Operational Risk Management Conventions Manual

ARIS Risk & Compliance Manager

Version 9.8 - Service Release 1

June 2015

Product Documentation

This document applies to ARIS Risk & Compliance Manager Version 9.8 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.

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.

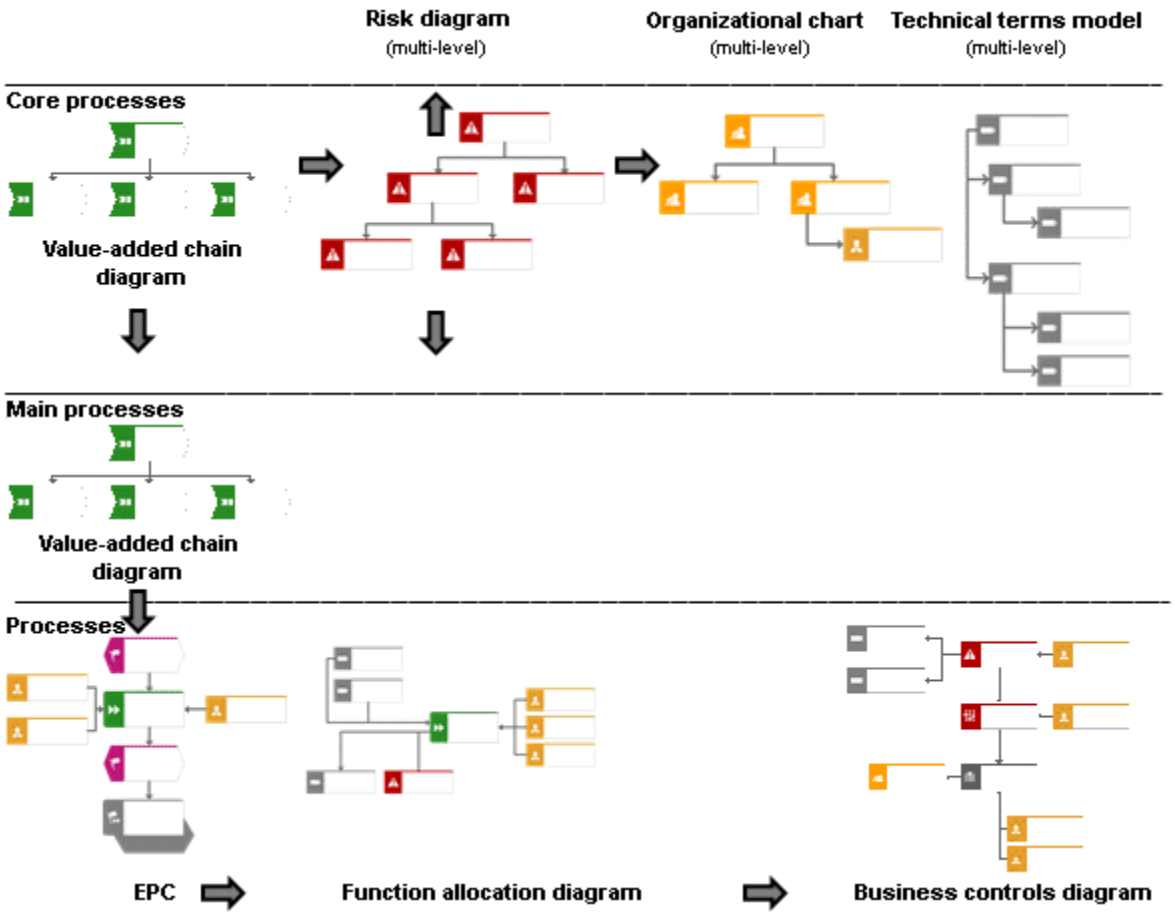

Figure 1: Modeling levels and their model types

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

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

4.1.2.2 Process modeling at level 1

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.

