



Dimensions® RM 12.11.1

RM Browser User's Guide

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Table of Contents

Chapter 1

Preface	15
Contacting Technical Support	15
RM Browser Basics	17
RM Basics Overview	18
Common Terms	18
Sample Instances	21
Main Pages of the RM Browser Interface	23
General Navigation and Controls in RM Browser.	24
Welcome Menu	24
Menu Bar	25
RM Instance Bread Crumb	26
Categories Pane	27
Recent Items	28
Actions Pane.	29
Favorites	29
Attribute Types	30
Editable Grid, Grid, and Form Views	33
Editable Grid View	33
Grid View	35
Form View	36
Selecting Multiple Requirements	36
Common Dialog Controls	37
Category Drop-Down List	37
Attributes to Display List	37
Sorting Order List	38
HTML Text Formatting Toolbar	39
Find & Select Dialog.	46
Attribute Constraints Tab	47
Relationship Constraints Tab.	53
Display Options Tab.	56
Accessing Dimensions RM	60
Logging Out	62
Switching to Another RM Instance	62
Changing Your Password.	62
Getting Help	63
Enabling and Disabling E-Mail Notifications	63
Glossary	64
Graph Editor	64
Opening the Graph Editor.	65
The Graph Editor Dialog	65
File Menu	66

Importing Files	66
Additional Information	67
Working with Comments.	67
Managing Comments in Documents.	68
Managing Comments in Requirements	68
Adding a Comment to a Requirement from the Actions Pane	69
Adding a Comment from a Discussion	70
Adding a Comment in a Document	70
Replying to a Comment	70
Adding a Comment to Text.	71
Opening the Full Interface.	71
Viewing Version and System Information	71
Using Spell Check in RM Browser	72
Configuring Internet Explorer	72
Configuring Edge.	72
Configuring Firefox	73
Configuring Chrome.	74

Chapter 2

Configuring User Settings and Instance Settings	77
User Settings Versus Instance Settings	78
Configuring User Settings and Instance Settings	78
General Settings	78
Home Settings	80
Requirements Settings.	81
Quick Search Settings	87
Hierarchy Settings.	88
Document Settings	88
Report Settings.	91
Link Browser Settings	91
Split View Settings	92
Branch/Sync View Settings.	93
Follow Settings	94
Configuring Actions of the Actions Pane	95

Chapter 3

Working with Requirements	97
Requirement Basics	98
Finding Requirements with Quick Search	98
Printing Requirements	104
Global Search	104
Explaining Update and Delete Functions.	105
Edit Attributes Using the Action Shortcuts	106
Edit Attributes Using the Actions Box.	106
Viewing Information about a Class	107
About Requirement Versions.	108
Notification of Selected Requirement Changes	108
About Requirement Locks	109
Workflows	109
Copying the URL of a Requirement to the Clipboard.	112

Working with the Hierarchy View	113
Working with Requirements and Change Requests	114
Creating a New Requirement	114
Mass Creating Requirements	116
Proposing a New Requirement	117
Editing a Requirement	118
Copying a Requirement	120
Using the Expand Feature	121
Deleting a Requirement	121
Undeleting a Requirement	121
Removing a Requirement Version	122
Printing a Requirement	122
Changing the Class of a Requirement	122
Viewing the Requirements in a Category, Document, Report, Collection, or Baseline	123
Submitting a Change Request	123
Reviewing a Change Request	125
Exporting Requirements	125
Export as a Microsoft Excel Spreadsheet	125
Export as a Microsoft Word Document	126
Export as an Adobe PDF Document	127
Export as an XML Document	128
Export as a Web Page	130
Export as a CSV File	131
Export as a Plain Text File	132
Export as a Plain Text Table File	132
Exporting Requirements in the Hierarchy View	132
Working with Links	133
Using the Create Link Action	135
Link Existing	135
Linking Existing Requirements through Split View	137
Creating a new Requirement and linking to it	139
Proposing a new Requirement and linking to it	140
Deleting or Removing Links	140
Restoring a deleted Link	141
Clearing a Suspect Link	141
Link Properties	141
Editing Link Attributes	142
Suspect Links	143
Using the Suspect History	146
Inherited Links	147
Using Link Browser	148
Working with Containers	151
Adding a Requirement to an Existing Container	151
Removing a Requirement from a Container	152
Opening a Container	152
Inherited Containers	152
Container Properties	153

Adding Requirements to an Existing Collection	154
Removing Requirements from a Collection	154
Working with File Attachments	155
Working with Group Attributes	156
Viewing Requirement History	157
Viewing History Differences	158
Making a Previous Version Current	160
Changing the Attributes in the History Section	161
Changing Requirement Versions in Documents	161
Using Pedigree View	162
Merging Requirement Changes	164
Merge Status	166
Viewing Prior Versions of the Requirement	166
Merging Changes	167
Branching and Merging Requirements	167
About Branching and Merging	168
Creating a New Project	169
Creating a New Product	169
Editing a Project	171
Editing a Product.	171
Branching a Single Requirement	171
Branching Multiple Requirements in Branch View	172
Branching All Requirements of a Category	173
Branching All Requirements of a Document	174
Merging a Single Requirement	174
Merging Multiple Requirements	175
Removing a Single Requirement from a Branch.	176
Using Product or Project without Branching	176
Polling	177
Creating a Poll	177
Modifying a Poll.	178
Closing a Poll	179
Casting a Vote	179
Viewing Polling Results.	179
Adding Active Polls to My Work Dashboard	180
Participating in Discussions	180
NLP Complexity Analysis.	181
NLP Similarity Analysis	182
Activating Risk Management	183

Chapter 4

Working with Documents	187
About Documents	188
Document Basics	188
Navigation Pane	189
Detail Pane.	190
Document Filtering	191
Document Layouts.	192
Document View Mode	194

Opening Documents or Snapshots	196
Working with Limited Permissions	197
Working with Document Changes	198
Finding and Replacing Character Strings	199
Moving a Document or Snapshot to a different Category	201
Copying the URL of a Document to the Clipboard	201
Working with Documents	203
Creating a New Document	203
Creating a New Document from the Hierarchy View.	206
Deleting a Document	206
Undeleting a Document	207
Removing a Document.	207
Saving a Copy of a Document Under a New Name.	208
Document Settings	209
Referencing Elements in a Document.	217
Merging Document Changes	218
Working with Chapters and Requirements.	221
Creating a New Chapter	221
Creating a Chapter in the Entire Document View.	223
Editing a Chapter	223
Editing a Chapter or Requirement in Entire Document View Mode	224
Deleting a Chapter	225
Copying Chapters	225
Formatting Chapters	227
Creating a New Requirement and Adding it to a Document.	229
Creating a New Requirement in the Entire Document View	229
Adding Requirements to a Document.	230
Adding Requirements to a Document from the Hierarchy View	231
Deleting a Requirement from a Document	231
Moving Chapters and Requirements.	231
Proposing Changes to a Chapter	233
Converting Chapters into Requirements	233
Converting Selected Chapter Content into a Requirement	234
Assigning an ECP to a Document.	235
Change which Requirement Version Is Included in a Document.	236
Using Placeholders in Documents	236
Merging Chapter Changes	240
Working with Comments.	242
Working with Snapshots	243
Creating a Snapshot of a Document	243
Working with Snapshots of an Open Document.	244
Working with Snapshots of a Closed Document.	244
Comparing Documents and Snapshots	244
Working with the Compare Document Navigation Pane	246
Working with the Requirement Difference Summary	247
Exporting the Document Differences Report	247
Viewing a Snapshot or Document	247
Exporting Documents	247

Export as a Microsoft Word Document	247
Export as a Roundtrip Document.	250
Export as an Adobe PDF Document	251
Export as a Microsoft Excel Spreadsheet	251
Export as a ReqIFZ Document	252
Copying the Export URL of a Document to the Clipboard	253
Using Workflows with Documents	253
Assigning a Document to a Workflow.	253
Executing a Transition on a Document.	254
Viewing Information about a Document	254

Chapter 5

Working with the Home View	255
About the Home View.	256
Dashboard	257
Using Dashboards	257
Using Dashboard Widgets.	259
Creating a Dashboard	260
Adding a Standard Report to the Dashboard.	261
Adding a Graphical Report to the Dashboard.	262
Using Reports with Runtime Parameters.	262
Adding a Calendar Report to the Dashboard	263
Adding a Website to the Dashboard.	263
Copying a Dashboard.	264
Editing a Dashboard	264
Deleting a Dashboard	265
Exporting a Dashboard.	265
Create Direct URL	265
Default Dashboards.	266
Boards Tab	266
Using Boards	266
Creating a Board	267
Deleting a Board	268
Documents Tab	268
Requirements Tab	269
Reports Tab	270
Collections Tab	272
Baselines Tab	273
Glossary Tab	273
Adding a new Glossary Entry	273
Editing a Glossary Entry	274
Copying Glossary Entries	274
Moving Glossary Entries	275
Deleting Glossary Entries	275
Viewing Extended Information	275
Working with Products and Projects	276
Copying Category Content	277

Chapter 6

Working with Reports	279
About Reports	280
Relationship Reports	281
Traceability Reports	281
Running a Report with Runtime Parameters	282
Creating Reports	284
Creating a Class Report	284
Creating a Graphical Report	285
Creating a Relationship Report	293
Creating a Traceability Report	295
Working in the Traceability Work Page	296
Editing a Report	299
Renaming Reports	302
Deleting Reports	302
Exporting Reports	302
Moving and Copying Reports to a Different Category	303
Copying the URL of a Report to the Clipboard	303

