

Test Module4

Controls and Security

Test Cases

*Author(s): imbus AG
MoReq2 test development team*

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Document History

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0.2	06/05/2007	Thomas Rumi	Revision after Review Improved Test Data Usage
0.3	08/10/2007	Michael Sill	Complete Revision after publishing of the second draft to the Moreq2 specification; Interim Release 2
0.4	12/02/2008	Michael Sill	Complete Revision after publishing Moreq2 specification; Final draft
0.5	11/03/2008	MoReq2 test development team	Revised after receiving comments on final draft of testing material
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T4.1 Access

REMARKS	TEST DATA:	The test data for the following tests (test module 4, chapter T4.1) can be found in the corresponding test data repository. The reference chapter is called ' On Chapter T4.1 - Access '.
	TEST EXECUTION:	<p>step (1) Please read the chapter Testframework – Introduction/Chapter 2 before starting the test execution.</p> <p>step (2) The test cases are designed in a way that enables you to skip test cases when required. This does not have immediate impact on other test cases. However, the test results of some test cases may be the precondition(s) of others. In these cases we inserted references following the precondition(s) of the test case. Please pay careful attention to the precondition(s) of each test case.</p>
	GLOBAL PRECONDITION:	<p>step (1) It is required for all test cases in this test module that the TestClassificationScheme1 (CS01) is created.</p>

T4.1.1 Authentication and Creation of Users/User Roles/ User Groups

Abstract: The test focus of this chapter lies on the authentication and creation of users, user roles and user groups.

T4.1.1.1 Unauthorised Person

I. Global test case information		
<i>test case id:</i>	T4.1.1.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	A person attempts to get access to the ERMS. Ensure that the ERMS denies any attempt to get access by any unknown user.	
<i>Req.-ID:</i>	4.1.1	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> No preconditions required 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>check/ expected result</i>
1.	Attempt to log in with a user name and password which have not been set up.	The ERMS denies the attempt of getting access to it.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS denies the attempt of a person who is not authorised to get access to it. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.1.2 Configuration of an Integrated Network Log-on

I. Global test case information		
<i>test case id:</i>	T4.1.1.2	
<i>test case priority:</i>	<input type="checkbox"/> Mandatory	<input checked="" type="checkbox"/> Optional
<i>test case description:</i>	An administrative role configures an integrated network log-on to govern the access to the ERMS.	
<i>Req.-ID:</i>	4.1.6	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> Logged in as the role CentralAdministrator 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>check/ expected result</i>
1.	Configure an integrated network log-on to enable the access to the ERMS	An integrated network log-on is configured.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to configure an integrated network log-on. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.1.3 Creation of Users

I. Global test case information		
<i>test case id:</i>	T4.1.1.3	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	<p>An administrative role creates users (-profiles) within the ERMS. The user gets access to the ERMS after a successful identification and authentication. Another check is made to confirm that the ERMS denies an attempt to create a users (-profile) by user roles.</p> <p>Please note that Moreq2 does not state the nature of the authentication mechanism. An accepted authentication mechanism is a log-on id and associated password. The previous test case, too, focuses on an integrated network log-on though it is optional. However, we use the phrase "logged in as" independently of whether a network log-on exists or not.</p>	
<i>Req.-ID:</i>	4.1.1, 4.1.16	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as the role CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Create all users (-profiles) according to chapter 1.1.1.1 of the test data repository	All users (-profiles) are created.
2.	Log out as CentralAdministrator	The CentralAdministrator is logged out
3.	Log in as MA_user1	The MA_user1 is successfully identified and logged in.
4.	Attempt to create a user (-profile)	The ERMS denies creating a user (-profile)
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an authorised user to get access to it. The ERMS allows an administrative role only to create user profiles. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature



T4.1.1.4 Creation of User Roles

I. Global test case information		
<i>test case id:</i>	T4.1.1.4	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	An administrative role creates ten user roles. Ensure that the ERMS does not limit the number of roles. In addition, ensure that the ERMS allows additional user roles to those shown in the Moreq2 access control model (see chapter 13.4 of the Moreq2 specification). Please note that we do not specify any permission of a user role within this test case. Please find more details about all user role permissions in the test data repository.	
<i>Req.-ID:</i>	4.1.20	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Create a user role LocalAdministrator	The user role LocalAdministrator is created.
2.	Create a user role DatabaseAdministrator	The user role DatabaseAdministrator is created.
3.	Create a user role AnnualAuditor	The user role AnnualAuditor is created.
4.	Create a user role Reviewer	The user role Reviewer is created.
5.	Create a user role Management	The user role Management is created.
6.	Create a user role MarketingManagment	The user role MarketingManagment is created.
7.	Create a user role SalesManagment	The user role SalesManagment is created.
8.	Create a user role ProductManagment	The user role ProductManagment is created.
9.	Create a user role MarketAnalysts	The user role MarketAnalysts is created.
10.	Create a user role Researchers	The user role Researchers is created.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to create ten user roles. The EMRS allows an administrative role to create user roles additional to those shown in the Moreq2 access control model. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.1.5 Creation of User Groups

I. Global test case information		
<i>test case id:</i>	T4.1.1.5	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	An administrative role creates five user groups.	
<i>Req.-ID:</i>	4.1.12	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as the role CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Create a user group Administration	The user group Administration is created.
2.	Create a user group Board of directors	The user group Board of directors is created.
3.	Create a user group Audit	The user group Audit is created.
4.	Create a user group Marketing	The user group Marketing is created.
5.	Create a user group Sales	The user group Sales is created.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to create groups of users. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.1.6 Deactivation of a User

I. Global test case information		
<i>test case id:</i>	T4.1.1.6	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	An administrative role deactivates a user. Ensure that the ERMS does not delete that user from the system	
<i>Req.-ID:</i>	4.1.9	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as the role CentralAdministrator 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Mark the user R_username2 as inactive	The user R_username2 is deactivated; the user is not deleted from the system.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to deactivate a user without deleting the user from the system. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.1.7 Creation of Ad Hoc Lists of Individual Users

I. Global test case information		
<i>test case id:</i>	T4.1.1.7	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	A check is made to confirm that the ERMS allows an administrative role to create ad hoc lists of individual users and assigning access permissions to specified parts of the classification scheme. Please note that we do not state which test data to use in this test case. You can freely decide which test data you want to use here.	
<i>Req.-ID:</i>	4.1.14	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as the role CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Create an add hoc list of users and assign access permissions to a specified class of the classification scheme.	An Ad hoc list of users is created. Access permissions are assigned.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to create ad hoc lists of individual users and assign access permissions to specified parts of the classification scheme. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.2 Assigning Users

Abstract: The test focus of this chapter lies on the assignment of users to user roles and user groups.

T4.1.2.1 Assigning Users to User Roles

I. Global test case information		
<i>test case id:</i>	T4.1.2.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	User profiles and user roles have already been created. A check is made to confirm that the ERMS allows only administrative roles to assign user(s) (-profiles) to user roles.	
<i>Req.-ID:</i>	4.1.16	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • logged in as the role CentralAdministrator 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Assign all users to a user role according to the test data repository	All users are allocated to user roles.
2.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
3.	Log in as the role ProductManagement	The role ProductManagement is logged in
4.	Attempt to assign users to user roles	The ERMS denies the attempt of assigning users to user roles
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows only administrative roles to set up user profiles and allocate them to user roles. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.2.2 Assigning of Users to User Groups

I. Global test case information		
<i>test case id:</i>	T4.1.2.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	Users and user groups have already been created. A check is made to confirm that the ERMS allows only administrative roles to assign each user (-profile) to a user group.	
<i>Req.-ID:</i>	4.1.12, 4.1.16	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User groups (-profiles) are created (see test case T4.1.1.5) • logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Allocate all users to user groups according to the test data repository	All users are allocated to user groups.
2.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
3.	Log in as the role ProductManagement	The role ProductManagement is logged in
4.	Attempt to assign users to user groups	The ERMS denies the attempt of assigning users to user groups
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows only administrative roles to set up user profiles and assign them to user groups. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.2.3 Assigning Users to More than One User Group

I. Global test case information		
<i>test case id:</i>	T4.1.2.3	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	A check is made to confirm that an administrative role is able to assign a user to more than one user group or no user group.	
<i>Req.-ID:</i>	4.1.13	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> Users (-profiles) are created (see test case T4.1.1.3) User groups (-profiles) are created (see test case T4.1.1.5) Users (-profiles) are assigned to user groups (see test case T4.1.2.2) logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Assign the user MM_username1 to the user group Board of directors	The user MM_username1 is member of the user groups Marketing and Board of directors .
2.	Delete the user MA_username1 from the user group Maketing	MA_username1 is deleted from the group Marketing ; the MA_username1 is no longer member of a group
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to assign a user to more than one user group or no user group. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.3 Assigning Access Permissions

Abstract: The following chapter deals with the assignment of access permissions to users, user roles and user groups.

