

ARIS RISK & COMPLIANCE MANAGER MODELING CONVENTIONS

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This document applies to ARIS Risk & Compliance Manager Version 10.0 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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1 Introduction

ARIS Risk & Compliance Manager (ARCM) generates workflows based on master data, for example, a risk assessment workflow based on a risk. For some ARIS Risk & Compliance Manager components, specific objects are used to generate a workflow, such as a survey scheduler to generate survey.

Master data can be specified in ARIS Risk & Compliance Manager or in an ARIS modeling environment, such as ARIS Architect or ARIS Connect. If the master data is not specified in ARIS Risk & Compliance Manager, the data must be transferred to ARIS Risk & Compliance Manager. The documentation of master data (models and objects) in an ARIS modeling environment has a variety of advantages, such as consistency, reduction of complexity, reusability, potential for evaluation, integrity. However, this is only possible if the methodological and functional rules and conventions for modeling are adhered to. It is recommended observing the conventions of this manual to properly specify the relevant objects in an ARIS modeling environment. Only then all modeled data can be transferred to ARIS Risk & Compliance Manager and reused there.

Note that synchronization of data from ARIS to ARIS Risk & Compliance Manager is based on the default ARIS method. Method enhancements or changes, such as using a user-defined symbol for a function object type, can require the synchronization algorithm to be adapted. In this case, ask your Software AG contact or support (Page 108).

CONTENT OF DOCUMENT

This document explains the standards relating to the usage of descriptive views, model types, object types, relationship and connection types, and attributes. Each section contains:

- An overview of the relevant models, objects, relations, and attributes used for the ARIS Risk & Compliance Manager component as well as the relevant requirements.
- The respective modeling conventions, including the mapping of objects and attributes between the ARIS modeling environment and ARIS Risk & Compliance Manager.

OBJECTIVES AND SCOPE

Objective: Specification of modeling guidelines

Not included in this manual: User documentation

2 General conventions

2.1 Users and user groups

Users are managed centrally in ARIS Administration/User Management for all ARIS products. They are assigned, for example, general function privileges, license privileges, and user groups. You can synchronize users in ARIS Risk & Compliance Manager with users in ARIS Administration/User Management to update the data in ARIS Risk & Compliance Manager. For detailed information, refer to **Synchronize users with ARIS Administration/User Management** in ARIS Risk & Compliance Manager help.

The user groups in ARIS Risk & Compliance Manager do not match those in ARIS Administration/User Management. In ARIS Risk & Compliance Manager, users are assigned to ARIS Risk & Compliance Manager-specific user groups. User groups in ARIS Risk & Compliance Manager are defined using a role and a role level. The role (example: **Risk manager**) and the role level (example: **Environment-specific**) of a user group (example: **Risk manager group UMG**) specify which privileges the assigned users have (example: **Read privilege for risks and risk assessments**). A user can be assigned to several user groups at the same time. A user group is always connected to only one role, which is connected to only one role level. For detailed information, refer to **Role and role levels** in ARIS Risk & Compliance Manager help.

Each component in ARIS Risk & Compliance Manager, for example, Risk Management or Control Management, provides various roles, such as manager, owner, reviewer, and auditor. The manager roles are responsible for the preparation, planning and launch of the respective workflows. The owner roles are the contributing users. The reviewer roles are responsible for dual control (four eyes principle). The auditor roles have read-only access to all information. Some components have more specific names for certain roles, for example, interviewee for the owner role in Survey Management. Other components require fewer roles, for example, no **Reviewer** role for control executions, or they have different roles, for example, **Approver** role in Policy Management. For detailed information, refer to **Manage users, groups, and roles** in ARIS Risk & Compliance Manager help.

You can maintain roles, user groups, and users ARIS Risk & Compliance Manager or in the ARIS modeling environment. You can also use combined maintenance.

2.1.1 Organizational chart diagram

Roles, user groups, and users maintained in the ARIS modeling environment and then transferred to ARIS Risk & Compliance Manager grant access rights to sensitive data in ARIS Risk & Compliance Manager. We strongly recommend that you verify and, if necessary, restrict

2.1.1 Organizational chart diagram

Roles, user groups, and users maintained in the ARIS modeling environment and then transferred to ARIS Risk & Compliance Manager grant access rights to sensitive data in ARIS Risk & Compliance Manager. We strongly recommend that you verify and, if necessary, restrict access to certain objects and attributes in ARIS Risk & Compliance Manager. For detailed information, contact the Software AG support team (Page 108).

To transfer all elements of the model to ARIS Risk & Compliance Manager, set the **Synchronize ARCM** model attribute (AT_AAM_EXPORT_RELEVANT) to **true**. Users who do not have an ARIS Risk & Compliance Manager license privilege are marked as disabled in ARIS Risk & Compliance Manager after synchronization.

User groups and users are modeled in an **Organizational chart** diagram using the **Role** (OT_PERS_TYPE) and **Person** (OT_PERS) objects. The relation between the **Role** object and the **Person** object is represented by the **performs** connection. You can import the users and user groups from ARIS Administration/User Management into ARIS Architect with the report **Import user data from User Management**. For detailed information, refer to **Import user data** in the ARIS Risk & Compliance Manager help.

Roles and role levels are modeled in an **Organizational chart** diagram using the **Role** object (OT_PERS_TYPE). Roles are identified by their name attribute (example: **Risk owner_3**). The relation between the **Role** objects for role and user group is represented by the **is generalization of** connection.

To transfer all elements of the model to ARIS Risk & Compliance Manager, set the **Synchronize ARCM** model attribute (AT_AAM_EXPORT_RELEVANT) to **true**.

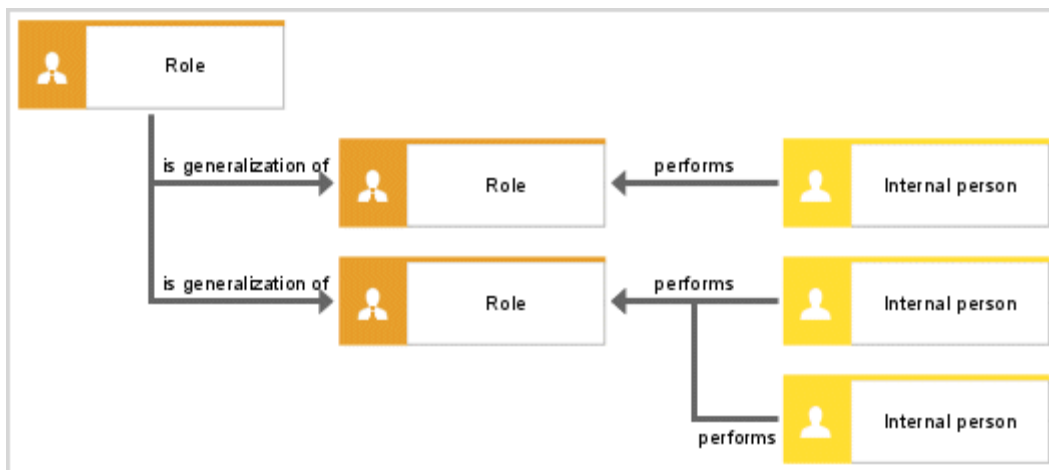


Figure 1: Structure of users/user group

The superior **Role** object in the organizational chart, for example, **Risk owner_3** (see image below), determines role and role level of the subordinate role objects and thereby the privileges for the user groups in ARIS Risk & Compliance Manager. The convention for the superior role name is: **<role>_<level>**, for example, **Risk owner_3**. You must use the exact ARIS role names for superior roles (see table below), to make sure that the role mapping works. For subordinate roles there is no naming convention.

For the superior role no user group is generated in ARIS Risk & Compliance Manager. The subordinate **Role** objects determine the user groups to be generated in ARIS Risk & Compliance Manager. The subordinate **Role** objects are connected with the **is generalization of** connection to exactly one superior **Role** object.

The users to be generated in ARIS Risk & Compliance Manager are modeled with the **Person** object and have a connection to the subordinate **Role** objects.

Example

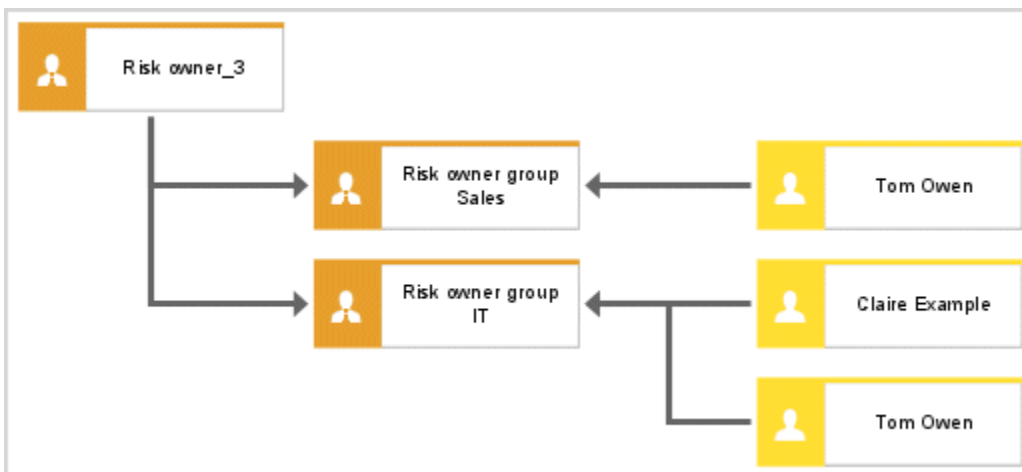


Figure 2: Structure of users/user groups - example

The superior **Role** object **Risk owner_3** (name convention: **<role>_<level>**) determines the **Risk owner** role (**<role>**) and the role level **3** (**<level>**) that corresponds to the **object-specific** role level (see table below).

The following objects are generated in ARIS Risk & Compliance Manager:

- The **Risk owner group Sales** and **Risk owner group IT** user groups that have the **Risk owner** role with **object-specific** role level assigned.
- Two users with the user name **Tom Owen** and **Claire Example**. They have the role and role level of the user group they are assigned to (= **object-specific Risk owner**). Tom Owen is assigned to both user groups **Risk owner group Sales** and **Risk owner group IT**.

ROLE LEVELS

- Role level **1** corresponds to **cross-environment**
The privileges assigned to the user group based on its role apply to all environments.
- Role level **2** corresponds to **environment-specific**
The privileges assigned to the user group based on its role apply to the environment to which the user group is assigned.
- Role level **3** corresponds to **object-specific**
The privileges assigned to the user group based on its role apply to the objects of the environment to which the user group is assigned.

ATTRIBUTE MAPPINGS: ROLE NAME (ARCM) TO ROLE (ARIS)

Audit Management

Role	ARIS role name	Role level
Audit auditor	Audit auditor_1	Cross-environment
	Audit auditor_2	Environment-specific
	Audit auditor_3	Object-specific
Audit manager	Audit manager_1	Cross-environment
	Audit manager_2	Environment-specific
Audit owner	Audit owner_3	Object-specific
Audit reviewer	Audit reviewer_3	Object-specific
Audit step owner	Audit step owner_3	Object-specific

Deficiency Management

Role	ARIS role name	Role level
Deficiency auditor L1	Deficiency auditor (L1)_1	Cross-environment
	Deficiency auditor (L1)_2	Environment-specific
Deficiency auditor L2	Deficiency auditor (L2)_1	Cross-environment
	Deficiency auditor (L2)_2	Environment-specific
Deficiency auditor L3	Deficiency auditor (L3)_1	Cross-environment
	Deficiency auditor (L3)_2	Environment-specific
Deficiency manager L1	Deficiency manager (L1)_1	Cross-environment
	Deficiency manager (L1)_2	Environment-specific

Role	ARIS role name	Role level
	Deficiency manager (L1)_3	Object-specific
Deficiency manager L2	Deficiency manager (L2)_1	Cross-environment
	Deficiency manager (L2)_2	Environment-specific
	Deficiency manager (L2)_3	Object-specific
Deficiency manager L3	Deficiency manager (L3)_1	Cross-environment
	Deficiency manager (L3)_2	Environment-specific
	Deficiency manager (L3)_3	Object-specific

Policy Management

Role	ARIS role name	Role level
Policy auditor	Policy auditor_1	Cross-environment
	Policy auditor_2	Environment-specific
	Policy auditor_3	Cross-environment
Policy manager	Policy manager_1	Cross-environment
	Policy manager_2	Environment-specific
Policy owner	Policy owner_3	Object-specific
Policy approver	Policy approver_3	Object-specific
Policy addressee	Policy addressee_3	Object-specific

Risk Management

Role	ARIS role name	Role level
Risk auditor	Risk auditor_1	Cross-environment
	Risk auditor_2	Environment-specific
Risk manager	Risk manager_1	Cross-environment
	Risk manager_2	Environment-specific
	Risk manager_3	Object-specific
Risk owner	Risk owner_3	Object-specific
Risk reviewer	Risk reviewer_3	Object-specific

Control Management

Role	ARIS role name	Role level
Control auditor	Control auditor_1	Cross-environment
	Control auditor_2	Environment-specific
	Control auditor_3	Object-specific*
Control execution owner	Control execution owner_3	Object-specific
Control manager	Control manager_1	Cross-environment
	Control manager_2	Environment-specific
	Control manager_3	Object-specific

Sign-off Management

Role	ARIS role name	Role level
Sign-off owner	Sign-off owner_3	Object-specific
Sign-off manager	Sign-off manager_2	Environment-specific
	Sign-off manager_3	Object-specific
Sign-off reviewer	Sign-off reviewer_3	Object-specific

Survey Management

Role	ARIS role name	Role level
Survey auditor	Survey auditor_1	Cross-environment
	Survey auditor_2	Environment-specific
	Survey manager	Survey manager_1
	Survey manager_2	Environment-specific
	Survey manager_3	Object-specific
Survey reviewer	Survey reviewer_3	Object-specific
Interviewee	Interviewee_3	Object-specific

Test Management

Role	ARIS role name	Role level
Test auditor	Test auditor_1	Cross-environment
	Test auditor_2	Environment-specific
	Test auditor_3	Object-specific*

Role	ARIS role name	Role level
Test auditor external	Test auditor external_1	Cross-environment
	Test auditor external_2	Environment-specific
Tester	Tester_3	Object-specific
Test manager	Test manager_1	Cross-environment
	Test manager_2	Environment-specific
	Test manager_3	Object-specific
Test reviewer	Test reviewer_3	Object-specific

Issue Management

Role	ARIS role name	Role level
Issue auditor	Issue auditor_1	Cross-environment
	Issue auditor_2	Environment-specific
Issue manager	Issue manager_1	Cross-environment
	Issue manager_2	Environment-specific

Incident and Loss Management

Role	ARIS role name	Role level
Incident auditor	Incident auditor_1	Cross-environment
	Incident auditor_2	Environment-specific
Incident manager	Incident manager_1	Cross-environment
	Incident manager_2	Environment-specific
Incident owner	Incident owner_3	Object-specific
Incident reviewer	Incident reviewer_3	Object-specific
Loss auditor	Loss auditor_1	Cross-environment
	Loss auditor_2	Environment-specific
Loss manager	Loss manager_1	Cross-environment
	Loss manager_2	Environment-specific
Loss owner	Loss owner_3	Object-specific
Loss reviewer	Loss reviewer_3	Object-specific
Loss owner	Loss owner_3	Object-specific

Administration

Role	ARIS role name	Role level
Hierarchy manager	Hierarchy manager_1	Cross-environment
	Hierarchy manager_2	Environment-specific
Hierarchy auditor	Hierarchy auditor_1	Cross-environment
	Hierarchy auditor_2	Environment-specific
Hierarchy owner	Hierarchy owner_3	Object-specific
User/User group administrator	User/User groups manager_1	Cross-environment
	User/User groups manager_2	Environment-specific

* Object-specific control auditor and object-specific test auditor roles are connected to hierarchy objects instead of to the respective control object or test object. These hierarchy objects are the scope for all investigations of controls, control executions, or control tests. The connection between these object-specific auditor roles and the hierarchy must be the **belongs to** connection (CT_WRK_IN) or the **is owner of** connection (CT_IS_OWN), depending on the hierarchy type.

2.1.2 Role object

ATTRIBUTE MAPPINGS: ROLE (ARIS) TO USER GROUP (ARCM)

ARIS attribute	API name	M*
Name	AT_NAME	X
Description/Definition	AT_DESC	

*The **M** column specifies whether the attribute is a mandatory field.

2.1.3 Person object

ATTRIBUTE MAPPINGS: PERSON (ARIS) TO USER (ARCM)

ARIS attribute	API name	M*
Login	AT_LOGIN	X
First name	AT_FIRST_NAME	X
Last name	AT_LAST_NAME	X
Description/Definition	AT_DESC	
E-mail address	AT_EMAIL_ADDR	X
Telephone number	AT_PHONE_NUM	

*The **M** column specifies whether the attribute is a mandatory field.

2.2 Company assets (hierarchies)

Corporate assets, like organizational units, processes, and systems, are available as hierarchy elements in ARIS Risk & Compliance Manager. Only a tree structure is allowed for all hierarchies to be transferred to ARIS Risk & Compliance Manager. This means that each element in the hierarchy can have only one superior item. If hierarchy elements are used by any object related to an ARIS Risk & Compliance Manager workflow, for example, a survey scheduler, the hierarchy elements are transferred including their superior hierarchy tree to ARIS Risk & Compliance Manager. To transfer all hierarchy elements of a model to ARIS Risk & Compliance Manager, set the **Synchronize ARCM** model attribute (AT_AAM_EXPORT_RELEVANT) to **true**. A corresponding hierarchy element is created in ARIS Risk & Compliance Manager for each relevant hierarchy element in an ARIS modeling environment, unless the top hierarchy element already exists in ARIS Risk & Compliance Manager.

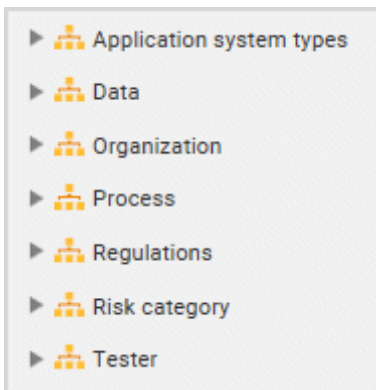


Figure 3: Top hierarchy structure in ARIS Risk & Compliance Manager

The conventions for the hierarchies of ARIS Risk & Compliance Manager are described in the following. For detailed information on conventions for data hierarchy, refer to **GDPR Conventions for ARIS Accelerators** manual, only delivered with the ARIS Accelerators for GDPR package.

HIERARCHY ARCHITECTURE IN ARIS

The figure below shows the process modeling levels and the suggested process model types to be used within them and the related corporate assets.

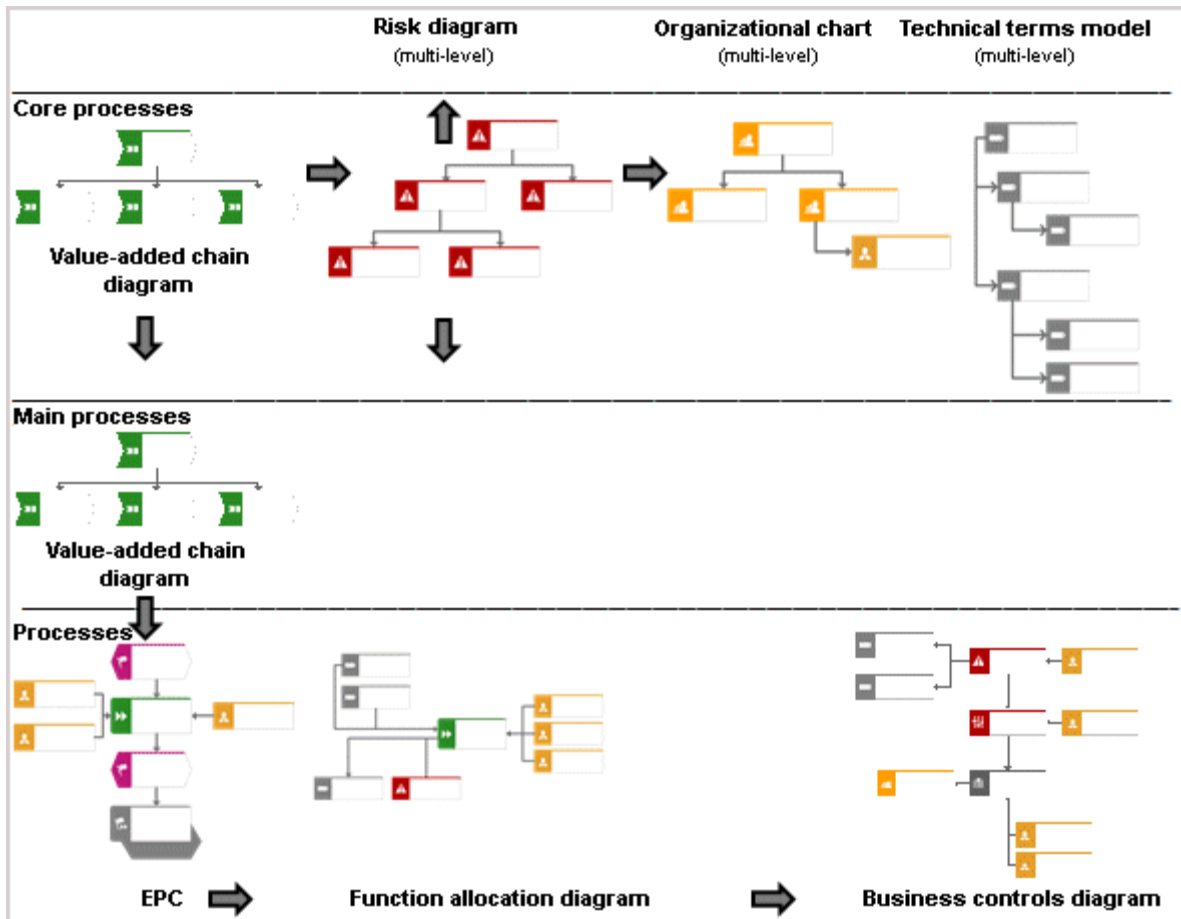


Figure 4: Modeling levels and their model types

2.2.1 Application system type hierarchy

The application system type hierarchy is modeled in the **Application system type diagram** model (MT_APPL_SYS_TYPE_DGM) in an ARIS modeling environment using the **Application system type** object (OT_APPL_SYS_TYPE). The hierarchy between the objects is represented by the encompasses connection.