Chapter 7

Working with Collections and Baselines	307
About Collections	308
About Baselines	308
Collection Basics	309
Opening a Collection to the Collection Work Page	309
Creating a New Collection	309
Deleting a Collection	311
Undeleting a Collection	311
Removing a Collection	311
Managing Requirements in a Collection	312
Refreshing the Contents of a Collection	313
Updating Collection Properties	313
Baseline Basics	313
Opening a Baseline to the Baseline Work Page	313
Creating a New Baseline	314
Removing a Baseline	315
Updating Baseline Properties	315
Working with Parent Collections	315
About Parent Collections	315
Creating a Parent Collection	316
Adding a Child to a Parent Collection	317
Removing a Child from a Parent Collection	318
Comparing Collections or Baselines	318
Using Workflows with Collections or Baselines	319
Assigning a Collection or Baseline to a Workflow	319
Executing a Transition on a Collection or Baseline	319
Viewing Information about a Collection or Baseline	319
Moving Collections or Baselines to a Different Category	320
Copying the URL of a Collection or Baseline to the Clipboard	320

Chapter 8

Importing Requirements 323

- Importing Requirements from Microsoft Word Documents. 324
 - Should I Use RM Browser or RM Import? 324
 - Formatting Requirements for Import 325
 - Formatting an Entire Word Document for Import. 327
 - Importing a Word File 328
 - Category Import Formats. 331
 - Date Import Formats 331
- Importing a Roundtrip Document. 331
- Importing Requirements from an XML File 332
 - Category Import Formats. 334
 - Date Import Formats 334
- Importing Requirements from a CSV or Excel File 334
 - Category Import Formats. 339
 - Date Import Formats 339
- Importing Test Case and Test Run Requirements. 339
- Importing Requirements from a ReqIF File 341
- Importing Previously Exported Requirements 345
- The Import Result Dialog 346

Chapter 9

Test Case Management 347

- About Test Case Management Phase II. 348
 - Test View 348
 - Test Case 349
 - Test Step 350
 - Test Run 350
 - Test Suite. 351

Chapter 10

Agile 353

- Before you start. 354
- Agile Basics. 354
 - About Agile. 354
 - Comparing Requirements Management and Agile Approaches. 355
 - Accessing Agile 355
 - About Products 356
 - About Releases 356
 - About Stories 356
 - About Sprints 356
 - About Features 357
 - About Epics 357
 - About Tasks 357
 - About Mapped Classes 357
 - About Badges 357
 - About Capacity 358
 - About Story Maps 358
 - Tool Tips 358
- Display Options 359
- Showing or Hiding Attributes in Dialogs 360

Showing Additional Story Attributes on Cards	360
Agile Tabs	360
Overview Tab	360
Product Backlog Tab	361
Story Map Tab	363
Product Storyboard Tab	364
Sprint Planning Tab	364
Sprint Storyboard Tab	365
Taskboard Tab	366
Using Agile	368
Using Products	368
Using Releases	370
Using Epics	371
Using Features	371
Using Stories	372
Using Sprints	373
Using Teams with Agile	374
Viewing Linking History of an Item	375
Filters	375
Sorting	376
Chapter 11 Administration	377
About Administration	378
Managing Users	378
Creating a New User	378
Copying an Existing User	379
Editing a User	380
Changing the Login of a User	380
Assigning a User to one or several Groups	381
Un-Assigning a User from one or several Groups	381
Deleting a User	381
Managing Groups	382
Group Security	382
Creating a New Group	382
Editing a Group	382
Copying a Group	382
Deleting a Group	383
Assigning Users to a Group	383
Un-Assigning Users from a Group	383
Managing Teams	388
About Teams	388
Before you start	388
Creating a New Team	388
Editing a Team	389
Copying an Existing Team	389
Deleting a Team	389
Assigning Users to a Team	390
Un-Assigning Users from a Team	390

Chapter 11

Managing Categories	390
About Categories.	390
Category Naming Conventions	391
Adding a Category.	392
Deleting a Category.	392
Renaming a Category	392
Adding a Category Icon	393
Activating or Deactivating a Category	393
Moving a Category	394
Manage Category Assignment.	394
Moving Requirements Between Categories	397
Managing Document Locks	398
Managing Requirement Locks	398
Managing Attribute Settings	399
Managing List Attribute Values	399
Adding List Values.	399
Deleting List Values	399
Ordering List Values	400
Changing a List Value on Existing Data	401
Limiting List Values to Categories	402
Defining Default List Values for Categories	403
Managing User Attribute Values.	404
Defining Default Users for Categories	404
Configuring Calculated Attributes.	404
Adding a Calculated Attribute	405
Editing a Calculated Attribute	405
Deleting a Calculated Attribute	406
About Formulas.	406
Defining Attributes	409
Adding an Attribute	410
Defining an Attribute	410
Hiding an Attribute	412
Deleting an Attribute	413
Alphanumeric Attribute	413
Date Attribute.	414
File Attachment Attribute	415
Group Attribute.	416
List Attribute.	418
Lookup Attribute	423
Numeric Attribute	425
Text Attribute	426
URL Attribute	427
User Attribute	428
PUID Attribute	430
Configuring Instance Settings	431
Configuring Agile	431
Products.	431
Releases	432

Sprints	432
Epics	432
Features.	433
Stories	433
Clearing Agile Mappings	433
Editing the Instance Schema	434
Schema Class Creation	439
Relationships	445
Saving the Instance Schema	449
Reloading the Instance Schema	449
Showing Class Information	450
Creating Product and Project Classes	450
Supporting Comments	451
Editing Workflows	452
Workflow Elements	453
Creating or Editing a Workflow	453
Deleting a Workflow	463
Using Containers with Workflows.	464
Updating Tomcat Server Certificate	465
Prerequisites.	465
Updating the Certificate	465
Updating SSO Certificates	466
Prerequisites.	466
Updating the SSO Certificates.	466
Managing RM Services	467
RM Process Log	467
Accessing Log Files	468
Schema Related Naming Conventions.	469
Naming Conventions for Instances	469
Naming Conventions for Classes	470
Naming Conventions for Attribute Display Names	470
Naming Conventions for Attribute Names.	470
Naming Conventions for Relationships	471
Naming Conventions for Workflow States.	471
Naming Conventions for Workflow Transitions	471
Dimensions RM Reserved Words	471
Chapter 12 Script Syntax.	479
Overview	480
SELECT Statement.	480
DTPtag.	481
DTP_TEXT Display Item	481
RTM_KEYWORD Display Item	482
WHERE Clause	482
ORDER BY Clause	489
CALCULATE Statement.	491
XREF Statement	492
PLUS Statement	494

COMMENT Statement	494
Adding Rich Format Text to Query Prompts.	495
Glossary	499
Index.	509

Preface

This document describes how to use the RM Browser client for Dimensions RM, a comprehensive requirements management package that allows development teams to capture, engineer, and manage requirements throughout the product lifecycle.

Objective

The purpose of this document is to describe how to use Dimensions RM after the product is installed.

Audience

This document is intended for members of product development teams who use Dimensions RM to create, manage, and track requirements during the product lifecycle.

Contacting Technical Support

Micro Focus provides technical support for all registered users of this product, including limited installation support for the first 30 days. If you need support after that time, contact Micro Focus Support at the following URL and follow the instructions:

<http://supportline.microfocus.com>

Language-specific technical support is available during local business hours. For all other hours, technical support is provided in English.

The Micro Focus Support web page can also be used to:

- Report problems and ask questions.
- Obtain up-to-date technical support information, including that shared by our customers via the Web, automatic e-mail notification, newsgroups, and regional user groups.
- Access a knowledge base, which contains how-to information and allows you to search on keywords for technical bulletins.
- Download fix releases for your Micro Focus products.

License and Copyright Information for Third-Party Software

For license and copyright information of third-party software included in this release, check the file `Third_Party_Licenses.txt`, which can be found in the Dimensions RM installation directory, e.g. `C:\Program Files\Micro Focus\Dimensions 12.11.1\RM`.

Chapter 1

RM Browser Basics

RM Basics Overview	18
Common Terms	18
Sample Instances	21
Main Pages of the RM Browser Interface	23
General Navigation and Controls in RM Browser	24
Editable Grid, Grid, and Form Views	33
Common Dialog Controls	37
Accessing Dimensions RM	60
Switching to Another RM Instance	62
Changing Your Password	62
Getting Help	63
Enabling and Disabling E-Mail Notifications	63
Glossary	64
Graph Editor	64
Working with Comments	67
Opening the Full Interface	71
Viewing Version and System Information	71
Using Spell Check in RM Browser	72

RM Basics Overview

Requirements help to ensure that product development goals are met. Dimensions RM provides the facilities to make that happen.

With Dimensions RM, the organization is able to:

- Import requirements collected from stakeholders
- Maintain requirement information using local naming conventions
- Create, update, replace, and retire requirements
- Review and revise requirements under history control
- Create and traverse links between requirements
- Assess change impact
- View and clear links considered "suspect"
- Document end-to-end traceability
- Prioritize requirements
- Track discussion threads
- Support a comprehensive workflow process tracking both status and approval
- Communicate status using report wizards to create dashboards and graphical reports
- View, create, and modify requirements and chapters in a hierarchical document structure
- Baseline requirement releases
- Support variants through parent/child documents and/or release branching
- Review and merge changes from variants
- Export documents to Microsoft Word, Excel, PDF or ReqIF
- Publish roundtrip documents to submit for review and re-submission
- Utilize test management to verify and validate system requirements
- View the history of a requirement or a document

Common Terms

The following sections describe the most important terms in detail. These and other RM related terms are included in the ["Glossary" on page 499](#).

Collection

A labeled set of requirements gathered from one or more classes. Collections provide a methods for organizing requirements for use in standard reporting, or in building graphical reports for release tracking. For example, the building a pie

chart to display the status of all requirements assigned to Release 3.2. See ["Collection Basics" on page 309](#).

Parent Collection

Parent Collections are created and populated from multiple collections, baselines, and/or the requirements contained in a document or snapshot. A parent collection, identified by the term "(parent)" in its description, will reflect changes made to the containers from which it was populated. See ["Working with Parent Collections" on page 315](#).