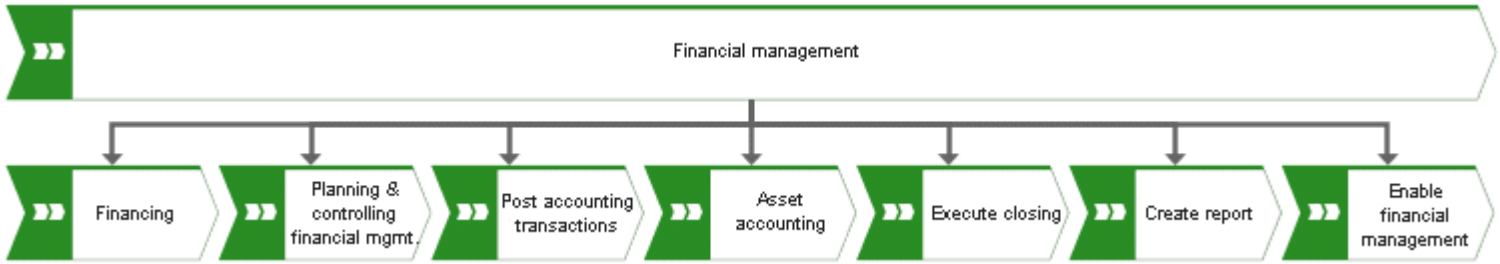

Figure 2: Level 1 – Value-added chain diagram

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	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	Not relevant for risk management
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

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

4.1.2.3 Process modeling at level 2

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.

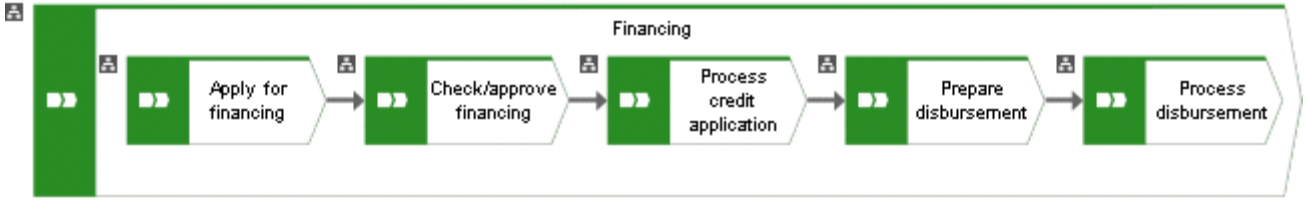

Figure 3: Level 2 – Value-added chain diagram

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

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.

