML\"
ATTR \"Graphic format for HTML\" ctrltype:dropdown
ATTR \"Model tree\" ctrltype:dropdown
ATTR \"Copy referenced documents\" ctrltype:check unchecked-value:\"\" checked-
value:\"documents\\\\\\\\
ENDGROUP
CHAPTER \"Company map\"
GROUP \"Attribute settings in company maps\"
ATTR \"Mode (CM) \" ctrltype:dropdown
ATTR \"Attribute mode (CM) \" ctrltype:dropdown
ENDGROUP
GROUP \"Graphic settings for company maps\"
```

ENDGROUP GROUP **\"**Settings for RTF (CM) **\"** ATTR \"Graphic format for RTF (CM) \" ctrltype:dropdown ATTR \"Page layout (CM) \" ctrltype:dropdown ATTR \"Orientation (CM) \" ctrltype:dropdown ENDGROUP GROUP "Settings for HTML (CM) "ATTR \"Graphic format for HTML (CM) \" ctrltype:dropdown ENDGROUP CHAPTER \"Business process model\" GROUP \"Attribute settings in business process models\" ATTR \"Mode (BP) \" ctrltype:dropdown ATTR \"Attribute mode (BP) \" ctrltype:dropdown ENDGROUP GROUP "Graphic settings for business process models"ATTR \"Create graphics (BP) \" ctrltype:check ATTR \"Graphic file mode (BP) \" ctrltype:dropdown ENDGROUP GROUP \"Settings for RTF (BP) \" ATTR \"Graphic format for RTF (BP)\" ctrltype:dropdown ATTR \"Page layout (BP) \" ctrltype:dropdown ATTR \"Orientation (BP) \" ctrltype:dropdown ENDGROUP GROUP \"Settings for HTML (BP) \" ATTR \"Graphic format for HTML (BP) \" ctrltype:dropdown ENDGROUP CHAPTER \"Working environment model\" GROUP \"Attribute settings in working environment models \" ATTR \"Mode (WE) \" ctrltype:dropdown ATTR \"Attribute mode (WE) \" ctrltype:dropdown ENDGROUP GROUP \"Graphic settings for working environment models\" ATTR \"Create graphics (WE) \" ctrltype:check ATTR \"Graphic file mode (WE) \" ctrltype:dropdown ENDGROUP GROUP \"Settings for RTF (WE) \" ATTR \"Graphic format for RTF (WE)\" ctrltype:dropdown ATTR \"Page layout (WE) \" ctrltype:dropdown ATTR \"Orientation (WE) \" ctrltype:dropdown ENDGROUP GROUP \"Settings for HTML (WE) \" ATTR \"Graphic format for HTML (WE)\" ctrltype:dropdown ENDGROUP CHAPTER \"Document model\" GROUP \"Attribute settings in document models\" ATTR \"Mode (DOC) \" ctrltype:dropdown ATTR \"Attribute mode (DOC) \" ctrltype:dropdown ENDGROUP GROUP \"Graphic settings for document models\" ATTR \"Create graphics (DOC) \" ctrltype:check ATTR \"Graphic file mode (DOC) \" ctrltype:dropdown ENDGROUP GROUP \"Settings for RTF (DOC) \" ATTR \"Graphic format for RTF (DOC) \" ctrltype:dropdown ATTR \"Page layout (DOC) \" ctrltype:dropdown ATTR \"Orientation (DOC) \" ctrltype:dropdown ENDGROUP GROUP **\"**Settings for HTML (DOC) **\"** ATTR \"Graphic format for HTML (DOC) \" ctrltype:dropdown ENDGROUP

ATTR \"Graphic file mode (CM) \" ctrltype:dropdown

Part IV

