software AG

ARIS Risk & Compliance Manager

RISK-BASED CONTROL SYSTEM CONVENTIONS MANUAL

Version 9.8 – Service Release 5

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Contents

1   Introduction

The documentation of business processes and functions using models in ARIS brings a variety of advantages (consistency, reduction of complexity, reusability, potential for evaluation, integrity, etc.).

This is however only possible if the methodological and functional rules and conventions for modeling in ARIS Architect are adhered to. Only then can all modeled data be transferred to ARIS Risk & Compliance Manager (ARCM) and reused there.

2 Text conventions

Menu items, file names, etc. are indicated in texts as follows:

- Menu items, keyboard shortcuts, dialogs, file names, entries, etc. are shown in **bold**.
- Content input that you specify is shown in **<bold and within angle brackets>**.
- Single-line example texts are separated at the end of a line by the character ↵, e.g., a long directory path that comprises multiple lines.
- File extracts are shown in the following font:

  `This paragraph contains a file extract.`

3 Content of document

The sections below explain the standards relating to the use of descriptive views, model types, object types, relationship and connection types, and attributes.

3.1 Objectives and scope

Objective: Specification of modeling guidelines

Not included in this manual: User documentation

4 ARIS conventions

4.1 Modeling levels and model types

4.1.1 Overview of modeling levels and their model types

The figure below shows the process modeling levels and the suggested process model types to be used within them.
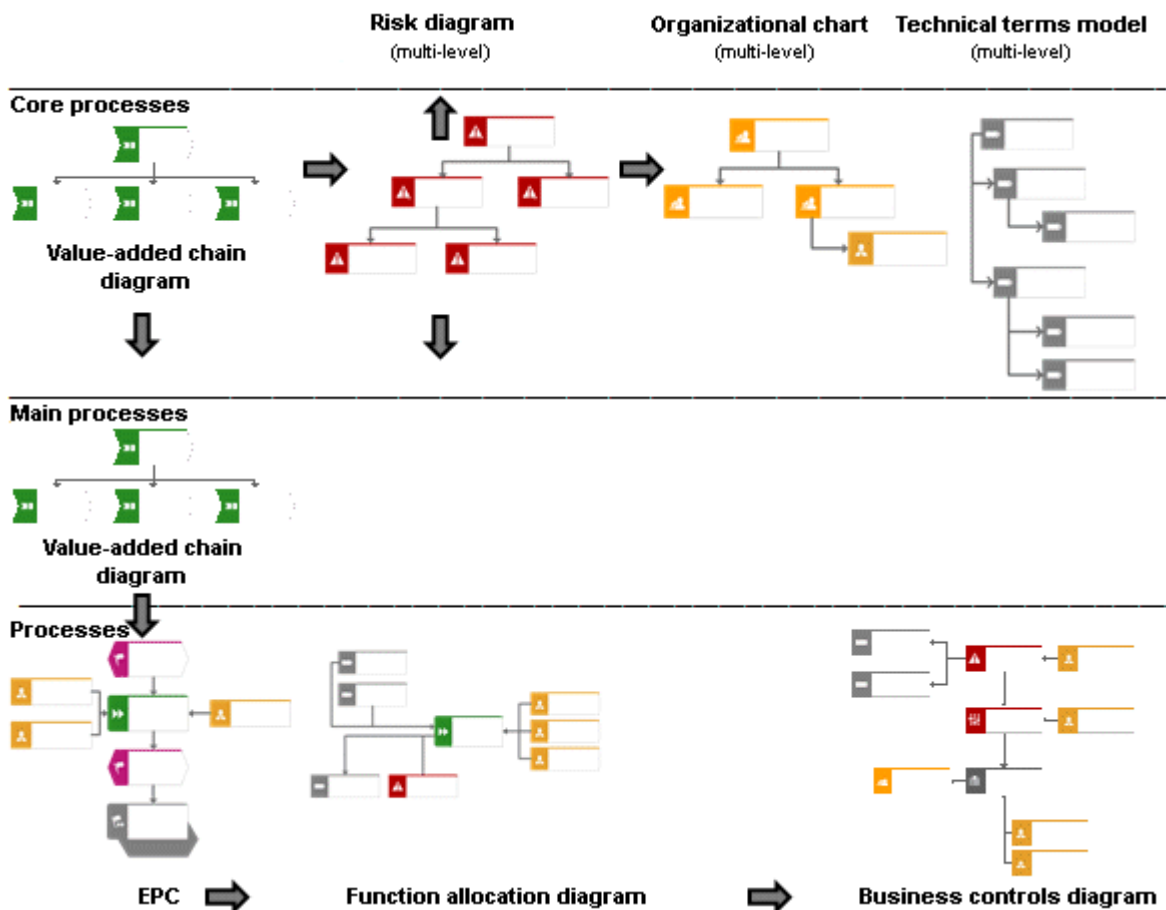
Figure 1: Modeling levels and their model types

4.1.2 Identification of controls and processes

4.1.2.1 Process models

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

Model name	Model type number
Value-added chain diagram	12
EPC	13
Function allocation diagram	14
PCD	18
EPC (material flow)	50
PCD (material flow)	51
EPC (column display)	134
EPC (row display)	140
EPC (table display)	154
EPC (horizontal table display)	173
Enterprise BPMN collaboration diagram	272
Enterprise BPMN process diagram	273

The following chapters include a modeling example of the process landscape.

4.1.2.2 Process modeling at level 1 – Value-added chain diagram (VACD)

The overview process model is the central model at level 1. This is modeled using the **value-added chain diagram** model type. This core process overview is used as the entry model.
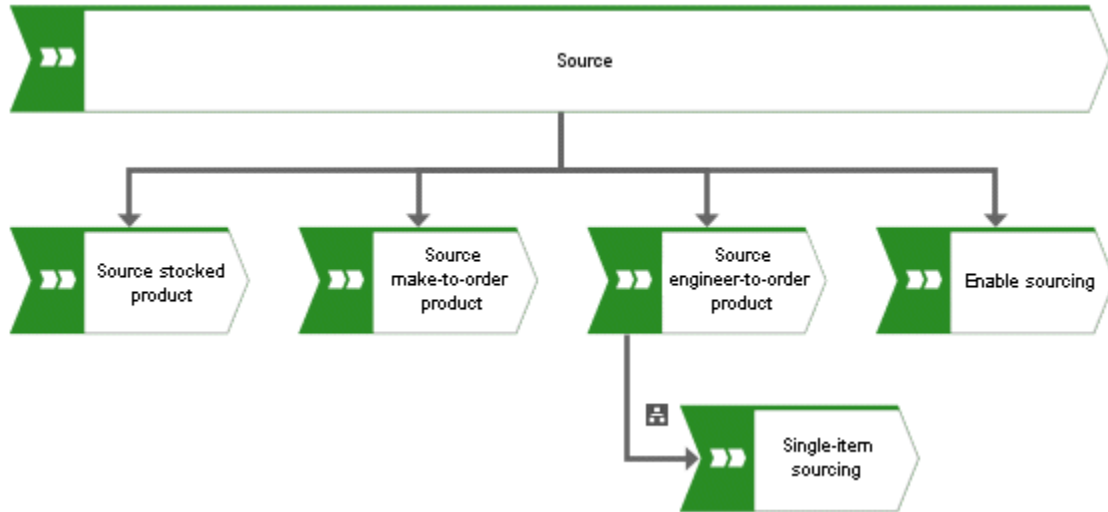
Figure 2: Level 1 – Value-added chain diagram

The object type used is **Function** (OT_FUNC). The hierarchy between the objects is mapped using the **is process-oriented superior** or **is process-oriented subordinate** connection.