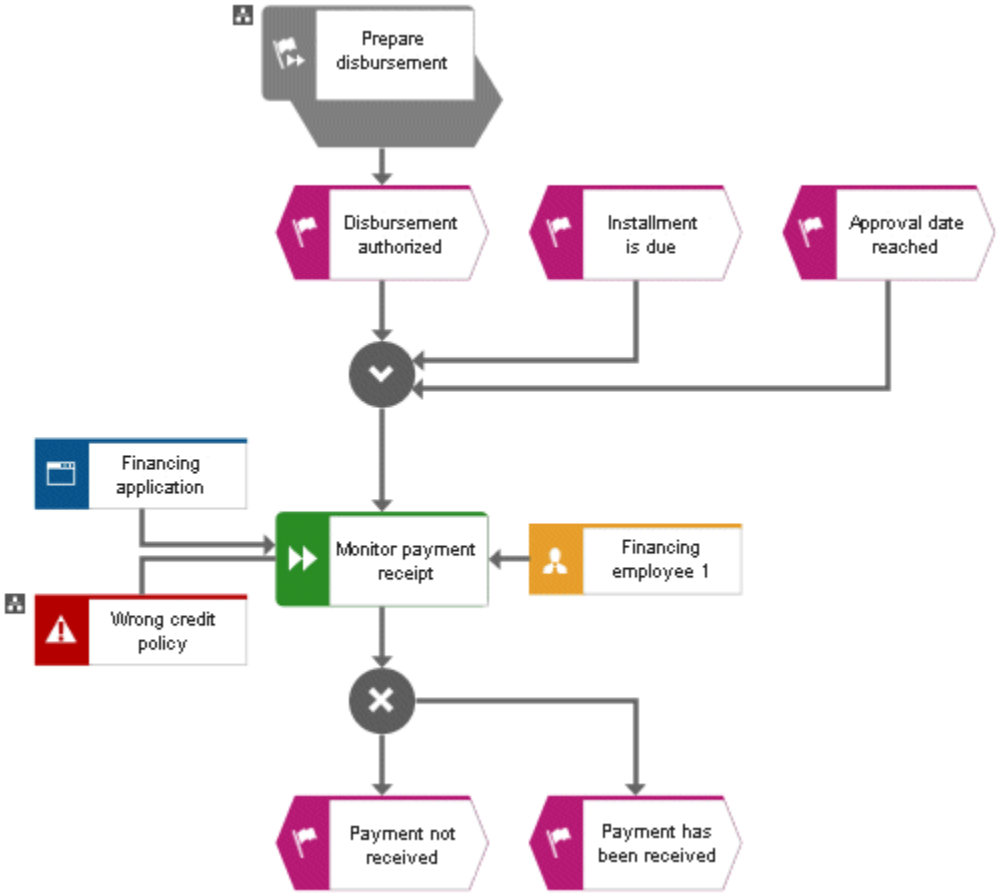

Figure 4: Level 3 – Event-driven process chain

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
Risk	KPI allocation diagram

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 Architect using the **Technical term** object (OT_TECH_TRM). The **Regulations** attribute can be used to uniquely identify individual regulations (API name: AT_AAM_ANNUAL_ACCOUNTS_ITEM). The hierarchy between the objects is mapped using the **has** connection. If the hierarchy is to be transferred to ARIS Risk & Compliance Manager, the **export relevant** model attribute (AT_AAM_EXPORT_RELEVANT) must be set.

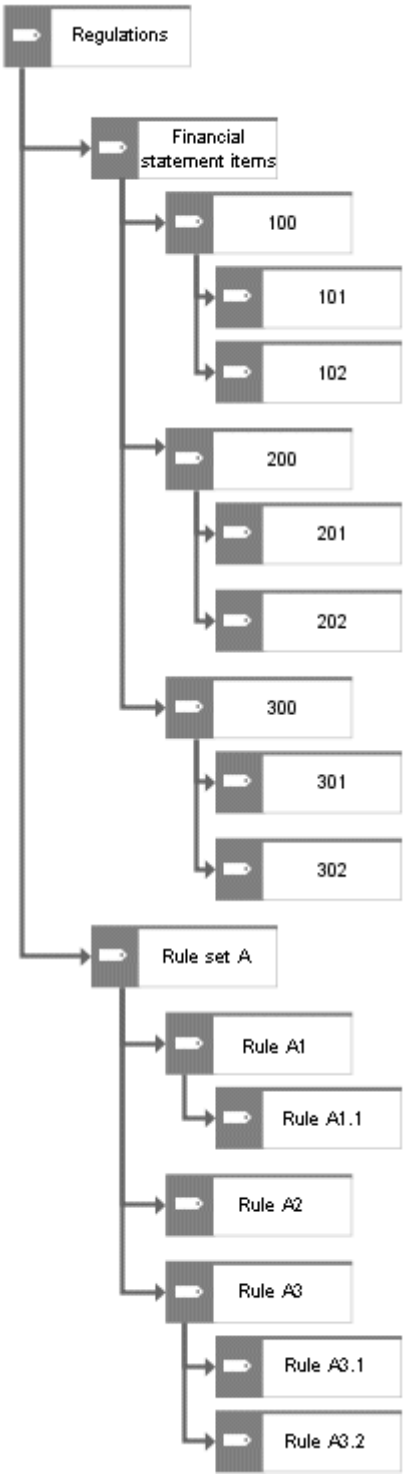

Figure 5: Regulation hierarchy structure

4.1.3.1.1 Attribute allocations for the Technical term object

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	Not relevant for risk management
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.