```
CHAPTER \"Use case diagram\"
GROUP \"Attribute settings in use case diagrams\"
ATTR \"Mode (UC) \" ctrltype:dropdown
ATTR \"Attribute mode (UC) \" ctrltype:dropdown
ENDGROUP
GROUP \"Graphic settings for use case diagrams\"
ATTR \"Create graphics (UC) \" ctrltype:check
ATTR \"Graphic file mode (UC) \" ctrltype:dropdown
ENDGROUP
GROUP \"Settings for RTF (UC) \"
ATTR \"Graphic format for RTF (UC) \" ctrltype:dropdown
ATTR \"Page layout (UC) \" ctrltype:dropdown
ATTR \"Orientation (UC) \" ctrltype:dropdown
ENDGROUP
GROUP \"Settings for HTML (UC) \"
ATTR \"Graphic format for HTML (UC) \" ctrltype:dropdown
ENDGROUP
```

ADONIS Standard WE Library 3.81:

This attribute is not set in the ADONIS Standard WE Library 3.81.

2.19 Default settings (Layout)

ADONIS Standard BP Library 3.81:

GRID snap:on visible:off w:0.50cm h:0.50cm

ADONIS Standard WE Library 3.81:

GRID snap:on visible:off w:0.5cm h:0.5cm

2.20 Relation analysis (Analysis)

```
RELATIONTABLE "~Activity-Resource table"
modeltype: "Business process model"
fromclass:"Activity"
fromattribute:"Name"
toclass: "Resource"
toattribute:"Name"
relation:"Uses"
RELATIONTABLE "Activity-~Document table"
modeltype: "Business process model"
fromclass:"Activity"
fromattribute:"Name"
tomodeltype:"Document model"
toclass:"Document"
toattribute:"Name"
FOREACHFROM
EXPR " --> \"Referenced documents\""
RELATIONTABLE "Activity-~Input document table"
modeltype: "Business process model"
fromclass:"Activity"
fromattribute:"Name"
```

```
tomodeltype: "Document model"
toclass:"Document"
toattribute:"Name"
FOREACHFROM
EXPR " --> \"Input\""
RELATIONTABLE "Activity-~Output document table"
modeltype:"Business process model"
fromclass:"Activity"
fromattribute:"Name"
tomodeltype:"Document model"
toclass:"Document"
toattribute:"Name"
FOREACHFROM
EXPR " --> \"Output\""
RELATIONTABLE "~Variable-Activity table"
modeltype: "Business process model"
fromclass:"Variable"
fromattribute:"Name"
toclass:"Activity"
toattribute:"Name"
FOREACHFROM
EXPR "<- \"Sets variable\" -> \"Sets\""
```

ADONIS Standard WE Library 3.81:

RELATIONTABLE "~Role table" fromclass:"Performer" fromattribute:"Name" toclass:"Role" toattribute:"Name" relation:"Has role" RELATIONTABLE "~Organizational hierarchy table" fromclass:"Organizational unit" fromattribute:"Name" toclass:"Organizational unit" toattribute:"Name" relation:"Is subordinated"

2.21 Simulation definition - Simtext (Simulation)

ADONIS Standard BP Library 3.81:

```
SIMTEXT
bp: "Business process"
cycletime: "Cycle time"
activity: "Activity"
number: "Number"
actor: "Performer"
perscost: "Personnel costs"
resource: "Resource"
rescost: "Resource costs"
```

ADONIS Standard WE Library 3.81:

This attribute is not set in the ADONIS Standard WE Library 3.81.

2.22 Simulation definition - Simmapping (Simulation)

ADONIS Standard BP Library 3.81:

```
SIMOPTION
name: "Standard"
activity: "Activity"
helptext: "The standard input parameters contain the activity attributes 'Execution
time', 'Waiting time', 'Resting time', 'Transport time' and 'Costs'."
executiontime: "Execution time"
waitingtime: "Waiting time"
restingtime: "Resting time"
transporttime: "Transport time"
userattribute-1: "Costs"
processcall: "Subprocess" subperformerattr: "Performer"
SIMOPTION
name: "Without resting and transport time"
activity: "Activity"
helptext: "The activity attributes 'Resting time' and 'Transport time' are not
contained within this set of input parameters."
executiontime: "Execution time"
waitingtime: "Waiting time"
userattribute-1: "Costs"
processcall: "Subprocess" subperformerattr: "Performer"
SIMCLASSES
bp-1: "Activity"
bp-2: "Subprocess"
we-1: "Performer"
we-2: "Resource"
we-3: "Organizational unit"
we-4: "Role"
```

ADONIS Standard WE Library 3.81:

SIMOPTION undefined

2.23 Simulation definition - Sim result mapping (Simulation)