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

The following model types can be assigned to an object type in a VACD:

Object type	Assigned model type
Function [Value-added chain]	VACD
Function [Value-added chain]	Function allocation diagram

Thus, a hierarchy element is created in ARIS Risk & Compliance Manager for each relevant function. Exception: The top hierarchy element already exists in ARIS Risk & Compliance Manager.

4.1.2.2.1   Function (ABA) to process hierarchy element (ARCM) allocations

The following allocations are applicable for the **Function** object:

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Function	Name	AT_NAME	X	HIERARCHY	name	
				HIERARCHY	isroot	**True** only for the top hierarchy element.
				HIERARCHY	hnumber	Not relevant for the process hierarchy.
				HIERARCHY	type	Process hierarchy (value 4)
Function	Description/Definition	AT_DESC		HIERARCHY	description	
			X	HIERARCHY	status	Status is **true** (if active)
Function	Sign-off-relevant	AT_AAM_SIGN_OFF_RELEVANT	X	HIERARCHY	signoff	
Function	Model link	AT_AAM_MOD_LINK		HIERARCHY	modellink	
				HIERARCHY	modelguid	GUID of the model containing an occurrence of the function. The first available process model (EPC, VACD, etc.) is selected.
				HIERARCHY	model_name	Name of the model (see above)

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Function	Object link	AT_AAM_OBJ_LINK		HIERARCHY	objectlink	
Function	GUID of object			HIERARCHY	objectguid	
				HIERARCHY	children	Subordinate hierarchy element
				HIERARCHY	so_owner	Associated sign-off owner group
				HIERARCHY	tester	Not relevant for this hierarchy type.

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

4.1.2.3 Process modeling at level 2 – Value-added chain diagram (VACD)

The value-added chain diagram is used as the model at level 2. Level 2 is used to represent the main processes and to map the context of the sub-processes located at level 3.
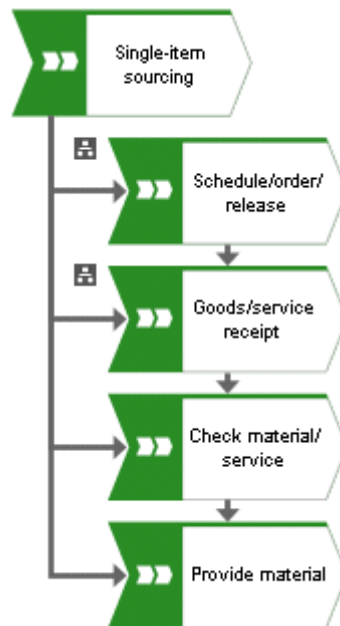
Figure 3: Level 2 – Value-added chain diagram

The same conventions apply as for the core processes modeled as a value-added chain.

The following model types can be assigned to an object type in the VACD:

Object type	Assigned model type
Function	EPC
Function	Function allocation diagram

4.1.2.4 Process and control modeling at level 3 - Event-driven process chain (EPC)

You can describe a company's 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. These lean processes can be supplemented by additional objects (organizational units, positions (roles), application systems, etc.) containing extended information. Thus for example, a risk with the **occurs at** connection can be linked directly with a function in an EPC.
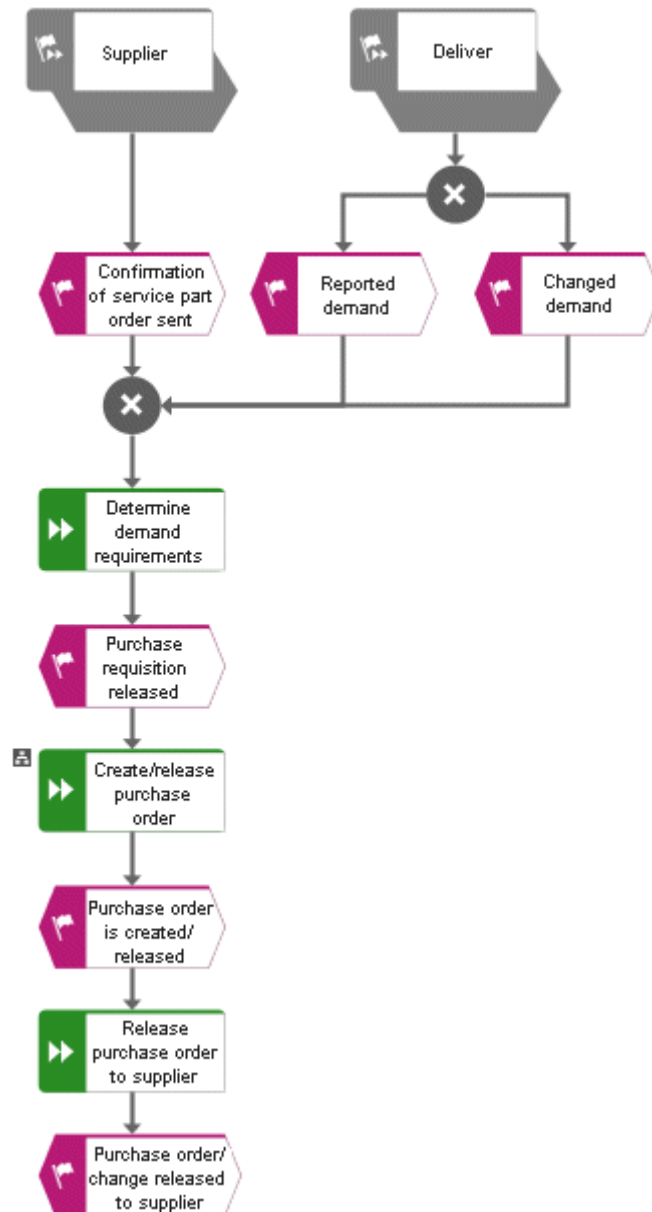
Figure 4: Level 3 – Event-driven process chain

The following model types can be assigned to an object type in an EPC:

Object type	Assigned model type
Function	EPC
Function	Function allocation diagram
Risk	EPC
Risk	Business controls diagram

LEVEL 3 – FUNCTION ALLOCATION DIAGRAM (FAD)

EPCs can also be modeled as lean EPCs – i.e. without organizational units, positions and application systems. The relationships between these additional objects and a function are then modeled in a function allocation diagram, which is assigned to the function. The object and symbol types in the function allocation diagram are those that change a lean EPC into an extended EPC. These are:

- Function
- Position
- Organizational unit
- Organizational unit type
- Group
- Role
- Internal person
- Application system
- Application system type
- Information carrier (file, document)
- Risk

4.1.3   Documentation of additional hierarchies in the company

Only one 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.