Baseline

A baseline is a labeled and frozen set of requirements. Creating baselines from a collection or the content of a document ensures that the object versions, as well as the links shared among them will not change. Baselines remain available for comparison or reporting. See ["Baseline Basics" on page 313](#).

Document

Documents provide the facility to import requirements and document structure or to arrange requirements into chapters and subchapters with free form text added as description. Working in documents allows users to create and to publish reports such as system or software requirement specifications. Requirement modifications and/or additions may continue within the document view. For further information see ["About Documents" on page 188](#).

Snapshot

A snapshot is a "frozen" version of a document. Document snapshots are typically created prior to publishing a document for review, with the ability to compare documents such that changes can be highlighted between releases. See ["Working with Snapshots" on page 243](#).

Container

Container is the term applied to the various labeled sets of requirements: [Collection](#), [Baseline](#), [Document](#), or [Snapshot](#). Containers are not restricted by requirement types and may span the entire instance.

Reports

A report may consist of the list of requirements filtered for a release, or a more complex trend report. Dimensions RM report wizards have been developed to support the creation of filtered requirement listings, graphical, relationship, or traceability reports. These wizards allow users to track, understand and to disseminate status. For more information see chapters ["Working with Reports" on page 279](#).

Database information may also be queried using a SQL like script language, for more information see ["Script Syntax" on page 479](#).

Categories

Categories are represented by a hierarchical structure within each Dimensions RM instance, with sub-categories supported. Categories work like folders on a file system, assisting in the management and access to requirements by component or functional area. Group permissions are also assigned through categories.

"Favorites" may be identified such that an individual user can set and easily access defaults. For further details about categories, see chapter ["About Categories" on page 390](#).



CAUTION! Access rights are often assigned using categories, such that certain user groups may not be able to modify or even to view requirements contained in selected categories. When a container includes requirements from a range of categories, users will only see requirements in categories to which they have access

Attributes

Attributes allow users to enter or select data and are represented by a text box, list, or other control (see chapters ["Common Dialog Controls" on page 37](#) and ["Attribute Types" on page 30](#)). Typically only administrators can define attributes.

System Attributes

System attributes are those defined and managed by Dimensions RM, for example, who created or modified a requirement, what was added or modified, and when. System attributes are shown in section **System Attributes** of the **Edit Attributes** dialog (see chapter ["Editing a Requirement" on page 118](#)).

These system attributes exist in Dimensions RM:

Display Name	Internal Name	Description
Created By	CREATED_BY	Shows the user name who created the version of the requirement.
Current Status	STATUS	Shows the status of the requirement, e.g. Current, Replaced, Proposed.
Initial Created By	INITIAL_CREATED_BY	Shows the user name who created the first version of the requirement.
Initial Time Created	INITIAL_TIME_CREATED	Shows the date and time when the first version of the requirement was created.
Modified By	MODIFIED_BY	Shows the user name who updated or replaced the current version of the requirement.

Display Name	Internal Name	Description
Notification	RTM_NOTIFICATION	Shows if e-mail notification for a project has been configured. Possible values: <ul style="list-style-type: none"> ■ Yes: Enabled ■ No: Disabled If no value has been specified, e-mail notification for the project has not been configured.
Object ID	OBJECT_ID	Shows the ID for the requirement.
Object Version ID	OBJECT_VERSION_ID	Shows the version count for the requirement. Each "Save" operation increases this ID.
Requirement Link	REQUIREMENT_LINK	A link which allows you to access the requirement directly.
Suspect	SUSPECT	Shows if a requirement is considered suspicious. See chapter "Suspect Links" on page 143 for more information.
Time Created	TIME_CREATED	Shows the date and time the current version of the requirement was created.
Time Modified	TIME_MODIFIED	Shows the date and time the requirement was updated or replaced.
<May vary>	PUID	The PUID is a persistent unique identifier. It is often prefixed, e.g. MRKT_ for "Marketing Requirement".

Sample Instances

Four sample instances are included with each Dimensions RM distribution. Each with its own set of features, these samples provide a convenient way to get acquainted with the features of Dimensions RM. The samples can also be used by veterans to submit questions or issues using an instance that can be reproduced by support.

These samples are available to a Dimensions RM System Administrator for installation and access by the user community. They should never be used as a basis for creating a production instance.

The instance samples are:

- QLARIUS_RM - uses a simple process for managing requirements for a fictional insurance company.

- RMDEMO - uses a fictional photo sharing application. This sample expands the basic process to include a process initiated with Engineering Change Proposals (ECPs), with workflow included in the Product_Requirements class. RMDEMO also introduces product branching capabilities.
- ALM_DEMO - uses ePhoto to demonstrate the use of the workflow process, and as the use of Test Cases.
- AGILE_RMDEMO - uses the same photo sharing application to include a rich set of Agile Dimensions RM features and functionality.

Main Pages of the RM Browser Interface

The RM Browser displays a Menu Bar that provides access to a series of menus (drop-down lists) and the buttons responsible for changing the page or view. The following describes the the major settings:

Home: Often referred to as the "Home View", this is the browser page used to select and set the Category, to define and display Dashboards, to open and/or review a Document, Requirements, Reports, Collections, or Baselines. Dependent upon the object type accessed, relevant operations may be selected from the Actions pane. To display the Home View, click .

Category: The category (or categories) selected from the Home View will limit the objects to be included for selection and/or display from any RM view or filter.

Home View tabs can include: **Dashboards, Documents, Requirements, Reports, Collections, Baselines, Boards,** and **Glossary**. The tabs displayed are dependent on both Instance and User selections. The objects displayed within a selected tab are dependent on the **Category** selected. The creation, modification and display for all are described in detail elsewhere in this document.

- **Dashboards:** A selected set of reports intended to show User, Team and/or Project status.
- **Documents:** The document tab presents a list of available documents. Once a document is selected and opened, the view provides a document-like presentation of requirements, with a table of contents, chapters, and subchapters. From an open document, users can add, delete, move, and edit chapters and requirements. The left pane of the document view displays the navigation tree that represents the table of contents. The middle pane is the detail pane, and displays information based on the user selection. The right pane is the Actions pane, and displays relevant functions.
- **Requirements:** The requirement tab brings Quick Search to the home page in a display that includes access to standard filters as well as distribution graphs.
- **Reports:** Lists Public and User reports of type **Class, Relationship, and Traceability**. Individual reports can be selected and run, with the results listed in Editable Grid, Grid, or Form view.
- **Collections:** Displays the list of Collections available for selection, once selected the list can be viewed in Editable Grid, Grid, or Form view.
- **Baselines:** Displays the list of baselines available for selection, once selected the list can be viewed in Editable Grid, Grid, or Form view.
- **Boards:** Lists available Kanban reports.
- **Glossary:** Lists objects contained in the Glossary class.

Tabs **Documents, Collections, Baselines, Reports,** and **Boards** provide the following information for each object listed:

- **Name:** The name of the document, snapshot, collection, or baseline.
- **Time Created:** The date and time the document, collection, or baseline was created.
- **Time Modified:** The date and time of the most recent change of the document, collection, or baseline.

- **Modified By:** The name and/or user name of the person who made the most recent change of the document, collection, or baseline.
- **Owner:** The name and/or user name of the person who created the document, collection, or baseline or to whom it was assigned in a workflow..
- **State:** The Workflow state, if defined, of the document, collection, or baseline.

Views: Displays providing users with the ability to list, sort, review and modify requirements from the main requirement pool are listed under **Views** on the Main Page. Selecting **Quick Search** under the Views tab provides a facility to list all requirements, irrespective of their container. Also accessible from this tab is the **Split View**, listing requirements on both sides of a selected relationship, and the **Document Split View**, listing objects from two selected documents. From either split view selection, links can be created using drag and drop or highlight and selection, deleted or removed.

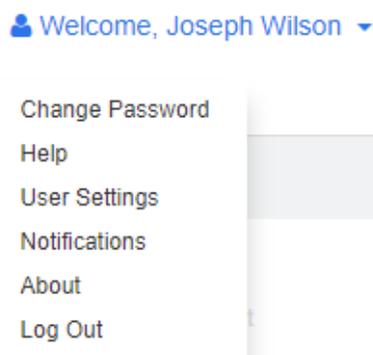
If branching is in use, selections for Branch View and Synchronize View will also be available.

General Navigation and Controls in RM Browser

See the following subsections for an overview of the main navigational and control elements of the RM Browser interface:

- ["Welcome Menu" on page 24](#)
- ["Menu Bar" on page 25](#)
- ["RM Instance Bread Crumb" on page 26](#)
- ["Categories Pane" on page 27](#)
- ["Recent Items" on page 28](#)
- ["Actions Pane" on page 29](#)
- ["Favorites" on page 29](#)
- ["Attribute Types" on page 30](#)

Welcome Menu



The Welcome menu appears at the upper right of all RM Browser's main window. Clicking it opens a sub-menu which includes the following entries:

- **Change Password:** This opens the **Change Password** page. See ["Changing Your Password" on page 62](#).
- **Help:** This opens the RM Browser help. See ["Getting Help" on page 63](#).
- **User Settings:** This opens the **User Settings** dialog, where you can override the instance settings, e.g. which attributes are displayed in the **Quick Search** results. See ["RM Browser Basics" on page 17](#).
- **Notifications:** This opens the **Notifications** dialog, where you can enable and disable e-mail notification settings for your user account. See ["Enabling and Disabling E-Mail Notifications" on page 63](#).
- **About:** This opens the **About Dimensions RM** dialog. It displays information such as the version of Dimensions RM and the operating system of the server. See ["Viewing Version and System Information" on page 71](#).
- **Log Out:** This ends your RM Browser session and displays the **Log In** page. See ["Logging Out" on page 62](#).