T4.1.3.1 Assigning Access Permissions to Users, User Roles and User Groups (I)

I. Global test case information		
<i>test case id:</i>	T4.1.3.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	<p>Several checks are made to confirm that an administrative role allocates access permissions to records, sub-files, files and classes and metadata to a specified user, user role and user group.</p> <p>Please note that all allocated access rights also include access to all metadata of each aggregation and records.</p>	
<i>Req.-ID:</i>	4.1.2	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • User groups (-profiles) are created (see test case T4.1.1.5) • TestClassificationScheme1 is created. • logged in as the role CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Restrict the access permission (EA01) of the user AA_username1 to the class Market research and analysis (CS01/001/002) and its entities	The AA_username1 has no access to the class Market research and analysis (CS01/001/002) and its entities
2.	Restrict the access permission (EA02) of the user role Reviewer to the class Product policies (CS01/001/003)	The user role Reviewer has no access to the class Product policies (CS01/001/003)
3.	Restrict the access permission (EA03) of the user group Marketing to the class Sales (CS01/002)	The user group Marketing has no access to the class Sales (CS01/002)
4.	Log out as the role Central Administrator	The role CentralAdministrator is logged out
5.	Log in as the user AA_username1	The user AA_username1 is logged in
6.	Attempt to access the record Result (CS01/001/002/001/001/002/003) , the sub-file Survey (CS01/001/002/001/001/002/001) and the file Tools (CS01/001/002/002/002)	The ERMS denies access to those entities
7.	Log out as the user AA_username1	The user AA_username1 is logged out
8.	Log in as user of the user role Reviewer	A user of the user role Reviewer is logged in
9.	Attempt to access the class Product policies (CS01/001/003)	The ERMS denies access to the class Product policies (CS01/001/003)
10.	Log out as user of the user role Reviewer	The user of the user role Reviewer is logged out
11.	Log in as the user of the user group Marketing	The user of the user group Marketing is logged in
12.	Attempt to access the class Sales (CS01/002)	The ERMS denies access to the class Sales (CS01/002)
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows an administrative role to allocate access rights to aggregations and records to specified users, user roles and user groups. 		



III. Test result	
<i>defects / deviations</i>	<i>verdict</i>
	<input type="checkbox"/> passed <input type="checkbox"/> failed
<i>Remarks</i>	<i>tester</i>
	_____ date, signature

T4.1.3.2 Assigning Access Permissions to Users, User Roles and User Groups (II)

I. Global test case information		
<i>test case id:</i>	T4.1.3.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	<p>Several checks are made to confirm that an administrative role allocates access permissions to records, sub-files, files and classes and metadata to a specified user, user role and user group.</p> <p>Please note that all allocated access rights also include access to all metadata of each aggregation and records.</p> <p>Please note that this test case focuses on the assignment of access permissions to entities for specified periods of time. The period consists of a starting date and an end date. With regard to the MoReq2 metadata model, the starting date is the date of the creation of the access permission and the end date is a value most recently used for it. For testing purposes there might be an appropriate way to reach the end date of the access permission. We do not state how this takes place. We use the phrase Reach the access permission end date to describe that circumstance.</p>	
<i>Req.-ID:</i>	4.1.2	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • User groups (-profiles) are created (see test case T4.1.1.5) • logged in as the roles CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Restrict the access permission (compare EntityAgent (EA04)) of the user AA_username1 to the class Marketing Management (CS01/001/001/001) and its entities for a specified period of time (e.g. a month)	The AA_username1 has no access to the class Marketing Management (CS01/001/001/001) and its entities for a specified period of time (e.g. a month)
2.	Restrict the access permission (compare EntityAgent (EA05)) of the user role Reviewer to the class Marketing Strategy (CS01/001/001/002) and its entities for a specified period of time (e.g. a month)	The users of the user role Reviewer do not have access to the class Marketing Strategy (CS01/001/001/002) and its entities for a specified period of time (e.g. a month)
3.	Restrict the access permission (compare EntityAgent (EA06)) of the user group Marketing to the class Innovation Policies (CS01/001/004) for a specified period of time (e.g. a month)	The users of the user group Marketing do not have access to the class Innovation Policies (CS01/001/004) for a specified period of time (e.g. a month)
4.	Log out as the role Central Administrator	The role CentralAdministrator is logged out
5.	Log in as the user AA_username1	The user AA_username1 is logged in
6.	Attempt to access the class Marketing Management (CS01/001/001/001) or some of its entities	The ERMS denies access to these entities
7.	Reach the access permission end date for this class	The access permission end date is reached
8.	Access class Marketing Management (CS01/001/001/001) or some of its entities	The class Marketing Management (CS01/001/001/001) or some of its entities is accessed
9.	Log out as the user AA_username1	The user AA_username1 is logged out
10.	Log in as user of the user role Reviewer	A user of the user role Reviewer is logged in
11.	Attempt to access class Marketing Strategy (CS01/001/001/002) or some of its entities	The ERMS denies access to these entities
12.	Reach the access permission end date this class	The access permission end date is reached

13.	Access class Marketing Strategy (CS01/001/001/002) or some of its entities	The class Marketing Management (CS01/001/001/001) or some of its entities is accessed
14.	Log out as user of the user role Reviewer	The user of the user role Reviewer is logged out
15.	Log in as a user of the user group Marketing	A user of the user group Marketing is logged in
16.	Attempt to access class Innovation Policies (CS01/001/004)	The ERMS denies access to this entity
17.	Reach the access permission end date for this class	The access permission end date is reached
18.	Access class Innovation Policies (CS01/001/004)	The class Innovation Policies (CS01/001/004) is accessed
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to allocate access rights to aggregations and records to specified users, user roles and user groups for a specified period of time. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed <input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.3.3 Assigning Access Permissions to Administrative Roles

I. Global test case information		
<i>test case id:</i>	T4.1.3.3	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	A check is made to confirm that the ERMS allows assigning administrative rights over different sections of the classification scheme to different administrative roles.	
<i>Req.-ID:</i>	4.1.8	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> Users (-profiles) are created (see test case T4.1.1.3) User roles (-profiles) are created (see test case T4.1.1.4) Users (-profiles) are assigned to user roles (see test case T4.1.2.1) logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Restrict the access permission (compare EntityAgent (EA07)) of the user role LocalAdministrator to the class Sales (CS01/002)	The users of the user role LocalAdministrator do not have access to the class Sales (CS01/002)
2.	Assign the control function to the role LocalAdministrator according to the test data repository (chapter 1.1.2.2)	The control function is assigned to the role LocalAdministrator
3.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
4.	Log in as the role LocalAdministrator	The role LocalAdministrator is logged in
5.	Attempt to access the class Sales (CS01/002)	The ERMS denies access to the class Sales (CS01/002)
6.	Attempt to change the metadata of the file Strategic business units (CS01/001/001/001/001)	The ERMS denies changing the metadata of the file Strategic business units (CS01/001/001/001/001) ; the user role has access rights to the function <i>Change file metadata</i>
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to assign administrative rights over different sections of the classification scheme to different administrative roles. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.3.4 Assigning Access Rights to User Roles

I. Global test case information		
<i>test case id:</i>	T4.1.3.4	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	A check is made to confirm that an administrative role is able to assign access rights to user roles as to users.	
<i>Req.-ID:</i>	4.1.10	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • Users (-profiles) are assigned to user roles (see test case T4.1.2.1) • logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Restrict the access permission (compare EntityAgent (EA08)) of the user role SalesManagement to the class Marketing Strategy (CS01/001/001/002) and its entities for a specified period of time (e.g. a month)	The access of user role SalesManagement to the class Marketing Strategy (CS01/001/001/002) and its entities is restricted for a specified period of time (e.g. a month)
2.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
3.	Log in as the user SalesM_username1	The user SalesM_username1 is logged in
4.	Attempt to access the class Marketing Strategy (CS01/001/001/002)	The ERMS denies access to the class Marketing Strategy (CS01/001/001/002)
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows an administrative role to assign access rights to user roles as to users. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.3.5 Assigning of Access Requirements Across User Roles