4.1.3.1   Regulation hierarchy

The regulation hierarchy is modeled in the technical terms model in ARIS using the **Technical term** object (OT_TECH_TRM). The **Regulations** attribute can be used to uniquely identify regulations (API name: AT_AAM_ANNUAL_ACCOUNTS_ITEM). The hierarchy between the objects is mapped using the **has** connection.
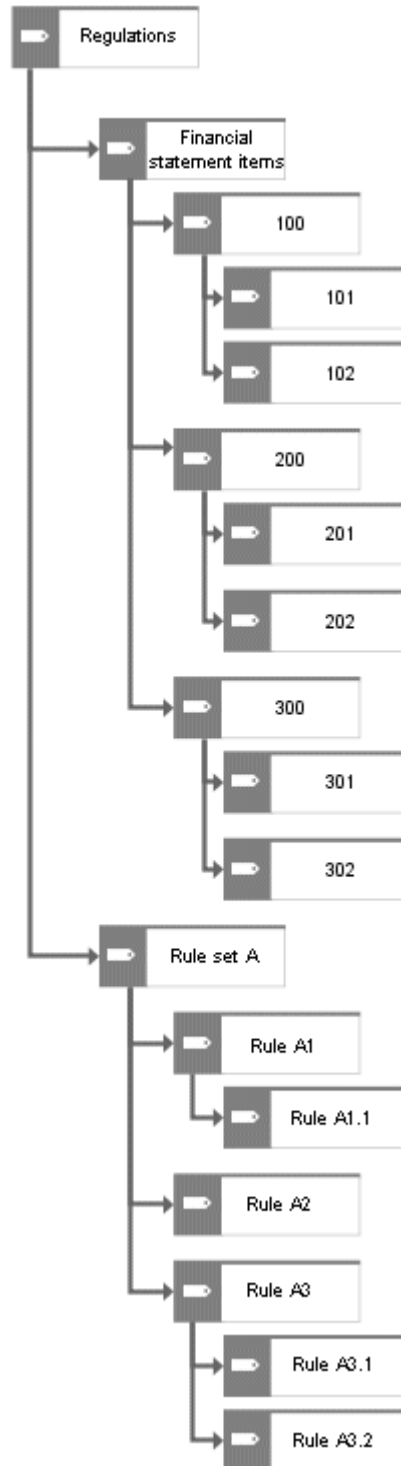
Figure 5: Regulation hierarchy structure

4.1.3.1.1 Technical term (ABA) to regulation element (ARCM) allocations

The following attribute allocations are applicable for the **Technical term** object:

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Technical term	Name	AT_NAME	X	HIERARCHY	name	
				HIERARCHY	isroot	**True** only for the top hierarchy element.
Technical term	Short description	AT_SHORT_DESC		HIERARCHY	hnumber	
				HIERARCHY	type	Regulation hierarchy (Value = 2)
Technical term	Description/Definition	AT_DESC		HIERARCHY	description	
			X	HIERARCHY	status	Status is **true** (if active)
Technical term	Sign-off-relevant	AT_AAM_SIGN_OFF_RELEVANT	X	HIERARCHY	signoff	
Technical term	Model link	AT_AAM_MOD_LINK		HIERARCHY	modellink	
				HIERARCHY	modelguid	GUID of the model containing an occurrence of the technical term. The first available technical term model is selected.
				HIERARCHY	model_name	Name of the model (see above)
Technical term	Object link	AT_AAM_OBJ_LINK		HIERARCHY	objectlink	

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Technical term	GUID of object			HIERARCHY	objectguid	
				HIERARCHY	children	Subordinate hierarchy element
				HIERARCHY	so_owner	Associated sign-off owner group
				HIERARCHY	tester	Not relevant for this hierarchy type.

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

4.1.3.2   Tester hierarchy

The tester hierarchy is modeled in the organizational chart in ARIS using the **Organizational unit** object (OT_ORG_UNIT). The hierarchy between the objects is mapped using the **is superior** connection.
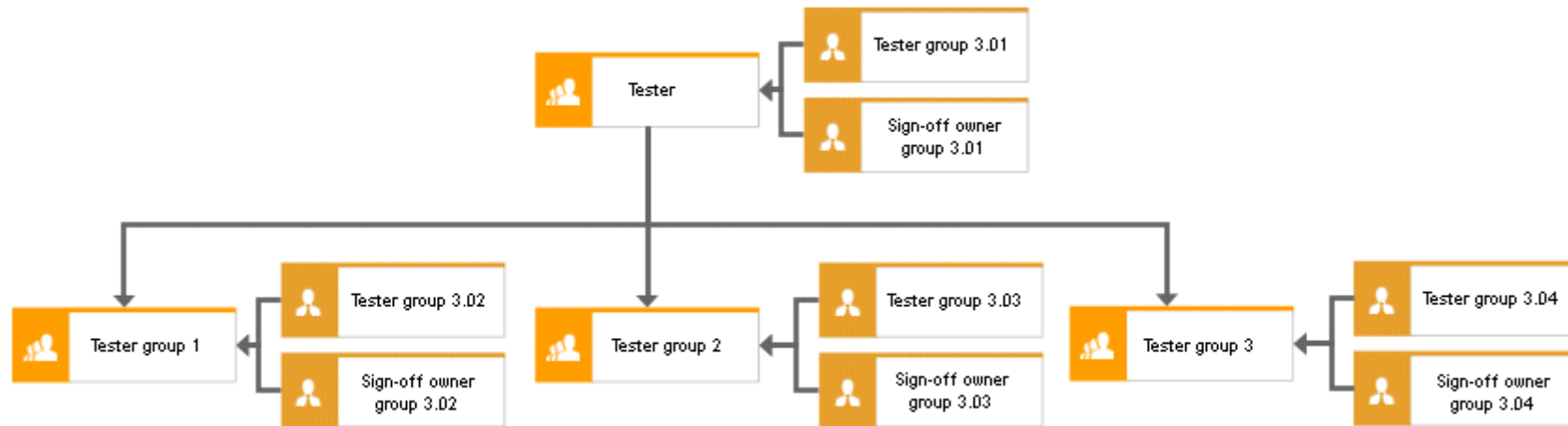
Figure 6: Tester hierarchy structure

A tester hierarchy element is therefore created for each organizational unit in ARIS Risk & Compliance Manager (exception: the top hierarchy element already exists in ARCM). At present, each hierarchy element can only be assigned to one user group (Page 22).

Thus, for the above example, the tester hierarchy elements **Tester**, **Tester group 1**, **Tester group 2** and **Tester group 3** are created in ARIS Risk & Compliance Manager. **Tester** is superior to the other hierarchy elements.

4.1.3.2.1 Organizational unit (ABA) to tester hierarchy element (ARCM) allocations

The following attribute allocations apply to the **Organizational unit** object:

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Organizational unit	Name	AT_NAME	X	HIERARCHY	name	
				HIERARCHY	isroot	**True** only for the top hierarchy element.
				HIERARCHY	hnumber	Not relevant for the tester hierarchy.
				HIERARCHY	type	Tester hierarchy (value = 1)
Organizational unit	Description/Definition	AT_DESC		HIERARCHY	description	
			X	HIERARCHY	status	Status is **true** (if active)
Organizational unit	Sign-off-relevant	AT_AAM_SIGN_OFF_RELEVANT	X	HIERARCHY	signoff	
Organizational unit	Model link	AT_AAM_MOD_LINK		HIERARCHY	modellink	
				HIERARCHY	modelguid	GUID of the model containing an occurrence of the organizational unit. The first available organizational chart is selected.