Menu Bar



This appears at the upper left of all RM Browser pages. It includes the following menus and buttons:

- : Opens the Home View. For more information on the Home View, see chapter ["Working with the Home View" on page 255](#).
- **New:** This menu opens the dialogs used to create new items, such as requirements, reports, documents, collections, and baselines.
- **Views:** This button opens the views to support Quick Search, for collecting, editing and exporting requirements, as well as Split View and Document Split View. For further information see chapters ["Finding Requirements with Quick Search" on page 98](#) and ["Linking Existing Requirements through Split View" on page 137](#).
- **Agile:** This button is only available, if it has been enabled by your administrator. Clicking this button opens the Agile View. For further information about Agile, see chapter ["Agile" on page 353](#).
-  **Global Search:** This icon opens a dialog to search for a term used within any requirement or in the title of any container or report; filters can be applied. See chapter ["Global Search" on page 104](#).
-  **Import:** This menu opens the dialogs to import external content, such as CSV, Microsoft Word, and XML files, into RM requirements. See chapter ["Importing Requirements" on page 323](#).
-  **Administration:** Opens dialogs for administrative functions, such as managing and organizing categories, schema definition, configuring default and/or higher level settings for RM Browser behavior (which is the behavior all users see unless they override it with their own local user settings). See chapter ["Administration" on page 377](#).

RM Instance Bread Crumb

The RM Instance Bread Crumb appears at the upper left of all RM Browser pages, just below the Menu Bar.

Standard Bread Crumb:

RMDEMO ▾ > >  RMDEMO\Quality\Safety

- The left element displays the RM instance name. Clicking the arrow opens a list of RM instances. Selecting one of these instances switches to that instance. For further information about switching instances see "[Switching to Another RM Instance](#)" on [page 62](#).
To see the database name for the current RM instance, hover over the instance name. This opens a tooltip that shows database name and instance name.
- The right element displays the full category path. If the root category was selected, then the second element will be the same as the left element: the name of the RM instance.
- It is also possible to display the name of the database on the far left. This is an instance setting and generally only applied when users are working in multiple database.

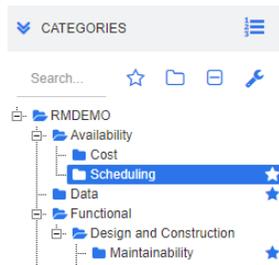
Extended Bread Crumb:

RMDEMO ▾ > >  RMDEMO > Collection > Engineering Hot List ▾

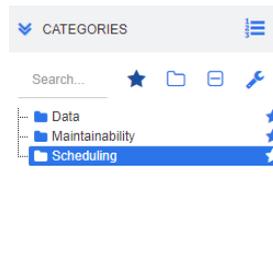
The extended mode is displayed for collections, baselines, and reports when opened through a direct URL.

- The left-most element displays the RM instance name. Clicking the arrow opens a list of RM instances available to the user. Selecting one of these instances switches to that instance. For further information about switching instances see "[Switching to Another RM Instance](#)" on [page 62](#).
To open a tooltip showing the database and instance name, hover over the instance name.
- The second element is the name of the category that was selected on the Home View. If the selection includes subcategories, the name of the top-most selected category is displayed. If the root category was selected, then the second element will be the same as the first element: the name of the RM instance.
- The third element identifies the type of item that is currently open in the work page. For example, it would say **Collection** if a collection is open.
- The fourth element is the name of the item that is currently open in the work page. It includes a drop-down list from which you can open other items of this type; if any others exist in the currently selected category.

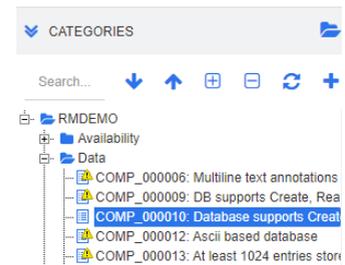
Categories Pane



Standard View



Favorites View



Hierarchy View

This appears on left side of the Home View. It is where you select the category or sub-categories that you wish to work in. It includes the following elements:

- **Expand/Collapse:** This button expands or collapses the Categories pane.
- **Search:** This field limits the display in the category tree to those categories that match the search string. The search is dynamic, and increasingly narrows the displayed results as you enter more characters. Potential matches are shown in bold. To return to displaying the full category tree, delete the string from the Search field or click the **X** button in the Search field.
- **Switch Favorites View:** This button switches between Standard View and Favorite View.
- **Include sub categories:** When colored, this toggle button indicates that sub categories below the selected category will be included. When grayed out, it indicates that only the selected category will be included.
- **Expand all sub categories:** This button expands any closed branches of the selected category in the category tree.
- **Collapse all sub categories:** This button collapses any open branches of the selected category in category tree.
- **Switch to Hierarchy View:** This button shows the requirements of a category in the tree view. If the switch to the hierarchy view is made from a subcategory, the top of the visible tree will be that subcategory.
- **Move Upwards:** From within the hierarchy view, extend the visible category tree.
- **Switch to Category View:** In Hierarchy View, click this button to switch to Category View.
- **Refresh:** Reloads the list of requirements in Hierarchy View.
- **Move down:** In Hierarchy View, click this button to move an object down in the list.
- **Move up:** In Hierarchy View, click this button to move an object up in the list.
- **New:** This button is available in Hierarchy View only and opens a shortcut menu with these functions:
 - **New Child:** Adds a new child to the selected category or requirement. The child is added as the last item of the selected parent.

- **New Above:** Opens an edit form for creating a new requirement with the same class as the selected requirement. The requirement will be shown above the selected requirement.
- **New Below:** Opens an edit form for creating a new requirement with the same class as the selected requirement. The requirement will be shown below the selected requirement.
- **New Category:** Opens a dialog for creating a new category. This function is only available for administrators.

To change the category for a document, snapshot, collection, or baseline:

- 1 Select the object to move in the Home View.
- 2 Drag and drop the object to the desired category in the tree.

To add a category to the Favorites View:

- 1 Move the mouse pointer over the desired category.
- 2 Click .

To remove a category from the Favorites View:

- 1 Move the mouse pointer over the desired category.
- 2 Click .

Recent Items

Users who choose to do so may select the objects to be listed as **Recent** below the Categories tree in the Home View. Choosing, for example, **Documents** will cause the most recent document(s) to be listed, making them easy to select for opening once again. The same is true for **Requirements**, **Reports**, or **Collections**.

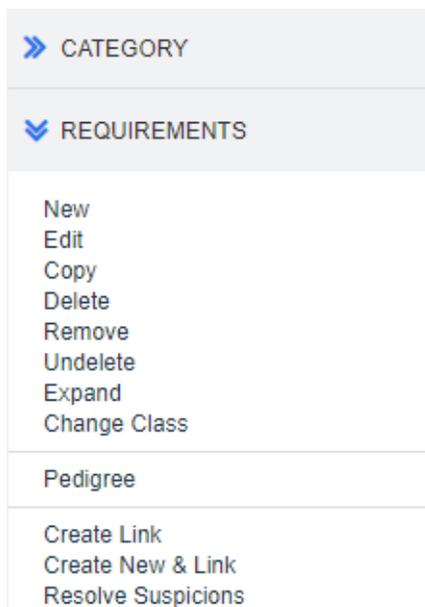
The **Recent** list can be comprised of any or all of: documents, snapshots, requirements, reports, collections, or baselines.

To define the items in the Recent list, do the following:

- 1 Hover with the mouse pointer over the title of the **Recent** list. This shows a cog in the title bar.
- 2 Click the cog. This opens the **Settings** popup.
- 3 Select the options for items you want to appear in the **Recent** list. Clear the options for items you do not want to appear in the **Recent** list.
- 4 Click **OK**.

Note that changing the settings in the **Settings** popup also modifies the settings shown in the **User Settings** dialog (see chapter "[General Settings](#)" on page 78).

Actions Pane



The Actions Pane appears on the right side of all RM Browser pages. It lists the Actions possible in the current context.

These actions are arranged in expandable/collapsible sections.

If an action is grayed out, either you do not have permission to perform this action, or the action does not apply to the requirement(s) selected.

Favorites

Favorites allow you easier access to categories, or often used items (i.e. documents, reports, collections, or baselines) in the Home View. To switch between regular items and favorite items, selecting or clear the **Favorites** check box; for categories you execute the same action by clicking .

To add an item to Favorites:

- 1 Move the mouse pointer over the desired item.
- 2 Click .

To remove an item from Favorites:

- 1 Move the mouse pointer over the desired Favorite item.
- 2 Click .

Attribute Types

Dimensions RM allows users to enter data which are represented by different attribute types. The following table lists these attribute types and the controls through which you can access them.

Attribute Type	Description
Alphanumeric	A single line of text up to 1000 characters.
Calculated	A read-only numeric attribute which is calculated when an attribute specified in the formula is changed.
Date	Allows to select either date or date and time. The date format is defined by the administrator.
File Attachment	<p>The file attachment attribute can hold a single file or multiple files. File attachments are added, viewed, replaced, or deleted by clicking links.</p> <p>To add a file attachment, click  .</p> <p>To delete a file attachment, click  .</p> <p>To replace a file attachment, click  .</p> <p>To view a file attachment, click the file name.</p> <p>By default, file attachment attributes reside in the Attachments section of a requirement.</p> <p>Depending on system configuration, not all file types can be uploaded. For details, see chapter "Upload File Restrictions" on page 86.</p>
Group	<p>Like a list attribute, but composed of a series of sub attributes. Each drop down list box depends on its left neighbor.</p> <p>Example: Assume, you have a group of 3 drop down boxes. The middle drop down box shows only those values which are related to the selected value of the left drop down box. The right drop down box shows only those values which are related to the selected value of the middle drop down box.</p> <p>A group list box can have several rows.</p> <p>To add a new (empty) row, click  .</p> <p>To add a new row with the values of the selected row, click  .</p> <p>To remove a row, click  .</p> <p>TIPS</p> <ul style="list-style-type: none"> ■ To have all values added, choose (Select all) from the drop down list; if all are not selected, multi-select has not been activated for this group. ■ To query for an empty value, choose (None) from the drop down list. ■ When using a group attribute as a runtime parameter in a report, you can select if any value must match (OR) or all values must match (AND). This selection is available in a drop down list preceding the drop down lists of the group attribute.