I. Global test case information		
<i>test case id:</i>	T4.1.3.5	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	A user who is already a member of a user role requires access for another specific part of the classification scheme. An administrative role implements this request by allocating the user to an appropriate role that includes the required access.	
<i>Req.-ID:</i>	4.1.11	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • Users (-profiles) are assigned to user roles (see test case T4.1.2.1) • The role ProductManagement has no access to the class Marketing Management (CS01/001/001/001) (compare Entity/Agent (EA09)) • logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Allocate the user PM_username2 to the role MarketingManagement	The PM_username2 is member of the user roles ProductManagement and MarketingManagement .
2.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
3.	Log in as user PM_username2	The user PM_username2 is logged in
4.	Access the class Marketing Management (CS01/001/001/001)	The class Marketing Management (CS01/001/001/001) is accessed.
5.	Log out as the user PM_username2	The user PM_username2 is logged out
6.	Log in as user PM_username1	The user PM_username1 is logged in
7.	Attempt to access the class Marketing Management (CS01/001/001/001)	The class Marketing Management (CS01/001/001/001) is accessed.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows an administrative role to allocate access requirements across user roles. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.3.6 Assigning of Access to Records by Roles with Ownership

I. Global test case information		
<i>test case id:</i>	T4.1.3.6	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	An administrative role has ownership for all records of a class within the classification scheme. This administrator allocates access to these records to another user and user group.	
<i>Req.-ID:</i>	4.1.17	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • The user role MarketingManagement has the ownership to all records within the class Strategic Marketing (CS01/001/001) of TestClassificationScheme1. • logged in as the role MarketingManagement 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Allocate access permissions to the records of the class Strategic Marketing (CS01/001/001) to the user CEO_username and to the user group Sales	The access permissions for the user CEO_username and the user group Sales are allocated
2.	Log out as the role MarketingManagement	The role MarketingManagement is logged out
3.	Log in as user CEO_username	The user CEO_username is logged in
4.	Attempt to access the record Competitive Situation (CS01/001/001/001/003)	The record Competitive Situation (CS01/001/001/001/003) is accessed.
5.	Log out as user CEO_username	The user CEO_username is logged out
6.	Log in as user SalesM_username1	The user SalesM_username1 is logged in
7.	Attempt to access the record Competitive Situation (CS01/001/001/001/003)	The record Competitive Situation (CS01/001/001/001/003) is accessed.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows an administrative role that has the ownership for records in a specific class, to allocate access to them to a user and user group. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.4 Maintenance of User Roles' Access Permissions

Abstract: The test focus of this chapter lies on the maintenance of user roles' access permissions to functions and aggregations.

T4.1.4.1 Creation of Rules to Govern Access Permissions to ERMS Functions

I. Global test case information		
<i>test case id:</i>	T4.1.4.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	An administrative role creates rules that govern users' access to ERMS functions Please note that the used table of the test data repository is based on the level of granularity of the access right table of the Moreq2 specification (compare chapter 13.4). The ERMS must meet at least that level.	
<i>Req.-ID:</i>	4.1.19	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • Users (-profiles) are allocated to user roles (see test case T4.1.2.1) • logged in as the role CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Create rules that govern the access of user roles to ERMS functions according to the table within chapter 1.1.2.2 of the test data repository	The rules are created and manageable.
2.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
3.	Log in as user CEO_username	The user CEO_username is logged in
4.	Attempt to add a new file with TestClassificationScheme1	The ERMS denies adding a new file
5.	Log out as the user CEO_username	The user CEO_username is logged out
6.	Log in as user MA_username1	The user MA_username1 is logged in
7.	Attempt to set a disposal hold with TestClassificationScheme1	The ERMS denies setting a disposal hold
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows an administrative role to create and manage rules that govern users' access to the ERMS's control functions. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.4.2 Changing Access Permissions (I)

I. Global test case information		
<i>test case id:</i>	T4.1.4.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	A check is made to confirm that the ERMS allows an administrative role to restrict the access permissions of a user role and user groups to files and records.	
<i>Req.-ID:</i>	4.1.4, 4.1.5	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • Users (-profiles) are allocated to user roles (see test case T4.1.2.1) • Users (-profiles) are allocated to user groups (see test case T4.1.2.2) • logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Restrict access permission of the user role ProductManagement to the file Study2 (CS01/001/002/001/001/002)	The access for the user role ProductManagement to the file Study2 (CS01/001/002/001/001/002) is restricted.
2.	Restrict access permission of the user group Audit to the record Result (CS01/001/002/001/001/001/003)	The access for the user group Audit to the record Result (CS01/001/002/001/001/001/003) is restricted.
3.	Logout as CentralAdministrator	The CentralAdministrator is logged out
4.	Login as ProductManagement	The role ProductManagement is logged in
5.	Attempt to access file Study2 (CS01/001/002/001/001/002)	The ERMS denies the role ProductManagement access to the file
6.	Logout as user of the user role ProductManagement	The user of the user role ProductManagement is logged out
7.	Login as user of the user group Audit	A user of user group Audit is logged in
8.	Attempt to access the record Result (CS01/001/002/001/001/001/003)	The ERMS denies the group Audit access to the record
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows an administrative role to restrict a user role's access to a file. • The ERMS allows an administrative role to restrict a user role's access to a record. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.4.3 Changing Access Permissions (II)

I. Global test case information		
<i>test case id:</i>	T4.1.4.3	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	A check is made to confirm that the ERMS allows an administrative role to restrict the access permission of a user role and user group to specified classes of the classification scheme.	
<i>Req.-ID:</i>	4.1.4, 4.1.5	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • Users (-profiles) are allocated to user roles (see test case T4.1.2.1) • Users (-profiles) are allocated to user groups (see test case T4.1.2.2) • logged in as CentralAdministrator 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Restrict access permission of the user role ProductManagement to the class Sales (CS01/002)	The access for the user role ProductManagement to the class Sales (CS01/002) is restricted.
2.	Restrict access permission of the user group Audit to the class Innovation policies (CS01/001/004)	The access for the user group Audit to the class Innovation policies (CS01/001/004) is restricted.
3.	Logout as CentralAdministrator	The CentralAdministrator is logged out
4.	Login as ProductManagement	The role ProductManagement is logged in
5.	Attempt to access class Sales (CS01/002)	The ERMS denies the role ProductManagement access to the class Sales (CS01/002)
6.	Logout as user of the user role ProductManagement	The user of the user role ProductManagement is logged out
7.	Login as user of the user group Audit	A user of user group Audit is logged in
8.	Attempt to access the class Innovation policies (CS01/001/004)	The ERMS denies the group Audit access to the class
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows an administrative role to restrict the access of a user role to a specified class. • The ERMS allows an administrative role to restrict the access of a user group to a specified class. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
	<input type="checkbox"/> passed	
	<input type="checkbox"/> failed	
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.4.4 Changing Access Permissions (III)

I. Global test case information		
<i>test case id:</i>	T4.1.4.4	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	A check is made to confirm that the ERMS allows administrative roles to assign access permissions to a function to a user role. Please note that this test case focuses on the access to the function <i>Change record metadata</i> (as mentioned in chapter 13.4 of the MoReq2 specification). The name of the function may differ in your ERMS. Further, it is enough to check that user roles are able to change the record of the metadata. We do not state how or which metadata.	
<i>Req.-ID:</i>	4.1.4, 4.1.5	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • The access permission of the user role Management is assigned according to the test data repository (see test case T4.1.4.1) • logged in as the role Management 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Attempt to change the metadata of the record Result (CS01/001/002/001/001/002/003)	The ERMS denies changing the metadata
2.	Log out as the role Management	The role Management is logged out
3.	Log in as the role CentralAdministrator	The role CentralAdministrator is logged in
4.	Assign the user role Management access permission to the function <i>Change record metadata</i>	The access permission to the function <i>Change record metadata</i> is allocated.
5.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
6.	Log in as the role Management	The role Management is logged in
7.	Change the metadata of the record Result (CS01/001/002/001/001/002/003)	The metadata of the record Result (CS01/001/002/001/001/002/003) are changed.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows an administrative role to allocate access permission to functions to user roles. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.4.5 Changing Access Permissions (IV)