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
				HIERARCHY	model_name	Name of the model (see above)
Organizational unit	Object link	AT_AAM_OBJ_LINK		HIERARCHY	objectlink	
Organizational unit	GUID of object			HIERARCHY	objectguid	
				HIERARCHY	children	Subordinate hierarchy unit
-off				HIERARCHY	so_owner	Associated sign-off owner group
				HIERARCHY	tester	Associated tester groups

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

4.1.3.3   Organizational hierarchy

The organizational hierarchy is modeled in the organizational chart in ARIS using the **Organizational unit** object (OT_ORG_UNIT). The **Group** (OT_GRP), **Position** (OT_POS) and **Location** (OT_LOC) objects can be also used. The hierarchy between the objects is mapped using the **is superior** connection.
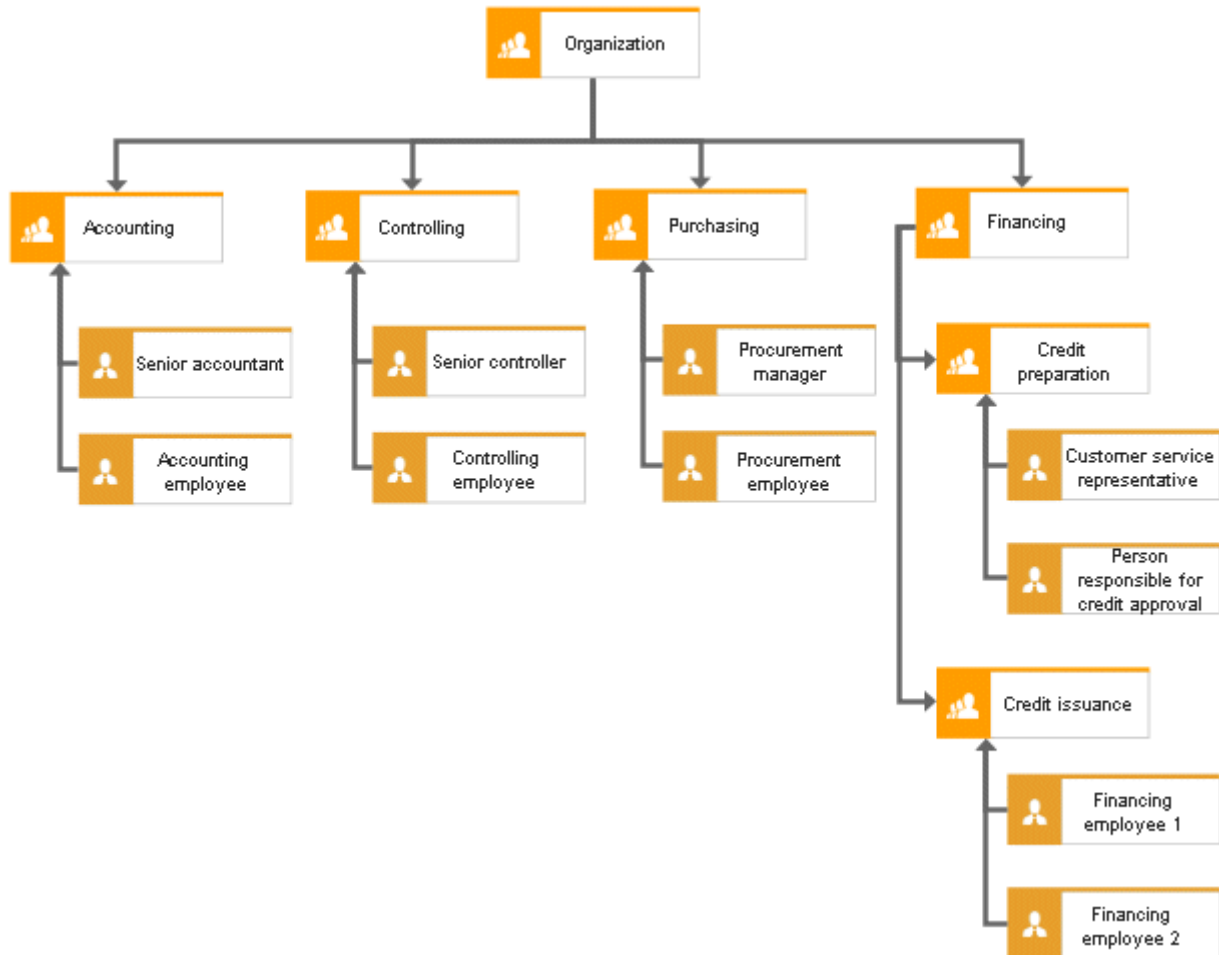
Figure 7: Organizational hierarchy structure

Thus, for each organizational unit, an organizational hierarchy element is created. Exception: The top hierarchy element already exists in ARIS Risk & Compliance Manager.

Thus, for the above example, the organizational hierarchy elements **Organization**, **Accounting**, **Controlling** and **Purchasing** are created in ARIS Risk & Compliance Manager. **Organization** is superior to the other hierarchy elements.

4.1.3.3.1 Organizational unit (ABA) to organizational hierarchy element (ARCM) allocations

The following attribute allocations apply to the **Organizational unit** object:

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Organizational unit	Name	AT_NAME	X	HIERARCHY	name	
				HIERARCHY	isroot	**True** only for the top hierarchy element.
				HIERARCHY	hnumber	Not relevant for the organizational hierarchy.
				HIERARCHY	type	Organizational hierarchy (value = 3)
Organizational unit	Description/Definition	AT_DESC		HIERARCHY	description	
			X	HIERARCHY	status	Status is **true** (if active)
Organizational unit	Sign-off-relevant	AT_AAM_SIGN_OFF_RELEVANT	X	HIERARCHY	signoff	
Organizational unit	Model link	AT_AAM_MOD_LINK		HIERARCHY	modellink	

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
				HIERARCHY	modelguid	GUID of the model containing an occurrence of the organizational unit. The first available organizational chart is selected.
				HIERARCHY	model_name	Name of the model (see above)
Organizational unit	Object link	AT_AAM_OBJ_LINK		HIERARCHY	objectlink	
Organizational unit	GUID of object			HIERARCHY	objectguid	
				HIERARCHY	children	Subordinate hierarchy elements
				HIERARCHY	so_owner	Associated sign-off owner group
				HIERARCHY	tester	Not relevant for the organizational hierarchy.