Attribute Type	Description
List (single value)	<p>A list of values configured by the administrator. This list only allows selection of one value.</p> <p>Select Value Next to the list attribute, click the  button to open the Find & Select List Value dialog. For further info, see chapter "Find & Select Dialog" on page 46.</p>
List (multiple values)	<p>A list of values configured by the administrator. This list allows selection of multiple values.</p> <p>Standard Mode</p> <p>If selection of multiple values is allowed, use these modifier keys:</p> <ul style="list-style-type: none"> • Click: Makes a list value a selected value. All other selected values will be unselected. • Ctrl+Click: Add or remove a list value from the selected values. • Shift+Click: Adds all values between the previous selected value and the clicked value to the selected values. <p>Assignment Box Mode</p> <p>In Assignment Box mode, two lists are displayed which allow adding entries to the selection by clicking  and removing entries from the selection by clicking .</p> <p>Select Value</p> <p>Next to the list attribute, click the  button to open the Find & Select List Value dialog. For further info, see chapter "Find & Select Dialog" on page 46.</p>
List (Tag Mode)	<p>Tag Mode is an additional feature for lists, both, single value and multiple values lists. In tag mode, any user having write access for a requirement and attribute can add values to that list. These added values will then be available for any other user for that attribute.</p> <p>Typing into the list box shows entries matching the typed text. To specify a new value, simply enter a text that does not exist in the list of suggested entries.</p>
Check Box(es)	<p>A check box is used as a display option for a list attribute. It allows to easily select or de-select a value. When searching for requirements (e.g. in Quick Search), the related attribute shows the related value, e.g. Yes/No, Approved/Rejected or any other value your administrator defined for the attribute.</p>
Radio Buttons	<p>Radio buttons are used as a display option for a list attribute with more than two values that only allows to select a single value.</p>
Lookup	<p>A lookup attributes allows to select one or several values (depends on the configuration of that attribute) that reference the PUID attribute or title attribute of any class. To open the linked requirement, click .</p>

Attribute Type	Description
Numeric	Accepts only numeric values.
Text	<p>A block of text up to 65,000 characters. Note that characters which need more than one byte (e.g. Chinese or Japanese characters) decrease the maximum number of characters.</p> <p>If the text attribute has HTML functionality enabled, you can format the contained text, e.g. text color or font style. For further information about HTML formatting see chapter "HTML Text Formatting Toolbar" on page 39.</p>
URL	<p>Depending on its configuration, the URL attribute can hold a single URL, or multiple URLs. For each URL, you can specify the actual URL and the display text. Your administrator may configure URL attributes to be validated (e.g. the URL must point to a specific server).</p> <p>To add a new URL, click  . To change an existing URL, click  . To remove an existing URL, click  .</p>
User	<p>User/Group Mode</p> <p>The User attribute is configured to display a list of user names available for assignment. Note that the user list seldom includes all instance users. These lists are used for assignment, or for reference and is generally limited to members of a certain group.</p> <p>Examples:</p> <ul style="list-style-type: none"> • A user attribute named Analyst may be limited to members of the Business Analyst group. • This list may be further limited to members of the Analyst group assigned to a specific category. <p>Team Mode</p> <p>The User attribute shows a list of teams. For more information about teams, see chapter "Managing Teams" on page 388.</p> <p>Selecting your own User Account</p> <p>If the current user is a member of a list, and should be assigned: click on Me.</p> <p>Find a User:</p> <p>The standard search icon can be found next to the user attribute. If the list is long, simply click the  button to open the Find & Select User dialog. For further info, see chapter "Find & Select Dialog" on page 46.</p>

Editable Grid, Grid, and Form Views

The work pages, except for Documents and Traceability, include the ability to toggle between the following views of the requirements they contain: Editable Grid, Grid, and Form. Use the view buttons to select the desired view:

- **Editable Grid:**    "Editable Grid View" on page 33
- **Grid:**    "Grid View" on page 35
- **Form:**    "Form View" on page 36



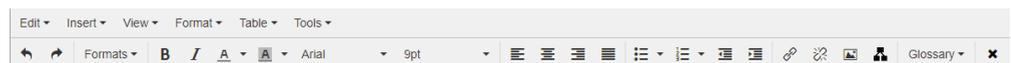
NOTE If the query includes more than one class, the Form view is not available.

Editable Grid View

MARKETING_REQUIREMENTS (35)			
Category	Containers	Rqmt ID	Title
RMDEMO	ePhoto - Release 1.1 ePhoto Requirements Marketing Requirements for Build1	MRKT_000003	Runs on "standard" home PC
RMDEMO	ePhoto - Release 1.1 ePhoto Requirements User	MRKT_000004	Annotate photos with text

This is a tabular view of requirements with which you can directly edit requirement attributes. It includes the following controls:

-  **Refresh:** This button repopulates the view with fresh data from the database.
-  **Apply changes:** This button saves the changes you have made. Unsaved changes have a red triangle in the upper left.
-  **Undo changes:** This button restores the original contents of the view, removing any unsaved changes you have made.
-  **Create new requirement:** This button adds a blank row to the view, into which you enter the attributes the new requirement that you wish to create. System attributes, such as the requirement ID number, will be populated once you click the **Apply changes** button.
- **Load All:** this button is available only in Quick Search. By default, Dimensions RM does not load all requirements into the editable grid as to avoid long waiting times if a query results in a large number of requirements. Clicking **Load All** loads all requirements of the executed query into the editable grid.
- **Page Controls:** If the view contains multiple pages of content, you can select or enter a specific page to view in the **Page** field. Or you can browse through the pages in sequence with the **First Page**, **Previous Page**, **Next Page**, and **Last Page** controls.
- **Formatting Tool Bar:** If the attribute can accept text formatting, this tool bar appears above the requirement list when you double-click the cell for editing.



Click a column header to sort the requirements by that attribute. To edit an attribute, double-click it; the attribute's cell will then become editable.

The following attribute types are supported:

- **Date:** When selecting the date attribute, a calendar control opens. Depending on your Dimensions RM configuration, this calendar control may also allow to set the time.
- **List:** If the attribute is a selection from a predefined list, you will be presented with a drop-down list to select from. Note that the cell will still show a deleted list value, but the drop-down list will not.
- **Numeric:** Allows you to enter a numeric value.
- **Text:** If the attribute is a text value, a cursor will appear in the cell so you can edit the text as needed. If the attribute can accept text formatting, the Formatting Tool Bar appears in the cell. For text attributes, these sub-types exist:
 - **Simple Text Attributes:** A simple text attribute does not allow text formatting and does not allow line breaks.
 - **Multiline Text Attributes:** A multiline text attribute does not allow text formatting, but allows the contained text to be on multiple lines. To start a new line, press **Enter**.
 - **HTML Text Attributes:** An HTML text attribute allows text formatting and line breaks. For text formatting, use the **Formatting Tool Bar** as described above.
- **User:** When selecting the user attribute, a list of users and/or groups opens. Note that the cell will still show a deleted user, but the drop-down list will not.



TIPS

- To set an attribute to the same value across multiple requirements, select the desired requirements, double-click one instance of the attribute, set it to the desired value, and press the Enter key.
- Except for HTML text attributes, editable cells allow these shortcuts:
 - **Shift+Enter:** Apply changes to cell and navigate to the same cell in the row above.
 - **Ctrl+Enter:** Apply changes to cell and navigate to the same cell in the row below.

To perform other actions on the currently selected requirement or requirements, select the desired action from those listed below **Requirements** on the Actions pane.

To perform an action on the entire set of requirements, expand the selection and then select an action from the highlighted list on the Actions Pane, for example: Add to Collection, Change Class, etc.

Re-Filtering in the Editable Grid

In a filtered list or report, the list may be filtered a second time.

To filter the entries displayed in an editable grid, do the following:

- 1 Move the mouse pointer over the column title you want to filter. The  icon appears.
- 2 Click  and select **Filters**.
- 3 In the sub-menu, select or enter the value for which you wish to filter the results.

Removing Columns from the Editable Grid Temporarily

To remove columns from an editable grid, do the following:

- 1 Move the mouse pointer over the column title you want to filter. The  icon appears.
- 2 Click  and select **Columns**.
- 3 In the sub-menu, clear the boxes next to the column names you want to remove.

Grid View

MARKETING_REQUIREMENTS 65					
Category	Containers	Rqmt ID	Title	Delivery Phase	Text
RMDEMO	ePhoto - Release 1.1, ePhoto Requiremen...	MRKT_000003	Runs on "standard" home PC	Build1	The ePhoto system shall be accessible to the user from a regular home PC environment ...
RMDEMO	ePhoto - Release 1.1, ePhoto Requiremen...	MRKT_000004	Annotate photos with text	Build3	The user shall be able to annotate their photos with textual descriptions. Annotation sho...
RMDEMO	Engineering Hol List, Ephoto Hol List, eP...	MRKT_000020	Provide photo special effects	TBD	The ePhoto system shall allow users to apply various special effects to photos.
RMDEMO	User	MRKT_000021	Border layouts provided	Build4	The ePhoto system shall allow users to display photos in various border layouts.

This is a tabular view of requirements. Click a column header to sort the requirements by that attribute. To open a requirement for editing, double-click it; the requirement opens in the Edit Attributes dialog (see ["Editing a Requirement" on page 118](#)).

To perform other actions on the currently selected requirement or requirements, select the desired action from those highlighted below Requirements in the Actions pane.

To perform an action on the entire set of requirements, expand the selection and then select an action from the highlighted list on the Actions Pane, for example: Add to Collection, Change Class, etc.