If required, the **Application system class** object type (OT_APPL_SYS_CLS) can be added as superior hierarchy elements. To enable this, the synchronization algorithm must be adapted. For detailed information, contact the Software AG support team (Page 108).

In ARIS Risk & Compliance Manager, only a tree structure for hierarchies is allowed. Therefore, each hierarchy element can only have one superior hierarchy element.

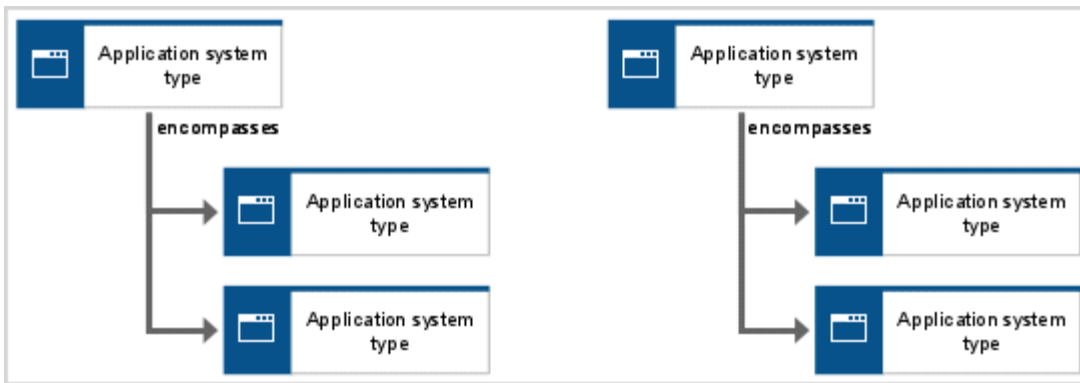


Figure 5: Application system type hierarchy

ATTRIBUTE MAPPINGS: APPLICATION SYSTEM TYPE (ARIS) TO APPLICATION SYSTEM TYPE HIERARCHY (ARCM)

ARIS attribute	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		

*The **M** column specifies whether the attribute is a mandatory field.

2.2.2 Organizational hierarchy

The organizational hierarchy is modeled in the **Organizational chart** model in an ARIS modeling environment using the **Organizational unit** object (OT_ORG_UNIT). The hierarchy between the objects is represented by the **is superior** connection. In ARIS Risk & Compliance Manager, only a tree structure for hierarchies is allowed. Therefore, each hierarchy element can only have one superior hierarchy element.

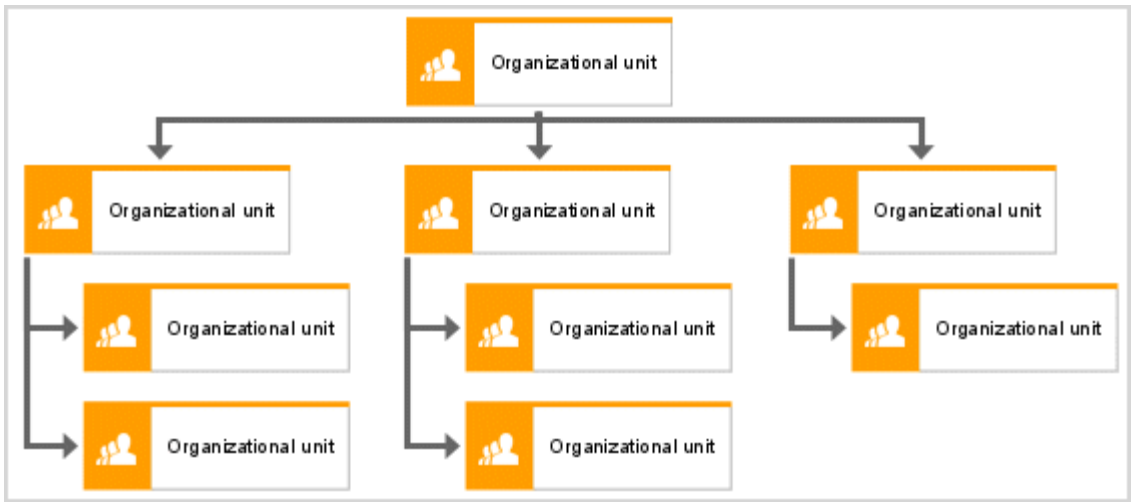


Figure 6: Organizational hierarchy structure

ATTRIBUTE MAPPINGS: ORGANIZATIONAL UNIT (ARIS) TO ORGANIZATIONAL HIERARCHY ELEMENT (ARCM)

ARIS attribute	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		
Sign-off relevant	AT_AAM_SIGN_OFF _RELEVANT		Only relevant for Sign-off Management (Page 85).

*The **M** column specifies whether the attribute is a mandatory field.

2.2.3 Process hierarchy

The following process models can be used for setting up the process hierarchy.

Model name	Model type name
Value-added chain diagram	MT_VAL_ADD_CHN_DGM
EPC	MT_EEPC
EPC (material flow)	MT_EEPC_MAT
EPC (column display)	MT_EEPC_COLUMN
EPC (row display)	MT_EEPC_ROW
EPC (table display)	MT_EEPC_TAB
EPC (horizontal table display)	MT_EEPC_TAB_HORIZONTAL
Function tree	MT_FUNC_TREE
BPMN process diagram (BPMN 2.0)	MT_BPMN_PROCESS_DIAGRAM
Enterprise BPMN process diagram	MT_ENTERPRISE_BPMN_PROCESS

In ARIS Risk & Compliance Manager, only a tree structure for hierarchies is allowed. Therefore, each hierarchy element can only have one superior hierarchy element. Below, you find modeling examples of the process landscape with the various notations (Value-added chain, EPC and BPMN).

PROCESS MODELING WITH VALUE-ADDED CHAIN DIAGRAM (VACD)

Process overviews are often modeled using the **value-added chain diagram** model type. In ARIS Risk & Compliance Manager, VACD functions are converted to process hierarchy objects.



Figure 7: Value-added chain diagram

Example

This example for a core process overview is used as the entry model to the process hierarchy.

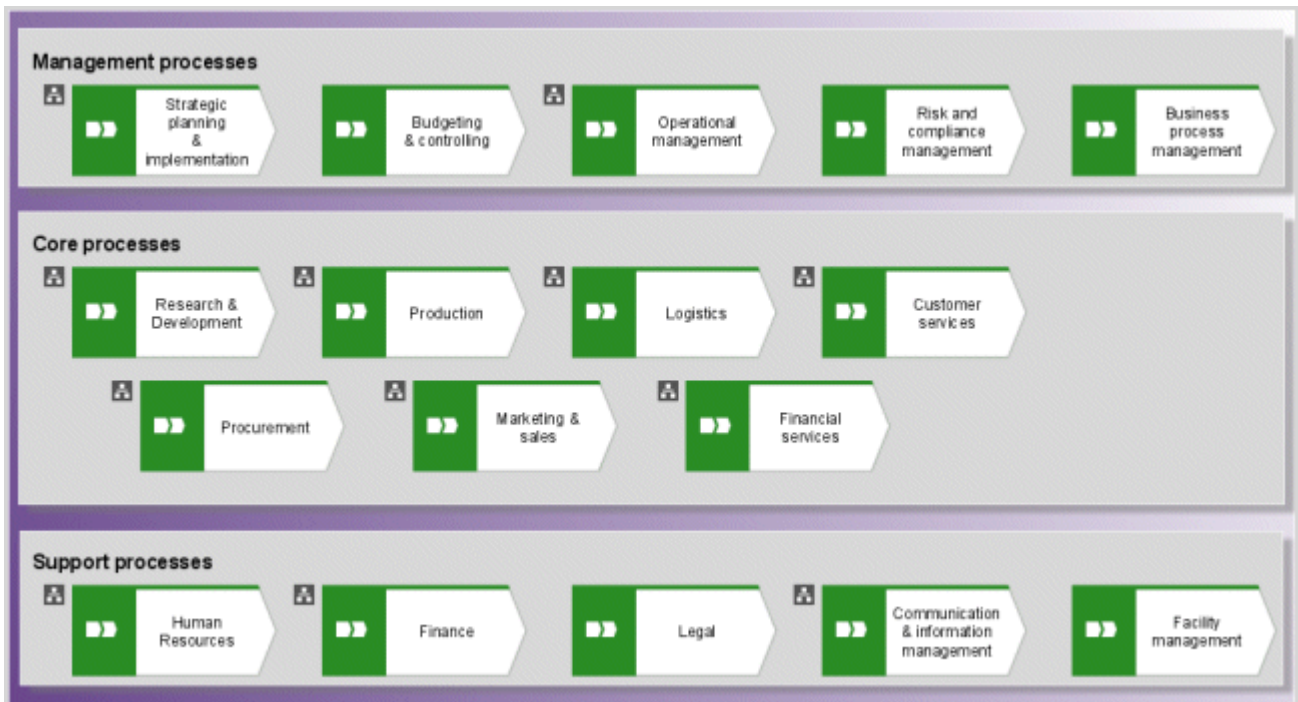


Figure 8: Value-added chain diagram - example

The object type used is **Function** (OT_FUNC). The hierarchy between the objects is represented by the **is process-oriented superior** or **is process-oriented subordinate** connection. The following model types can be assigned to a function object type in a VACD:

Objective	Assigned model type
Subprocess [Value-added chain]	VACD
Show more assigned objects	Function allocation diagram

PROCESS MODELING WITH EVENT-DRIVEN PROCESS CHAIN (EPC)

You can describe company processes using an EPC. It is based on the logical and chronological sequence of the activities to be carried out. In addition, a sequence of functions and resulting events is used. In ARIS Risk & Compliance Manager, EPC functions are converted to process hierarchy objects.

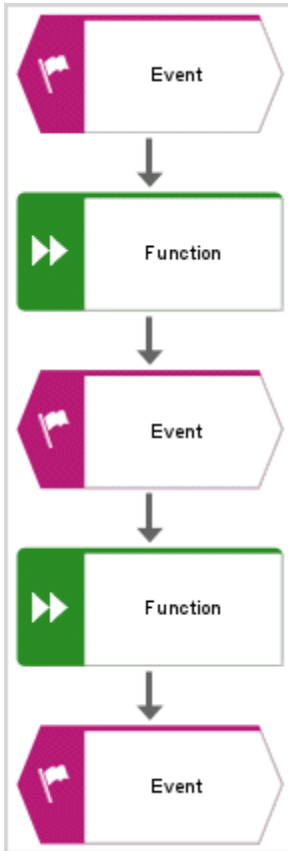


Figure 9: Event-driven process chain 1

These lean processes can be supplemented by additional objects (organizational units, positions, roles, application systems, and so on) containing extended information.

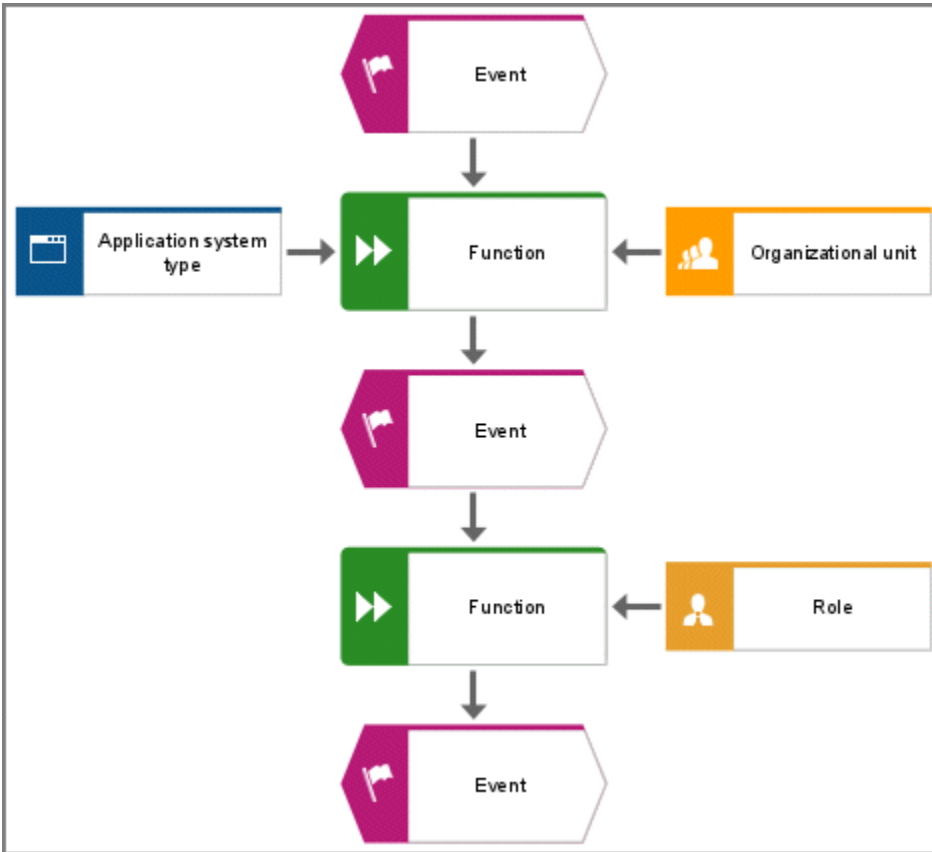


Figure 10: Event-driven process chain 2

To keep the process diagram lean, either create subprocesses or assign additional objects to functions using model assignments. The following model types can be assigned to a function object in an EPC:

Objective	Assigned model type
Subprocess	EPC
Show more assigned objects	Function allocation diagram



Figure 11: Function allocation diagram

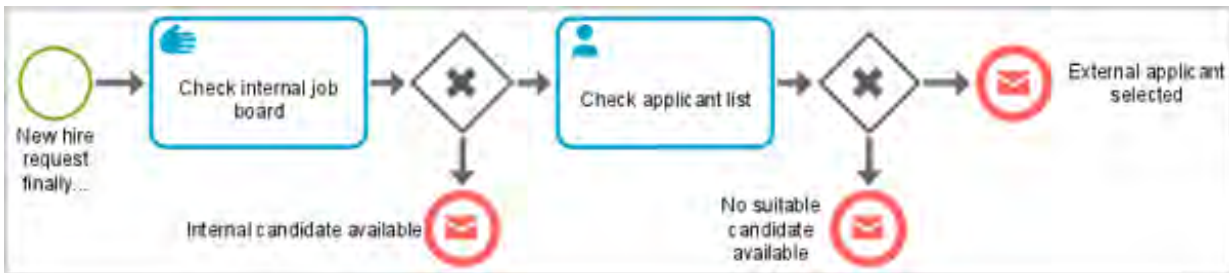
ATTRIBUTE MAPPINGS: FUNCTION (ARIS) TO PROCESS HIERARCHY ELEMENT (ARCM)

ARIS attribute	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		
Sign-off-relevant	AT_AAM_SIGN_OFF_RELEVANT		Only relevant for Sign-off Management (Page 85).

*The **M** column specifies whether the attribute is a mandatory field.

PROCESS MODELING WITH BUSINESS PROCESS MODEL AND NOTATION (BPMN)

You can describe business processes using BPMN. It is based on the logical and chronological sequence of tasks to be executed. In ARIS Risk & Compliance Manager, BPMN tasks are converted into process hierarchy objects.



Never assign **Call activity** objects to GRC objects such as risks, controls, or survey schedulers. Call activities represent elements (a single task or process) modeled elsewhere and are used only to call those elements. To avoid duplicates, **Call activity** objects are ignored.

2.2.4 Regulation & standards hierarchy

The regulation & standards hierarchy is modeled in the **Technical terms** model (MT_TECH_TRM_MDL) in an ARIS modeling environment using the **Technical term** object (OT_TECH_TRM). The **Regulations** attribute (API name: AT_AAM_ANNUAL_ACCOUNTS_ITEM) can be used to uniquely identify regulations. This attribute can be used at individual **Technical term** objects as well as at the **Technical terms** model. If used at the model, all **Technical term** objects on the model will be considered as regulation. The hierarchy between the objects is represented by the **has** connection. In ARIS Risk & Compliance Manager, only a tree structure for hierarchies is allowed. Therefore, each hierarchy element can only have one superior hierarchy element.

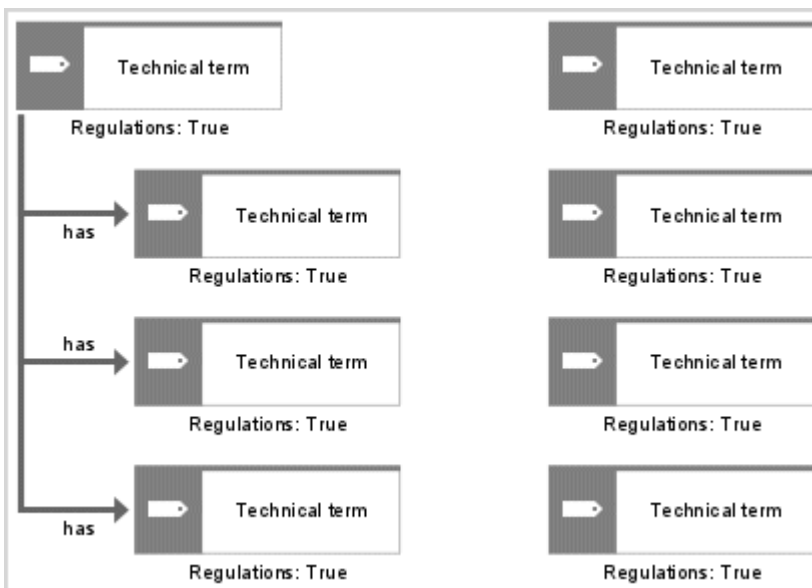


Figure 12: Regulation hierarchy structure

ATTRIBUTE MAPPINGS: TECHNICAL TERM (ARIS) TO HIERARCHY (ARCM)

ARIS attribute	API name	M*	Notes
Name	AT_NAME	X	
Short description	AT_SHORT_DESC		
Description/Definition	AT_DESC		
Sign-off-relevant	AT_AAM_SIGN_OFF_RELEVANT		Only relevant for Sign-off Management (Page 85).

*The **M** column specifies whether the attribute is a mandatory field.

2.2.5 Risk category hierarchy

In an ARIS modeling environment, the risk category hierarchy is modeled in the **Risk diagram** model (MT_RISK_DGM) with the **Risk** object (OT_RISK) and the **Risk category** object (OT_RISK_CATEGORY). The categorization of risks can be carried out here. Risks can be made subordinate to categories and the categories can in turn be made subordinate to other categories using the **encompasses** or **contains** relationship. In ARIS Risk & Compliance Manager, only a tree structure for hierarchies is allowed. Therefore, each hierarchy element can only have one superior hierarchy element.

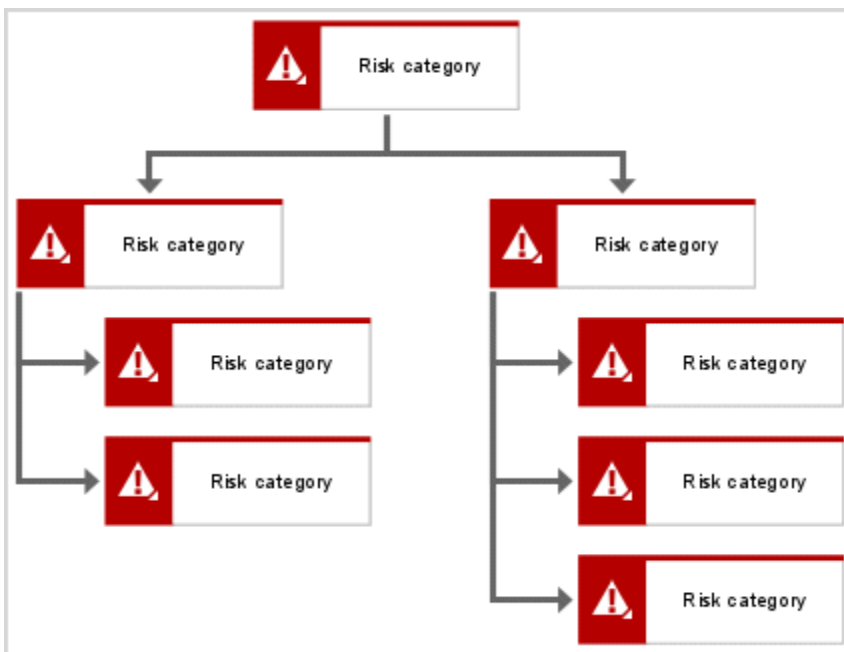


Figure 13: Risk hierarchy structure

ATTRIBUTE MAPPINGS: RISK CATEGORY (ARIS) TO RISK HIERARCHY (ARCM)

ARIS attribute	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		

*The **M** column specifies whether the attribute is a mandatory field.