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

4.1.3.4 Risk hierarchy (optional)

The risk hierarchy is modeled in the risk diagram in ARIS. The categorization of risks (OT_RISK) can be carried out here. Risks can be made subordinate to categories (OT_RISK_CATEGORY) and the categories can in turn be made subordinate to other categories using the **encompasses** or **contains** relationship. This is used for structuring, but is only transferred in connection with the **Operational Risk Management** component.
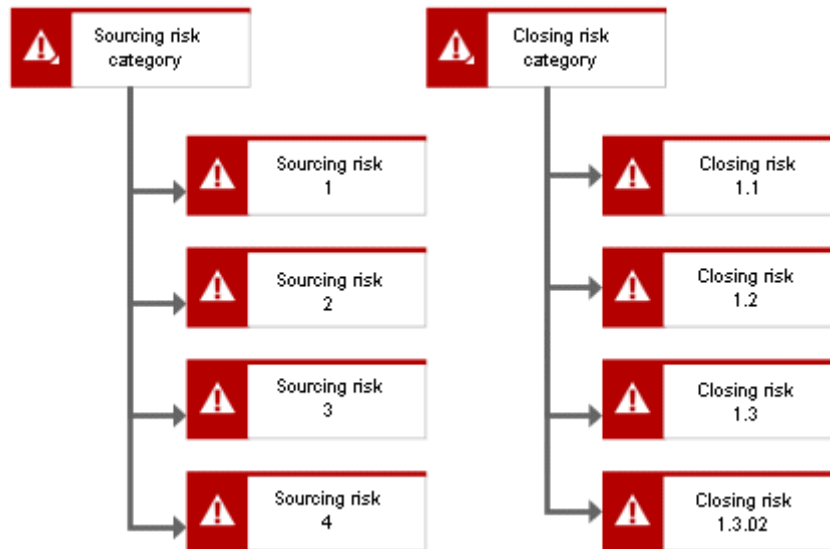
Figure 8: Risk hierarchy structure

4.1.4   Create users and user groups

Users and user groups are modeled in an organizational chart in ARIS Architect using the **Person** (OT_PERS) and **Role** (OT_PERS_TYPE) objects.

Figure 9: Structure of users/user groups

The superior role (**Sign-off manager_2**) determines the role held by the subordinate roles in ARIS Risk & Compliance Manager. Both roles are connected to one another with the **is generalization of** connection. **Sign-off manager group 2.01** is thus, a generalization of **Sign-off manager_2**. The name of the superior role defines the role and level of the group to be created. <Role>_<Level>, i.e.: Sign-off manager_2 > Role: Sign-off manager, Level: 2 (or client-specific). No user group is generated in ARIS Risk & Compliance Manager for the superior role (in this case, Sign-off manager_2).

The following applies for the various levels:

▪   Level 1: cross-client

   Means that the privileges are assigned across clients.

▪   Level 2: client-specific

   Means that the privileges are assigned for a particular client.

▪   Level 3: object-specific

   Means that the privileges are assigned for a particular object, e.g. policy, risk or control.

For the above example, the **Sign-off manager group 2.01** user group is generated in ARIS Risk & Compliance Manager with the **Sign-off manager** role and the level **2** (i.e., client-wide privileges). In addition, a user with the user ID **SOM_01** is generated.

MAPPING ROLE NAME (ARCM) TO ROLE (ABA)

The following allocations are applicable for the user groups in ARIS Risk & Compliance Manager and the naming to be used in ARIS Architect. Further roles are described in the other conventions manuals.

Role (ARCM)	Role (ABA)	Notes
roles.testauditor	Test auditor	Level 1, 2, and 3
roles.testauditorexternal	Test auditor external	Level 1 and 2
roles.deficiencyauditor.l1	Deficiency auditor (L1)	Level 1 and 2
roles.deficiencyauditor.l2	Deficiency auditor (L2)	Level 1 and 2
roles.deficiencyauditor.l3	Deficiency auditor (L3)	Level 1 and 2
roles.deficiencymanager.l1	Deficiency manager (L1)	Level 1 and 2
roles.deficiencymanager.l2	Deficiency manager (L2)	Level 1 and 2
roles.deficiencymanager.l3	Deficiency manager (L3)	Level 1 and 2
roles.groupusermanager	User/User groups manager	Level 1 and 2
roles.hierarchymanager	Hierarchy manager	Level 1 and 2
roles.riskmanager	Risk manager	Level 1, 2, and 3
roles.controlmanager	Control manager	Level 1, 2, and 3
roles.signoffmanager	Sign-off manager	Level 2 only
roles.signoffreviewer	Sign-off reviewer	Level 3 only
roles.signoffowner	Sign-off owner	Level 3 only
Roles.testmanager	Test manager	Level 1 and 2
roles.testreviewer	Test reviewer	Level 3 only
roles.tester	Tester	Level 3 only
roles.issueauditor	Issue auditor	Level 1 and 2
roles.issuemanager	Issue manager	Level 1 and 2
roles.incidentauditor	Incident auditor	Level 1 and 2
roles.incidentmanager	Incident manager	Level 1 and 2
roles.incidentreviewer	Incident reviewer	Level 3 only
roles.incidentowner	Incident owner	Level 3 only
roles.lossauditor	Loss auditor	Level 1 and 2
roles.lossmanager	Loss manager	Level 1 and 2
roles.lossreviewer	Loss reviewer	Level 3 only

Role (ARCM)	Role (ABA)	Notes
roles.lossowner	Loss owner	Level 3 only

Role (ARCM)	Role (ABA)	Notes
roles.lossowner	Loss owner	Level 3 only

4.1.4.1   Role to person allocations

ROLE (ABA) TO USER GROUP (ARCM) ALLOCATIONS

The following allocations are applicable for the **Role** (user group) object:

ABA attribute	API name	ARCM attribute	M*	Notes
Name	AT_NAME	name	X	The name of a user group is limited to 250 characters.
Description/ Definition	AT_DESC	description	-	
Role	–	role	X	The values for Role and Role level are determined as described above.
Role level	–	rolelevel	X	
Users	–	groupmembers	-	Users are determined by the **performs** connection between the person and the role.

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

PERSON (ABA) TO USER (ARCM) ALLOCATIONS

Existing databases based on old modeling conventions can be migrated using the report ARCM user migration.arx supplied. Since the two attributes for first and last name are derived from the same attribute the result needs to be verified.

The following allocations are applicable for the **Person** (user) object:

ABA attribute	API name	ARCM attribute	M*	Notes
Login	AT_LOGIN	Userid	X	The user ID of a user is limited to 250 characters.
First name	AT_FIRST_NAME	firstname	X	
Last name	AT_LAST_NAME	lastname	X	
		name	-	Is a combination of the last and first name.
Description/ Definition	AT_DESC	description	-	
E-mail address	AT_EMAIL_ADDR	email	X	
Telephone number	AT_PHONE_NUM	phone	-	
		clients	-	The **Clients** field is determined by the client into which data is imported.
		substitutes	-	The **Substitutes** field is only maintained manually.