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
				HIERARCHY	model_name	Name of the model (see above)
Technical term	Object link	AT_AAM_OBJ_LINK		HIERARCHY	objectlink	
Technical term	GUID of object			HIERARCHY	objectguid	
				HIERARCHY	children	Subordinate hierarchy elements

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

4.1.3.2 Organizational hierarchy

The organizational hierarchy is modeled in the organizational chart in ARIS Architect using the **Organizational unit** object (OT_ORG_UNIT). The hierarchy between the objects is mapped using the **is superior** connection. If the hierarchy is to be transferred to ARIS Risk & Compliance Manager, the **export relevant** model attribute (AT_ AAM_EXPORT_RELEVANT) must be set.

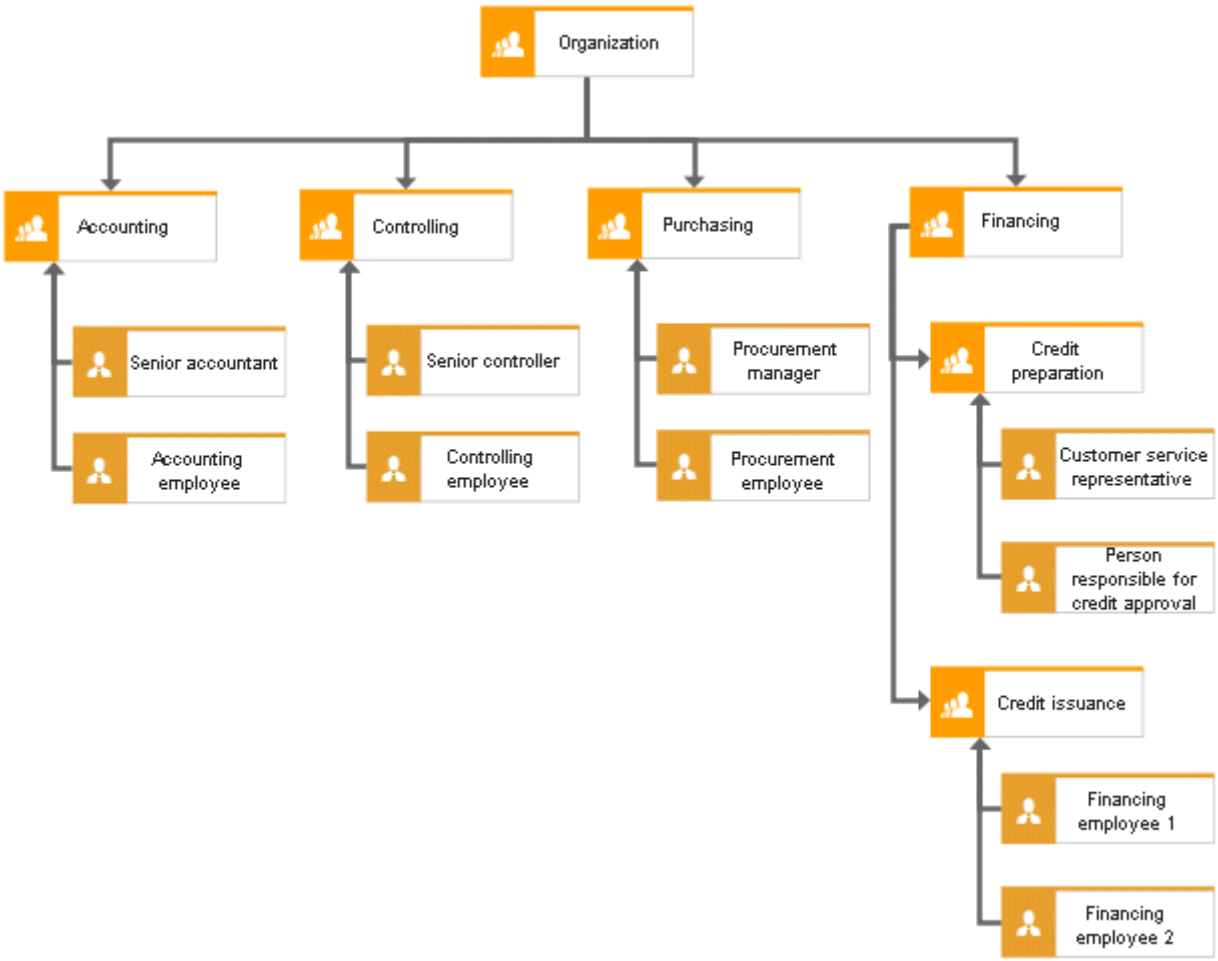

Figure 6: Organizational hierarchy structure

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

4.1.3.2.1 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	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	Not relevant for risk management
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.
				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

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

4.1.3.3 Risk Hierarchy

In ARIS Architect, the risk category hierarchy is modeled in the risk diagram 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. It is not possible to make risks subordinate to risks. If the hierarchy is to be transferred to ARIS Risk & Compliance Manager, the **export relevant** model attribute (AT_ AAM_EXPORT_RELEVANT) must be set.