2.2.6 Tester hierarchy

User groups of control testers can be organized in a tester hierarchy for a better overview to improve collaboration between control testers and optimize overview for test managers. The tester hierarchy is used, for example, to evaluate control tests of several tester groups work together. Control testers of a user group of a tester hierarchy can view all control tests of the other user groups of this tester hierarchy or subordinate tester hierarchies. The tester hierarchy is modeled in the organizational chart in an ARIS modeling environment using the **Organizational unit** object (OT_ORG_UNIT). The hierarchy between the objects is represented by the **is superior** connection. The control tester user groups and the control tester hierarchy are connected by the **belongs to** connection. In ARIS Risk & Compliance Manager, only a tree structure for hierarchies is allowed. Therefore, each hierarchy element can only have one superior hierarchy element. A tester hierarchy element is therefore created in ARIS Risk & Compliance Manager for each organizational unit.

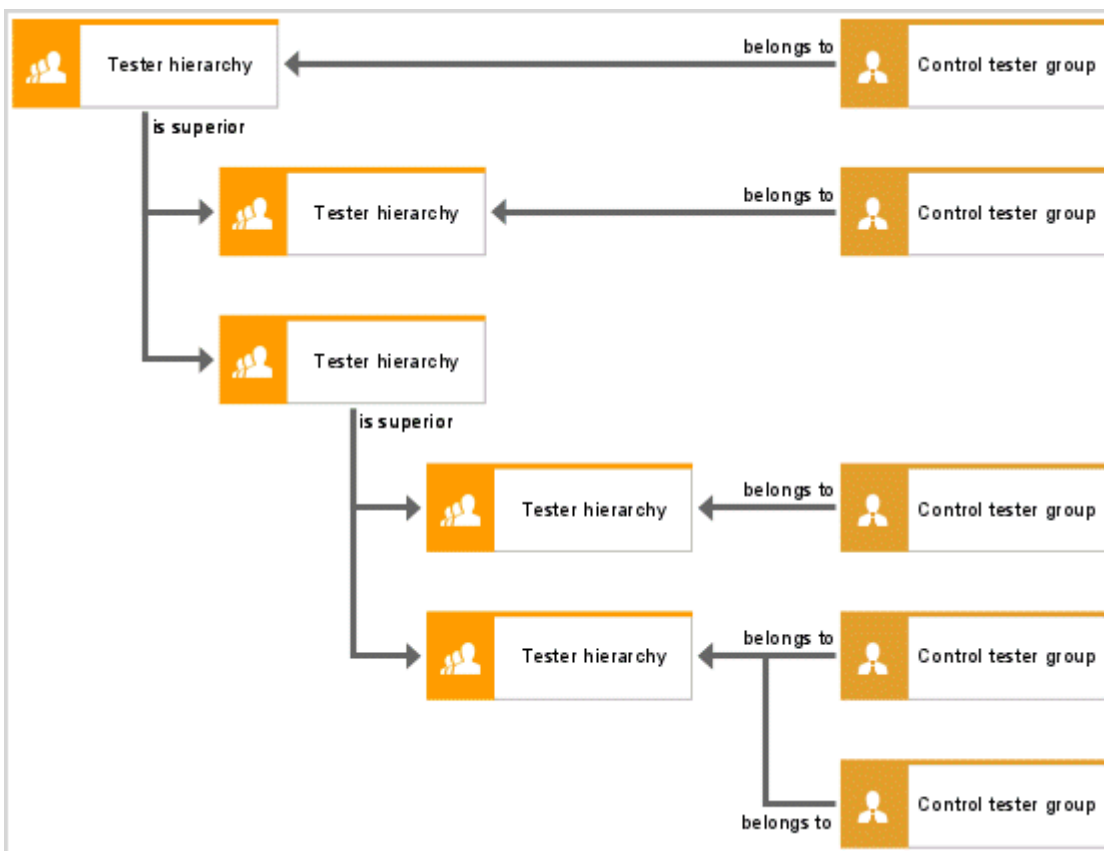


Figure 14: Tester hierarchy structure

ATTRIBUTE MAPPINGS: ORGANIZATIONAL UNIT (ARIS) TO TESTER HIERARCHY ELEMENT (ARCM)

ARIS attribute	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		
Sign-off relevant	AT_AAM_SIGN_OFF_RELEVANT		Only relevant for Sign-off Management (Page 85).

*The **M** column specifies whether the attribute is a mandatory field.

3 Policy Management conventions

The objective of Policy Management is to identify, approve, and publish corporate policies. These can be policies to reduce risk or policies without a specific context. The entire long-term policy lifecycle is visible because all published versions of a policy are based on the same policy definition. Each policy generated from a policy definition is valid for a specified time period. Optionally, a policy approval workflow can be executed. If required, the policy addresses can be prompted to read and confirm the policy after the policy is published. Policy definitions can be defined to regularly generate policy review tasks (from ARIS version 9.5).

3.1 Policies in processes

You can describe company processes and assets using various models (Page 15). The occurrence of policies in process models indicates which processes or process functions are regulated by a policy.

3.2 Business rule architecture diagram

To model a hierarchy between policies, you can use the following connection in the **Business rule architecture diagram** model.

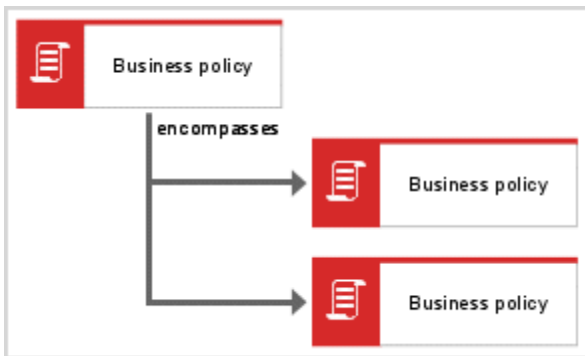


Figure 15: Business rule architecture diagram

Object	Connection	Object	Remark
Policy	encompasses	Policy	Represents a hierarchy between policies

3.3 Business controls diagram

You can model policy definitions in an ARIS modeling environment to simplify master data maintenance. The model **Business controls diagram** (MT_BUSY_CONTR_DGM) is intended for this.

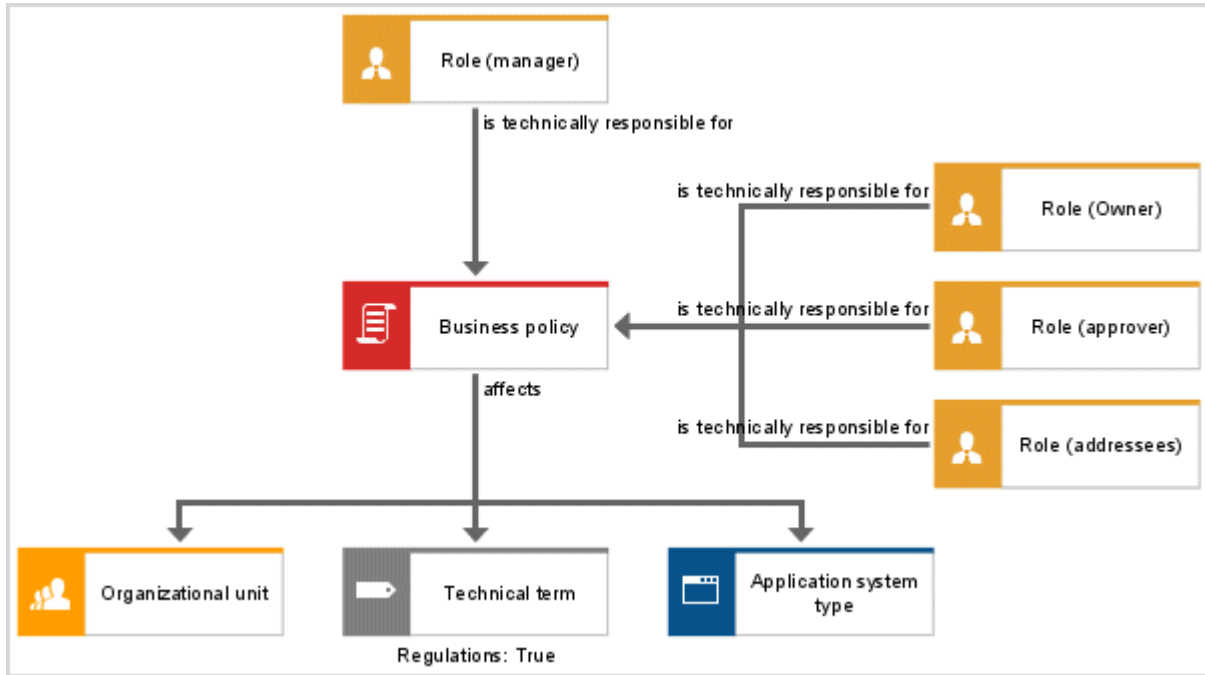


Figure 16: Business controls diagram for Policy Management

RELATIONSHIPS OF THE POLICY OBJECT

The following objects and relationships between those objects are used:

Object	Connection	Object	Remark
Role	is technically responsible for	Policy	Assigns the user groups to the policy definition.
Risk	is reduced by	Policy	Creates the connection between the policy definition and the risk.
Policy	affects	Organizational unit	Creates the connection between the policy definition and the affected organizational hierarchy element.
Policy	affects	Technical term	Creates the connection between the policy definition and the affected regulation hierarchy element.

Object	Connection	Object	Remark
Policy	affects	Application system type	Creates the connection between the policy definition and the affected application system type hierarchy element.

3.4 Policy object

The policy definition is modeled in an ARIS modeling environment with the **Policy** object (OT_POLICY). A policy definition is created in ARIS Risk & Compliance Manager for each policy for which the **Synchronize ARCM** attribute is set to **true**.

ATTRIBUTE MAPPINGS: POLICY OBJECT (ARIS) TO POLICY DEFINITION (ARCM)

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		
Policy type	AT_POLICY_TYPE	X	Two selection options: <ul style="list-style-type: none"> ▪ Confirmation required (the confirmation process is started after the policy is published) ▪ Publish only (the process ends after the policy is published)
Confirmation text	AT_CONFIRMATION_TEXT		
Confirmation duration in days (Confirmation duration)	AT_CONFIRMATION_DURATION	(X)	Indicates the time span in which the users in the policy addressee group can read and confirm the policy. The confirmation duration is relevant only for policies of the type Confirmation required .

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Start date of publishing preparation period (Publishing preparation period)	AT_START_DATE_APPROVAL_PERIOD_OWNER	X	Start of the approval period for the policy owner.
End date of publishing preparation period (Publishing preparation period)	AT_END_DATE_APPROVAL_PERIOD_OWNER	X	End of the approval period for the policy owner.
Start date of approval period (Approval period)	AT_START_DATE_APPROVAL_PERIOD_APPROVER	X	Start of the approval period for the policy approver. The approvals are generated for the approver.
End date of approval period (Approval period)	AT_END_DATE_APPROVAL_PERIOD_APPROVER	X	End of the approval period for the policy approver.
Earliest publishing date	AT_START_DATE_PUBLISHING_PERIOD		Earliest date from which a policy can be published. If not specified, the publishing is possible directly after approval by the policy owner.
Latest publishing date	AT_END_DATE_PUBLISHING_PERIOD	X	Latest date for publishing the policy.
Synchronize ARCM	AT_AAM_EXPORT_RELEVANT		This attribute specifies whether a policy definition should be synchronized with ARIS Risk & Compliance Manager.

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Title 1	AT_TITL1		Indicates the titles of linked documents.
Title 2	AT_TITL2		
Title 3	AT_TITL3		
Title 4	AT_TITL4		
Link 1	AT_EXT_1		Indicates the links of linked documents.
Link 2	AT_EXT_2		
Link 3	AT_EXT_3		
Link 4	AT_LINK		
ARIS document storage Title 1	AT_ADS_TITL1		Indicates the titles of linked documents in ARIS document storage.
ARIS document storage Title 2	AT_ADS_TITL2		
ARIS document storage Title 3	AT_ADS_TITL3		
ARIS document storage Title 4	AT_ADS_TITL4		
ARIS document storage link 1	AT_ADS_LINK_1		Indicates the links of linked documents in ARIS document storage.
ARIS document storage link 2	AT_ADS_LINK_2		
ARIS document storage link 3	AT_ADS_LINK_3		
ARIS document storage link 4	AT_ADS_LINK_4		

*The **M** column specifies whether the attribute is a mandatory field.

ADDITIONAL ATTRIBUTES (REVIEW ATTRIBUTE GROUP) FOR THE POLICY OBJECT FROM ARIS 9.5

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Review-relevant	AT_REVIEW_RELEVANT		Marks the policy as review-relevant.
Review activities (Activities)	AT_REVIEW_ACTIVITY		Describes the activities to be executed during the review.
Review frequency (Task frequency)	AT_REVIEW_FREQUENCY	(X)	Indicates the interval at which the policy review is to be carried out. If the policy was marked as review-relevant, this field becomes mandatory.
Event-driven review allowed (Event-driven task allowed)	AT_EVENT_DRIVEN_REVIEW_ALLOWED		Indicates whether manually created reviews are allowed for policies. Is automatically set to true during import from ARIS to ARIS Risk & Compliance Manager if the Review frequency attribute is set to Event-driven .
Time limit for the execution of the review in days (Time limit for task processing)	AT_REVIEW_EXECUTION_TIME_LIMIT	(X)	Indicates the number of days that the policy owner has to process the review. The review duration is specified by the end date at which the review must be completed. If the policy was marked as review-relevant, this field becomes mandatory. This attribute is not mandatory if the Review frequency attribute has the value Event-driven .

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Start date of policy review (Start date)	AT_START_DATE_OF_POLICY_REVIEWS	(X)	Indicates the date from which the first policy review is to be generated. If the policy was marked as review-relevant, this field becomes mandatory. This attribute is not mandatory if the Review frequency attribute has the value Event-driven .
End date of policy review (End date)	AT_END_DATE_OF_POLICY_REVIEWS		Indicates the date up to which policy reviews are generated.
Length of control period	AT_AAM_TESTDEF_CTRL_PERIOD		Indicates the period to which the policy review relates. If the policy was marked as review-relevant, it is recommended specifying this field, but it is not mandatory.

*The **M** column specifies whether the attribute is a mandatory field.

4 Regulatory Change Management conventions

The objective of Regulatory Change Management is to regularly check regulations for changes or required measures and to ensure that people responsible are informed and act appropriately. For regulations that are marked as review-relevant, a change review task is generated on due date. The user responsible receives a task with information about the activities to be performed. Each activity resulting from the change review is later visible to all participants.

4.1 Technical terms model

For details on the modeling conventions for regulations and regulation hierarchies, refer to Regulation & standards hierarchy (Page 20).

4.2 Technical term object

FURTHER ATTRIBUTES TO SPECIFY REGULATORY CHANGE MANAGEMENT DATA

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Review-relevant	AT_REVIEW_RELEVAN T		Marks regulations as review-relevant. Accordingly, the attributes specified here and the assignment of precisely one group with the Hierarchy owner role become mandatory.
Review activities (Activities)	AT_REVIEW_ACTIVITY		Describes the activities to be executed during the review.
Review frequency (Task frequency)	AT_REVIEW_ FREQUENCY	(X)	Indicates the interval at which the review is to be carried out. If regulations were marked as review-relevant, this field becomes mandatory.

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Event-driven review allowed (Event-driven task allowed)	AT_EVENT_DRIVEN_REVIEW_ALLOWED		Indicates whether manually created reviews are allowed for regulations. Is automatically set to true during import from ARIS to ARIS Risk & Compliance Manager if the Review frequency attribute is set to Event-driven .
Time limit for the execution of the review in days (Time limit for task processing)	AT_REVIEW_EXECUTION_TIME_LIMIT	(X)	Indicates the number of days available to the hierarchy owner to process the review. If regulations were marked as review-relevant, this field becomes mandatory.
Start date of review (Start date)	AT_REVIEW_START_DATE	(X)	Indicates the date from which the first review is to be generated. If regulations were marked as review-relevant, this field becomes mandatory.
End date of review (End date)	AT_REVIEW_END_DATE		Indicates the date up to which reviews are generated.

*The **M** column specifies whether the attribute is a mandatory field.

4.3 Relation between Role and Technical term

Users who are responsible for reviewing a regulation must be assigned to a hierarchy owner group (Page 2). To map the responsibilities between the hierarchy owner group (OT_PERS_TYPE) and the regulations (OT_Tech_TRM), the **Function allocation diagram** (MT_FUNC_ALLOC_DGM) or the **Business controls diagram** (MT_BUSY_CONTR_DGM) is used with the following connection.

Object	Connection	Object	Remark
Role	is owner of	Technical term	Allocates the user group (with the Hierarchy owner role) to the regulations.

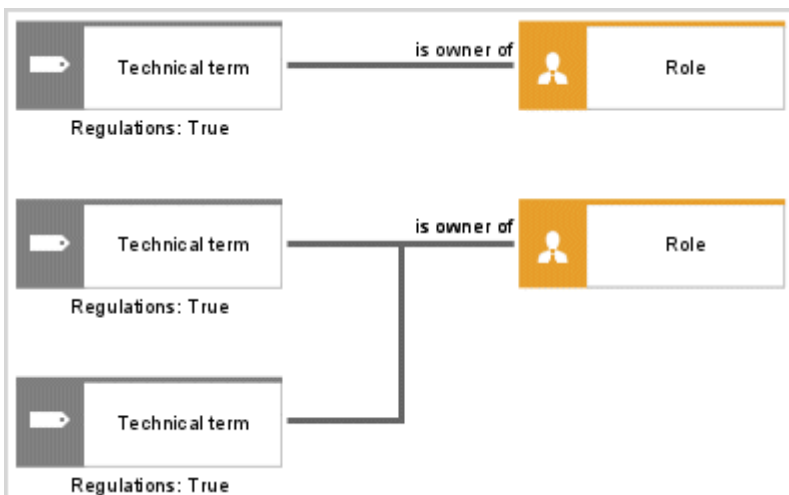


Figure 17: Function allocation diagram – Role and Technical term

5 Survey Management conventions

The objective of Survey Management is to prepare, plan, execute, and analyze surveys. Surveys can be regularly generated with a predefined frequency or one-time. They can have a context, for example, a risk, a process, or a combination of both. If so, the questionnaires of the survey are visible in the context object page. Surveys can be generated for one or more interviewee groups. Each interviewee group receives one questionnaire, which can then be answered by any group member.

Surveys are based on questionnaire templates that specify the questions to be answered by the interviewees. The questions must be structured in sections. The sections can be reused in various questionnaire templates. There are different types of questions. For single-choice and multiple-choice question types, answer options can be specified in option sets and then be reused, for example, **Yes** and **No** answer options.

Scores for answer options can be used to compare or evaluate questionnaires. With specified target scores for surveys, questionnaires, and sections, for example, the questionnaires that achieved the target score can be easily identified. Furthermore, answer options can activate additional questions or sections depending on the answers given (dependent questions).

5.1 Questionnaire template diagram

To simplify the reuse of questionnaire structures, like group of questions (sections) and answer option sets, questionnaire templates can be modeled in an ARIS modeling environment. For this, the **Questionnaire template diagram** model type (MT_SURVEY_MGMT) is used. The following objects can be used in the model.