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

4.1.5   Analysis of risks and derivation of controls and tests

For the risks identified in the processes, controls and test definitions including responsibilities can be defined in the business controls diagram. In addition, effects on the company's hierarchies can be documented, e.g., which risk affects which balance sheet item.
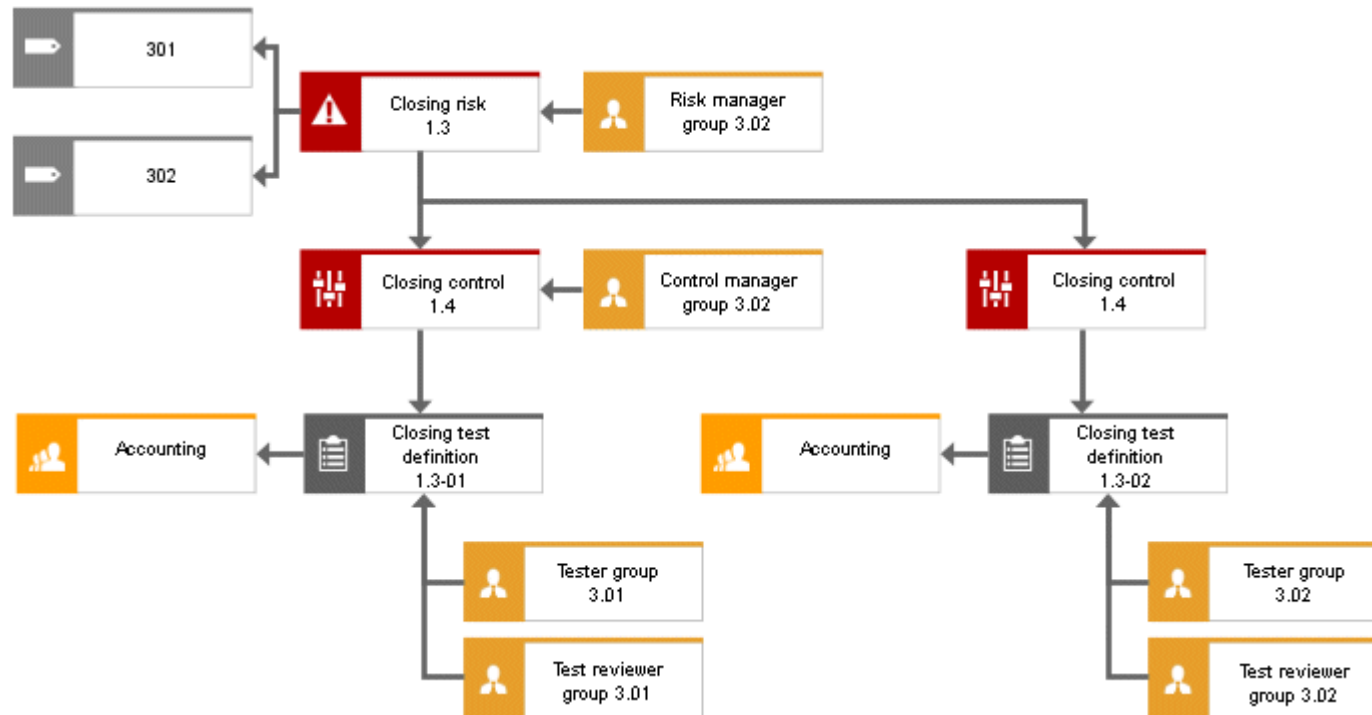
Figure 10: Business controls diagram structure

Assignment of a risk manager group and a control manager group is optional.

RELATIONSHIPS BETWEEN RISK OBJECT AND ASSOCIATED OBJECTS

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

Object	Connection	Object	Notes
Risk	affects	Technical term	This connection creates the relationship to the regulations
Risk	is technically responsible for	Role	This connection creates the relationship to the risk manager
Risk	is reduced by	Control	This connection creates the relationship to the control
Control	is monitored by	Test definition	This connection creates the relationship to the test definition
Control	is technically responsible for	Role	This connection creates the relationship to the control manager
Test definition	affects	Organizational unit	This connection creates the relationship to the organizational unit concerned
Test definition	is assigned to	Role	This connection creates the relationship to the tester and to the test reviewer

4.1.5.1   Risk

The risk is modeled in ARIS Architect with the **Risk** object (OT_RISK). A risk is created in ARIS Risk & Compliance Manager for each risk for which the **Export relevant** attribute is set.

RISK (ABA) TO RISK (ARCM) ALLOCATIONS

The following allocations are applicable for the Risk object:

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Risk	Name	AT_NAME	X	RISK	name	
Risk	Risk ID	AT_AAM_RISK_ID		RISK	risk_id	
Risk	Risk types	AT_AAM_RISK_TYPE_ FINANCIAL_REPORT AT_AAM_RISK_TYPE_ COMPLIANCE AT_AAM_RISK_TYPE_ OPERATIONS AT_AAM_RISK_TYPE_ STRATEGIC	X	RISK	risktype	The enumeration is set in ARCM when the values are true
Risk	Description/Definition	AT_DESC	X	RISK	description	

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
			X	RISK	risk_function	Determined by the connection to the function and saves a corresponding link to the process hierarchy element in ARCM
			X	RISK	financial_statement	Determined by the connection to the technical term and saves a corresponding link to the regulation hierarchy element in ARCM
Risk	Impact	AT_AAM_IMPACT	X	RISK	impact	
Risk	Probability	AT_AAM_PROBABILITY	X	RISK	probability	
Risk	Risk catalog 1	AT_AAM_RISK_CATALOG_1		RISK	risk_catalog1	
Risk	Risk catalog 2	AT_AAM_RISK_CATALOG_2		RISK	risk_catalog2	
Risk	Title 1 and link 1 to title 4 and link 4	AT_TITL1 and AT_EXT_1, etc.		RISK	documents	A document (O_10) is generated in ARCM from the title and the link and is linked to the risk

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
				RISK	controls	Determined by the connection to the control and saves a corresponding link to the control in ARCM
				RISK	risk_owner_group	Determined by the connection to the role and saves a corresponding link to the risk manager in ARCM
Risk	Assertions	AT_AAM_ASSERTIONS_ EXIST_OCCURRENCE AT_AAM_ASSERTIONS_ COMPLETENESS AT_AAM_ASSERTIONS_ RIGHTS_OBLIGATIONS AT_AAM_ASSERTIONS_ VALUATION_ALLOCATION AT_AAM_ASSERTIONS_ PRESENTATION_DISCLOSUR E AT_AAM_ASSERTIONS_NA	X	RISK	assertions	The enumeration is set in ARCM when the values are true. A dependency of values exists. The first 5 values cannot occur in combination with the last entry.

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

4.1.5.2   Control

The control is modeled in ARIS using the **Function** object (OT_FUNC) and the default symbol **Control** (ST_CONTR). Only those controls that are modeled at a risk that is **Export-relevant** are relevant for export to ARIS Risk & Compliance Manager.

FUNCTION (CONTROL) (ABA) TO CONTROL (ARCM)

The following allocations are applicable for the **Function (control)**object:

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Control	Name	AT_NAME	X	CONTROL	name	
Control	Control ID	AT_AAM_CTRL_ID		CONTROL	control_id	
				CONTROL	control_owner_ group	Determined by the connection to the role and saves a corresponding link to the control manager in ARCM
Control	Control frequency	AT_AAM_CTRL_FREQUENCY	X	CONTROL	control_frequency	
Control	Control execution	AT_AAM_CTRL_EXECUTION_ MANUAL AT_AAM_CTRL_EXECUTION_IT	X	CONTROL	control_execution	The enumeration is set in ARCM when the values are true
Control	Effect of control	AT_AAM_CTRL_EFFECT	X	CONTROL	control_effect	

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Control	COSO component	AT_AAM_COSO_COMPONENT_CRTL_ENVIRONMENT AT_AAM_COSO_COMPONENT_RISK_ASSESSMENT AT_AAM_COSO_COMPONENT_CTRL_ACTIVITIES AT_AAM_COSO_COMPONENT_INFO_COMMUNICATION AT_AAM_COSO_COMPONENT_MONITORING		CONTROL	control_type	The enumeration is set in ARCM when the values are true
Control	Control activity	AT_AAM_CTRL_ACTIVITY	X	CONTROL	controls	
				CONTROL	testdefinitions	Determined by the connection to the test definition and saves a corresponding link to the test definition in ARCM
Control	Control objective	AT_AAM_CTRL_OBJECTIVE		CONTROL	control_objective	
Control	Key control	AT_AAM_KEY_CTRL	X	CONTROL	key_control	

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

4.1.5.3   Test definition

The test definition is modeled in ARIS using the **Test definition** object (OT_TEST_DEFINITION). Only those test definitions that are modeled at a control that is export-relevant are relevant for import in ARIS Risk & Compliance Manager.