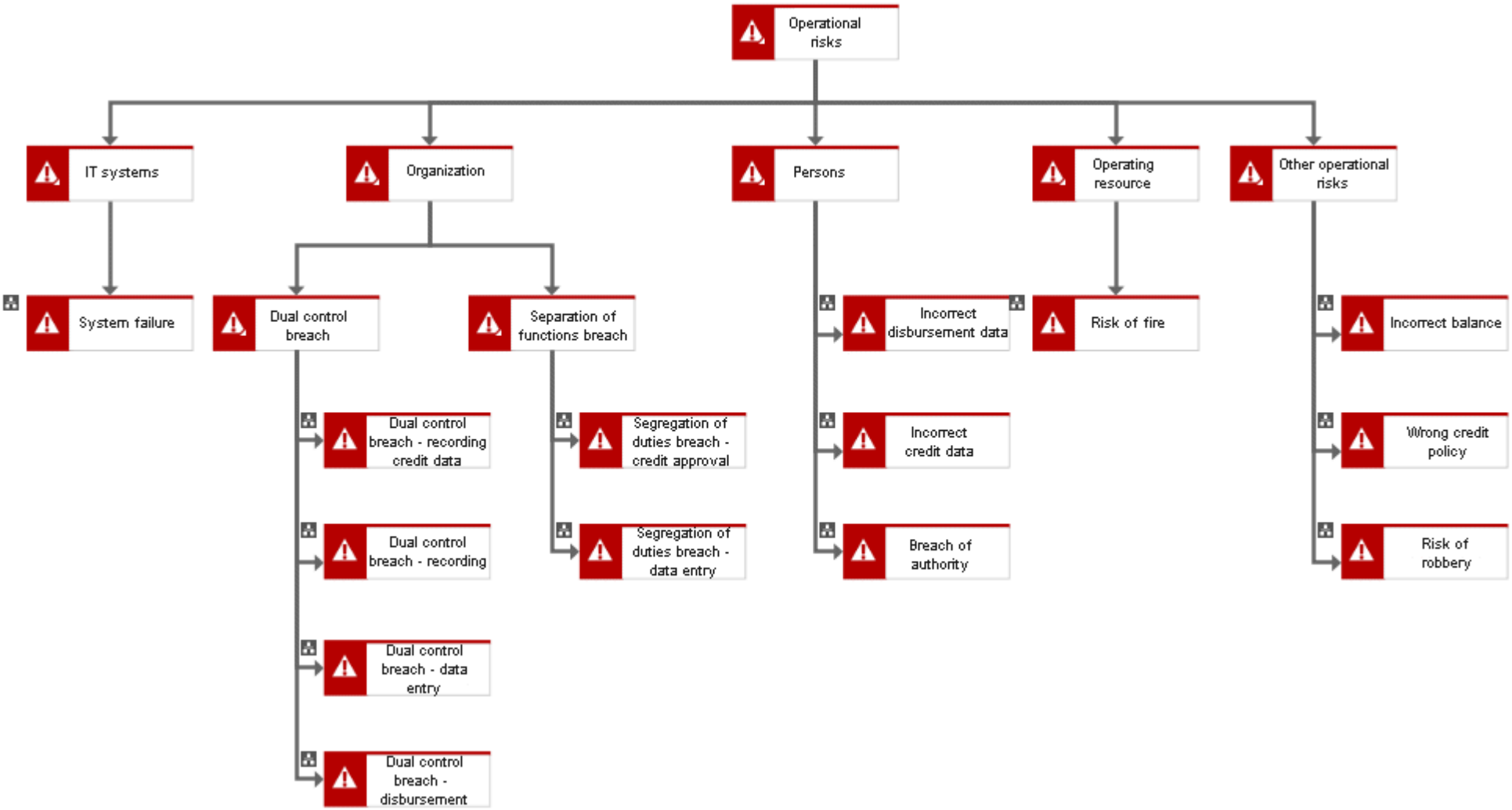

Figure 7: Risk hierarchy structure

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

4.1.3.3.1 Attribute allocations for the Risk category object

The following attribute allocations are applicable for the **Risk category**object:

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Risk category	Name	AT_NAME	X	HIERARCHY	name	
				HIERARCHY	isroot	**True** only for the top hierarchy element.
				HIERARCHY	type	Risk hierarchy (value = 5)
Risk category	Description/Definitio n	AT_DESC		HIERARCHY	description	
			X	HIERARCHY	status	Status is **true** (if active)
Risk category	Model link	AT_AAM_MOD_LINK		HIERARCHY	modellink	
				HIERARCHY	modelguid	GUID of the model containing an occurrence of the risk category. The first available risk diagram is selected.
				HIERARCHY	model_name	Name of the model (see above)
Risk category	Object link	AT_AAM_OBJ_LINK		HIERARCHY	objectlink	