Form View

The screenshot shows the 'Form View' for a requirement with ID 'MRKT_000004'. At the top, there are navigation arrows and an 'Edit' button next to '2 of 35 objects'. Below this is a blue header bar with the requirement ID. A menu bar contains tabs for 'ALL', 'STANDARD', 'CUSTOM', 'SYSTEM', 'ATTACHMENTS (1)', 'COMMENTS (8)', 'LINKS (5)', 'HISTORY (8)', 'POLLS', and 'CONTAINERS (3)'. The 'ALL' tab is selected. On the right, the category is 'RMDEMO'. The main content area is titled 'STANDARD ATTRIBUTES' and contains the following information:

Rqmt ID: MRKT_000004	Title: Annotate photos with text
Text: The user shall be able to annotate their photos with textual descriptions. Annotation should include title, description and date of photograph.	

Below the main content are several expandable sections, each with a right-pointing arrow:

- CUSTOM ATTRIBUTES
- SYSTEM ATTRIBUTES
- ATTACHMENTS
- COMMENTS
- LINKS
- HISTORY
- POLLS
- CONTAINERS

This view displays the attributes of one requirement at a time.

Attributes are grouped into expandable/collapsible sections by type. You can browse through the requirements in sequence with the **First**, **Previous**, **Next**, and **Last** controls.

To edit the current requirement, click the **Edit** button; the requirement opens in the Edit Attributes dialog (see "[Editing a Requirement](#)" on page 118).

To perform other actions on the current requirement, select the desired action from those listed below Requirements in the Actions pane.

Selecting Multiple Requirements

In grid or editable grid view it is generally possible to select more than one requirement. The following selection methods are supported:

- **Ctrl+click** to multi-select
- **Shift+click** to select a block of requirements
- **Ctrl+A** to select all requirements



NOTE

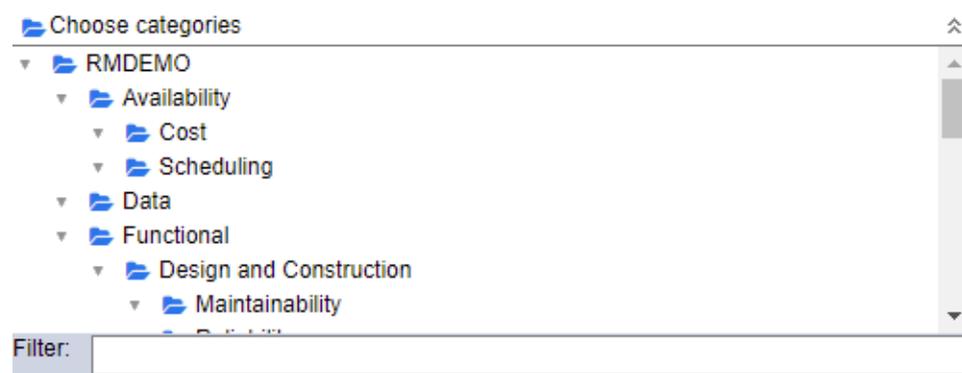
- If the requirements are shown in sections (e.g. in Quick Search when searching over several/all classes), **Ctrl+A** only selects the requirements in the active section.
- When using Quick Search in Split View mode, multi-selection is only allowed for the referenced class.

Common Dialog Controls

See the following subsections for an overview of the control elements common to many RM Browser dialogs:

- "Category Drop-Down List" on page 37
- "Attributes to Display List" on page 37
- "Sorting Order List" on page 38
- "HTML Text Formatting Toolbar" on page 39
- "Find & Select Dialog" on page 46
- "Attribute Constraints Tab" on page 47
- "Relationship Constraints Tab" on page 53
- "Display Options Tab" on page 56

Category Drop-Down List



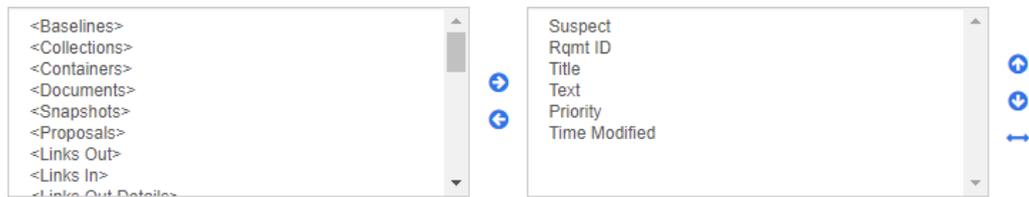
Click the collapsed list to expand it and access the following features:

- **Find:** Enter a search string to dynamically find categories that match it.
- To select multiple categories, press the CTRL key when selecting the categories. Selected categories are highlighted with blue. Multi-select is available only for some operations, such as creating reports.
- To select all sub-categories under a parent category:
 - a Click the desired parent category.
 - b Shift-click the parent category.

Attributes to Display List

The **Attributes to Display** list defines which attributes of a requirement, document, report, collection, or baseline should be shown in a table or list. Different requirement

classes can show different attributes. For a list of special attributes see chapter "Special Attributes" on page 58.



The **Attributes to Display** list provides the following functions:



Adds the selected attribute(s) to the list of displayed attributes.



Removes the selected attribute(s) from the list of displayed attributes.



Changes the display order for the selected attribute(s).



This function is only available in the **Document Settings** dialog and allows you to specify the column width for an attribute if the requirement is displayed in Grid View or exported into a table. Note that this setting does not affect publish templates.

To specify the column width, do the following:

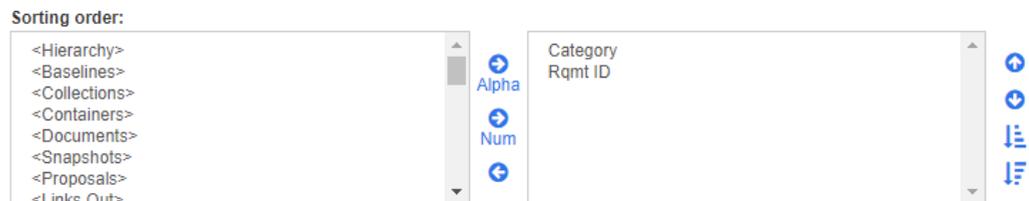
- 1 Select one or several attributes in the list of displayed attributes.
- 2 Click  . This opens the **Set Column Width** dialog.
- 3 Enter the desired column width (in pixels).
- 4 Click **OK**.



TIP Columns that have no width assigned, will use the remaining space.

Sorting Order List

The **Sorting Order** list defines in which order requirements should be sorted. You can specify several attributes for sorting. If you want to order by title, you might want to sort by requirement ID as to ensure an identical order on different executions.



To specify the sort type:

- 1 Select one or more attributes in the **Sorting Order** list.
- 2 Click one of the following buttons:
 - Alphabetic button  for a simple alphabetic sort.
 - Numeric button  for a numeric sort. This type of sort can be used for alphanumeric attributes such as paragraph numbers in outlines. For example, with

a numeric sort, the numbers (10, 20, 1, and 2) are sorted as (1, 2, 10, 20) instead of (1, 10, 2, 20).



NOTE Alternatively, you can double-click an attribute to add it as an alphabetic sort to the sort list on the right.

To specify the sort order:

- 1 Select an entry in the sort list.
- 2 To change the sort order, click one of the following buttons:
 - Button  to have the data sorted before other data.
 - Button  to have the data sorted after other data.

For example, select **Paragraph ID** if you want the query results to be sorted in the order presented in the original document, and click the **Numeric** button to sort by paragraph number. Then select **Priority** and click the **Alphabetic** button if you want the requirements with the same paragraph ID sorted by the priority assigned to them.



NOTE If you choose an attribute with the *Date* data type, the results are sorted in date order regardless of whether you chose **Alphabetic** or **Numeric**.

To specify the sort direction:

- 1 Select an entry in the sort list.
- 2 To change the sort direction, click one of the following buttons:
 - Button  to sort ascending (A-Z, 0-9).
 - Button  to sort descending (Z-A, 9-0).

HTML Text Formatting Toolbar

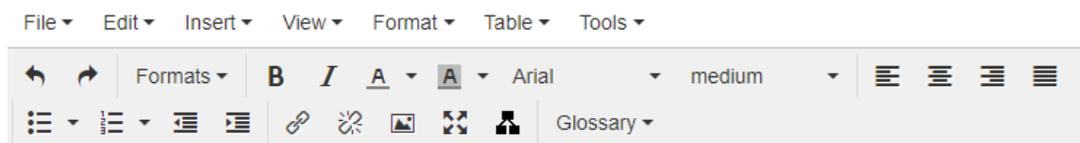


Figure 1-1. Standard HTML Text Formatting toolbar

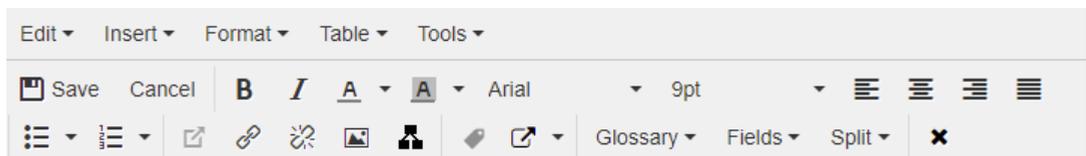


Figure 1-2. HTML Text Formatting toolbar in Entire Document View

If a text attribute can accept HTML formatting (an option set by the administrator for each attribute), this toolbar appears when you click in the attribute's field. It includes the following controls listed in multiple rows:

-  Undo and Redo
- Select text formats
-  Apply bold and italic formatting.
-  Select text color and background color.
- Select the font family and size.
-  Align the text.
-  Apply list formatting.
-  Apply indentation formatting.
-  **Open link**: Click to open a selected link. Note that this button is only available in entire document view.
-  **Insert/edit link**: To create a link or edit an existing link, select the text and click the **Insert/edit link** button. The **Insert link** dialog appears. Complete the fields as needed, and click **OK**.

Insert link
✕

Url



Text to display

Title

Target

None
▼

Ok
Cancel

Depending on system configuration, not all file types can be uploaded. For details, see chapter ["Upload File Restrictions"](#) on page 86.