TEST DEFINITION (ABA) TO TEST DEFINITION (ARCM) ALLOCATION

The following allocations are applicable for the **Test definition** object:

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Test definition	Name	AT_NAME	X	testdefinition	name	
Test definition	Test activity	AT_AAM_TEST_ACTIVITY	X	testdefinition	testingsteps	
Test definition	Nature of test	AT_AAM_TEST_NATURE_ INQUIRY AT_AAM_TEST_NATURE_ OBSERVATION AT_AAM_TEST_NATURE_ EXAMINATION AT_AAM_TEST_NATURE_ REPERFORMANCE	X	testdefinition	test_nature	The enumeration is set in ARCM when the values are true
Test definition	Test type	AT_AAM_TEST_TYPE_ DESIGN AT_AAM_TEST_TYPE_ EFFECTIVENESS	X	testdefinition	test_type	The enumeration is set in ARCM when the values are true
Test definition	Test size	AT_AAM_TEST_SCOPE	X	testdefinition	testextend	

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
			X	testdefinition	test_owner_group	Determined by the connection to the role with the Tester role and saves a corresponding link to the tester in ARCM
Test definition	Event-driven test cases allowed	AT_EVENT_DRIVEN_TESTS_ ALLOWED	X	testdefinition	event_driven_allowed	If **true** is set the test-definition is only used for auto- mated control tests. At the same time, the test fre- quency must be set to **event- driven**.
Test definition	Test frequency	AT_AAM_TEST_FREQUENCY	X	testdefinition	testfrequency	
Test definition	Time limit for execution in days	AT_AAM_TEST_DURATION	X	testdefinition	testduration	
Test definition	Start date of test definition	AT_AAM_TESTDEF_START_ DATE	X	testdefinition	testdefinition_startdate	
Test definition	End date of test definition	AT_AAM_TESTDEF_END_ DATE		testdefinition	testdefinition_enddate	
Test definition	Length of control period	AT_AAM_TESTDEF_CTRL_ PERIOD	X	testdefinition	control_period	

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Test definition	Offset in days	AT_AAM_TESTDEF_OFFSET	X	testdefinition	offset	
			X	testdefinition	test_reviewer	Determined by the connection to the role with the Test reviewer role and saves a corresponding link to the test reviewer in ARCM
			X	testdefinition	effected_orgunit	Determined by the connection to the organizational unit or group, position, location and saves a corresponding link to the affected organizational unit in ARCM.
Test definition	Follow-up allowed	AT_AAM_TESTDEF_ FOLLOWUP	X	testdefinition	isfollowup	

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

4.1.5.4   General modeling conventions

Risks must be unique within the modeled business controls diagrams. A risk can have several controls, but a control can only have one risk. A risk can have an occurrence in no more than one business controls diagram and be connected with only one function.

The control must be unique within the modeled business controls diagram and can have an occurrence in no more than one business control diagram. Controls can be connected to precisely one risk for which the **Export relevant** attribute is specified. The control can be connected to at least one test definition.

The test definition must be unique within the modeled business controls diagram and can have an occurrence in no more than one business control diagram. A test definition can be connected to precisely one control that is connected with a risk for which the **Export relevant** is specified and the controls are connected to at least one test definition.

4.1.5.5   Automated control testing

To carry out automated control tests per event enabling the **Event-driven test cases 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 **Test frequency** attribute, in order to prevent the system from generating test cases during the year. This frequency is used only for processing ad-hoc tests.

4.1.6   Sign-off

4.1.6.1   Sign-off using process hierarchy

For sign-off, 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 initial selection of functions relevant for export to ARIS Risk & Compliance Manager is determined by the **occurs at** connection to the export-relevant risks.
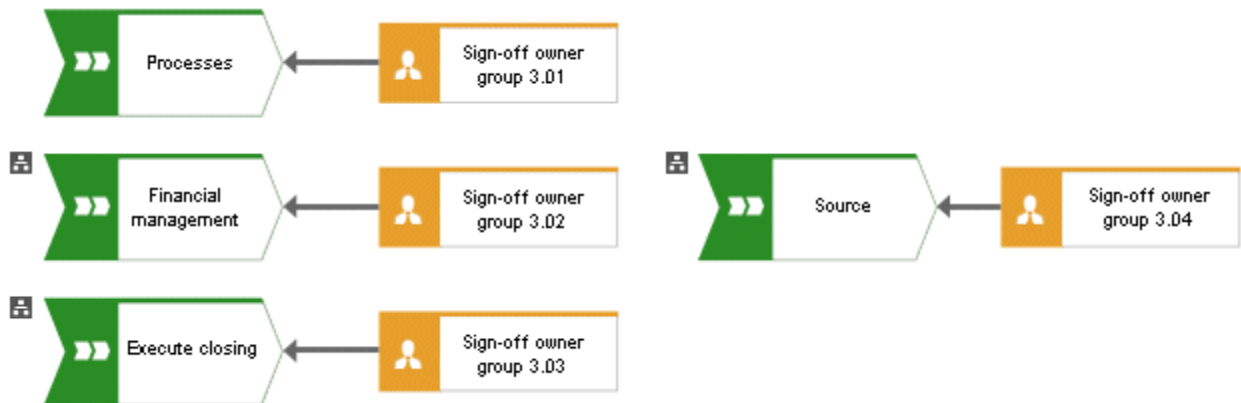

Figure 11: Allocation of function – Sign-off owner group

The **decides on** connection creates a link between a sign-off owner group (user group) and a process hierarchy element.