I. Global test case information		
<i>test case id:</i>	T4.1.4.5	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	<p>An administrative role allocates an expiring access date to a user role and class. Ensure that the ERMS denies access to that class after the date is reached.</p> <p>Please note that this test case focuses on assigning access permissions to entities for specified periods of time. The period consists of a starting date and an end date. With regard to the MoReq2 metadata model, the starting date is the date of the creation of the access permission and the end date is a value most recently used for it. For testing purposes there might be an appropriate way to reach the end date of the access permission. We do not state how this takes place. We use the phrase Reach the access permission end date to describe that circumstance.</p>	
<i>Req.-ID:</i>	4.1.4, 4.1.5	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • Users (-profiles) are allocated to user roles (see test case T4.1.2.1) • Users (-profiles) are allocated to user groups (see test case T4.1.2.2) • logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Allocate an expiring access date for the user role Annual Auditor to the class Sales (CS01/002)	The access date is allocated.
2.	Restrict the access permission (compare EntityAgent (EA14)) of the user role Annual Auditor to the class Sales (CS01/002) for a specified period of time (e.g. a month)	The access of the user role Annual Auditor to the class Sales (CS01/002) is restricted for a specified period of time (e.g. a month).
3.	Restrict the access permission (compare EntityAgent (EA15)) of the user group Board of Directors to the class Innovation Policies (CS01/001/004) for a specified period of time (e.g. a month)	The access of the user group Board of Directors to the class Innovation Policies (CS01/001/004) is restricted for a specified period of time (e.g. a month)
4.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
5.	Log in as the role Annual Auditor	The role Annual Auditor is logged in
6.	Attempt to access the class Sales (CS01/002)	The ERMS denies access to the class Sales (002)
7.	Reach the access permission end date for this class	The access permission end date is reached
8.	Access the class Sales (CS01/002)	The class Sales (CS01/002) is accessed
9.	Log out as the role Annual Auditor	The role Annual Auditor is logged out
10.	Log in as the group Board of Directors	The group Board of Directors is logged in
11.	Attempt to access the class Innovation Policies (CS01/001/004)	The ERMS denies access to the class Innovation Policies (CS01/001/004)
12.	Reach the access permission end date for this class	The access permission end date is reached
13.	Access the class Innovation Policies (CS01/001/004)	The class Innovation Policies (CS01/001/004) is accessed
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows an administrative role to allow a user role and user group access to a class after a specified period of time. 		
III. Test result		



<i>defects / deviations</i>	<i>verdict</i>
	<input type="checkbox"/> passed <input type="checkbox"/> failed
<i>Remarks</i>	<i>tester</i>
	<hr/> date, signature

T4.1.5 Maintenance of User Groups

Abstract: The test focus of this chapter lies on the maintenance of user groups - especially the addition and removal of users to or from user groups.

T4.1.5.1 Addition and Removal of Users to and from Groups

I. Global test case information		
<i>test case id:</i>	T4.1.5.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	A check is made to confirm that the ERMS allows an administrative role to assign and remove a user to a group.	
<i>Req.-ID:</i>	4.1.7	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> Users (-profiles) are created (see test case T4.1.1.3) User roles (-profiles) are created (see test case T4.1.1.4) Users (-profiles) are allocated to user groups (see test case T4.1.2.2) The user role Marketing has access to the class Sales (CS01/002) and to the class Analysis (CS01/001/002/002) logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Create a new user SaleM_username2 and assign the user to the user group Sales	The user SaleM_username2 is created and assigned to the user group Marketing .
2.	Remove the user MA_username1 from the group Marketing	The MA_username1 is removed from the user group Marketing
3.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
4.	Log in as user SaleM_username2	The user SaleM_username2 is logged in
5.	Access the class Sales (CS01/002)	The class Sales (CS01/002) is accessed
6.	Log out as SaleM_username2	The user SaleM_username2 is logged out
7.	Log in as user MA_username1	The user MA_username1 is logged in
8.	Attempt to access the class Analysis (CS01/001/002/002)	The ERMS denies access to the class Analysis (CS01/001/002/002)
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to assign and remove users to and from user groups. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.6 Responses on Attempts to get Access without Permission to Entities

Abstract: The following chapter deals with responses of the ERMS if users request access to entities which the user does not have the permission to access.

T4.1.6.1 Configuring Responses

I. Global test case information		
<i>test case id:</i>	T4.1.6.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	A check is made to confirm that an administrative role is able to configure responses when a user requests access to, navigates to or searches for any entities which the user does not have the permission to access.	
<i>Req.-ID:</i>	4.1.23	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Configure response on request of users to access, to navigate to or search for entities which the user does not have the permission to access	The ERMS allows the configuration of following options: <ul style="list-style-type: none"> provide no information about the object, thus providing no indication of whether the object does or does not exist; confirm the existence and (optionally) the owner of the object (display its file or record identifier) but not its title or other metadata. display title, type of entity (class, record etc.), date of creation and owner only; display title and other metadata of the object.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to configure responses when a user requests access to, navigates to or searches for any entities which the user does not have the permission to access. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.6.2 Configured Response (I)

I. Global test case information		
<i>test case id:</i>	T4.1.6.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	<p>When a user attempts to get access to entities which the user does not have the permission to access, following response is configured in the ERMS:</p> <ul style="list-style-type: none"> provide no information about the entity, thus providing no indication of whether the object does or does not exist; <p>A check is made to ensure that the configured response works.</p>	
<i>Req.-ID:</i>	4.1.23	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The ERMS is configured as follows: when a user attempts to get access to entities which the user does not have the permission to access, the ERMS <i>provides no information about the entity, thus providing no indication of whether the object does or does not exist.</i> Users (-profiles) are created (see test case T4.1.1.3) The user PM_username1 has no permission to access the class Market research and analysis (CS01/001/002/001) logged in as PM_username1 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Attempt to access the class Market research (CS01/001/002/001) and its entities	The ERMS denies access to the class Market research (CS01/001/002/001) and its entities
2.	Attempt to navigate to the class Market research (CS01/001/002/001) and its entities	The ERMS denies navigation to the class Market research (CS01/001/002/001) and its entities
3.	Perform a search on the term " <i>Market research</i> " and " <i>Result1</i> "	The ERMS provides no information on the search request
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> When a user attempts to get access to entities which the user does not have the permission to access, the ERMS provides no information about the entity, thus providing no indication of whether the object does or does not exist, as configured. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.6.3 Configured Response (II)

I. Global test case information		
<i>test case id:</i>	T4.1.6.3	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	<p>When a user attempts to get access to entities which the user does not have the permission to access, following response is configured in the ERMS:</p> <ul style="list-style-type: none"> confirmation of the existence and (optionally) the owner of the object (display its file or record identifier) but not its title or other metadata; <p>A check is made to ensure that the configured response works.</p>	
<i>Req.-ID:</i>	4.1.23	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The ERMS is configured as followed: when a user attempts to get access to entities which the user does not have the permission to access, the ERMS <i>confirms the existence and (optionally) the owner of the object (display its file or record identifier) but not its title or other metadata.</i> Users (-profiles) are created (see test case T4.1.1.3) The user PM_username1 has no permission to access the class Market research and analysis (CS01/001/002/001) logged in as PM_username1 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Perform a search on the term "Market research" and "Result"	The ERMS confirms the existence of entities and (optionally) the owner of the object (display its file or record identifier)
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> When a user attempts to get access to entities which the user does not have the permission to access, the ERMS confirms the existence and (optionally) the owner of the object (display its file or record identifier) but not its title or other metadata, as configured. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.6.4 Configured Response (III)

I. Global test case information		
<i>test case id:</i>	T4.1.6.4	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	When a user attempts to search for entities which the user does not have the permission to access, following response is configured in the ERMS: <ul style="list-style-type: none"> displaying title, type of entity (class, record etc.), date of creation and owner only; A check is made to ensure that the configured response works.	
<i>Req.-ID:</i>	4.1.23	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The ERMS is configured as follows: when a user attempts to get access to entities which the user does not have the permission to access, the ERMS <i>displays title, type of entity (class, record etc.), date of creation and owner only.</i> Users (-profiles) are created (see test case T4.1.1.3) The user PM_username1 has no permission to access the class Market research and analysis (CS01/001/002/001) logged in as PM_username1 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Perform a search on the term "Market research" and "Result"	The ERMS displays at least the following result: <ul style="list-style-type: none"> Market research, class, <date of creation>, MarketingManagement Result, record, <date of capturing>, MarketingManagement
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> When a user attempts to search for entities which the user does not have the permission to access, the ERMS displays title, type of entity (class, record etc.), date of creation and owner only, as configured. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.6.5 Configured Response (IV)

I. Global test case information		
<i>test case id:</i>	T4.1.6.5	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	<p>When a user attempts to search for entities which the user does not have the permission to access, following response is configured in the ERMS:</p> <ul style="list-style-type: none"> displaying title and other metadata of the entities <p>A check is made to ensure that the configured response works.</p> <p>Please note: The configured response must display the title and other metadata of the entity. We do not state which metadata.</p>	
<i>Req.-ID:</i>	4.1.23	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The ERMS is configured as follows: when a user attempts to get access to entities which the user does not have the permission to access, the ERMS <i>displays title and other metadata of the entities</i>. Users (-profiles) are created (see test case T4.1.1.3) The user PM_username1 has no permission to access the class Market research and analysis (CS01/001/002/001) logged in as PM_username1 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Perform a search on the term " <i>Market research</i> " and " <i>Result</i> "	The ERMS displays at least the following titles as result of search: <ul style="list-style-type: none"> Market research Result (and other metadata)
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> When a user attempts to search for entities which the user does not have the permission to access, the ERMS displays title and other metadata, as configured. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.6.6 Configuration of Responses on the Object Level