TIP If you want to upload a file or attachment, use the **Insert/edit link** function.

-  **Remove link**: To remove an existing link, select the link and click the **Remove link** button.
-  **Insert/edit image**: To insert a graphic into the attribute, place the cursor where you want to insert the image. To edit the HTML parameters of an existing image,

select the image element. Then click the **Insert/edit image** button. The **Insert/edit image** dialog opens. Complete the fields as needed and click **OK**.

-  **Toggle fullscreen mode:** Click to toggle between a dialog view and a full screen view of the text attribute you are editing.
-  **Open graph editor:** Opens the graph editor. For further information about the graph editor, see chapter "[Graph Editor](#)" on page 64.
-  **Add caption:** To add or rename a caption, select an image or a table and click the **Add caption** button. This opens the **Add Caption** dialog. Complete the fields as needed and click **OK**.

Enabling the **Use auto numbering for captions** will automatically create the number for all captions in the document. The number will be updated automatically whenever the document is loaded.

-  **Cross Reference:** Clicking the triangle next to the button opens a menu with the following functions:
 - **Insert:** Selecting **Insert** or clicking the **Cross Reference** button opens the **Add Cross Reference** dialog, which allows to insert a reference to a requirement,

chapter, or an image or table with caption. Select/fill the fields as needed and click **OK**.

The screenshot shows the 'Add Cross Reference' dialog box. It features a title bar with the text 'Add Cross Reference' and a close button (X). Below the title bar, there is a 'Reference Type' dropdown menu currently set to 'Chapter/Requirement'. Underneath is a 'Select' section containing a search box and a tree view of document elements. The tree view shows 'ePhoto Requirements' expanded, with sub-items: '1 Introduction', '2 Scope', '3 Requirements', 'Glossary', and 'Table of Figures'. At the bottom of the dialog, there is a 'Reference Name' text field and two buttons: 'OK' and 'Cancel'.

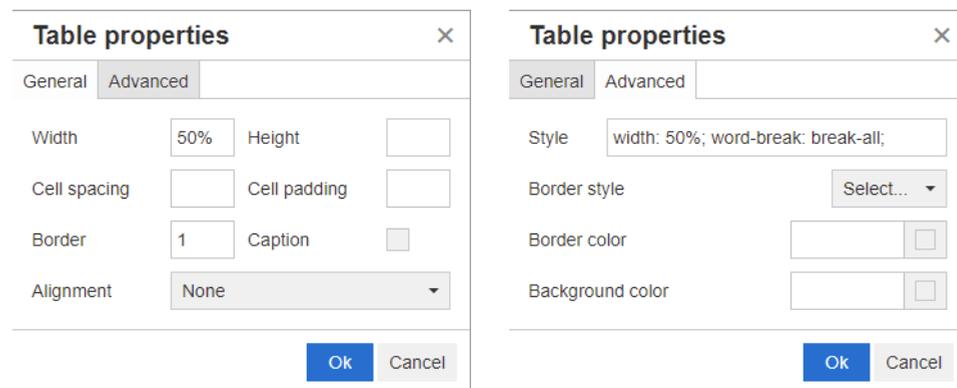
- **Reference Type:**
 - **Chapter/Requirement:** The **Select** box shows all chapters and requirements of the current document.
 - **Figure:** The **Select** box shows all images with a caption.
 - **Table:** The **Select** box shows all tables with a caption.
- **Select:** Depending on your choice of the **Reference Type** box, the **Select** box shows chapters, requirements, images, or tables.
- **Search:** For chapters and requirements, you can filter the entries in the **Select** box by typing parts of the text to search for.
- **Reference Name:** This is the text used for the reference link. By default, it is the title for chapters or requirements, or the caption for images and tables. Modify it as you see fit.
- **Refresh:** Updates the selected cross reference link.
- **Glossary menu:** The **Glossary** menu is only available if your administrator created the Glossary class as described in the *Administrator's Guide*. It contains the following menu entries:
 - **Insert entry:** Opens the **Insert Term** dialog, which allows to search for a term. To add it to the document, select it and click Insert. To find a term, type part of the term or description and click .
 - **Add entry:** Opens the **New Term** dialog, which allows to add a new term to the glossary.

- **Scan text:** Scans the text for matching glossary entries. For each matching word, a tooltip provides the explanation of that word. To easily recognize a match, the word is shown in white text and cyan background color.
- **Fields menu:** The **Fields** menu contains placeholders which are replaced with their actual values during the export process. For further information, see chapter "[Using Placeholders in Documents](#)" on page 236.
- **Save:** Saves your modifications. **Save** is only available in Entire Document View.
- **Cancel:** Discards your modifications. **Cancel** is only available in Entire Document View.

Table Properties

To open the table properties, execute these steps:

- 1 Select the table.
- 2 Click  in the popup toolbar. This opens the **Table Properties** dialog.



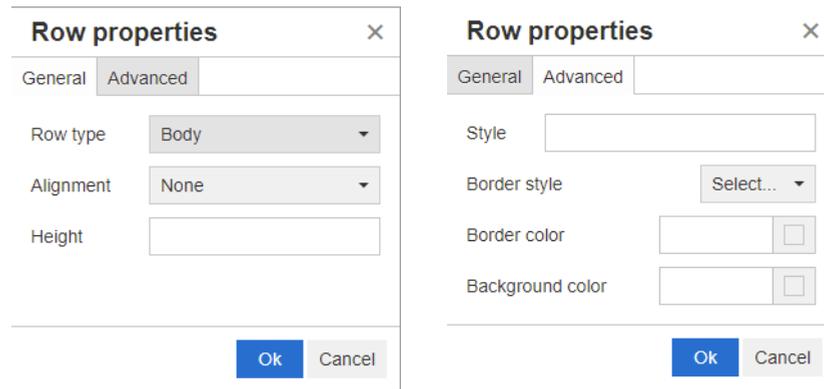
- **Width:** Specifies the width of the table. The width can be specified in % (e.g. 50%) or pixels (e.g. 75).
- **Height:** Specifies the height of the table. The height can be specified in % (e.g. 50%) or pixels (e.g. 75).
- **Cell spacing:** Defines the distance in pixels between two cells or the cell and the table border.
- **Cell padding:** Defines the distance in pixels between the cell content and the cell border.
- **Border:** Defines the width in pixels of the table border. A value of 0 means no border.
- **Caption:** Creates an extra row on top of the table in which you can enter a caption (heading) for the table. Note that this is not related to the function **Add Caption** ().
- **Alignment:** Allows you to select how the table should be aligned.
 - **None:** Uses the default alignment, usually left.
 - **Left:** Aligns the table to the left border of the window.
 - **Center:** Horizontally centers the table.
 - **Right:** Aligns the table to the right border of the window.

- **Style:** This attribute allows to define CSS styles. Usually you do not need to edit this value.
- **Border color:** Defines the color of the table border. The value can be any HTML known color (e.g. red, green, blue) or color value (#FF0000, #00FF00, #0000FF). Not all browser may support this feature. Clicking the grey box opens the **Color** dialog which allows easy selection of the desired color.
- **Background color:** Defines the color of all table cells. The value can be any HTML known color (e.g. red, green, blue) or color value (#FF0000, #00FF00, #0000FF). Clicking the grey box opens the **Color** dialog which allows easy selection of the desired color.

Row Properties

To open the row properties, execute these steps:

- 1 Select a row in the table.
- 2 In the **Table** menu, point to **Row**, then select **Row properties**. This opens the **Row Properties** dialog.



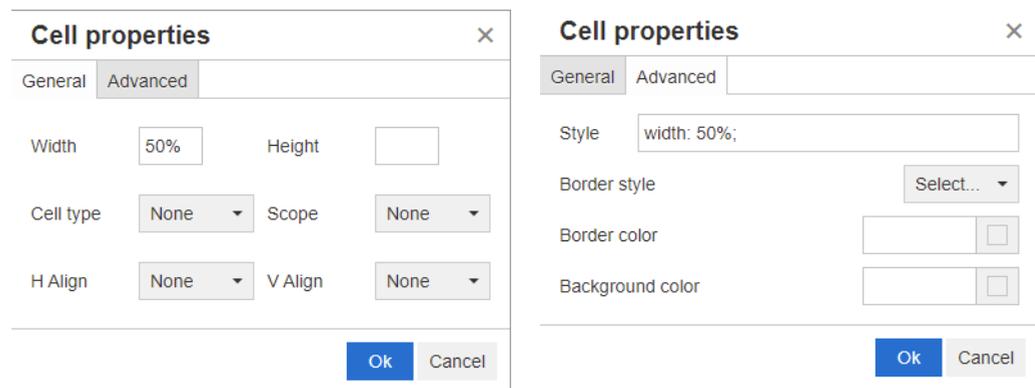
- **Row type:** Defines the type of a table row. This setting can be ignored.
 - **Header:** The row is a header row (in HTML this is a row within a THEAD tag). Selecting the **Header** type repeats the header on each new page in exported Word documents.
 - **Body:** The row is a regular body row. This is the default.
 - **Footer:** The row is a footer row (in HTML this is a row within a TFOOT tag).
- **Alignment:** Aligns the content of all cells in the row.
 - **None:** Uses the default alignment, usually left.
 - **Left:** Aligns all content to the left.
 - **Center:** Centers all content.
 - **Right:** Aligns all content to the right.
- **Height:** Specifies the height of the row. The height can be specified in % (e.g. 50%) or pixels (e.g. 75).
- **Style:** This attribute allows to define CSS styles. Usually you do not need to edit this value.

- **Border color:** Defines the color of the border of all cells in the selected row. The value can be any HTML known color (e.g. red, green, blue) or color value (#FF0000, #00FF00, #0000FF). Not all browser may support this feature. Clicking the grey box opens the **Color** dialog which allows easy selection of the desired color.
- **Background color:** Defines the color of all cells in the selected row. The value can be any HTML known color (e.g. red, green, blue) or color value (#FF0000, #00FF00, #0000FF). Clicking the grey box opens the **Color** dialog which allows easy selection of the desired color.