4.1.6.2   Sign-off using the regulations hierarchy

For sign-off using the regulations 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.
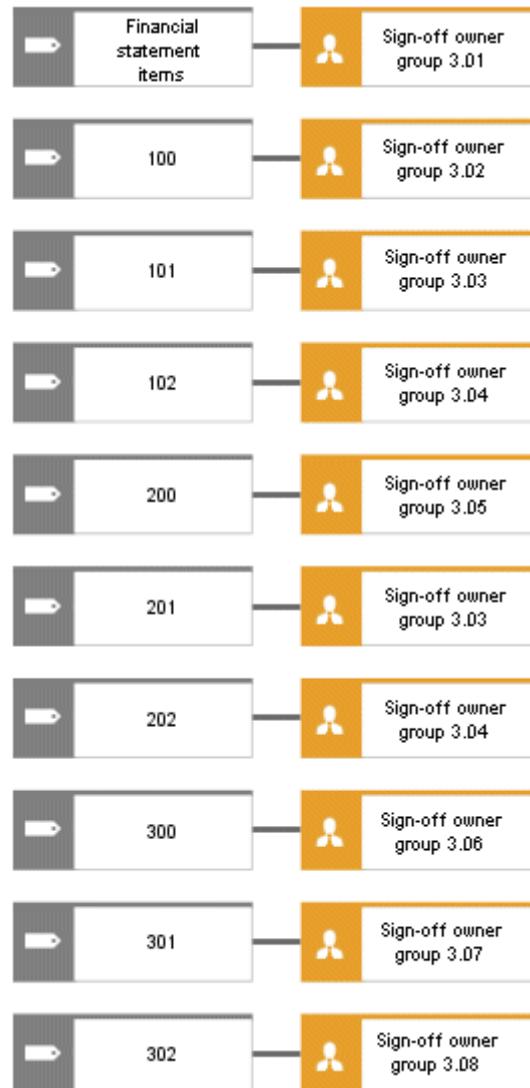

Figure 12: Allocation of regulations – Sign-off owner group

4.1.6.3   Sign-off using tester hierarchy

For sign-off using the 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.
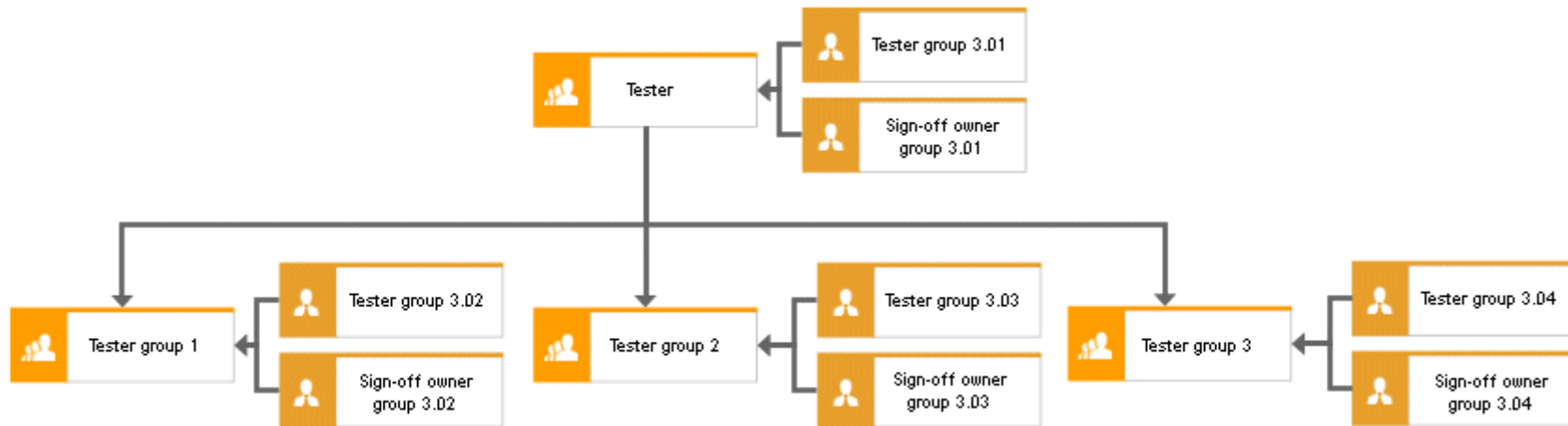

Figure 13: Allocation of organizational unit (tester) − Sign-off owner group

4.1.6.4   Sign-off using organizational hierarchy

For sign-off, 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.
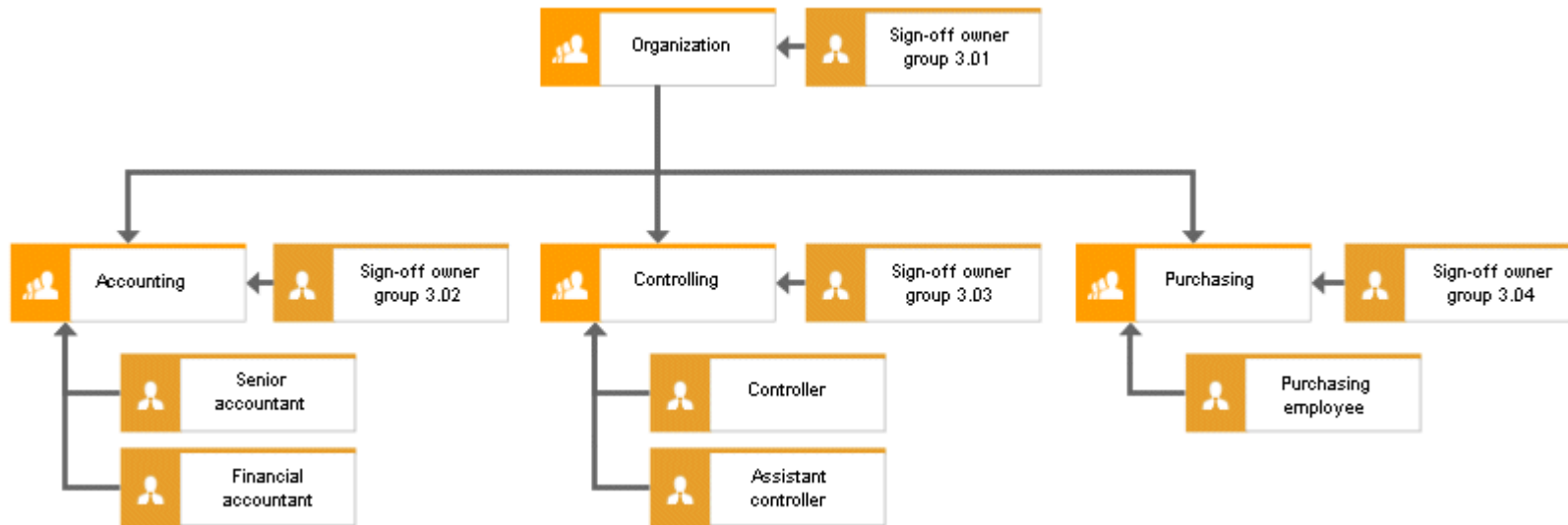

Figure 14: Allocation of organizational unit – Sign-off owner group

4.2   Deactivation of objects and relationships

The objects and relationships in ARIS Risk & Compliance Manager are subject to versioning to ensure traceability of changes. Therefore, objects and relationships in ARIS Risk & Compliance Manager are deactivated and not deleted. This means that the corresponding data items are not removed from the database, but rather marked as deactivated.

To deactivate objects/relationships in ARIS Risk & Compliance Manager via an import you must mark them accordingly in ARIS Architect. To do so, you use the attribute **Deactivated** (AT_DEACT). The attribute can be set for both objects and connections. As soon as the attribute is set, the object or connection will be deactivated upon the next import.

Of course, this is only the case if the objects/relationships are included in the ARIS Architect export file. After the successful import into ARIS Risk & Compliance Manager you can delete the objects/connections in ARIS Architect. If objects/relationships were deleted in ARIS Architect before a deactivation import took place you can deactivate them manually in ARIS Risk & Compliance Manager.