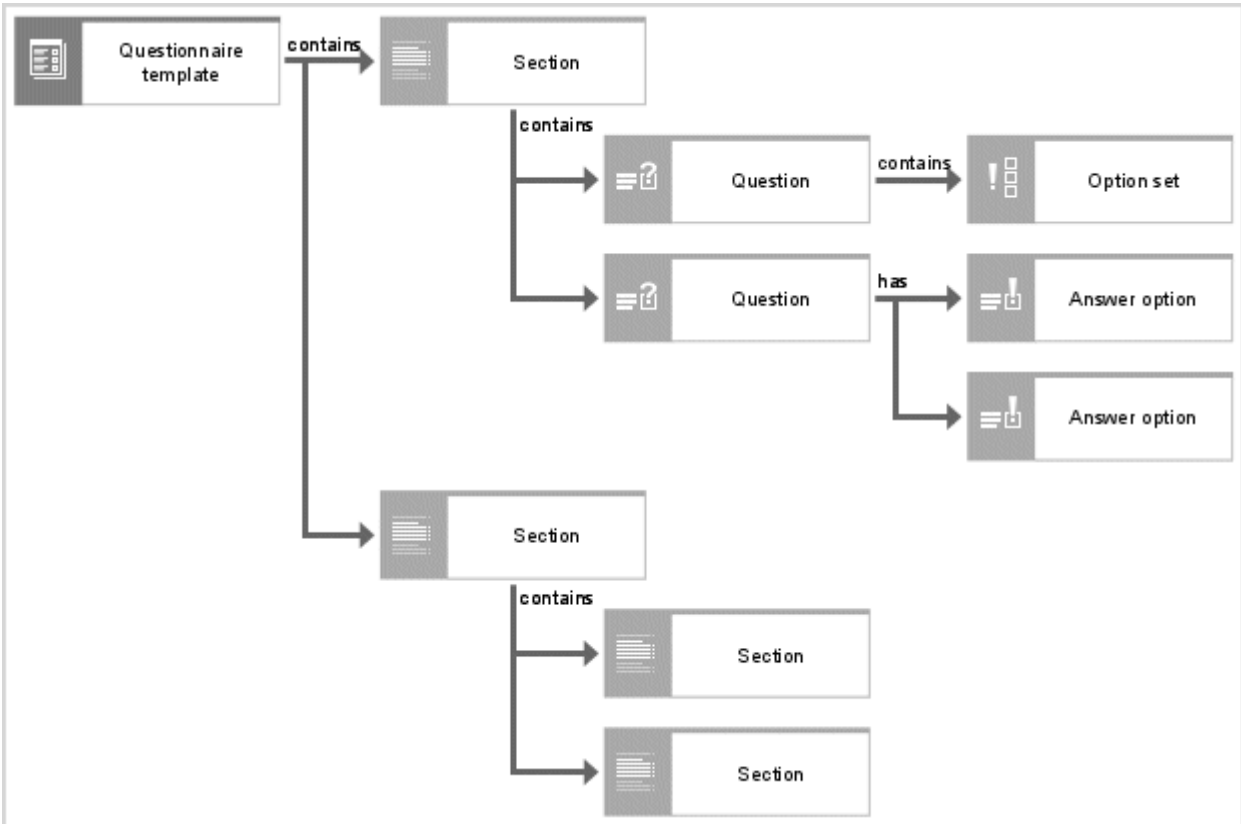


Figure 18: Survey Management model

Example

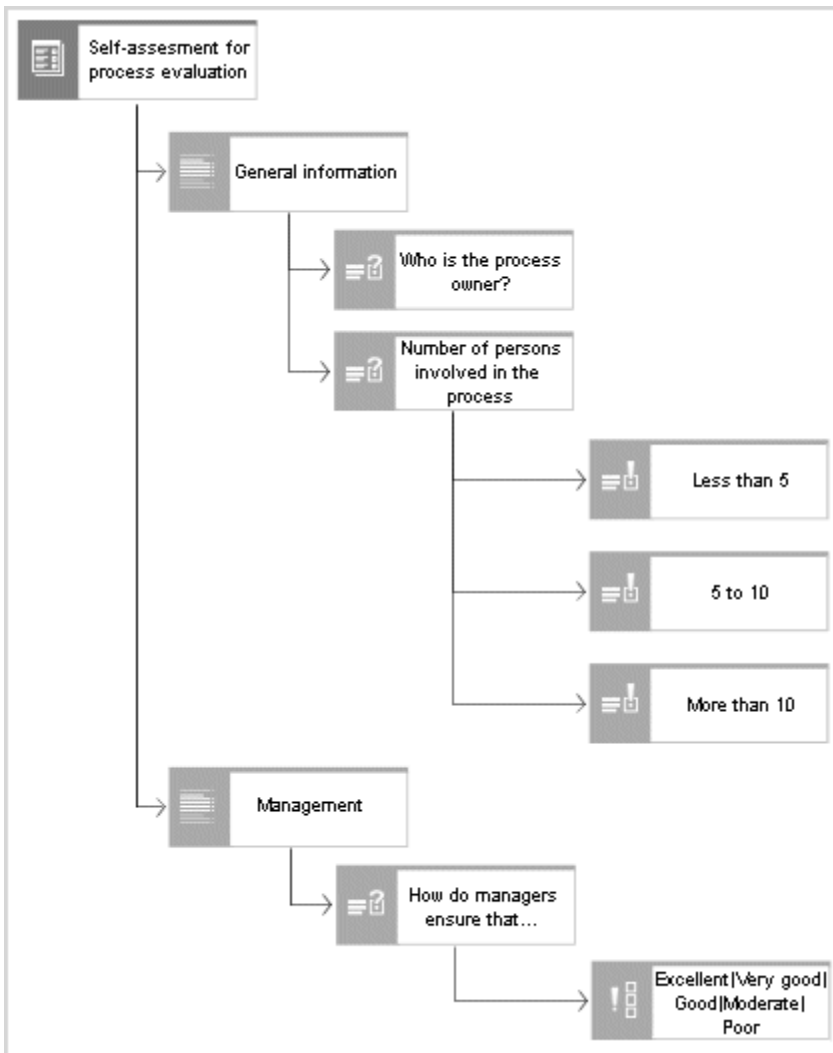


Figure 19: Example of a questionnaire template (Survey management models)

The highest element is the questionnaire template (**Self-assessment for process evaluation**). Any number of sections can be assigned to a questionnaire template. The sections can in turn have any number of subsections. In the example above the questionnaire template has the two sections **General information** and **Management**. Questions cannot be directly assigned to a questionnaire template. They can only be attached to sections. Note that a question can only occur once in a section. In the figure above the questions **Who is the process owner?** and **Number of persons involved in the process** are assigned to the section **General information**. The question **Who is the process owner?** is a **text** question type. This means that a text box is available for answering the question. The question **Number of persons involved in the process** is a **single choice** question type. As you can see in the figure above three possible answers are assigned to this question. The user can select one of the three answers to answer the question.

If a combination of possible answers should be used more often, you can combine these in an option set. In the above example the option set **Excellent/Very good/Good/Moderate/Poor** is assigned to the question **How do managers ensure that processes are continuously improved and adjusted?** The option set can be modeled in the same model of type **Questionnaire template diagram** or in a separate model that combines all option sets.

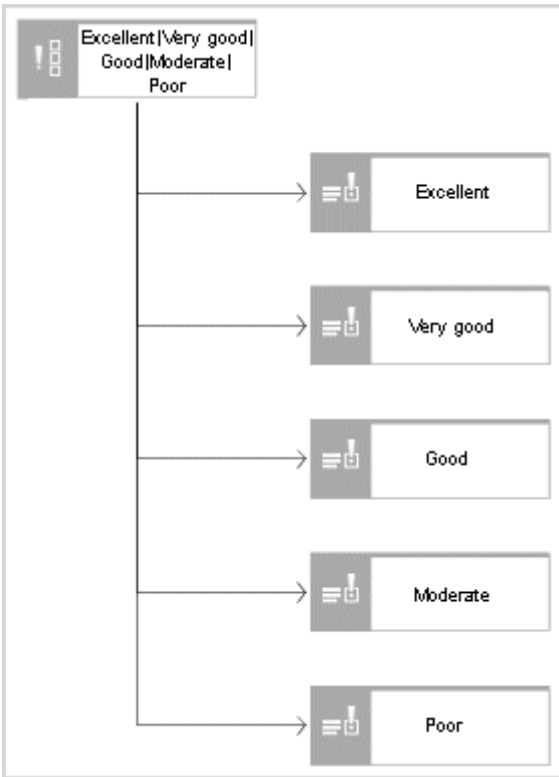


Figure 20: Option set (Survey Management model)

CONNECTIONS AND RELATIONSHIPS THAT CAN BE USED IN A QUESTIONNAIRE TEMPLATE

Object	Connection	Object	Notes
Questionnaire template	contains	Section	A questionnaire template can have several sections. A section can only occur in one questionnaire template. It is not possible to reuse sections in different questionnaire templates.
Section	contains	Section	A section can contain several subsections. A subsection can only have one superior section.
Section	contains	Question	A section can contain several questions. A question can only occur once in a section. It is, however, possible to use a question in different sections. A question can also be used in different questionnaire templates.

Object	Connection	Object	Notes
Question	contains	Option set	Only one option set can be assigned to a question. Different questions can, however, be assigned to an option set.
Question	has	Answer option	Several answers can be assigned to a question. An answer option can be assigned to several different questions.
Option set	has	Answer option	An option set can contain several answer options. An answer option can be assigned to several different option sets.

5.2 Questionnaire template object

The questionnaire template is modeled in an ARIS modeling environment using the **Questionnaire template** object (OT_SURVEY_QUEST_TMPL). A questionnaire template is created in ARIS Risk & Compliance Manager for each questionnaire template for which the **Synchronize ARCM** attribute is set to **true**.

ATTRIBUTE MAPPINGS: QUESTIONNAIRE TEMPLATE (ARIS) TO QUESTIONNAIRE TEMPLATE (ARCM)

ARIS attribute	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		
Title 1	AT_TITL1		Indicates the titles of linked documents.
Title 2	AT_TITL2		
Title 3	AT_TITL3		
Title 4	AT_TITL4		
Link 1	AT_EXT_1		Indicates the links of linked documents.
Link 2	AT_EXT_2		
Link 3	AT_EXT_3		
Link 4	AT_LINK		

ARIS attribute	API name	M*	Notes
ARIS document storage Title 1	AT_ADS_TITL1		Indicates the titles of linked documents in ARIS document storage.
ARIS document storage Title 2	AT_ADS_TITL2		
ARIS document storage Title 3	AT_ADS_TITL3		
ARIS document storage Title 4	AT_ADS_TITL4		
ARIS document storage link 1	AT_ADS_LINK_1		Indicates the links of linked documents in ARIS document storage.
ARIS document storage link 2	AT_ADS_LINK_2		
ARIS document storage link 3	AT_ADS_LINK_3		
ARIS document storage link 4	AT_ADS_LINK_4		
Score (target)	AT_SCORE_TARGET		The score (target) specifies how many points should be achieved for a specific questionnaire.
Synchronize ARCM	AT_AAM_EXPORT_RELEVANT		This attribute specifies whether a questionnaire template should be synchronized with ARIS Risk & Compliance Manager.
Automatic numbering	AT_AUTOMATIC_NUMBERING		Activates or deactivates the automatic numbering for all sections and questions of the questionnaire in ARIS Risk & Compliance Manager.

*The **M** column specifies whether the attribute is a mandatory field.

5.3 Section object

The section is modeled in an ARIS modeling environment with the **Section** object (OT_SURVEY_SECTION).

ATTRIBUTE MAPPINGS: SECTION (ARIS) TO SECTION (ARCM)

ARIS attribute	API name	M*	Notes
Name	AT_NAME	X	
Description/ Definition	AT_DESC		
Score (target)	AT_SCORE_TARGET		The score (target) specifies how many points should be achieved for a specific section.

*The **M** column specifies whether the attribute is a mandatory field.

5.4 Question object

The question is modeled in an ARIS modeling environment using the **Question** object (OT_SURVEY_QUESTION). An option set and answer options cannot be assigned to a question at the same time.

ATTRIBUTE MAPPINGS: QUESTION (ARIS) TO QUESTION (ARCM)

ARIS attribute	API name	M*	Notes
Description/Definition	AT_DESC	X	The Description/Definition ARIS attribute contains the question text that is displayed in the generated questionnaire.
Remark/Example	AT_REM		The Remark/Example ARIS attribute can contain remarks and explanations pertaining to the question text.
Notes allowed	AT_ANNOTATIONS_ALLOWED		Specifies whether an interviewee can add a note pertaining to a question (default setting: False = No).
Document upload allowed	AT_DOCUMENT_UPLOAD_ALLOWED		Specifies whether an interviewee can upload documents and attach them to a question (default setting: False = No).
Question type	AT_QUESTION_TYPE	X	The question type specifies the type of question (for example: single choice, text). Further information is provided in the following chapters.

ARIS attribute	API name	M*	Notes
Evaluation by reviewer	AT_REVIEWER_RATES_ANSWER		Specifies whether the survey reviewer can evaluate the interviewee's answers and thus assign a score (default setting: False = No). Further information is provided in the following chapters.
Optional question	AT_OPTIONAL_QUESTION		Specifies whether questions are optional (default setting: False = No).
Title 1	AT_TITL1		Indicates the titles of linked documents.
Title 2	AT_TITL2		
Title 3	AT_TITL3		
Title 4	AT_TITL4		
Link 1	AT_EXT_1		Indicates the links of linked documents.
Link 2	AT_EXT_2		
Link 3	AT_EXT_3		
Link 4	AT_LINK		
ARIS document storage Title 1	AT_ADS_TITL1		Indicates the titles of linked documents in ARIS document storage.
ARIS document storage Title 2	AT_ADS_TITL2		
ARIS document storage Title 3	AT_ADS_TITL3		
ARIS document storage Title 4	AT_ADS_TITL4		

MODELING CONVENTIONS

ARIS attribute	API name	M*	Notes
ARIS document storage link 1	AT_ADS_LINK_1		Indicates the links of linked documents in ARIS document storage.
ARIS document storage link 2	AT_ADS_LINK_2		
ARIS document storage link 3	AT_ADS_LINK_3		
ARIS document storage link 4	AT_ADS_LINK_4		

*The **M** column specifies whether the attribute is a mandatory field.

QUESTION TYPES ATTRIBUTE

A fundamental property of a question is the question type. The question type specifies how a question can or must be answered. In addition, the question type has an effect on whether a question can be assigned to an option set or to answer options. The following question types are available. They are mutually exclusive. Thus, a question can only have one question type.

- **Single choice**

The single choice question type specifies that the interviewee can select only one of the available answer options. As soon as this question type was selected the question must be assigned to either an option set or answer options.

- **Multiple choice**

The multiple choice question type specifies that the interviewee can select any number of available answer options. As soon as this question type was selected the question must be assigned to either an option set or answer options.

- **Text**

The text question type specifies that an interviewee can enter any text as an answer to the question.

- **Numerical (integer)**

The numerical (integer) question type specifies that an interviewee must enter an integer as an answer to the question.

- **Numerical (floating point number)**

The numerical (floating point number) question type specifies that an interviewee must enter a floating point number as an answer to the question.

- **Date**

The date question type specifies that an interviewee must enter a date as an answer to the question.

- **Date range**

The date range question type specifies that an interviewee must enter a date range (from ...to ...) as an answer to the question.

EVALUATION BY REVIEWER ATTRIBUTE

If the **Evaluation by reviewer** attribute is set the survey reviewer can evaluate the interviewee's answer. This is however only possible for questions that do not belong to the **Single choice** or **Multiple choice** question type. As soon as this attribute was set the question must be assigned to either an option set or answer options. As soon as the interviewee has answered the question the survey reviewer can select a fitting answer from the answer options. In doing so, however the survey reviewer isn't answering the question but rather evaluating the interviewee's answer. This evaluation determines the score for the corresponding question.

5.5 Option set object

The option set is modeled in an ARIS modeling environment using the **Option set** object (OT_SURVEY_OPTION_SET).

ATTRIBUTE MAPPINGS: OPTION SET (ARIS) TO OPTION SET (ARCM)

ARIS attribute	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		

*The **M** column specifies whether the attribute is a mandatory field.

5.6 Answer option object

The answer option is modeled in an ARIS modeling environment using the **Answer option** object (OT_SURVEY_OPTION).

ATTRIBUTE MAPPINGS: ANSWER OPTION (ARIS) TO ANSWER OPTION (ARCM)

ARIS attribute	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		

*The **M** column specifies whether the attribute is a mandatory field.

5.6.1 Dependent questions/sections

You can create dependencies between an answer option and additional questions/sections. In this case, interviewees must answer additional questions or edit additional sections depending on the answers given. You can only create additional questions for **Single choice** and **Multiple choice** question types. An answer option can simultaneously activate additional questions and sections. The dependencies are modeled in a **Questionnaire template diagram** model. Make sure not to model cycles in dependencies.

Example

Question: **How do you assess the performance of managers to ensure that processes are continuously improved and adjusted?**

Answer option 1: **Good** (there are no additional questions to be answered)

Answer option 2: **Moderate** (there are no additional questions to be answered)

Answer option 3: **Poor** (activates the additional question: **What could be improved?**)

OBJECT RELATIONSHIPS IN A QUESTIONNAIRE TEMPLATE DIAGRAM MODEL

Object	Connection	Object	Notes
Answer option	activates	Question	An answer option can activate one or more questions.
Answer option	activates	Section	An answer option can activate one or more sections.

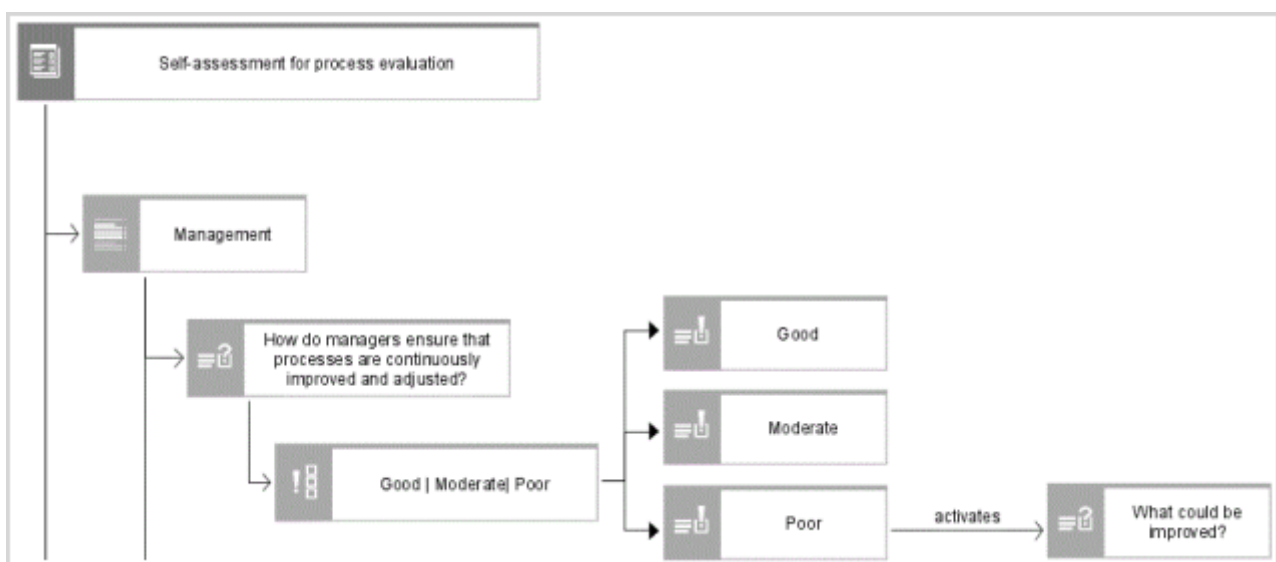


Figure 21: Dependency between an answer option and a question

ACTIVATION OF DEPENDENT QUESTIONS/SECTIONS

ANSWER OPTION ALWAYS ACTIVATES THE SAME QUESTIONS/SECTIONS

An answer option is often used multiple times in a questionnaire template, especially if it belongs to an option set. If an answer, for example, **Poor**, must always activate the same question, for example, **What could be improved?**, the question must be connected to the option. The same applies to sections.

Example

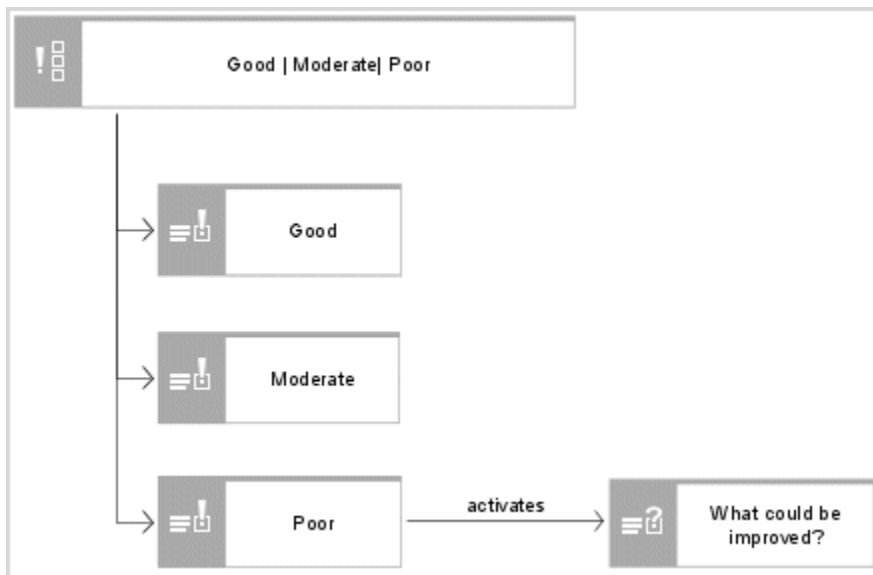


Figure 22: Answer option always activates the same question

ANSWER OPTION ACTIVATES DIFFERENT QUESTIONS/SECTIONS IN THE CONTEXT OF A SPECIFIC QUESTION

An answer option, for example, **Poor**, can activate different questions depending on the context. To do so, the connection **is valid in context of** must be used to define in which context which dependent question must be activated. The same applies to sections.

Object	Connection	Object	Notes
Question	is valid in context of	Question	A question is only activated by an answer option in the context of a particular question.
Section	is valid in context of	Question	A section is only activated by an answer option in the context of a particular question.