Risk category	GUID of object			HIERARCHY	objectguid	
				HIERARCHY	children	Subordinate hierarchy elements

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

4.1.3.4 Application system type hierarchy

The application system type hierarchy is modeled in the application system type diagram in ARIS Architect using the **Application system type** object (OT_APPL_SYS_TYPE). The hierarchy between the objects is mapped using the **encompasses** connection. If the hierarchy is to be transferred to ARIS Risk & Compliance Manager, the **export relevant** model attribute (AT_AAM_EXPORT_RELEVANT) must be set.

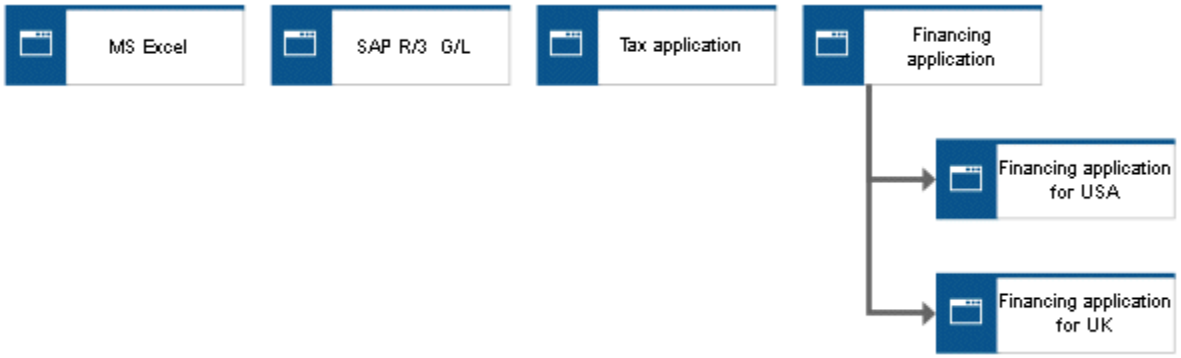

Figure 8: Structure of application system type hierarchy

Thus, an application system type hierarchy element is created in ARIS Risk & Compliance Manager for each relevant application system type. Exception: The top hierarchy element already exists in ARIS Risk & Compliance Manager.