```
PROCESSSTART "Process start"
fixedinfo:"Info on results"
fixedcycletime: "Aggregated cycle time"
fixedpersonalcosts: "Aggregated personnel costs"
FROMCLASS "Activity"
fromattribute:"Costs"
resultattribute: "Aggregated costs"
FROMCLASS "Activity"
fromattribute:"Execution time"
resultattribute: "Aggregated execution time"
FROMCLASS "Activity"
fromattribute:"Waiting time"
resultattribute: "Aggregated waiting time"
FROMCLASS "Activity"
fromattribute:"Transport time"
resultattribute: "Aggregated transport time"
FROMCLASS "Activity"
fromattribute: "Resting time"
```

```
resultattribute: "Aggregated resting time"
ACTIVITY "Activity"
fixedinfo:"Info on results"
fixednumber:"Number"
fixedpersonalcosts:"Aggregated personnel costs"
FROMCLASS "Activity"
fromattribute:"Execution time"
resultattribute: "Aggregated execution time"
FROMCLASS "Activity"
fromattribute:"Waiting time"
resultattribute: "Aggregated waiting time"
FROMCLASS "Activity"
fromattribute:"Transport time"
resultattribute: "Aggregated transport time"
FROMCLASS "Activity"
fromattribute:"Resting time"
resultattribute: "Aggregated resting time"
FROMCLASS "Activity"
fromattribute:"Costs"
resultattribute: "Aggregated costs"
```

ADONIS Standard WE Library 3.81:

```
PERSON "Performer"
fixedinfo:"Ergebnisinfo"
fixedworkload:"Belastung"
fixedcapacity:"Auslastung"
fixedpersonalcosts:"Personalkosten"
```

2.24 Simulation definition - Variable check (Simulation)

ADONIS Standard BP Library 3.81:

on

```
ADONIS Standard WE Library 3.81:
```

on

2.25 Agent definition (Simulation)

ADONIS Standard BP Library 3.81:

```
AGENT "Standard"
auto-buildsum
objects: "<\"Activity\"> OR <\"Subprocess\">"
allowed-modeltype-1: "Business process model"
infotext: "Computes the standard results of the simulation. The computation can be
limited to subprocesses or to part processes. Note: The capacity will only be
displayed \"per
```

ADONIS Standard WE Library 3.81:

This attribute is not set in the ADONIS WE Library 3.81.

2.26 Enterprise time - days per year (Simulation)

ADONIS Standard BP Library 3.81:

170,000000

ADONIS Standard WE Library 3.81:

0,00000

2.27 Enterprise time - hours per day (Simulation)

```
ADONIS Standard BP Library 3.81:
```

8,00000

ADONIS Standard WE Library 3.81:

0,000000

2.28 Process cost analysis - CCC Mapping (Evaluation)

ADONIS Standard BP Library 3.81:

```
CCCLASS
costcenter: "Cost center"
relcount: "Is charged to"
relmanager: "Is cost center manager"
SYNONYMS
budget: "Budget"
lmntime: "ON time"
lmnproc: "ON processes"
lmnfix: "ON fixed costs"
ccmanager: "CC manager"
cccap: "CC capacity"
lmiproc: "OI processes"
costdriver: "Cost driver"
cdquantity: "Cost driver quantity"
quantity: "Quantity"
idlecap: "Idle capacity"
executioncost: "Execution costs"
stuffcost: "Time dependent costs"
totalfixcost: "Total fixed costs"
lmncost: "ON costs"
idlecost: "Idle costs"
totalcost: "Total costs"
lmipcs: "OI-PCR"
pcs: "PCR"
```

ADONIS Standard WE Library 3.81:

This attribute is not set in the ADONIS WE Library 3.81.

2.29 Process cost analysis - CCC Default setting (Evaluation)

ADONIS Standard BP Library 3.81:

```
CURRENCY "Euro"
FIXCOST "EDP transaction costs"
FIXCOST "EDP batch costs"
FIXCOST "Print costs"
FIXCOST "Postal costs"
```

ADONIS Standard WE Library 3.81:

This attribute is not set in the ADONIS WE Library 3.81.

2.30 Dynamic evaluation modules (Evaluation)

ADONIS Standard BP Library 3.81:

This attribute is not set in the ADONIS BP Library 3.81.

ADONIS Standard WE Library 3.81:

This attribute is not set in the ADONIS WE Library 3.81.

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