Example

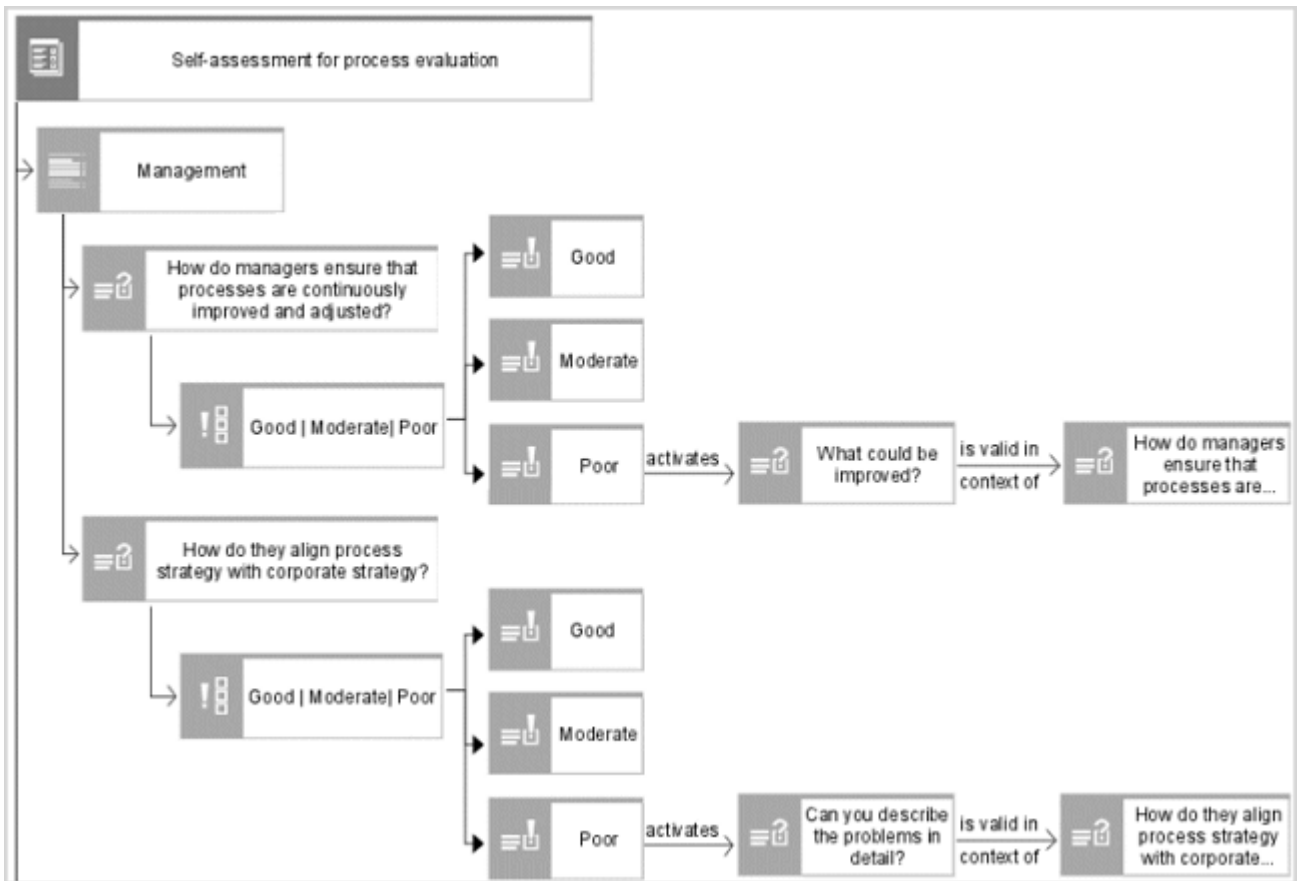


Figure 23: Answer option activates different questions in different contexts

POSITION OF DEPENDENT QUESTIONS/SECTIONS IN ARIS RISK & COMPLIANCE MANAGER

Once the questionnaire template is modeled in an ARIS modeling environment, you can transfer it to ARIS Risk & Compliance Manager (**Synchronize ARCM**). There are two possibilities to define the position of the dependent question/section in the questionnaire template of ARIS Risk & Compliance Manager.

DEPENDENT QUESTION/SECTION DIRECTLY BENEATH THE ACTIVATING QUESTION

If the dependent question/section can be displayed below the activating question in the questionnaire template structure of ARIS Risk & Compliance Manager, use the **activates** connection to connect the question/section to the answer option in an ARIS modeling environment.

STANDARD CASE

If the triggering answer option is connected to multiple questions in an ARIS modeling environment, the synchronization of ARIS Risk & Compliance Manager generates the corresponding number of copies of the activated question/section. In the questionnaire template structure of ARIS Risk & Compliance Manager, each copy of the activated question/section is displayed directly beneath the activating question. An answer option always triggers only the depending question/section that is displayed beneath the activating question.

SPECIAL CASES

Multiple answer options trigger the same depending question

If multiple answer options of one question trigger the same depending question, the depending question is displayed only once beneath the question.

Multiple questions activate the same depending section

- If multiple questions within a section activate the same depending section, the depending section is displayed only once beneath the section.
- If multiple questions of multiple sections that belong to the same superior section activate the same depending section, the depending section is displayed only once beneath the superior section.

Multiple questions activate the same depending question

If multiple questions of one section activate the same depending question, the depending question is displayed only once within the section.

DEPENDENT QUESTION/SECTION AT A DEFINED POSITION

If you want to specify the position of the dependent question/section in the questionnaire template structure of ARIS Risk & Compliance Manager, you must model this explicitly in an ARIS modeling environment. To do so, use the **activates** connection to connect the question/section to the answer option. Additionally, use the **contains** connection to specify the position of the question/section in the section/the questionnaire template.

If the answer option (which activates the dependent question/section) is connected to multiple questions in an ARIS modeling environment, the synchronization with ARIS Risk & Compliance Manager only generates one question/section. In the questionnaire template structure of ARIS Risk & Compliance Manager, the dependent section/question is displayed at the same position as in the ARIS modeling environment model. Each answer option activates the same depending question/section. Example:

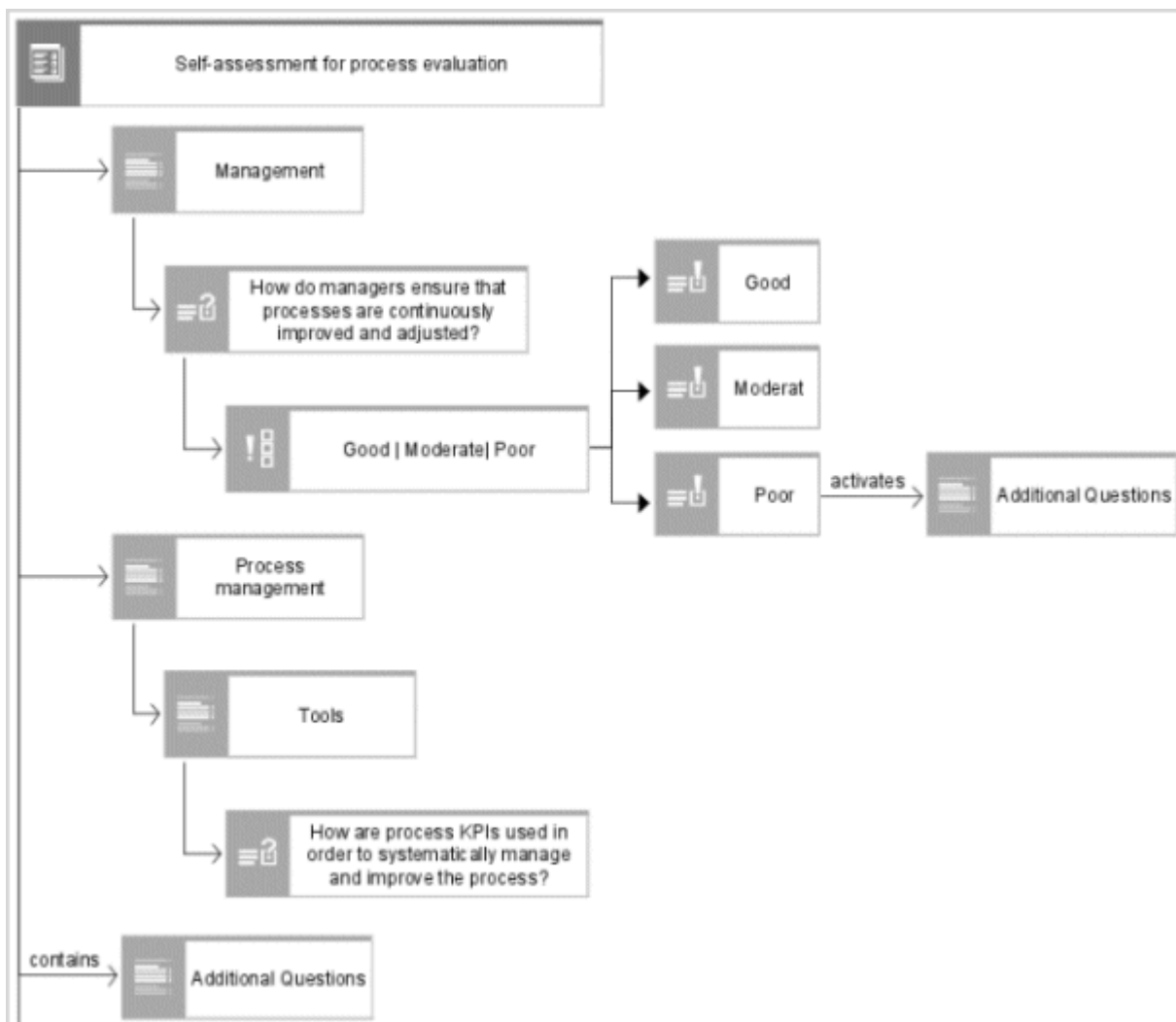


Figure 24: Section at a defined position in the structure

5.7 Questionnaire template allocation diagram

Questionnaire templates modeled with a **Questionnaire template diagram** can be used to generate surveys in ARIS Risk & Compliance Manager. The details for the surveys to be generated can be modeled using the **Questionnaire template allocation diagram**. The **Questionnaire template allocation diagram** represents information on the areas, objects, involved user groups, and hierarchies affected by the survey. Use the **Survey scheduler** object type to specify the details of the survey, such as the start date or the time available for answering the questionnaire. A survey scheduler assigned to a questionnaire template, for which the attribute **Synchronize ARCM** is set, is synchronized with ARIS Risk & Compliance Manager together with its associated information.

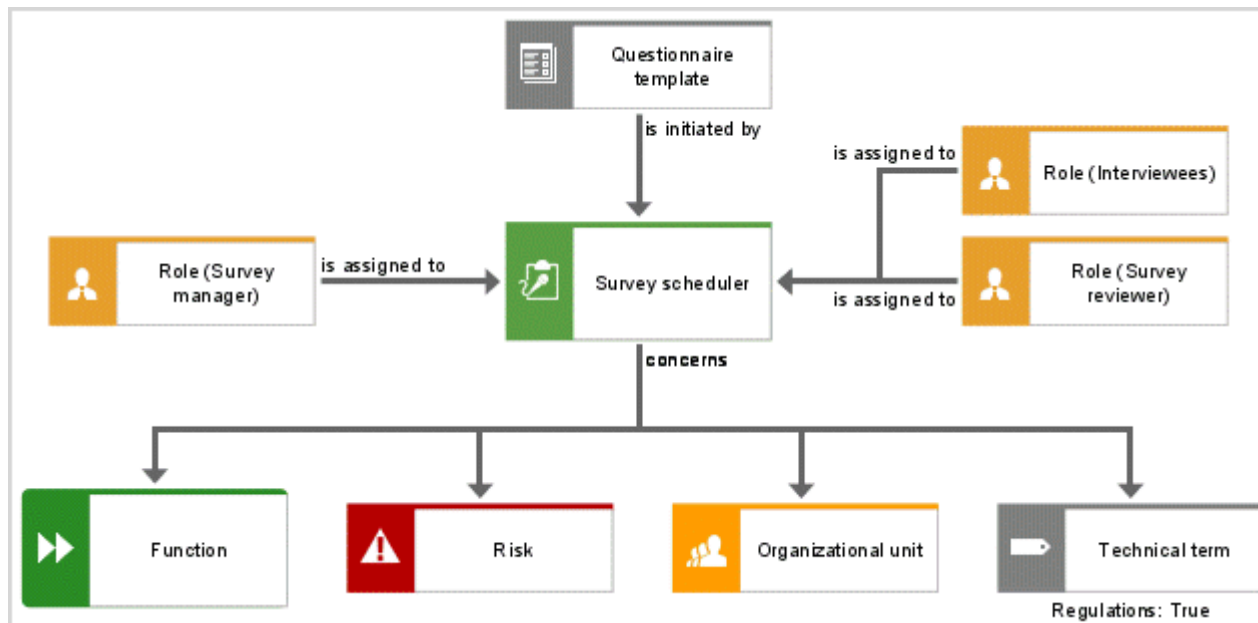

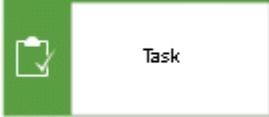

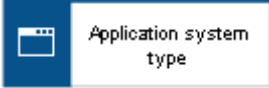








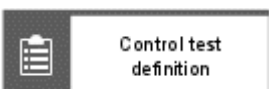
Figure 25: Questionnaire template allocations model

OBJECTS AND RELATIONSHIPS

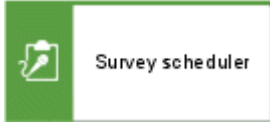
The following objects can be used as context in which the survey is executed. One or more of them can be assigned with the **concerns** connection to an object of the **Questionnaire template** type in the **Questionnaire template allocation diagram** model:

Object type name	Symbol type name	API name	Symbol	ARCM name
Task	Project/Task	OT_FUNC_INST	 Project  Task	Audit template/ audit step
Risk category	Risk category	OT_RISK_CATEGORY	 Risk category	Risk category
Application system type	Application system type	OT_APPL_SYS_TYPE	 Application system type	Application system type
Function	Function/ control	OT_FUNC	 Function  Control	Process/control


MODELING CONVENTIONS

Object type name	Symbol type name	API name	Symbol	ARCM name
Organizational unit	Organizational unit	OT_ORG_UNIT	 Organizational unit	Organization
Technical term	Technical term	OT_TECH_TRM	 Technical term	Regulations
Policy	Business policy	OT_POLICY	 Business policy	Policy definition
Risk	Risk	OT_RISK	 Risk	Risk
Control test definition	Control test definition	OT_TEST_DEFINITION	 Control test definition	Control test definition

The following objects specifies the survey workflow. It must be assigned with the **is initiated by** connection to an object of the **Questionnaire template** type in the **Questionnaire template allocation diagram** model:

Object type name	Symbol type name	API name	Symbol	ARCM name
Survey scheduler	Survey scheduler	OT_SURVEYTASK		Survey scheduler

The manager group responsible for the questionnaire template is assigned to the questionnaire template using the **is assigned to** connection. The manager group responsible for the survey is assigned to the survey scheduler using the **is assigned to** connection. One or more interviewee groups and the survey reviewer group are assigned to the survey scheduler using the **is assigned to** connection.

Object type name	Symbol type name	API name	Symbol	ARCM name
Role	Role	OT_PERS_TYPE		Survey manager group, interviewee groups, survey reviewer group

QUESTIONNAIRE TEMPLATE OBJECT CONNECTIONS

Object	Connection	Object	Notes
Questionnaire template	affects	Audit template/ audit step	Multiple audit templates and/or audit steps can be assigned to a questionnaire template.*
Questionnaire template	affects	Policy	Multiple policy definitions can be assigned to a questionnaire template.*
Questionnaire template	affects	Risk category	Multiple risk categories can be assigned to a questionnaire template.*
Questionnaire template	affects	Technical term/ regulations	Multiple regulations can be assigned to a questionnaire template.*
Questionnaire template	affects	Function/ process	Multiple processes can be assigned to a questionnaire template.*
Questionnaire template	affects	Application system type	Multiple application system types can be assigned to a questionnaire template.*
Questionnaire template	affects	Organizational unit	Multiple organizational units can be assigned to a questionnaire template.*
Questionnaire template	affects	Risk	Multiple risks can be assigned to a questionnaire template.*
Questionnaire template	affects	Control	Multiple controls can be assigned to a questionnaire template.*

MODELING CONVENTIONS

Object	Connection	Object	Notes
Questionnaire template	affects	Control test definition	Multiple control test definitions can be assigned to a questionnaire template.
Questionnaire template	is initiated by	Survey scheduler	Multiple survey schedulers can be assigned to a questionnaire template.*
Questionnaire template	is assigned to	Role	Multiple survey manager groups can be assigned to a questionnaire template.*

* This relationship is not used in ARIS Risk & Compliance Manager.

Example

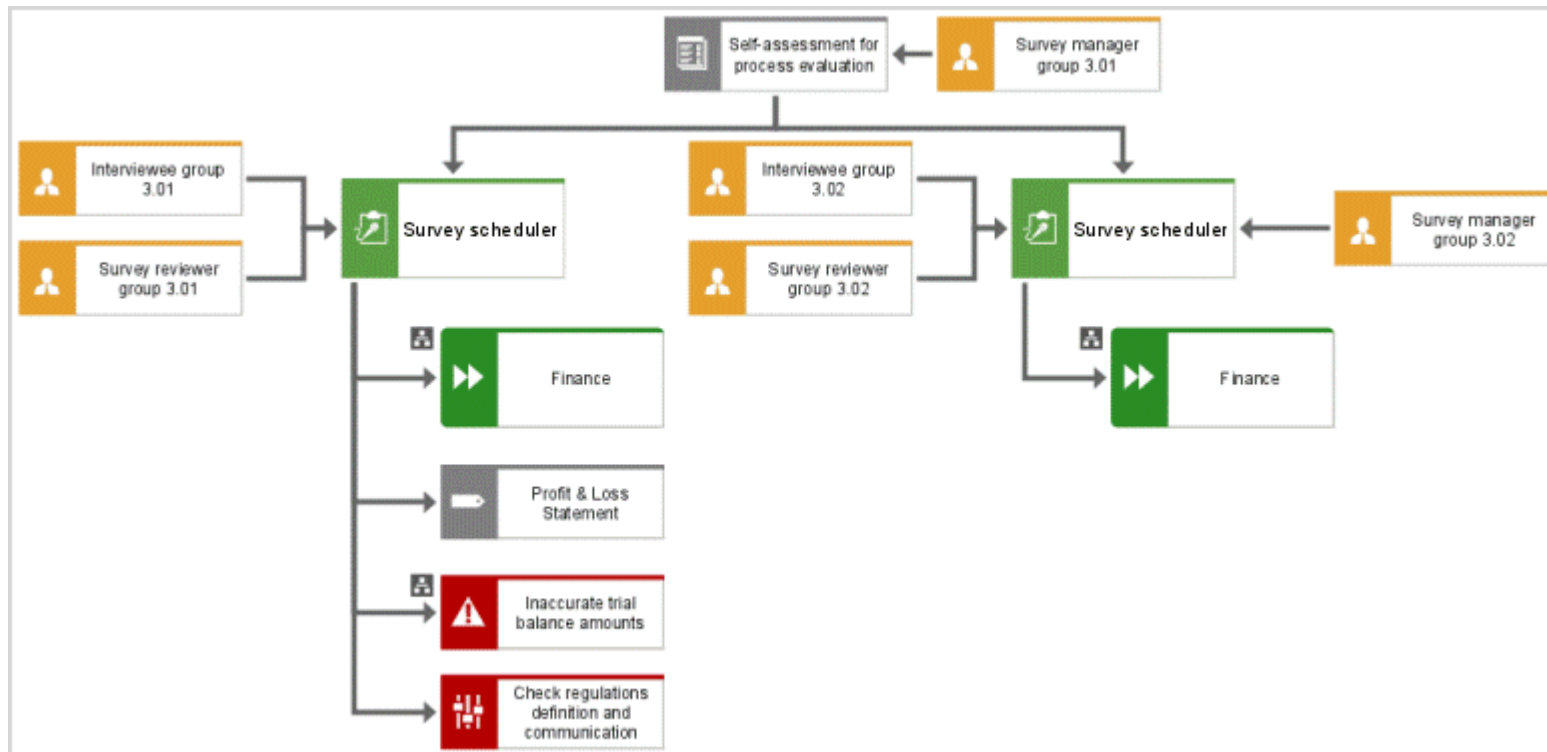


Figure 26: Example of a questionnaire template allocations model

5.8 Survey scheduler object

Objects of the **Survey scheduler** type that are modeled on a questionnaire template, and for which the **Synchronize ARCM** attribute is set, are synchronized with ARIS Risk & Compliance Manager including all objects modeled on the survey scheduler. The following mappings are applicable for the **Survey scheduler** object in ARIS to the **Survey** scheduler object in ARIS Risk & Compliance Manager.

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		
Frequency (Task frequency)	AT_SURVEYTASK_FREQUENCY	X	Defines how often a survey is generated.
Start date	AT_SURVEYTASK_START_DATE	(X)	Displays the date on which the generation of the survey begins. This attribute is not mandatory if the Frequency attribute has the value Event-driven .
End date	AT_SURVEYTASK_END_DATE		Displays the date on which the generation of the survey should end.
Offset to start date	AT_SURVEYTASK_OFFSET		Displays the number of days by which a survey scheduler precedes the control period.
Time limit for execution in days (Time limit for task processing)	AT_SURVEYTASK_DURATION	(X)	Displays the number of days that the interviewee has to complete the survey. The duration defines the completion date by which the survey must be completed. This attribute is not mandatory if the Frequency attribute has the value Event-driven .

MODELING CONVENTIONS

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Length of control period	AT_SURVEYTASK_CTRL_PERIOD		Specifies the time unit for the control.
Event-driven surveys allowed (Event-driven task allowed)	AT_EVENT_DRIVEN_SURVEYS_ALLOWED		Indicates whether manually created surveys are allowed for survey schedulers. Automatically set to true during import from ARIS to ARIS Risk & Compliance Manager if Frequency attribute is Event-driven .

*The M column specifies whether the attribute is a mandatory field.

6 Risk Management conventions

The objective of Risk Management is to identify and assess potential threats to the organization. Risks can be related to company assets. Risk assessments are generated regularly or Event-driven. By analyzing risks and risk assessments, the company can assess if action is required. The central objects of risk management are risks and risk assessments. A risk is included in Risk Management if the **Risk Management-relevant** attribute is set to **true**.

6.1 Risks in processes and company assets

You can describe company processes and assets using various models (Page 15). The occurrence of risks in these models indicates their possible occurrence in processes and assets. The same risk can occur in different process functions and company assets.

6.2 Model assignments to risks

The following model types can be assigned to the **Risk** object type for certain use cases:

Use case	Assigned model type
Contingency process	EPC
Risk mitigation description	Business controls diagram
Risk allocation assets and user groups	Business controls diagram (or KPI allocation diagram)

6.3 Business controls diagram

For the risks identified in the processes or at company asset objects (Page 11), the responsibilities and objects relevant for the assessment can be defined in the **Business controls diagram**. This means that effects on company assets can be documented, for example, which risk affects which organizational unit. Alternatively, the KPI allocation diagram can be used.