4.1.3.4.1 Application system type hierarchy

The following attribute allocations are applicable for the **Application system type** object:

ARIS object	ARIS attribute	API name	M*	ARCM object	ARCM attribute	Notes
Application system type	Name	AT_NAME	X	HIERARCHY	name	
				HIERARCHY	isroot	**True** only for the top hierarchy element.
				HIERARCHY	type	Application system type hierarchy (value = 6)
Application system type	Description/Definition	AT_DESC		HIERARCHY	description	
			X	HIERARCHY	status	Status is **true** (if active)
Application system type	Model link	AT_AAM_MOD_LINK		HIERARCHY	modellink	
				HIERARCHY	modelguid	GUID of the model containing an occurrence of the application system type. The first available application system type diagram is selected.
				HIERARCHY	model_name	Name of the model (see above)
Application system type	Object link	AT_AAM_OBJ_LINK		HIERARCHY	objectlink	
Application system type	GUID of object			HIERARCHY	objectguid	
				HIERARCHY	children	Subordinate hierarchy elements

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

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 (**Risk reviewer_3**) 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. **Risk reviewer group 3.01** is thus a generalization of **Risk reviewer_3**. The name of the superior role defines the role and level of the group to be created. <Role>_<Level>, i. e.: Risk reviewer_3 > Role: Risk reviewer, Level: 3 (resp. object-specific). No user group is created in ARIS Risk & Compliance Manager for the superior role (in this case Risk reviewer_3).

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 **Risk reviewer group 3.01** user group is generated in ARIS Risk & Compliance Manager with the **Risk reviewer** role and the level 3 (i.e. with object-specific privileges). In addition, a user with the user ID **RR_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.riskauditor	Risk auditor	Level 1 and 2
roles.riskmanager	Risk manager	Level 1, 2, and 3
roles.riskreviewer	Risk reviewer	Level 3 only
roles.riskowner	Risk 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 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 the risks and structures for risk assessment

For the risks identified in the processes, the responsibilities and objects relevant for the assessment can be defined in the KPI allocation diagram. This means that effects on the company's hierarchies can be documented, e. g. which risk affects which organizational unit.

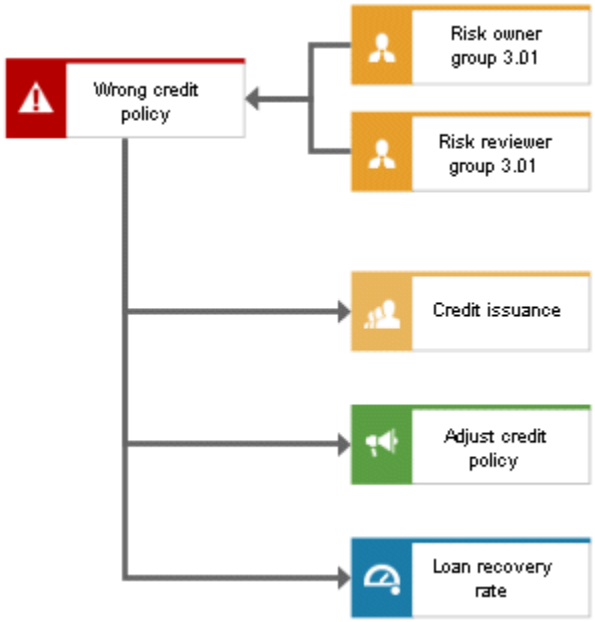

Figure 10: KPI allocation diagram structure

All allocations except the allocation of risk owner and risk reviewer are optional.

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.
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.

Object	Connection	Object	Notes
Risk	affects	Application system type	This connection creates the relationship to the application system type hierarchy.
Risk	is measured by	KPI instance	This connection creates the relationship to the KPI. It is not transferred to ARCM so far.
Risk	is influenced by	Task	This connection creates the relationship to the measure. It is not transferred to ARCM so far.