I. Global test case information		
<i>test case id:</i>	T4.1.6.6	
<i>test case priority:</i>	<input type="checkbox"/> Mandatory	<input checked="" type="checkbox"/> Optional
<i>test case description:</i>	A check is made to confirm that the ERMS allows an administrative role to configure a response if a user requests access to or searches for a class which the user does not have the permission to access.	
<i>Req.-ID:</i>	4.1.24	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • Users (-profiles) are allocated to user groups (see test case T4.1.2.2) • The user PM_username1 has no permission to access the class Product policies (CS01/001/003) • logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Configure a response on the request of users to access, to navigate to or search the class Product policies (CS01/001/003) which the user does not have the permission to access	The ERMS allows the configuration of following options: <ul style="list-style-type: none"> • provide no information about the object, thus providing no indication of whether the object does or does not exist; • confirm the existence and (optionally) the owner of the object (display its file or record identifier) but not its title or other metadata. • display title, type of entity (class, record etc.), date of creation and owner only; • display title and other metadata of the object.
2.	Configure the option: <ul style="list-style-type: none"> • provide no information about the object, thus providing no indication of whether the object does or does not exist; 	The option is configured.
3.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
4.	Log in as the user PM_username1	The user PM_username1 is logged in
5.	Attempt to access the class Product policies (CS01/001/003)	The ERMS denies access to the class Product policies (CS01/001/003)
6.	Attempt to search for "Product policies"	The ERMS provides no result/information on the search request
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS allows an administrative role to configure a response if a user requests access to or search for a class which the user does not have the permission to access. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed



	<input type="checkbox"/> failed
<i>Remarks</i>	<i>tester</i>
	_____ date, signature

T4.1.6.7 Performing a Content Search

I. Global test case information		
<i>test case id:</i>	T4.1.6.7	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	A check is made to confirm that the ERMS does not include in the search list records for which the user does not have the permission to access.	
<i>Req.-ID:</i>	4.1.22	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • Users (-profiles) are allocated to user groups (see test case T4.1.2.2) • The user PM_username1 has no permission to access the class Product policies (CS01/001/003) and its entities • logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Capture the Document1 (RD_001) as Record1 within the class Product policies (CS01/001/003)	The Document1 (RD_001) is captured as Record1 within the class Product policies (CS01/001/003)
2.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
3.	Log in as the user PM_username1	The user PM_username1 is logged in
4.	Perform a content search by using the term "process or business or strategy"	The ERMS provides no result/information on the search request
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • If a user performs a content search, the ERMS does not include in the search list records for which the user does not have the permission to access. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.7 Restrictive Abilities to Administrative Roles

Abstract: The test focus of this chapter lies on restricting functions to administrative roles only.

T4.1.7.1 System Functions and Related Events

I. Global test case information		
<i>test case id:</i>	T4.1.7.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	A user role attempts to access system functions such as maintenance of the data base storage or other system parameters.	
<i>Req.-ID:</i>	4.1.15	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> Users (-profiles) are created (see test case T4.1.1.3) User roles (-profiles) are created (see test case T4.1.1.4) Users (-profiles) are allocated to user roles (T4.1.2.1) logged in as the role Marketing Management 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Attempt to get access to data base storage or other system parameters.	The ERMS denies user role Marketing Management access.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS denies an attempt to get access to system functions such as maintenance of data base storage or other system functions. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.7.2 Changing the Profiles of Users, User Roles and User Groups

I. Global test case information		
<i>test case id:</i>	T4.1.7.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	A user role attempts to make changes such as adding, amending or deleting of profiles for users, user roles and user groups. Ensure that the ERMS denies such an attempt.	
<i>Req.-ID:</i>	4.1.18	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • Users (-profiles) are created (see test case T4.1.1.3) • User roles (-profiles) are created (see test case T4.1.1.4) • Users (-profiles) are allocated to user roles (see test case T4.1.2.1) • Users (-profiles) are allocated to user group (see test case T4.1.2.2) • logged in as the role Marketing Management 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Attempt to get access and make changes of users' profiles, user roles' profiles and user groups' profiles.	The ERMS denies any attempts to make changes to all profiles by the user role Marketing Management .
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS denies any attempts to make changes of profiles for users, user roles and groups of users by a user role (none administrative role) . 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.1.8 Others:

Abstract: The following chapter summarises all other test cases of this chapter.

T4.1.8.1 Application Programming Interface

I. Global test case information		
<i>test case id:</i>	T4.1.8.1	
<i>test case priority:</i>	<input type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input checked="" type="checkbox"/> Not Testable
<i>test case description:</i>	The corresponding requirement is not testable.	
<i>Req.-ID:</i>	4.1.21	
II. Test case		
<i>a. precondition(s)</i>		
•		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.		
<i>c. postcondition(s)</i>		
•		
III. Test result		
<i>defects / deviations</i>	<i>verdict</i>	
	<input type="checkbox"/> passed	
	<input type="checkbox"/> failed	
<i>Remarks</i>	<i>tester</i>	
	_____ date, signature	

T4.2 Audit trail

REMARKS	TEST DATA:	Please take all test data from the test data repository to test module4/chapter T4.2.
	TEST EXECUTION:	<p>step (1) Please read the chapter Testframework – Introduction/Chapter 2 before starting the test execution.</p> <p>step (2) The test cases are designed in a way that enables you to skip test cases when required. This does not have immediate impact on other test cases. However, the test results of some test cases may be the precondition(s) of others. In these cases we inserted references following the precondition(s) of the test case. Please pay careful attention to the precondition(s) of each test case.</p>
	GLOBAL PRECONDITION:	<p>step (1) Following global preconditions have to be implemented first:</p> <ul style="list-style-type: none"> • TestclassificationScheme1 is created • Users (-profiles) are created according to chapter 2.2.1.1 • User roles (-profiles) are created according to chapter 2.2.1.2 • Users (-profiles) are allocated to user roles according to allocation table 1 • Access controls are established according to chapter 2.2.3

T4.2.1 Configuration of Audit Trail Parameters

Abstract: The test focus of this chapter lies on the configuration of the audit trail and its parameters.

T4.2.1.1 Automatic Recording of Actions

I. Global test case information		
<i>test case id:</i>	T4.2.1.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>Test case description:</i>	A check is made to confirm that the ERMS allows an administrative role to configure which actions have to be recorded automatically in the audit trail.	
<i>Req.-ID:</i>	4.2.4	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as the role CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Configure at least the following actions as audit trail parameters: <ul style="list-style-type: none"> creation of classes, files, sub-files and volumes; capture of all electronic records; re-classification of an electronic file within the classification scheme; any change to any retention and disposition schedule; any disposition review actions carried out by administrative roles; the placing or removal of a disposal hold on an electronic file; any change made to any metadata associated with classes, electronic files or electronic records; amendment and deletion of metadata by a user; changes made to the access permissions; creation, amendment or deletion of a user or group; export or transfer; creation of a presentation; deletion /destruction of records. 	All actions are configured.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to configure which actions have to be logged in the audit trail automatically (audit trail parameters). 		



III. Test result	
<i>defects / deviations</i>	<i>verdict</i>
	<input type="checkbox"/> passed <input type="checkbox"/> failed
<i>Remarks</i>	<i>tester</i>
	<hr/> date, signature

T4.2.2 Capability to Log Information

Abstract: The test focus of this chapter lies on the logging of information to configured audit trail parameters.

T4.2.2.1 Logging The Creation of Entities

I. Global test case information		
<i>test case id:</i>	T4.2.2.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	The audit trail parameters are configured. A class, file, sub-files and volumes are created within a classification scheme. Ensure that the ERMS automatically recorded the creation of all aggregations, the user who performed the action and the date and time of the action.	
<i>Req.-ID:</i>	4.2.1, 4.2.6	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The audit trail parameters are configured (see test case T4.2.1.1) TestClassificationScheme1 was created by the user CA_username. logged in as CA_username 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Check the audit trail	The audit trail automatically logged at least the following information: <ul style="list-style-type: none"> Action taken: Creation of the aggregation within TestClassificationScheme1 User performing the action: CA_username Date and time of action: <Date>
2.	Attempt to change or delete parts of the audit trail	The ERMS denies any attempt to change or delete any parts of the audit trail information
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS automatically logged information about the creation of aggregations within a Classification Scheme, the user who performed the creation and the date and time when the action was performed. The ERMS denied an attempt to change any parts of the audit trail. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.2.2 Associated Metadata