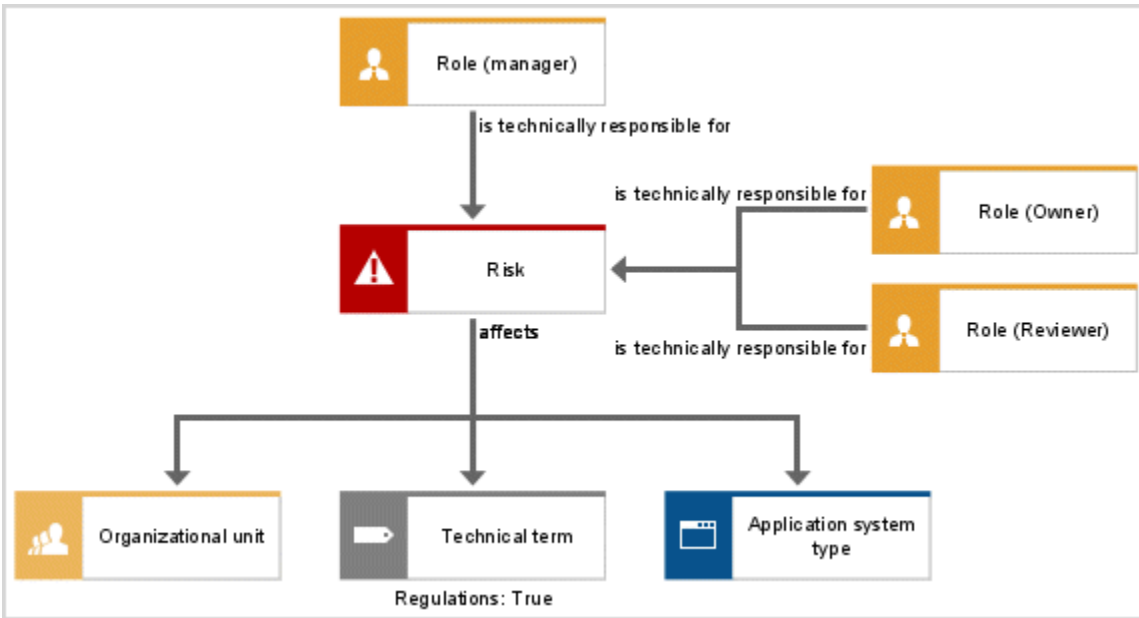


Figure 27: Business controls diagram structure for Risk Management

INHERITANCE OF RISK OBJECTS

The **is assigned to** connection (CT_IS_ASSIG_6) can be used to inherit object assignments between risks. Objects assigned to the risk object with outgoing connection are passed on to the risk object with ingoing connection. Only the following object types are passed on:

Function, Organizational unit, Application system type, Regulation, Risk category, and Roles. An object type is only passed on if the receiving risk has no direct connection to the same object type. A role is only passed on if the receiving object has no direct connection to the same role. Example: The risk reviewer group is passed on but the risk owner group is not passed on, because the receiving risk already has an assignment to the risk owner group.



Figure 28: KPI allocation diagram - inheritance of risk objects

RELATIONSHIPS OF THE RISK OBJECT

The following connections are relevant between the objects in the KPI allocation diagram:

Object	Connection	Object	Notes
Risk	is technically responsible for	Role	This connection creates the relationship to the risk owner, risk manager, and risk reviewer. The allocations of risk owner and risk reviewer are mandatory if the Risk Management-relevant attribute is set to true . All other allocations are optional.
Risk	affects	Organizational unit	This connection creates the relationship to the organizational hierarchy.
Risk	affects	Technical term	This connection creates the relationship to the regulation hierarchy. It becomes a mandatory relationship if Financial reporting has also been selected for the Risk type risk attribute.
Risk	affects	Application system type	This connection creates the relationship to the application system type hierarchy.
Risk	is assigned to	Risk	This connection is used to inherit object assignments from one risk to several risks, for example, if all risks have the same regulation or risk reviewer.

6.4 Risk object

The risk is modeled in an ARIS modeling environment with the **Risk** object (OT_RISK). A risk is created in ARIS Risk & Compliance Manager for each risk for which the **Synchronize ARCM** attribute is set to **true**. A risk is included in Risk Management if the **Risk Management-relevant** attribute is set to **true**.

ATTRIBUTE MAPPINGS: RISK (ARIS) TO RISK (ARCM)

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Name	AT_NAME	X	Serves as internal risk ID.
Risk ID	AT_AAM_RISK_ID		
Key risk	AT_KEY_RISK		
Risk types	AT_AAM_RISK_TYPE_FINANCIAL_REPORT AT_AAM_RISK_TYPE_COMPLIANCE AT_AAM_RISK_TYPE_OPERATIONS AT_AAM_RISK_TYPE_STRATEGIC		The enumeration is available in ARIS Risk & Compliance Manager when the values are set to true .
Description/Definition (Risk description)	AT_DESC		
Risk catalog 1	AT_AAM_RISK_CATALOG_1		Indicates whether the risk belongs to or is taken from a specific catalogue or industry framework.

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Risk catalog 2	AT_AAM_RISK_CATALOG_2		Indicates whether the risk belongs to or is taken from a specific catalogue or industry framework.
Assertions	AT_AAM_ASSERTIONS_EXIST_OCCURRENCE AT_AAM_ASSERTIONS_COMPLETENESS AT_AAM_ASSERTIONS_RIGHTS_OBLIGATIONS AT_AAM_ASSERTIONS_VALUATION_ALLOCATION AT_AAM_ASSERTIONS_PRESENTATION_DISCLOSURE AT_AAM_ASSERTIONS_NA		The enumeration is set in ARIS Risk & Compliance Manager depending on the values that are set. A dependency of values exists. The first five values cannot occur in combination with the last entry.
Title 1	AT_TITL1		Indicates the titles of linked documents.
Title 2	AT_TITL2		
Title 3	AT_TITL3		
Title 4	AT_TITL4		
Link 1	AT_EXT_1		Indicates the links of linked documents.
Link 2	AT_EXT_2		
Link 3	AT_EXT_3		
Link 4	AT_LINK		

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
ARIS document storage Title 1	AT_ADS_TITL1		Indicates the titles of linked documents in ARIS document storage.
ARIS document storage Title 2	AT_ADS_TITL2		
ARIS document storage Title 3	AT_ADS_TITL3		
ARIS document storage Title 4	AT_ADS_TITL4		
ARIS document storage link 1	AT_ADS_LINK_1		Indicates the links of linked documents in ARIS document storage.
ARIS document storage link 2	AT_ADS_LINK_2		
ARIS document storage link 3	AT_ADS_LINK_3		
ARIS document storage link 4	AT_ADS_LINK_4		

*The **M** column specifies whether the attribute is a mandatory field.

MAPPINGS TRANSFERRED TO ARIS RISK & COMPLIANCE MANAGER ONLY IF THE RISK IS MARKED AS RISK MANAGEMENT-RELEVANT

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Risk management-relevant	AT_GRC_RISK_MANAGEMENT_RELEVANT		Indicates whether the risk generates risk assessments.
Assessment activities	AT_GRC_ASSESSMENT_ACTIVITIES		Describes the assessment steps.
Assessment frequency (Task frequency)	AT_GRC_ASSESSMENT_FREQUENCY	(X)	Defines the frequency at which risk assessments are automatically generated. This attribute is only mandatory if the Risk Management-relevant attribute is set to true .
Event-driven assessment allowed (Event-driven task allowed)	AT_GRC_EVENT_DRIVEN_ASSESSMENTS_ALLOWED		Indicates whether manually created assessments are allowed for risks. Is automatically set to true during import from ARIS to ARIS Risk & Compliance Manager if the Assessment frequency attribute is set to Event-driven .
Time limit for execution in days (Time limit for task processing)	AT_GRC_RISK_ASSESSMENT_DURATION	(X)	Specifies the duration for executing a risk assessment. This attribute is only mandatory if the Risk Management-relevant attribute is set to true . This attribute is not mandatory if the Assessment frequency attribute has the value Event-driven .

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Start date of risk assessment (Start date)	AT_GRC_START_DATE_OF_RISK_ASSESSMENTS	(X)	Specifies the date as of which risk assessments are generated. This attribute is only mandatory if the Risk Management-relevant attribute is set to true . This attribute is not mandatory if the Assessment frequency attribute has the value Event-driven .
End date of risk assessment (End date)	AT_GRC_END_DATE_OF_RISK_ASSESSMENTS		Specifies the date as of which risk assessments are no longer generated.

*The **M** column specifies whether the attribute is a mandatory field.

7 Control Management conventions

The objective of Control Management is to reduce, plan, identify, and implement controls that reduce risks. Controls can be described by their type and effect. For manual controls, control executions can be planned. Control execution owners are informed when tasks are to be performed. The central objects of Control Management are controls and control executions.

7.1 Controls in processes and company assets

You can describe company processes and assets using various models (Page 15). The occurrence of controls in these models indicates where they are required. The same control can occur in different process functions and company assets.

7.2 Business controls diagram

The objects and relationships for Control Management can be modeled in an ARIS modeling environment to make master data maintenance easier. The model **Business controls diagram** (MT_BUSY_CONTR_DGM) is intended for this.

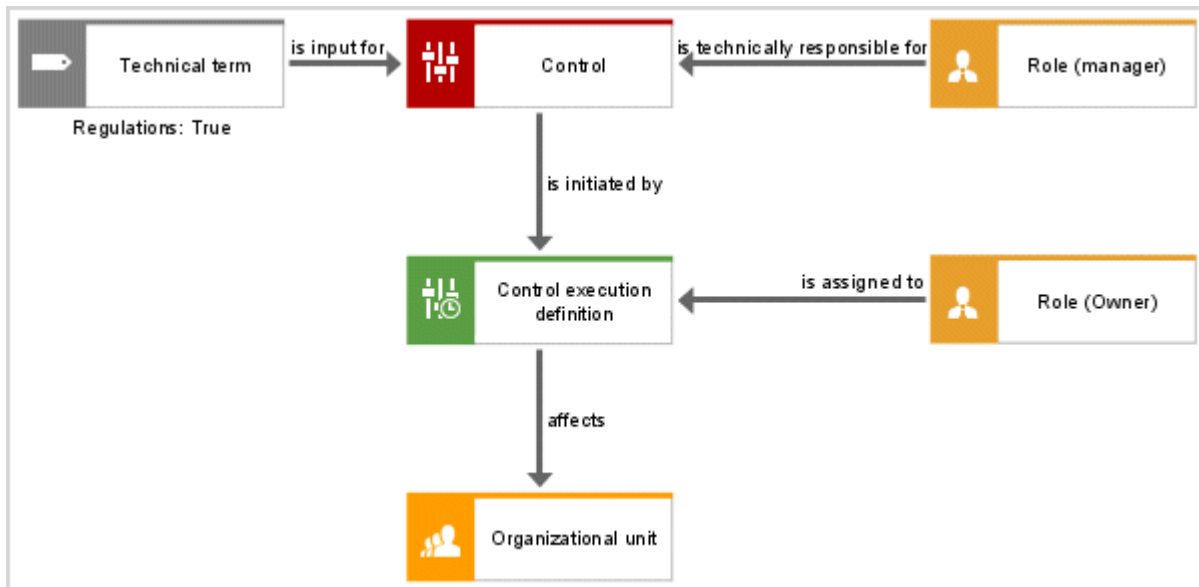


Figure 29: Business controls diagram for Control Management

The following objects and relationships between those objects are used:

Object	Connection	Object	Remark
Control	is initiated by	Control execution definition	A control execution definition is used to describe the documentation of control executions. For example, it specifies documentation activities, frequencies, and result formats.
Control	is technically responsible for	Role	This connection creates the relationship to the control manager.
Control	affects	Technical term	This connection creates the relationship to the regulations.
Control execution definition	affects	Organizational unit	Assigns the organizational unit affected by the documentation.
Role	is assigned to	Control execution definition	This connection creates the relationship to the control execution owner. The assignment of a control execution owner is mandatory.

7.3 Control object

The control is modeled in an ARIS modeling environment using the **Function** object (OT_FUNC) and the default symbol **Control** (ST_CONTR). A control is created in ARIS Risk & Compliance Manager for each control for which the **Synchronize ARCM** attribute is set to **true**.

ATTRIBUTE MAPPINGS: FUNCTION (CONTROL) (ARIS) TO CONTROL (ARCM)

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Name	AT_NAME	X	
Description	AT_DESC		
Control ID	AT_AAM_CTRL_ID		
Control frequency (Control frequency (target))	AT_AAM_CTRL_FREQUENCY		
Control types	AT_AAM_CTRL_EXECUTION_MANUAL AT_AAM_CTRL_EXECUTION_IT		The enumeration is available in ARIS Risk & Compliance Manager when the values are set to true .
Effect of control	AT_AAM_CTRL_EFFECT		

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
COSO component	AT_AAM_COSO_COMPONENT_CTRL_ENVIRONMENT AT_AAM_COSO_COMPONENT_RISK_ASSESSMENT AT_AAM_COSO_COMPONENT_CTRL_ACTIVITIES AT_AAM_COSO_COMPONENT_INFO_COMMUNICATION AT_AAM_COSO_COMPONENT_MONITORING		The enumeration is available in ARIS Risk & Compliance Manager when the values are set to true .
Control activity	AT_AAM_CTRL_ACTIVITY		
Control objective	AT_AAM_CTRL_OBJECTIVE		
Key control	AT_AAM_KEY_CTRL		
Assertions	AT_AAM_ASSERTIONS_EXIST_OCCURRENCE AT_AAM_ASSERTIONS_COMPLETENESS AT_AAM_ASSERTIONS_RIGHTS_OBLIGATIONS AT_AAM_ASSERTIONS_VALUATION_ALLOCATION AT_AAM_ASSERTIONS_PRESENTATION_DISCLOSURE AT_AAM_ASSERTIONS_NA		The enumeration is available in ARIS Risk & Compliance Manager when the values are set to true . A dependency of values exists. The first five values cannot occur in combination with the last entry.

*The **M** column specifies whether the attribute is a mandatory field.

7.4 Control execution definition object

The control execution is modeled in an ARIS modeling environment using the **Control execution definition** object (OT_CTRL_EXECUTION_TASK). Control executions are included in the synchronization with ARIS Risk & Compliance Manager only if they are assigned to a control for which the **Synchronize ARCM** attribute is set to **true** or if they are assigned to a control that is connected to a risk for which the **Synchronize ARCM** is set to **true**.

ATTRIBUTE MAPPINGS: CONTROL EXECUTION DEFINITION (OT_CTRL_EXECUTION_TASK) (ARIS) TO CONTROL EXECUTION DEFINITION (ARCM)

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		
Control documentation activities (Activities)	AT_CTRL_EXECUTION_TASK_DOC		Describes the activities necessary for documentation of the control execution.
Selection	AT_CTRL_EXECUTION_TASK_SELECTIVITY		Indicates the scope of the documentation to be performed: Complete documentation, sample, sample %, number of samples.
Result format	AT_CTRL_EXECUTION_TASK_RESULT_FORMAT		Indicates the format for result calculation.
Control documentation frequency (Task frequency)	AT_CTRL_EXECUTION_TASK_FREQUENCY	X	Indicates the interval at which control execution is to be documented.

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Event-driven control documentation allowed (Event-driven task allowed)	AT_EVENT_DRIVEN_CTRL_EXECUTION_ALLOWED		Indicates whether manually created control documentation is allowed. Is automatically set to true during import from ARIS to ARIS Risk & Compliance Manager if the Control documentation frequency attribute is set to Event-driven .
Time limit for documentation of control execution in days (Time limit for task processing)	AT_CTRL_EXECUTION_TASK_DURATION	(X)	Indicates the number of days available to the control execution owner for documentation of the control execution. This period determines the date by which documentation of control execution must be completed. This attribute is not mandatory if the Control documentation frequency attribute has the value Event-driven .
Start date	AT_CTRL_EXECUTION_TASK_START_DATE	(X)	Indicates the date from which control execution is to be documented. This attribute is not mandatory if the Control documentation frequency attribute has the value Event-driven .
End date	AT_CTRL_EXECUTION_TASK_END_DATE		Indicates the date up to which control execution is to be documented.

MODELING CONVENTIONS

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Length of documented period	AT_CTRL_EXECUTION_TASK_CTRL_PERIOD	X	Specifies the period for which control executions are to be documented.
Offset to start date	AT_CTRL_EXECUTION_TASK_OFFSET		Indicates the number of days by which the documented period precedes the documentation period.
Title 1 Title 2 Title 3 Title 4	AT_TITL1 AT_TITL2 AT_TITL3 AT_TITL4		Indicates the titles of linked documents.
Link 1 Link 2 Link 3 Link 4	AT_EXT_1 AT_EXT_2 AT_EXT_3 AT_LINK		Indicates the links of linked documents.
ARIS document storage Title 1 ARIS document storage Title 2 ARIS document storage Title 3 ARIS document storage Title 4	AT_ADS_TITL1 AT_ADS_TITL2 AT_ADS_TITL3 AT_ADS_TITL4		Indicates the titles of linked documents in ARIS document storage.

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
ARIS document storage link 1	AT_ADS_LINK_1		Indicates the links of linked documents in ARIS document storage.
ARIS document storage link 2	AT_ADS_LINK_2		
ARIS document storage link 3	AT_ADS_LINK_3		
ARIS document storage link 4	AT_ADS_LINK_4		

*The **M** column specifies whether the attribute is a mandatory field.

8 Test Management conventions

The objective of Test Management is to plan, identify, and execute tests on existing controls. Test activities can be described by their type and effect in the **Control test definition** object. For manual tests, control tests can be planned. Testers are informed when tasks are to be performed. The central objects of Test Management are controls and control test definitions.

8.1 Business controls diagram

For the risks identified in the processes, controls, and control test definitions including responsibilities can be defined in the **Business controls diagram**. In addition, effects on the company's hierarchies can be documented, for example, which risk or control affects which balance sheet item.

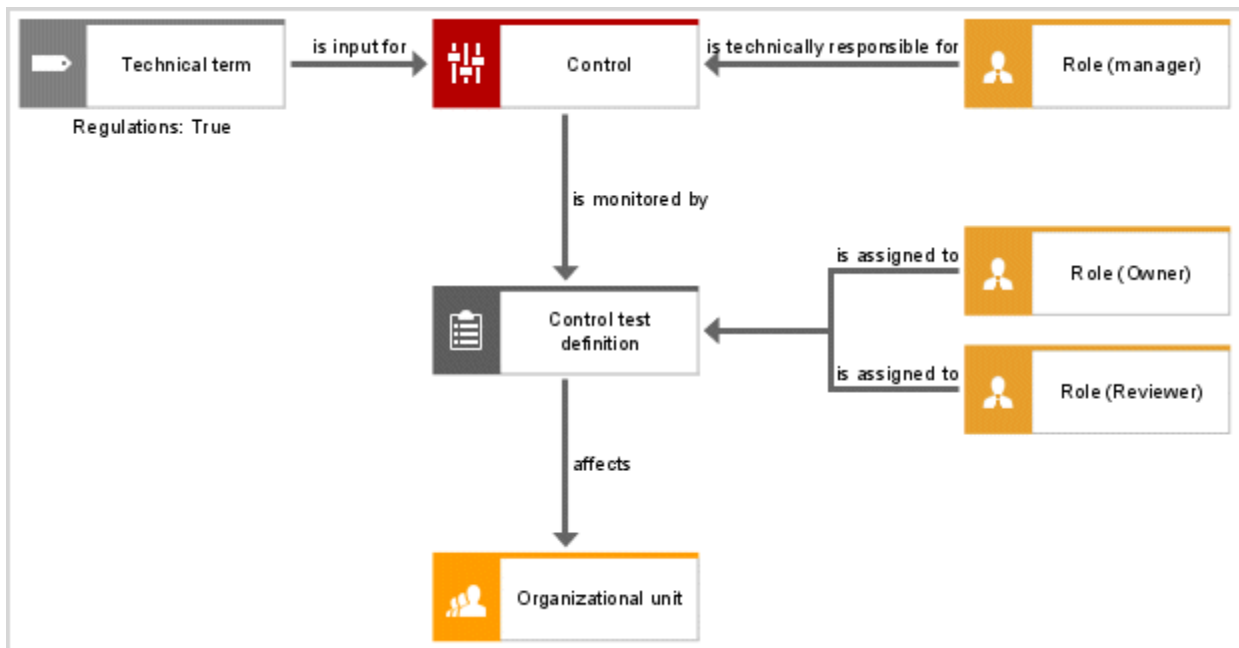


Figure 30: Business controls diagram

RELATIONSHIPS BETWEEN OBJECTS

The following connections are relevant between the objects in the business controls diagram:

Object	Connection	Object	Notes
Control	affects	Technical term	This connection creates the relationship to the regulations.
Control	is monitored by	Control test definition	This connection creates the relationship to the control test definition.
Control	is technically responsible for	Role	This connection creates the relationship to the control manager.
Control test definition	affects	Organizational unit	This connection creates the relationship to the organizational unit affected.
Control test definition	is assigned to	Role	This connection creates the relationship to the tester, test reviewer, and to the test manager. The assignment of tester groups and test reviewer groups is mandatory.

8.2 Control object

For detailed information, refer to Control object (Page 74).