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. The following allocations are applicable for the **Risk** object:

ABA object	ABA 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	
			X	RISK	risk_function	Determined by the connection to the function and saves a corresponding link to the process hierarchy element in ARCM.

ABA object	ABA attribute	API name	M*	ARCM object	ARCM attribute	Notes
			(X)	RISK	financial_ statement	Determined by the connection to the technical term and saves a corresponding link to the regulation hierarchy element in ARCM. Only mandatory if **Risk type** is **Financial reporting**.
Risk	Impact	AT_AAM_IMPACT	(X)	RISK	impact	Only mandatory if **Risk type** is **Financial reporting**.
Risk	Proba- bility	AT_AAM_PROBABILITY	(X)	RISK	probability	Only mandatory if **Risk type** is **Financial reporting**.

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

Risk (ABA) to Risk (ARCM) allocations

ABA object	ABA attribute	API name	M*	ARCM object	ARCM attribute	Notes
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.

ABA object	ABA attribute	API name	M*	ARCM object	ARCM attribute	Notes
				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_VALUATIO N_ALLOCATION AT_AAM_ASSERTIONS_ PRESENTATION_ DISCLOSURE AT_AAM_ASSERTIONS_NA	(X)	RISK	assertions	The enumeration is set in ARCM depending on the values that are set. A dependency of values exists. The first 5 values cannot occur in combination with the last entry. Only a mandatory attribute if **Risk type** is **Financial reporting**.

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

The following allocations (Table 14 and Table 15) are only transferred to ARIS Risk & Compliance Manager if the risk is marked as risk management-relevant:

ABA object	ABA attribute	API name	M*	ARCM object	ARCM attribute	Notes
Risk	Risk management-relevant	AT_GRC_RISK_MANAGEM ENT_RELEVANT	X	RISK	risk_management _relevant	

ABA object	ABA attribute	API name	M*	ARCM object	ARCM attribute	Notes
Risk	Assessment activities	AT_GRC_ASSESSMENT_ ACTIVITIES	X	RISK	assessment_ activities	Describes the assessment steps.
Risk	Assessment frequency	AT_GRC_ASSESSMENT_ FREQUENCY	X	RISK	assessment_ frequency	Defines the frequency at which risk assessments are automatically generated.
Risk	Event-driven assessment allowed	AT_GRC_EVENT_DRIVEN_ ASSESSMENTS_ALLOWED	X	RISK	event_driven_ allowed	Indicates whether ad-hoc assessments are allowed. Is automatically set to **true** during import from ABA to ARCM if the assessment frequency is set to **event-driven**.
Risk	Time limit for execution in days	AT_GRC_RISK_ ASSESSMENT_DURATION	X	RISK	assessment-duration	Specifies the duration for executing a risk assessment.
Risk	Start date of risk assessment	AT_GRC_START_DATE_OF _RISK_ASSESSMENTS	X	RISK	assessments_ startdate	Specifies the date as of which risk assessments are generated.
Risk	End date of risk assessment	AT_GRC_END_DATE_OF_ RISK_ASSESSMENTS		RISK	assessments_ enddate	Specifies the date as of which risk assessments are no longer generated.

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

Risk (ABA) to Risk (ARCM) allocations

ABA object	ABA attribute	API name	M*	ARCM object	ARCM attribute	Notes
Risk		–	X	RISK	risk_assessment_owner_group	Determined by the connection to the role and saves a corresponding link to the risk owner in ARCM.
		–	X	RISK	risk_reviewer_group	Determined by the connection to the role and saves a corresponding link to the risk reviewer in ARCM.
Risk		–		RISK	risk_category	Determined by the connection to the risk category, and a corresponding link to the risk hierarchy element is saved in ARCM.
Risk		–		RISK	organizational_unit	Determined by the connection to the organizational unit and saves a corresponding link to the organization hierarchy element in ARCM.
		–		RISK	application_system_type	Determined by the connection to the application system type and saves a corresponding link to the application system type hierarchy element in ARCM

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

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.