I. Global test case information		
<i>test case id:</i>	T4.2.2.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	An administrative role captures a record, changes the title of a class, closes a file, deletes an empty volume and changes the disposition action of a retention and disposition schedule.	
<i>Req.-ID:</i>	4.2.8	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The audit trail parameters are configured (see test case T4.2.1.1) The retention and disposition schedule Rds_Test2 (RDS_02) is created. logged in as CA_username 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Capture a record ConsumergroupA within the file Market potentials (CS01/001/001/001/002)	The record ConsumergroupA is captured within the file Market potentials (CS01/001/001/001/002/)
2.	Change the title of the class Marketing Management (CS01/001/001/001) to Management (CS01/001/001/001)	The title of the class Management (CS01/001/001/001) is changed
3.	Close the file Study1 (CS01/001/002/001/001/001)	The file Study1 (CS01/001/002/001/001/001) is closed; the sub-file Comments (CS01/001/002/001/001/001/001) is closed.
4.	Delete the empty volume SWOT (CS01/001/001/001/003/001/001)	The volume SWOT (CS01/001/001/001/003/001/001) is deleted.
5.	Change the retention and disposition action of the retention and disposition schedule Rds_Test2 (RDS_02) from Transfer to Present for review	The retention action is changed.
6.	Check the audit trail	All actions performed to each object such as record, class, file, sub-file, volume and retention and disposition schedule (test step 1 to step 5) are logged. All associated metadata of each object are fully logged, too.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS logged all actions performed on a record, class, file, sub-file, volume and retention and disposition schedule and all associated metadata of each object regardless of whether the action affects one or more of them. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.2.3 Changes on the Administrative Parameters

I. Global test case information		
<i>test case id:</i>	T4.2.2.3	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	An administrative role restricts a user's access permission to a class. A check is made to ensure that the ERMS logs that change within the audit trail.	
<i>Req.-ID:</i>	4.2.11	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as CentralAdminstrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Restrict the access of the user AA_username1 to the class Strategic Marketing (CS01/001/001)	The access of the user AA_username1 to the class Strategic Marketing (CS01/001/001) is restricted
2.	Check the audit trail	The ERMS logged the change of the user's access permission in the audit trail.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS logs the change of a user's access permission in the audit trail. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.2.4 Changes on the Audit Trail Parameters

I. Global test case information		
<i>test case id:</i>	T4.2.2.4	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	An administrative role changes the audit trail parameters. Ensure that the ERMS records the changes within the audit trail.	
<i>Req.-ID:</i>	4.2.5	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The audit trail parameters are configured (see test case T4.2.1.1) logged in as CA_username 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Delete the following audit trail parameter: <ul style="list-style-type: none"> Creation of a presentation 	The audit trail parameter Creation of a presentation is deleted.
2.	Check the audit trail	The ERMS logged the change and the user who performed that change (at the date and time of test execution) within the audit trail.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS logged a change performed on audit trail parameters in the audit trail. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.2.5 Access to Records or Aggregations

I. Global test case information		
<i>test case id:</i>	T4.2.2.5	
<i>test case priority:</i>	<input type="checkbox"/> Mandatory	<input checked="" type="checkbox"/> Optional
<i>test case description:</i>	A user role accesses a class, file, sub-file, volume and prints a record. Ensure that the ERMS records each action in the audit trail.	
<i>Req.-ID:</i>	4.2.3	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as MM_username1 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Access the class Market research (CS01/001/002/001)	The class Market research (CS01/001/002/001) is accessed
2.	Access the file Study2 (CS01/001/002/001/001/003)	The file Study2 (CS01/001/002/001/001/003) is accessed
3.	Access the sub-file Enhanced Analysis (CS01/001/002/001/001/003/002/001)	The sub-file Enhanced Analysis (CS01/001/002/001/001/003/002/001) is accessed
4.	Print the record Cluster Analysis (CS01/001/002/001/001/003/002/001/001)	The record Cluster Analysis (CS01/001/002/001/001/003/002/001/001) is printed.
5.	Check the audit trail	The ERMS automatically logged the test steps 1 to 4 in the audit trail.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS automatically records access to a class, file, sub-file and record and whether the access was read or printed within the audit trail. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.2.6 Attempted Violations of Access Control Mechanism

I. Global test case information		
<i>test case id:</i>	T4.2.2.6	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	A user role attempts to access a class which the user does not have the permission to access. Ensure that the ERMS denies this attempt and logs it in the audit trail.	
<i>Req.-ID:</i>	4.2.16	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The user AA_username1 has no access to the class Strategic Marketing (CS01/001/001) logged in as AA_username1 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Attempt to access the class Strategic Marketing (CS01/001/001)	The ERMS denies access to the class Strategic Marketing (CS01/001/001)
2.	Check the audit trail	The action logged the attempt of the user AA_username1 to access Strategic Marketing (CS01/001/001) within the audit trail
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS denied an attempt of violating the access control mechanism and logged it within the audit trail. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.3 Availability and Evaluation of the Audit Trail

Abstract: The following chapter deals with testing the availability of the audit trail and its evaluation by authorised users.

T4.2.3.1 Availability for Inspection on Request

I. Global test case information		
<i>test case id:</i>	T4.2.3.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	An auditor role requires access to the audit trail for inspection. The auditor searches for all amendments of metadata within the audit trail.	
<i>Req.-ID:</i>	4.2.12	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The audit trail parameters are configured (see test case T4.2.1.1) The title of the class Marketing Management (CS01/001/001/001) is changed to Management (see test case T4.2.2.2). logged in as AA_username1 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Access the audit trail	The audit trail is available
2.	Search for all amendments to the metadata title	The ERMS presents that the title of the class Marketing Management (001/001/001) was changed to Management ; all associated metadata are presented as well.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The audit trail is available for inspections on request. A specified event could be identified and presented with all its associated metadata. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.3.2 Features to Search for Information

I. Global test case information		
<i>test case id:</i>	T4.2.3.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	An authorised user role searches for several events within the audit trail. Ensure that the ERMS provides features to support the search. Please note that this test case focuses just on the functionality of the searching feature. Therefore it is not important which search result is obtained.	
<i>Req.-ID:</i>	4.2.13	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as AA_username1 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Perform several searches on the audit trail	The ERMS provides features to search for information in the audit trail
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The audit trail is available for inspections on request by an authorised user role. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.3.3 Specified Searches

I. Global test case information		
<i>test case id:</i>	T4.2.3.3	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	Ensure that the ERMS allows an auditor role to perform a restricted search for a specified event, record and aggregations, users, user groups, roles, time and time intervals. Please note that it is not important to get a search result within this test case. It is enough to check whether the user is enabled to perform a restricted search or not.	
<i>Req.-ID:</i>	4.2.14	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as AA_username1 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Perform a restricted search for a specified event on the audit trail	A restricted search for a specified events is possible
2.	Perform a restricted search for aggregations such as a class, file, sub-file, volume and record	A restricted search for aggregations such as a class, file, sub-file, volume and record is possible
3.	Perform a restricted search on users	A restricted search on users is possible
4.	Perform a restricted search on user roles	A restricted search on user roles is possible
5.	Perform a restricted search on user groups	A restricted search on user groups is possible
6.	Perform a restricted search on times	A restricted search on times is possible
7.	Perform a restricted search on time intervals	A restricted search on time intervals
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS enables a user role to perform a restrictive search within the audit trail. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.3.4 Export of Audit Trail Data

I. Global test case information		
<i>test case id:</i>	T4.2.3.4	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	<p>Ensure that the ERMS allows an auditor role to export audit trail data for specified records, volumes, sub-files, files and classes. Ensure that such an export does not affect the audit trail stored by the ERMS.</p> <p>Please note: The export is intended to provide another application with records from the ERMS. We cannot assume that other systems are connected for testing. Therefore it is acceptable for testing to create a target (e.g. othe storage devises) outside of the ERMS where the output of the export can be stored and analysed. The ERMS cannot control this target. We are using the expression "folder .../export" to describe such a target.</p>	
<i>Req.-ID:</i>	4.2.15	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> For testing purposes an external target folder .../export is created. logged in as AA_username1 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Export all audit trail data to the record Cluster Analysis (CS01/001/002/001/001/003/002/001/001) to the folder .../export	All Audit trail data to the record Cluster Analysis (CS01/001/002/001/001/003/002/001/001) are exported.
2.	Export all audit trail data to the volume SWOT (CS01/001/001/001/003/001/001) to the folder .../export	Audit trail data to the volume SWOT (CS01/001/001/001/003/001/001) are exported.
3.	Export all audit trail data to the sub-file Comments (CS01/001/002/001/001/001/001) to the folder .../export	Audit trail data to the sub-file Comments (CS01/001/002/001/001/001/001) are exported.
4.	Export all audit trail data to the file Study2 (CS01/001/002/001/001/003) to the folder .../export	Audit trail data to the file Study2 (CS01/001/002/001/001/003) are exported.
5.	Export all audit trail data to the class Innovation policies (CS01/001/004) to the folder .../export	Audit trail data to the class Innovation policies (CS01/001/004) are exported.
6.	Check the audit trail	The exports did not affect the audit trail stored by the ERMS. All exported objects are still presented in the audit trail.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS enables a user role to export audit trail data to a specified record, volume, sub-file, file and class. The export did not affect the audit trail stored by the ERMS. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.4 Transfer of Audit Trail Data to an Off-Line Storage

Abstract: The test focus of this chapter lies on the transfer of audit trail data to off-line storages and the corresponding security mechanism of this proceeding.