8.3 Control test definition object

The control test definition is modeled in an ARIS modeling environment using the **Control test definition** object (OT_TEST_DEFINITION). Control test definitions are included in the synchronization with ARIS Risk & Compliance Manager only if they are assigned to a control for which the **Synchronize ARCM** attribute is set to **true** or if they are assigned to a control that is connected to a risk for which the **Synchronize ARCM** is set to **true**.

ATTRIBUTE MAPPINGS: CONTROL TEST DEFINITION (ARIS) TO CONTROL TEST DEFINITION (ARCM)

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		
Test activity	AT_AAM_TEST_ACTIVITY		
Nature of test	AT_AAM_TEST_NATURE_INQUIRY AT_AAM_TEST_NATURE_OBSERVATION AT_AAM_TEST_NATURE_EXAMINATION AT_AAM_TEST_NATURE_REPERFORMANCE		The enumeration is available in ARIS Risk & Compliance Manager when the values are set to true .
Test type	AT_AAM_TEST_TYPE_DESIGN AT_AAM_TEST_TYPE_EFFECTIVENESS	X	The enumeration is available in ARIS Risk & Compliance Manager when the values are set to true .
Test size	AT_AAM_TEST_SCOPE		

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Event-driven control tests allowed (Event-driven task allowed)	AT_EVENT_DRIVEN_TESTS_ALLOWED		Indicates whether manually created control tests are allowed for control test definitions. Is automatically set to true during import from ARIS to ARIS Risk & Compliance Manager if the Test frequency attribute is set to Event-driven .
Test frequency (Task frequency)	AT_AAM_TEST_FREQUENCY	X	
Time limit for execution in days (Time limit for task processing)	AT_AAM_TEST_DURATION	(X)	This attribute is not mandatory if the Task frequency attribute has the value Event-driven .
Start date of control test definition (Start date)	AT_AAM_TESTDEF_START_DATE	(X)	This attribute is not mandatory if the Task frequency attribute has the value Event-driven .
End date of control test definition (End date)	AT_AAM_TESTDEF_END_DATE		
Length of control period	AT_AAM_TESTDEF_CTRL_PERIOD	X	For detailed information, refer to the online help.
Offset to start date	AT_AAM_TESTDEF_OFFSET		For detailed information, refer to the online help.
Follow-up allowed	AT_AAM_TESTDEF_FOLLOWUP		For detailed information, refer to the online help.

*The **M** column specifies whether the attribute is a mandatory field.

8.4 Uniqueness of control test definitions at controls

The control test definition must be unique for a control, that is, a control test definition can be connected to precisely one control.

8.5 Automated control testing

To carry out automated control tests per event enabling the **Event-driven control tests allowed** attribute must be set to **true**. Automated control testing can then be carried out ad-hoc, for example, driven by an external event. In addition, the **Event-driven** attribute value must be selected for the **Task frequency** attribute, in order to prevent the system from generating control tests during the year. This frequency is used only for processing ad-hoc tests.

9 Sign-off Management conventions

A sign-off process is a multi-level evaluation process used to evaluate control test results of individual hierarchy elements and to aggregate them to a result at the superior hierarchy level. It passes through various hierarchical levels in a bottom-up approach. The evaluations are based on the results of control tests that were performed within a specific control period. In turn, these control tests are based on the **Risk, Control, and Control test definition** base elements.

The sign-off processes can be based on the hierarchy element types **Process, Regulations & standards, Organization, or Tester**. Control tests with their deficiencies and issues are displayed in the sign-off process only if the corresponding hierarchy elements are related to the control test definition via a risk or a control.

Example

A risk is assigned to an **Organization** hierarchy element, and via a control, to a control test definition. In this case, the **Organization** hierarchy type must be used for the sign-off process to display control tests of this control test definition in the sign-off process, as well as deficiencies and issues.

Hierarchy objects are included in a sign-off process only if their **Sign-off relevant** attribute (AT_AAM_SIGN_OFF_RELEVANT) is set to **true** and if a sign-off user group is assigned to this hierarchy element or to a superior hierarchy element of the relevant hierarchy.

Within a sign-off process, the evaluation proceeds from the lowest to the highest hierarchy level. This means that the evaluation of a higher-level hierarchy element is performed only after all subordinate hierarchy elements have been evaluated. If no sign-off owner is assigned to subordinate sign-off hierarchy elements, the system automatically releases them for further processing.

9.1 Sign-off using process hierarchy

For a sign-off based on a process hierarchy, the relationship between the function and the sign-off owner group (role) is modeled in a value-added chain diagram. An example can be seen in the following figure. The **decides on** connection creates a link between a sign-off owner group (user group) and a process hierarchy element.

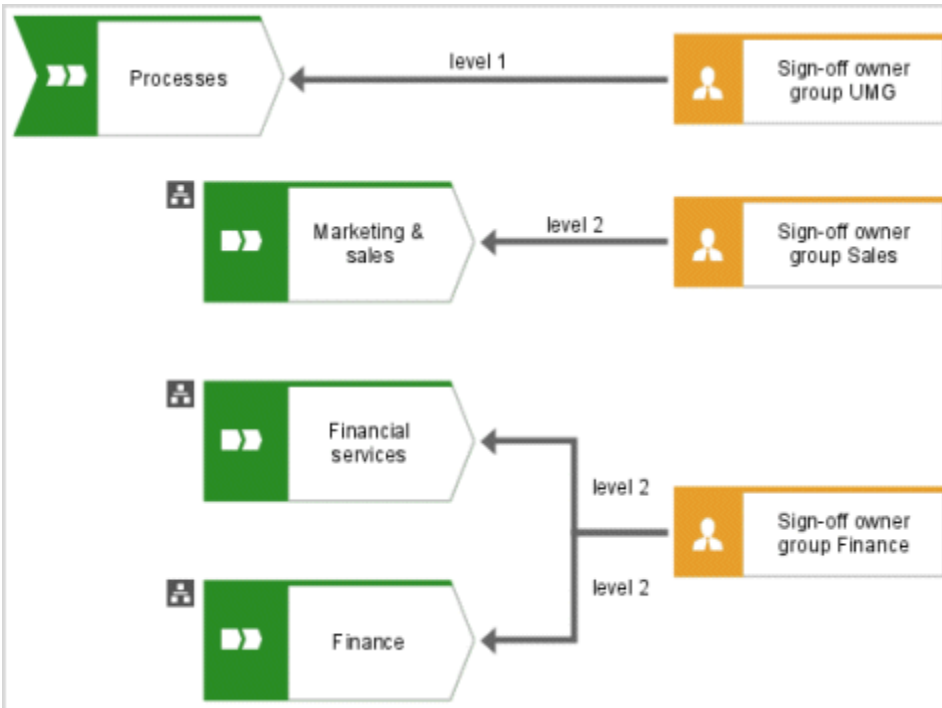


Figure 31: Allocation of function – Sign-off owner group

9.2 Sign-off using regulations & standards hierarchy

For sign-off process based on a regulations & standards hierarchy, the relationship between the regulations and the sign-off owner group is modeled in a function allocation diagram. The **is owner of** connection creates a link between the user group and a hierarchy element.

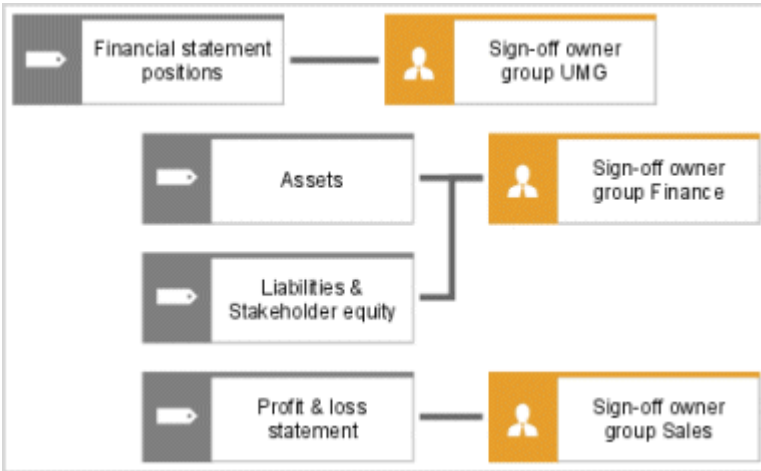


Figure 32: Allocation of regulations – Sign-off owner group

9.3 Sign-off using organizational hierarchy

For sign-off process based on an organizational hierarchy, the relationship between the organizational units and the sign-off owner groups is modeled in the organizational chart of the company organization. The **belongs to** connection creates a link between the user group and the hierarchy element.

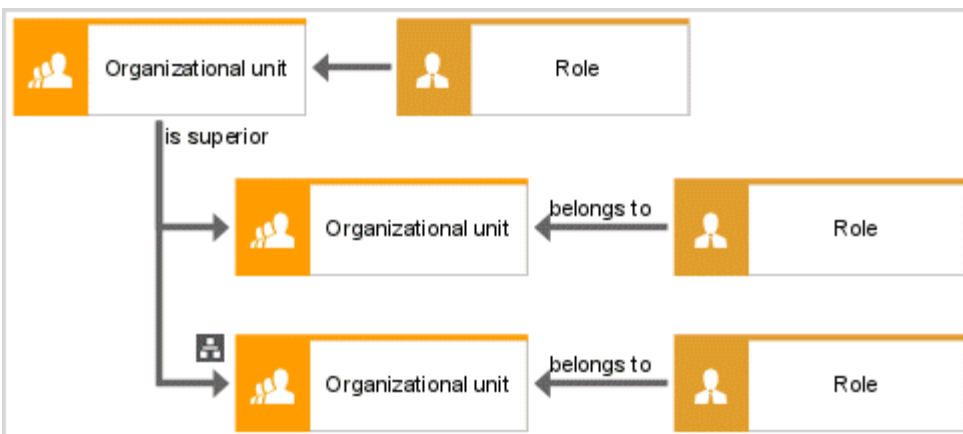


Figure 33: Allocation of organizational unit – Sign-off owner group

9.4 Sign-off using tester hierarchy

For sign-off process based on a tester hierarchy, the relationship between the organizational unit and the sign-off owner group is modeled in the organizational chart of the tester hierarchy. The **belongs to** connection creates a link between the user group and the hierarchy element.

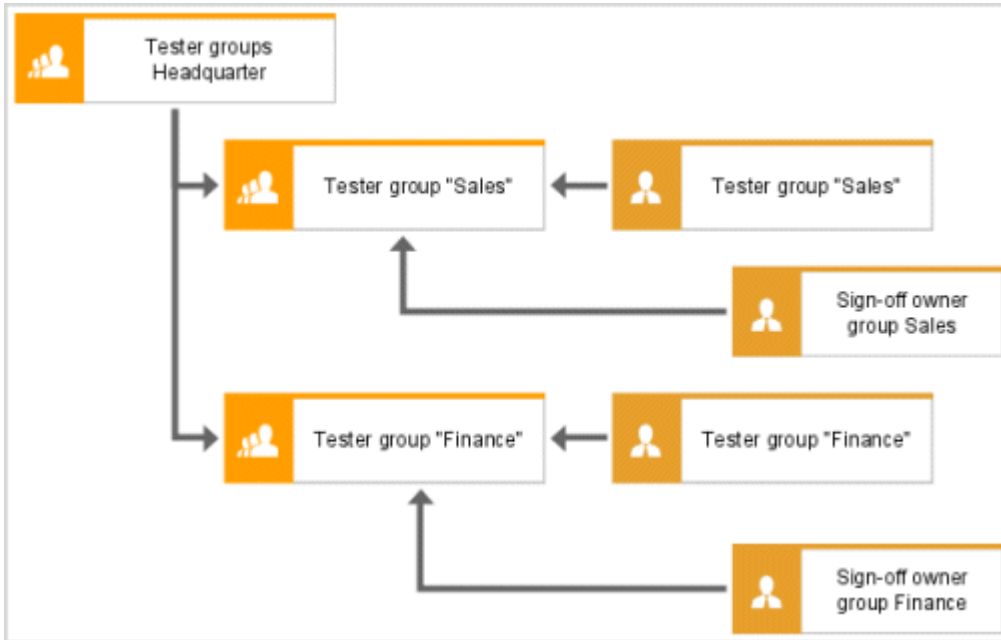


Figure 34: Allocation of organizational unit (tester) – Sign-off owner group

10 Audit Management conventions

The objective of Audit Management is to prepare, plan, execute, monitor, and report audits in an overall corporate audit context. The overall audit context details the chronological sequence of all audits, which can be a multi-year audit plan. Each audit is structured chronologically in order to coordinate the individual audit tasks. You can model audit templates in an ARIS modeling environment to simplify master data maintenance. This allows audit templates to be reused when a similar audit is to be performed later.

10.1 Project schedule model (audit template)

The **Project schedule** model (MT_PROJECT_SCHEDULE) is intended for this.

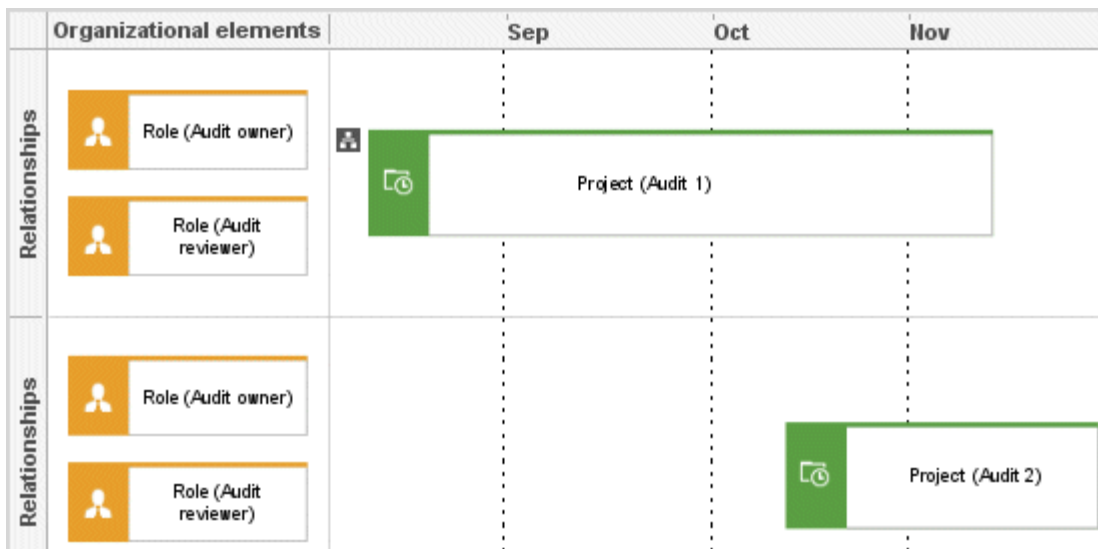


Figure 35: Project schedule model - audit template

PREPARATION OF THE PROJECT SCHEDULE MODEL FOR AUDIT MANAGEMENT

The row/column properties must be specified for attribute-based modeling. Right-click the column header, select **Properties > Format > Attribute-based modeling**.



Figure 36: Open attribute-based modeling

Edit the following items:

Position attribute: **Start date** (AT_DATE_START)

Dimension attribute: **Max. total time** (AT_MAX_TL_TIME)

Attribute-dependent symbols: Both, position and dimension, must be allowed for the **Project** object. Audit project templates are modeled with the **Project** object into the **Relationships** rows. The **Quality gates** row is not necessary for an audit project template.

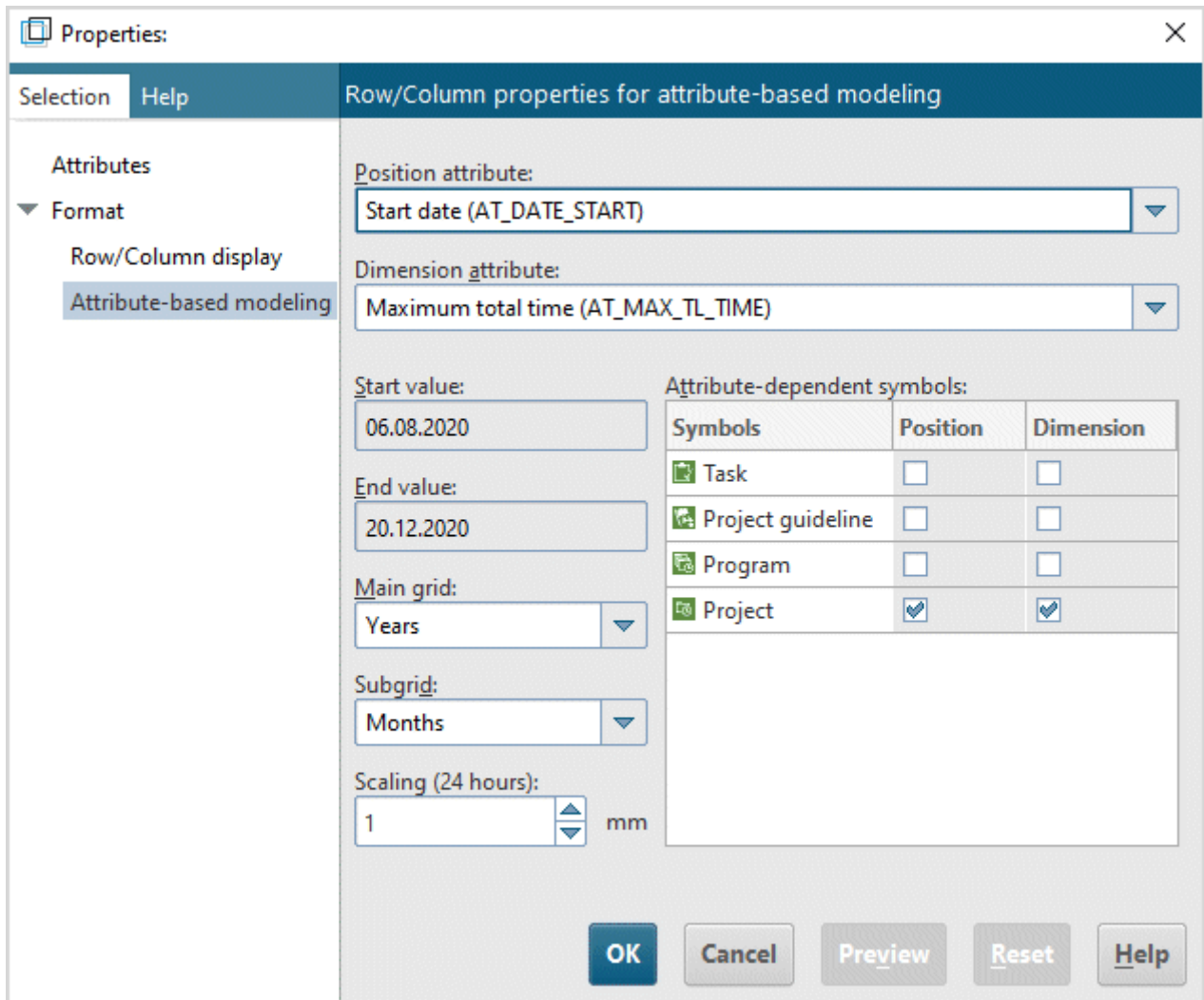




Figure 37: Attribute-based modeling dialog

OBJECTS THAT CAN BE USED IN THE PROJECT SCHEDULE MODEL FOR AUDIT

Object type name	Symbol type name	API name	Symbols	ARCM name
Task	Project	OT_FUNC_INST		Audit template
Role	Role	OT_PERS_TYPE		Audit owner, Audit reviewer, Audit auditor (depending on the role selected)

CONNECTIONS

Object	Connection	Object	Remark
Task (project)	is carried out by	Role	The implicit connection to the task is generated automatically if you model the organizational unit in the first column (organizational elements).

10.2 Task object as audit template

ATTRIBUTE MAPPINGS: TASK (ARIS) TO AUDIT TEMPLATE (ARCM)

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		
Start date (Audit period (target))	AT_DATE_START	X	Start date of the audit. Everyone involved is informed about their tasks.
Maximum total time (Audit period (target))	AT_MAX_TL_TIME	X	
Weekend off	AT_WEEKEND_OFF		If the Weekend off option was selected the max. total time is extended by two days when the time period contains a weekend.
Audit client	AT_AUDIT_CLIENT		Organization or person the audit was requested by.
Synchronize ARCM	AT_AAM_EXPORT_RELEVANT		This attribute specifies whether an audit template is to be synchronized with ARIS Risk & Compliance Manager.
Audit objective	AT_AUDIT_OBJECTIVE		Definition of the audit objective.

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Start date of audit preparation (Start date of preparation)	AT_START_DATE_OF_AUDIT_PREPARATION	X	Start of the preparatory phase. The audit is generated. The start date of audit preparation must occur before the start date of the audit.
Start date of control period (Control period)	AT_START_DATE_OF_CONTROL_PERIOD	X	Start date of the control period to be audited.
End date of control period (Control period)	AT_END_DATE_OF_CONTROL_PERIOD	X	End date of the control period to be audited.
Title 1 Title 2 Title 3 Title 4	AT_TITL1 AT_TITL2 AT_TITL3 AT_TITL4		Indicates the titles of linked documents.
Link 1 Link 2 Link 3 Link 4	AT_EXT_1 AT_EXT_2 AT_EXT_3 AT_LINK		Indicates the links of linked documents.
ARIS document storage Title 1 ARIS document storage Title 2 ARIS document storage Title 3 ARIS document storage Title 4	AT_ADS_TITL1 AT_ADS_TITL2 AT_ADS_TITL3 AT_ADS_TITL4		Indicates the titles of linked documents in ARIS document storage.

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
ARIS document storage link 1	AT_ADS_LINK_1		Indicates the links of linked documents in ARIS document storage.
ARIS document storage link 2	AT_ADS_LINK_2		
ARIS document storage link 3	AT_ADS_LINK_3		
ARIS document storage link 4	AT_ADS_LINK_4		

*The **M** column specifies whether the attribute is a mandatory field.

10.3 Project schedule model (audit step template)

You can assign a model of the **Project schedule** type (MT_PROJECT_SCHEDULE) to the audit template (Task (project)) to define the audit steps of an audit.

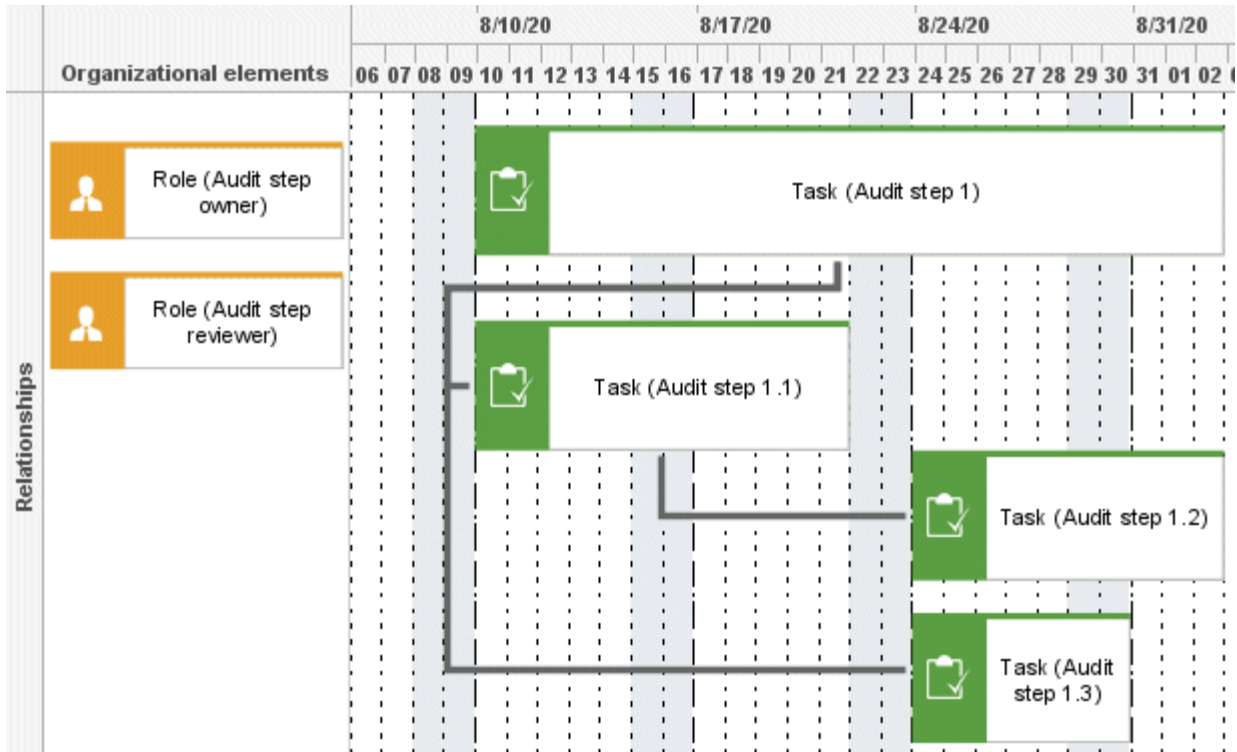


Figure 38: Project schedule model - audit step template

PREPARATION OF THE PROJECT SCHEDULE MODEL FOR AUDIT MANAGEMENT

The row/column properties must be specified for attribute-based modeling. Right-click the column header, select **Properties > Format > Attribute-based modeling**.



Figure 39: Open attribute-based modeling

Edit the following items:

Position attribute: **Start date** (AT_DATE_START)

Dimension attribute: **Max. total time** (AT_MAX_TL_TIME)

Attribute-dependent symbols: Both, position and dimension, must be allowed for the **Task** object. Audit step templates are modeled with the **Task** object into the **Relationships** rows. The **Quality gates** row is not necessary for an audit project template.

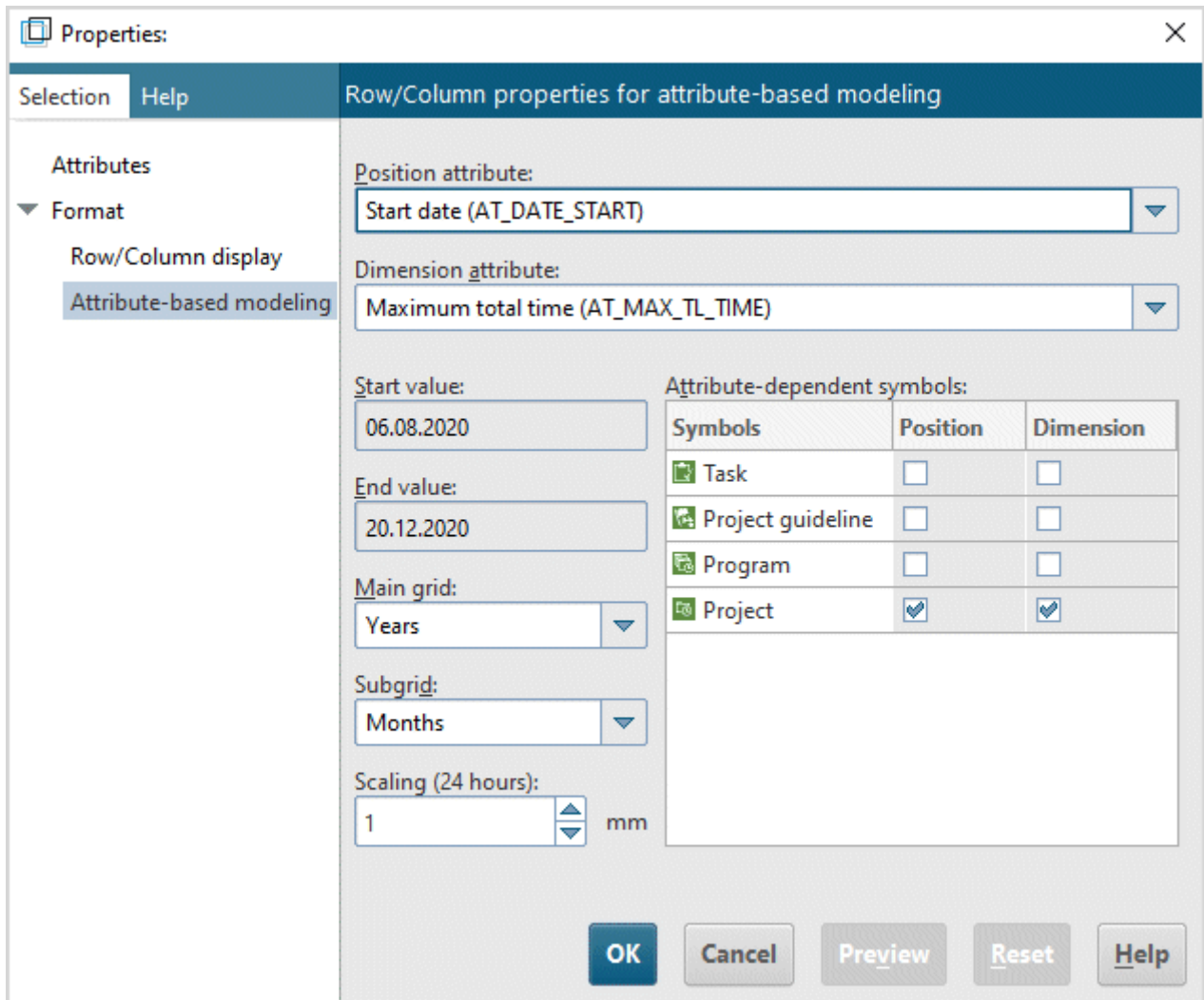




Figure 40: Attribute-based modeling dialog

OBJECTS THAT CAN BE USED IN THE PROJECT SCHEDULE MODEL

Object type name	Symbol type name	API name	Symbols	ARCM name
Task	Task	OT_FUNC_INST		Audit step template
Role	Role	OT_PERS_TYPE		Audit step owner

CONNECTIONS (AUDIT STEPS)

Object	Connection	Object	Remark
Task (task)	is carried out by	Role	The implicit connection to the task is generated automatically if you model the organizational unit in the first column (organizational elements).
Task (task)	belongs to	Task (task)	Defines which task is superior.

10.4 Task object (audit step template)

ATTRIBUTE MAPPINGS: TASK (ARIS) TO AUDIT STEP TEMPLATE (ARCM)

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Name	AT_NAME	X	
Description/Definition	AT_DESC		
Start date (Audit step period (target))	AT_DATE_START	X	Planned start date of the audit step.
Maximum total time (Audit step period (target))	AT_MAX_TL_TIME	X	The maximum total time of any related audit step template must not exceed the end date of the project in the audit template.
Weekend off	AT_WEEKEND_OFF		If the Weekend off option was selected the max. total time is extended by two days when the time period contains a weekend.
Desired processing time (Processing time (target))	AT_DES_PROC_TIME	X	Duration planned for the execution of the audit step.
Audit step type	AT_AUDIT_STEP_TYPE		Determines the task type of an audit step: <ul style="list-style-type: none"> ▪ Logistic task ▪ Point of audit task

ARIS attribute (deviating ARCM attribute)	API name	M*	Notes
Title 1	AT_TITL1		Indicates the titles of linked documents.
Title 2	AT_TITL2		
Title 3	AT_TITL3		
Title 4	AT_TITL4		
Link 1	AT_EXT_1		Indicates the links of linked documents.
Link 2	AT_EXT_2		
Link 3	AT_EXT_3		
Link 4	AT_LINK		
ARIS document storage Title 1	AT_ADS_TITL1		Indicates the titles of linked documents in ARIS document storage.
ARIS document storage Title 2	AT_ADS_TITL2		
ARIS document storage Title 3	AT_ADS_TITL3		
ARIS document storage Title 4	AT_ADS_TITL4		
ARIS document storage link 1	AT_ADS_LINK_1		Indicates the links of linked documents in ARIS document storage.
ARIS document storage link 2	AT_ADS_LINK_2		
ARIS document storage link 3	AT_ADS_LINK_3		
ARIS document storage link 4	AT_ADS_LINK_4		

*The **M** column specifies whether the attribute is a mandatory field.

10.5 Task allocation diagram

To define the scope of an audit or an audit step, you can use the **Task allocation diagram** (MT_FUNC_ALLOC_DGM_INST). Depending on the selected scope, associated elements such as control tests, risk assessments (filtered according to the defined control period) are displayed for the assigned audit/audit step in ARIS Risk & Compliance Manager.

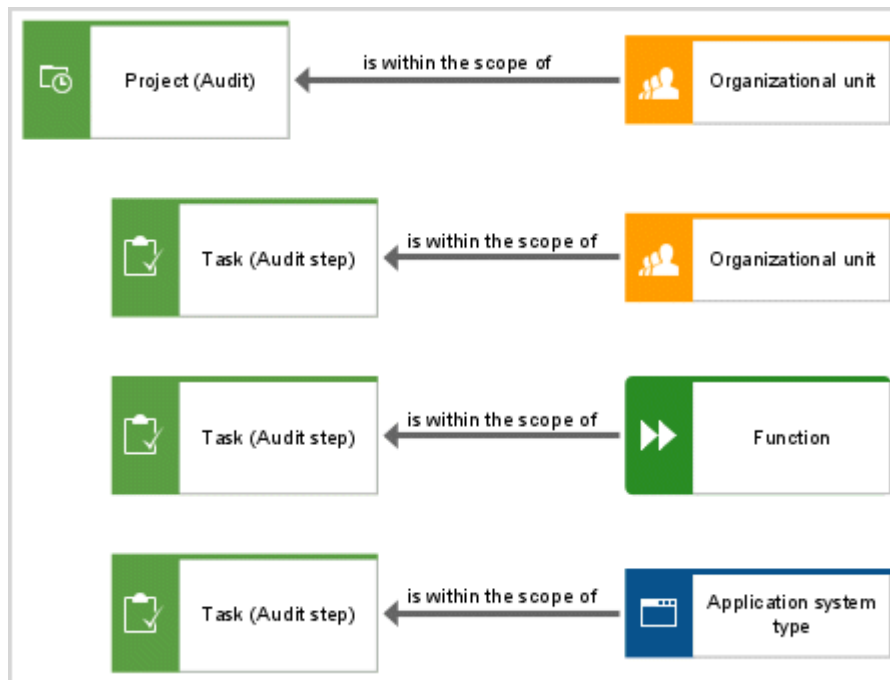









Figure 41: Task allocation diagram

OBJECTS AND NAMES (SCOPE) THAT CAN BE USED IN A TASK ALLOCATION DIAGRAM

Object type name	Symbol type name	API name	Symbols	ARCM name
Task	Project/Task	OT_FUNC_INST	 	Audit/Audit step
Risk category	Risk category	OT_RISK_CATEGORY		Risk category
Application system type	Application system type	OT_APPL_SYS_TYPE		Application system types
Function	Function	OT_FUNC		Process
Organizational unit	Organizational unit	OT_ORG_UNIT		Organization
Technical term	Technical term	OT_TECH_TRM		Regulations

CONNECTIONS

Object	Connection	Object
Risk category	is within the scope of	Task
Application system type	is within the scope of	Task
Function	is within the scope of	Task
Organizational unit	is within the scope of	Task
Technical term	is within the scope of	Task

No more than one connection of the **is within the scope of** type is allowed per audit/audit step.

11 Glossary

In the glossary you will find explanations of basic technical terms.

ARIS MODELING ENVIRONMENT

The ARIS modeling environment is the area of an application where you can model your company-wide process architecture. ARIS modeling environments help you model processes quickly with automatic modeling functions and allows you to use data in other ARIS applications. For example, ARIS Architect, ARIS Connect, or ARIS Advanced provide an ARIS modeling environment.

ASSERTIONS

Assertions are statements that are relevant for checks and relate, for example, to the correctness or completeness of an accounting item. Assertions that are relevant to the company's accounting structures (balance sheet and profit and loss statement) are defined for the **Regulation & standards** hierarchy. To define relevant statements to risks, you can use the **Assertions** attribute to select one or more values.

The following assertions are available:

- **Existence or occurrence**
- **Completeness**
- **Rights and obligations**
- **Valuation or allocation**
- **Presentation and disclosure**

AUDIT PREPARATION

After an audit template was imported or created the audit preparation begins. In this phase, the audit owner can edit various attributes of the audit and the audit steps, for example, detailing the audit scope. Audit steps can also be added. Preparation ends when the audit owner sets the status of the template to **Released**. The assigned audit steps then also have the status **Released**. The audit step owners are notified by e-mail that new audit steps exist.

CONTROL PERIOD

The control period specifies the time span to be considered for the current surveys, control tests, sign-offs, and audits, that is, it is the period in which the activities to be checked took place. The length of control period specifies the time unit, for example, month, quarter, year.

Example for control tests:

If a control is to be tested, the control test specifies the time period of which the control executions must be checked (= control period). Besides the control period, there is a time period to execute the control test (= testing period). The periods relate to one another.

COSO COMPONENTS

COSO: **C**ommittee of **S**ponsoring **O**rganizations of the Treadway Commission.

This committee defines requirements to be fulfilled by a company in the following areas in order to prevent fraudulent financial conduct. Test specifications can be classified as COSO components accordingly:

- Control environment
- Risk assessment
- Control activities
- Information & communication
- Monitoring

CREDIT DEFAULT

Losses caused by operational risk in connection with credit risk must be identified, recorded as operational risk in a loss database, and clearly identified there (credit default in the credit risk area). Losses such as these are not used to calculate the amount relevant for inclusion in the operational risk.

DEFICIENCY

A deficiency (= control inadequacy) exists if the design or execution of the control cannot guarantee attainment of process goals or compensation for process risks.

DIRECT LOSS

Direct losses are the costs involved in resolving problems and repairing damages. Recovering the fixed assets, for example, rebuilding a factory that has burnt down, including the machinery, incurs the greatest portion of the costs.

DUAL CONTROL

Dual control ensures that important decisions are not made by a single person and that critical tasks are not edited and reviewed by a single person. Dual control is also known as segregation of duties or four eyes principle.

FOUR EYES PRINCIPLE

See dual control (page 104).

INCIDENT

An incident is the trigger for a loss.

INDIRECT LOSS

Indirect losses are the costs that are incurred as a result of the damaging incident, for example, production downtime costs due to fire damage and the resulting contractual penalties due to non-compliance with the contractual deadlines.

ISSUE MANAGEMENT

Overall Issue Management enables processes and objects, for example, risks, controls, and policies, to be combined in an issue across different contexts, so that it can refer to different situations or assigned tasks.

Unlike deficiencies, issues are one-off problems that occur in the business environment. Issue Management allows you to document, analyze, and monitor identified issues for the purpose of crisis prevention. The goal is to make problematic issues known in time and resolve them.

LOSS

A loss is the result of an incident.

NEAR LOSS

A near loss is an incident that is recognized in time so that a loss can be avoided. Near losses are thus all incidents that can have undesirable consequences, but which have not occurred in the specific case.

RESERVES

Loss reserves are the amounts fixed by the management of an insurance company at the beginning of the year for the payment of the company's old and new claims.

SEGREGATION OF DUTIES

See dual control (page 104).

SIGN-OFF

A sign-off is a multi-level release process that can relate to different hierarchies (process, organization, regulation, or tester hierarchy). Sign-off managers must submit an assessment of the effectiveness of the internal control system for the control period and the hierarchy element under analysis. The release relates to the control tests performed in the control period and associated deficiencies.

SIGN-OFF PERIOD

Period available to the sign-off owner to complete a sign-off process. A sign-off relates to a particular control period (page 103).

SURVEY PERIOD

Period available to the interviewee to answer a questionnaire. It normally comes after the control period (page 103).

TEST OF DESIGN

Test type that is used to check whether the control is properly designed and fulfills its purpose.

TEST OF EFFECTIVENESS

Test type that is used to check whether the control is effective in practice.

TESTING PERIOD

Period available to the tester to perform the test. It is calculated from the task frequency (once, daily, weekly, monthly, quarterly, semi-annually, annually), the date when the control test was generated the first time and the test duration (time limit for task processing).

12 Legal information

12.1 Documentation scope

The information provided describes the settings and features as they were at the time of publishing. Since documentation and software are subject to different production cycles, the description of settings and features may differ from actual settings and features. Information about discrepancies is provided in the Release Notes that accompany the product. Please read the Release Notes and take the information into account when installing, setting up, and using the product.

If you want to install technical and/or business system functions without using the consulting services provided by Software AG, you require extensive knowledge of the system to be installed, its intended purpose, the target systems, and their various dependencies. Due to the number of platforms and interdependent hardware and software configurations, we can describe only specific installations. It is not possible to document all settings and dependencies.

When you combine various technologies, please observe the manufacturers' instructions, particularly announcements concerning releases on their Internet pages. We cannot guarantee proper functioning and installation of approved third-party systems and do not support them. Always follow the instructions provided in the installation manuals of the relevant manufacturers. If you experience difficulties, please contact the relevant manufacturer.

If you need help installing third-party systems, contact your local Software AG sales organization. Please note that this type of manufacturer-specific or customer-specific customization is not covered by the standard Software AG software maintenance agreement and can be performed only on special request and agreement.

If a description refers to a specific ARIS product, the product is named. If this is not the case, names for ARIS products are used as follows:

Name	Includes
ARIS products	Refers to all products to which the license regulations of Software AG standard software apply.
ARIS Clients	Refers to all programs that access shared databases via ARIS Server, such as ARIS Architect or ARIS Designer.
ARIS Download clients	Refers to ARIS clients that can be accessed using a browser.

12.2 Support

If you have any questions on specific installations that you cannot perform yourself, contact your local Software AG sales organization

(<https://empower.softwareag.com/Products/default.aspx>). To get detailed information and support, use our websites.

If you have a valid support contract, you can contact **Global Support ARIS** at: **+800 ARISHELP**. If this number is not supported by your telephone provider, please refer to our Global Support Contact Directory.

ARIS COMMUNITY

Find information, expert articles, issue resolution, videos, and communication with other ARIS users. If you do not yet have an account, register at ARIS Community.

SOFTWARE AG EMPOWER PORTAL

You can find documentation on the Software AG Documentation website. The site requires credentials for Software AG's Product Support site **Empower**. If you do not yet have an account for **Empower**, send an e-mail to empower@softwareag.com (mailto:empower@softwareag.com) with your name, company, and company e-mail address and request an account.

If you have no account, you can use numerous links on the TECHcommunity website. For any questions, you can find a local or toll-free number for your country in our Global Support Contact Directory and give us a call.

TECHCOMMUNITY

On the **TECHcommunity** website, you can find documentation and other technical information:

- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Access articles, code samples, demos, and tutorials.
- Find links to external websites that discuss open standards and web technology.
- Access product documentation, if you have **TECHcommunity** credentials. If you do not, you will need to register and specify **Documentation** as an area of interest.

EMPOWER (LOGIN REQUIRED)

If you have an account for **Empower**, use the following sites to find detailed information or get support:

- You can find product information on the Software AG Empower Product Support website.
- To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the Knowledge Center.
- Once you have an account, you can open Support Incidents online via the eService section of Empower.
- To submit feature/enhancement requests, get information about product availability, and download products, go to Products.

FURTHER INFORMATION AND TRAININGS

Learn from your laptop computer, tablet or smartphone.