T4.2.4.1 Secure Mechanism

I. Global test case information		
<i>test case id:</i>	T4.2.4.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	The ERMS supports the transfer of audit trail data to an off-line storage. An administrative role transfers the audit trail data to the off-line storage. Ensure that the ERMS supports secure processes for managing the off-line data. Further it must demonstrate how off-line data can be brought back when required.	
<i>Req.-ID:</i>	4.2.2	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The ERMS supports the transfer of audit trail data to an off-line storage. Audit trail data are logged logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Transfer the audit trail data to the offline-storage	The audit trail is transferred. The ERMS supports secure processes for managing the off-line data
2.	Attempt to change/modify the audit trail data on offline-storage	The ERMS denies changing/modifying of the audit trail data on offline-storage
3.	Bring the off-line data back online	The off-line data are brought back online. The process of bringing back the offline data online is demonstrated.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS supports secure processes to manage off-line data. The ERMS demonstrates the process of bringing back the off-line data online. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.5 Others:

Abstract: This chapter summarizes all other test cases.

T4.2.5.1 The Record's Audit Trail

I. Global test case information		
<i>test case id:</i>	T4.2.5.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	An administrative role adds an annotation to and changes a metadata value of a record. Ensure that the ERMS records both actions in the record's audit trail.	
<i>Req.-ID:</i>	4.2.10	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The audit trail parameters are configured (see test case T4.2.1.1) logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Add the annotation Testing to the record Cluster analysis (CS01/001/002/001/001/003/002/001/001)	The annotation is added
2.	Change a title of the record Regression analysis (CS01/001/002/001/001/003/002/001/002) to Regression	A title of the record is changed
3.	Check the record's audit trail	Both actions are stored in the record's audit trail
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS records an annotation and amendment to a record in the record's audit trail. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.5.2 Logging Changes to Metadata Values

I. Global test case information		
<i>test case id:</i>	T4.2.5.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	A check is made to confirm that the ERMS logs all changes to metadata values that apply to the metadata element listed in the MoReq2 metadata model. Please note: The corresponding requirement is partially testable. We use changing of the "owner" and assigning of another retention and disposition schedule to an entity as examples of the metadata elements listed in the MoReq2 metadata model.	
<i>Req.-ID:</i>	4.2.9	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Assign the retention and disposition schedule Rds_Test2 (RDS_02) to the class Analysis (CS01/001/002/002)	The retention and disposition schedule Rds_Test2 (RDS_02) is assigned to the class Analysis (CS01/001/002/002)
2.	Mark the user MM_username1 as owner of the class Analysis (CS01/001/002/002)	The user MM_username1 is marked as owner of the class Analysis (CS01/001/002/002)
3.	Check the audit trail	All actions (test step 1 to step 2) are logged in the audit trail
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS logs all changes to metadata values that apply to the metadata element listed in the MoReq2 metadata model. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.2.5.3 The Organisation's Record Policy

I. Global test case information		
<i>test case id:</i>	T4.2.5.3	
<i>test case priority:</i>	<input type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input checked="" type="checkbox"/> Not Testable
<i>test case description:</i>	The corresponding requirement is not testable.	
<i>Req.-ID:</i>	4.2.7	
II. Test case		
<i>a. precondition(s)</i>		
•		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.		
<i>c. postcondition(s)</i>		
• .		
III. Test result		
<i>defects / deviations</i>	<i>verdict</i>	
	<input type="checkbox"/> passed	
	<input type="checkbox"/> failed	
<i>Remarks</i>	<i>tester</i>	
	_____ date, signature	

T4.3 Backup and Recovery

REMARKS	TEST DATA:	Please take all test data from the test data repository to the test module4/chapter T4.3.
	TEST EXECUTION:	<p>step (1) Please read the chapter Testframework – Introduction/Chapter 2 before starting the test execution.</p> <p>step (2) The test cases are designed in a way that enables you to skip test cases when required. This does not have immediate impact on other test cases. However, the test results of some test cases may be the precondition(s) of others. In these cases we inserted references following the precondition(s) of the test case. Please pay careful attention to the precondition(s) of each test case.</p>
	GLOBAL PRECONDITION:	<p>step (1) Following global preconditions have to be implemented first:</p> <ul style="list-style-type: none"> • TestclassificationScheme1 is created • Users (-profiles) are created according to chapter T4.2.1.1 • User roles (-profiles) are created according to chapter T4.2.1.2 • Users (-profiles) are allocated to user roles according to allocation table 1 • Access controls are established according to chapter T4.2.3

T4.3.1 Ability for Regular Backups and Recovery

Abstract: The test focus of this chapter lies on the ability of the ERMS to allow administrative roles to perform automated backup and recovery proceedings.

T4.3.1.1 Automated Procedures for Backup and Recovery

I. Global test case information		
<i>test case id:</i>	T4.3.1.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	<p>An administrative role performs a backup of all and selected classes, files, records, metadata, administrative parameters and the audit trail of the ERMS. Afterwards a recovery of them is performed.</p> <p>A check is made to confirm that the ERMS supports those actions by providing automated backup and recovery procedures.</p> <p>Another check is made to confirm that only an authorised administrative role is able to restore from an ERMS backup.</p>	
<i>Req.-ID:</i>	4.3.1, 4.3.3	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as the role CentralAdministrator 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Perform an automated backup of all data within the ERMS	The backup is performed.
2.	Perform an automated backup of all classes of TestClassificationScheme1	The backup is performed.
3.	Perform an automated backup of all files of TestClassificationScheme1	The backup is performed.
4.	Perform an automated backup of all records of TestClassificationScheme1	The backup is performed.
5.	Perform an automated backup of all stored metadata within the ERMS	The backup is performed.
6.	Perform an automated backup of all administrative parameters	The backup is performed.
7.	Perform an automated backup of the audit trail	The backup is performed.
8.	Perform an automated recovery to one of the backups above (test step 1 to step 7)	The recovery is performed.
9.	Log out as the role CentralAdministrator	The role CentralAdministrator is logged out
10.	Log in as the role MarketingManagement	The role MarketingManagement is logged in
11.	Attempt to restore from one of the backups above (test step 1 to step 7)	The ERMS denies any attempt
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS provides automated backup and recovery procedures. The ERMS only allows an authorised administrative role to restore from the ERMS backup. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>



	<input type="checkbox"/> passed
	<input type="checkbox"/> failed
<i>Remarks</i>	<i>tester</i>
	_____ date, signature

T4.3.1.2 The Scheduling of Backup Routines

I. Global test case information		
<i>test case id:</i>	T4.3.1.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	<p>An administrative role creates a scheduled backup routine. A check is made to ensure that the ERMS enables an administrative role to specify the frequency, selecting the object such as classes, files or records to be backed up and allocate the target storage such as storage media, system or location.</p> <p>Please note that the assignment of the backup to media or location depends on the environment. Therefore the use of this option is determined by the respective ERMS.</p>	
<i>Req.-ID:</i>	4.3.2	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as CentralAdministrator 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Create a backup routine as following: <ul style="list-style-type: none"> specify a frequency e.g. monthly select classes, files and records of TestClassificationScheme1 assign a target storage e.g. off line storage, separate system etc. 	The backup routine is created.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to schedule backup routines by specifying the frequency, the entity and the target storage. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.3.2 Others:

Abstract: This chapter summarizes all other test cases.

T4.3.2.1 Full Integrity after Restore from a Backup

I. Global test case information		
<i>test case id:</i>	T4.3.2.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	<p>A backup to the classification scheme is performed. An administrative role creates an aggregated report to the classification scheme and the audit trail. Afterwards the administrator restores the backup and creates the same report again. Ensure that both reports present the same result.</p> <p>Please note that we do not state which aggregation has to be reported. A report which sums up all records, volumes, sub-files, files and classes of the classification is acceptable; however, other reports are imaginable, too.</p>	
<i>Req.-ID:</i>	4.3.4	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> • A partial backup to the ERMS is performed. • Logged in as CentralAdministrator 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Create and print an aggregated report on TestClassificationScheme1 and the audit trail	Reports are created and printed
2.	Restore the backup	The backup is restored
3.	Repeat test step 1	Reports are created and printed
4.	Compare both reports, created within test step 1 and step 3	Both reports present the same result
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> • The ERMS maintains the integrity of all data, including the audit trail, after a restore from a backup. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
	<input type="checkbox"/> passed	
	<input type="checkbox"/> failed	
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.3.2.2 Checkpoints and Roll-Forward Facilities

I. Global test case information		
<i>test case id:</i>	T4.3.2.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	The ERMS features checkpoints and database roll-forward facilities. A check is made to ensure that the ERMS allows only administrative roles to roll the database forward.	
<i>Req.-ID:</i>	4.3.5	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The ERMS features checkpoints and database roll-forward facilities. Log in as MM_username! 		
<i>b. test steps</i>		
step	Action/operation	Check/ expected result
1.	Attempt to get access to the database roll-forward feature	The ERMS denies access to that feature
2.	Log out as MM_username1	The user MM_username1 is logged out
3.	Log in as CA_username	The user CA_username is logged in
4.	Access the the database roll-forward feature	The ERMS grants access to the feature
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows only authorised administrative roles to get access to database roll-forward features. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.4 Vital Records

REMARKS	TEST DATA:	Please take all test data from the test data repository to the test module4/chapter T4.4 .
	TEST EXECUTION:	<p>step (1) Please read the chapter Testframework – Introduction/Chapter 2 before starting the test execution.</p> <p>step (2) The test cases are designed in a way that enables you to skip test cases when required. This does not have immediate impact on other test cases. However, the test results of some test cases may be the precondition(s) of others. In these cases we inserted references following the precondition(s) of the test case. Please pay careful attention to the precondition(s) of each test case.</p>
	GLOBAL PRECONDITION:	<p>step (1) Following global preconditions have to be implemented first:</p> <ul style="list-style-type: none"> • TestclassificationScheme1 is created • Users (-profiles) are created according to chapter T4.2.1.1 • User roles (-profiles) are created according to chapter T4.2.1.2 • Users (-profiles) are allocated to user roles according to allocation table 1 • Access controls are established according to chapter T4.2.3

T4.4.1 Indicating Vital Records

Abstract: The following test cases deal with the identification of vital records within the ERMS.

T4.4.1.1 Indicating Files and Records as Vital

I. Global test case information		
<i>test case id:</i>	T4.4.1.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	An administrative role selects a file and indicates it as a container of vital records. Furthermore the administrator indicates a record as a vital record.	
<i>Req.-ID:</i>	4.4.1	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as CA_username 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Mark files Strategic business units (CS01/001/001/001/001) and Market potentials (CS01/001/001/001/002) as containers of vital records	The files Strategic business units (CS01/001/001/001/001) and Market potentials (CS01/001/001/001/002) are marked as containers of vital records.
2.	Mark the record SWOT (CS01/001/001/001/003/001/001) and the record Cluster analysis (CS01/001/002/001/001/002/002/001/001) as vital records.	The record SWOT (CS01/001/001/001/003/001/001) and the record Cluster analysis (CS01/001/002/001/001/002/002/001/001) are marked as vital records
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to mark files as containers of vital records. The ERMS allows an administrative role to mark records as vital records. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.4.1.2 Indicating Records as no Longer Vital

I. Global test case information		
<i>test case id:</i>	T4.4.1.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	An administrative role indicates a record as no longer vital.	
<i>Req.-ID:</i>	4.4.5	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The record Cluster analysis (CS01/001/002/001/001/002/002/001/001) is indicated as vital (see also test case T4.4.1.1). logged in as CA_username 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Mark the record Cluster analysis (CS01/001/002/001/001/002/002/001/001) as no longer vital	The record Cluster analysis (CS01/001/002/001/001/002/002/001/001) is marked.
2.	Check the audit trail	The action is recorded in the audit trail.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to mark a record as no longer vital. In addition, the ERMS records this action in the audit trail. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.4.2 Backup Mechanisms

Abstract: The test focus of this chapter lies on “full” and “vital” back up mechanisms.

T4.4.2.1 Full Backup

I. Global test case information		
<i>test case id:</i>	T4.4.2.1	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	An administrative role performs a full back up of all ERMS data.	
<i>Req.-ID:</i>	4.4.2	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> logged in as CA_username 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Perform a full back up of all ERMS data	The backup is performed.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to perform a full backup. 		
III. Test result		
<i>defects / deviations</i>	<i>verdict</i>	
	<input type="checkbox"/> passed <input type="checkbox"/> failed	
<i>Remarks</i>	<i>tester</i>	
	_____ date, signature	

T4.4.2.2 “Vital” Backup

I. Global test case information		
<i>test case id:</i>	T4.4.2.2	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional
<i>test case description:</i>	An administrative role performs a “vital” back up.	
<i>Req.-ID:</i>	4.4.2	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> The files Strategic business units (CS01/001/001/001/001) and Market potentials (CS01/001/001/001/002) are indicated as containers for vital records. (see also test case T4.4.1.1) The record SWOT (CS01/001/001/001/003/001/001) is marked as a vital record (see also test case T4.4.1.1) logged in as CA_username 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Perform a “vital” back up	The “vital” backup is performed. All configurations, the files Strategic business units (CS01/001/001/001/001) and Market potentials (CS01/001/001/001/002) and the record SWOT (CS01/001/001/001/003/001/001) are backed up.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to perform a “vital” backup. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.4.3 Restoration

Abstract: The test focus of this chapter lies on restoring “full” back-ups.

T4.4.3.1 Restoring of a Full Back-Up (I)

I. Global test case information		
<i>test case id:</i>	T4.4.3.1	
<i>test case priority:</i>	<input type="checkbox"/> Mandatory	<input checked="" type="checkbox"/> Optional
<i>test case description:</i>	An administrative role restores a full back-up by restoration to a “clean” environment. Ensure that the ERMS overwrites and replaces the ERMS during the recovery operation.	
<i>Req.-ID:</i>	4.4.4	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> A full back up is performed (see also test case T4.4.2.1). logged in as CA_username 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Restore a full backup	The backup is restored; the restoration took place to a “clean” system.
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to restore a full backup by overwriting and replacing the ERMS during the recovery operation. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.4.3.2 Restoring of a Full Back-Up (II)

I. Global test case information		
<i>test case id:</i>	T4.4.3.2	
<i>test case priority:</i>	<input type="checkbox"/> Mandatory	<input checked="" type="checkbox"/> Optional
<i>test case description:</i>	An administrative role restores a vital back-up. Afterwards the administrator captures a new record into a file which is identified as vital. In a next step the administrator restores a full backup. Ensure that the ERMS merges the full back into the existing ERMS environment. This means in fact, that the newly captured record is not overwritten or replaced during the recovery operation.	
<i>Req.-ID:</i>	4.4.4	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> A full back-up is performed (see also test case T4.4.2.1). A "vital" back-up is performed (see also test case T4.4.2.2) logged in as CA_username 		
<i>b. test steps</i>		
step	action/operation	Check/ expected result
1.	Restore the "vital" back-up	The vital backup is restored.
2.	Capture a record SBU1 into the file Strategic business units (CS01/001/001/001/001)	The record SBU1 (CS01/001/001/001/001/001) is captured in the file Strategic business units (CS01/001/001/001/001)
3.	Restore the full back-up using the method of merging back the back-up into the ERMS environment	The full backup is restored; the record SBU1(CS01/001/001/001/001/001) remains stored within the file Strategic business units (CS01/001/001/001/001)
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS allows an administrative role to restore a full back-up using the method of merging back all back-up data into the existing ERMS environment. 		
III. Test result		
<i>defects / deviations</i>		<i>verdict</i>
		<input type="checkbox"/> passed
		<input type="checkbox"/> failed
<i>Remarks</i>		<i>tester</i>
		_____ date, signature

T4.4.3.3 Recovery Back to Full Operation

I. Global test case information		
<i>test case id:</i>	T4.4.3.3	
<i>test case priority:</i>	<input checked="" type="checkbox"/> Mandatory	<input type="checkbox"/> Optional <input type="checkbox"/> Not Testable
<i>test case description:</i>	<p>An administrative role recovers a vital backup. Afterwards the administrator performs several operations. Ensure that the ERMS is fully operational.</p> <p>Please note that we do not state which operations have to be performed.</p>	
<i>Req.-ID:</i>	4.4.3	
II. Test case		
<i>a. precondition(s)</i>		
<ul style="list-style-type: none"> A vital backup is stored. Logged as CA_username 		
<i>b. test steps</i>		
<i>step</i>	<i>action/operation</i>	<i>Check/ expected result</i>
1.	Recover the vital backup	The vital backup is recovered
2.	Perform several actions	Several actions are performed
<i>c. postcondition(s)</i>		
<ul style="list-style-type: none"> The ERMS is fully operational after recovery from a vital backup. 		
III. Test result		
<i>defects / deviations</i>	<i>verdict</i>	
	<input type="checkbox"/> passed <input type="checkbox"/> failed	
<i>Remarks</i>	<i>tester</i>	
	_____ date, signature	