Cell Properties

To open the cell properties, execute these steps:

- 1 Select one or several cells in the table.
- 2 In the **Table** menu, point to **Cell**, then select **Cell properties**. This opens the **Row Properties** dialog.



- **Width:** Specifies the width of the selected cells. The width can be specified in % (e.g. 50%) or pixels (e.g. 75).
- **Height:** Specifies the height of the selected cells. The height can be specified in % (e.g. 50%) or pixels (e.g. 75).
- **Cell type:** Specifies the type of the selected cells.
 - **Cell:** This is a regular cell.
 - **Header cell:** This is a header cell, which may apply additional formatting.
- **Scope:** Specifies the scope of the selected cells. Usually you do not need to change this setting.
 - **None:** There is no scope for this cell. This is the default.
 - **Row:** The cell is a header for a row.
 - **Column:** The cell is a header for a column.
 - **Row group:** The cell is a header for a group of rows.
 - **Column group:** The cell is a header for a group of columns.
- **H Align:** Horizontally aligns the content of the selected cells.
 - **None:** Uses the default alignment, usually left.

- **Left:** Aligns all content to the left.
- **Center:** Centers all content.
- **Right:** Aligns all content to the right.
- **V Align:** Vertically aligns the content of the selected cells.
 - **None:** Uses the default alignment, usually middle.
 - **Top:** Aligns all content to the top of the cell.
 - **Middle:** Vertically centers the content within the cell.
 - **Bottom:** Aligns all content to the bottom of the cell.
- **Style:** This attribute allows to define CSS styles. Usually you do not need to edit this value.
- **Border color:** Defines the color of the border of the selected cells. The value can be any HTML known color (e.g. red, green, blue) or color value (#FF0000, #00FF00, #0000FF). Not all browser may support this feature. Clicking the grey box opens the **Color** dialog which allows easy selection of the desired color.
- **Background color:** Defines the color of the selected cell. The value can be any HTML known color (e.g. red, green, blue) or color value (#FF0000, #00FF00, #0000FF). Clicking the grey box opens the **Color** dialog which allows easy selection of the desired color.

Inserting Page Breaks

When exporting a document, you may have page breaks within a chapter (or requirement), e.g. before a long table.

To insert a page break, select the **Insert** menu, then select  **Page break**.

A page break is visualized by .

Find & Select Dialog

For list attributes and user attributes, the **Find & Select** dialog is available. This dialog allows to filter the list values or user values and thus allows quicker and easier selection. While the dialog for list attribute only shows the list attribute values, the dialog for user attributes displays user names along with their full names. The screenshot and steps below describe the dialog for user attributes.

User ID	First Name	Last Name	Team
ADMINISTRATION	Samuel	Gray	
BUSINESS_ANALYST	Eric T.	O'Brien	Others
DEV	Jordan	Cooper	DB, General
DEVELOPMENT	Susan	Smith	General
DEV_MANAGER	Erica	Morgan	DB, General
ENGINEERING	Daniel	Hughes	General, GUI
EPHOTO	Ryan	Forbes	GUI
EPHOTO_INFO	Carter	Benton	
JOE	Joseph	Wilson	
MANAGEMENT	Alexis	Grestby	
MARKETING	Luck	McMalton	Others
PRODUCT_MANAGER	Henry	Miller	General
PROJECT_MANAGER	Mark	Huber	General
QA	Julia	Combs	Others
RTMADMIN	Ethan	Hyde	
SALES	Steve	Martin	Others

You can easily find a user by filtering the list using these boxes:

- **User ID:** Filter the list by entering part of the user ID.
- **First Name:** Filter the list by entering part of the first name.
- **Last Name:** Filter the list by entering part of the last name.
- **Team:** Filter the list by entering part of the team name. Note that this column is only available if Teams have been enabled by the administrator.

When the list shows the desired value, select it and click **OK**.



NOTE If a field allows multi-selection, the **Find & Select** dialog shows an additional column with check boxes. To select several entries, select the check boxes for the desired values.

Attribute Constraints Tab

This tab uses relationship criteria to determine which requirements are included.

To complete the Attribute Constraints tab:

- 1 Click the **Attribute Constraints** tab.
- 2 If you want to change the category or categories that are searched, select them in the **Category** list.
- 3 With Traceability reports, select an entry from the **Class** list. You can choose the top class or any sub-class you selected on the **Related Classes to Display** tab.
- 4 With Class reports and Graphical reports, you can filter by attributes of linked items by executing the following steps:
 - a Click **Select Related Classes**. This opens the **Select Related Classes** dialog.
 - b Select one or several classes. If you wish to include a class that is linked to one of the listed classes, expand the class (by clicking the triangle next to the option box) and select the child class.
 - c Click **Save**.
 - d Select an entry from the **Class** list to allow setting the constraints for that class.

- 5 For each attribute in one of the following sections, specify a value.

Note the following:

- If you leave a field blank, any value for that attribute is retrieved in the query.
 - If you select multiple values for attributes that are displayed in a list, any of the selected values are matched.
 - You can use wildcards in the attributes constraints sections to query for a keyword. For example, if you want to find the requirements that have the word "system" in the title, type ***system*** in the **Title** field in the **Standard Attributes** section.
- 6 To enter values into the attribute boxes of more than one class, repeat steps 3 and 5.
 - 7 Select the **Case sensitive search** check box if you want the search results to exactly match the capitalization of the attribute values.

Attribute Constraints Tab Controls

This section describes the controls associated with attributes on the **Attributes Constraints** tab.

Categories

Category constraints describe categories to use when retrieving requirements. You can choose whether the user is to enter the category or categories at runtime (that is, at script execution time) or whether the category or categories are stored as part of the query. The category and runtime choices apply to all the classes in the traceability report.

Perform one of the following steps:

- Click the down arrow ▼ to the right of the **Categories** list, and select **Enter now**. Select one or more categories from the **Categories** list, click the down arrow to the left of the **Categories** list, and select **in** or **not in** to specify whether the categories should be included in the query.
- Click the down arrow to the right of the **Categories** list, and select **Enter at runtime**.

- Click the down arrow to the left of the **Categories** list, and select **in** or **not in** to specify whether the category or categories should be included in the query.



NOTES

- The **null** and **not null** options are not used for categories.
- To select all categories between two categories, select the top category, follow these steps:
 - Press SHIFT and keep it pressed.
 - Click the selected category
 - Click the last category
 - Release SHIFT.
- To select more than one category, press CTRL and click the categories.
- To select a category and its subcategories, hold down SHIFT and click a category. Pressing CTRL+SHIFT and clicking a category adds the category and its subcategories without changing the current selection.
- To deselect a category, press CTRL and click the selected category. Because the CTRL key toggles the selection of the clicked category, the other categories are not affected. Clicking a category without pressing CTRL removes all other selections.
- To search for a category, type one or more letters from the category name in the **Find** box.
- If no categories are selected, **Choose categories** is displayed in the list box, and all categories are included in the query.
- If more than one category is selected, **(n selected)** is displayed in the list box.
- If only one category is selected, **Category Name** is displayed in the list box.



TIP To return the category list to an empty selection, hold down CTRL and then click each selected category until no categories are selected. Then, the categories list displays **Choose Categories** again. Alternatively, you can click any category, hold down CTRL, and click the same category again.

Group Attributes:

Normally, all attributes have to match for making a query. As group attributes behave like a table with one or several values per row, Quick Search allows to define how the values in should be considered for the search. You can select one of the following:

- in (AND)
- in (OR)
- not in (AND)
- not in (OR)
- null

- not null



NOTE When specifying only a single row in your query:

- **in (AND)** and **in (OR)** return the same results.
- **not in (AND)** and **not in (OR)** return the same results.

The following examples uses the **Tests** class of the **RMDEMO** instance.

In (AND)

When choosing the **in (AND)** operator, a requirement is added to the result list if all values of the group attribute match all queried values.

Example:

- 1 Select the class **Tests**.
- 2 Add the attribute **Operating System**.
- 3 In the group attribute boxes, select **Desktop, Windows, XP**.
- 4 Click  .
- 5 In the group attribute boxes, select **Desktop, Windows, Vista**.
- 6 Click  .
- 7 In the group attribute boxes, select **Desktop, Windows, 7**.
- 8 Ensure that the operator selection shows **in (AND)**.
- 9 Run the report.

The result list contains requirements with the **Operating System** attribute having the combination of the following values: **Desktop-Windows-XP**, **Desktop-Windows-Vista** or **Desktop-Windows-7**.

In (OR)

When choosing the **in (OR)** operator, a requirement is added to the result list if any of the values of the group attribute matches at least one of the queried values.

Example:

- 1 Select the class **Tests**.
- 2 Add the attribute **Operating System**.
- 3 In the group attribute boxes, select **Desktop, Windows, XP**.
- 4 Click  .
- 5 In the group attribute boxes, select **Desktop, Windows, Vista**.
- 6 Click  .
- 7 In the group attribute boxes, select **Desktop, Windows, 7**.

- 8 Ensure that the operator selection shows **in (OR)**.
- 9 Run the report.

The result list contains requirements that contain either **Desktop-Windows-XP**, **Desktop-Windows-Vista** or **Desktop-Windows-7** (among other values) in its **Operating System** attribute.

Not in (AND)

When choosing the **not in (AND)** operator, a requirement is added to the result list if the values of the group attribute do not match all of the queried values.

Example:

- 1 Select the class **Tests**.
- 2 Add the attribute **Operating System**.
- 3 In the group attribute boxes, select **Desktop, Windows, XP**.
- 4 Click  .
- 5 In the group attribute boxes, select **Desktop, Windows, Vista**.
- 6 Click  .
- 7 In the group attribute boxes, select **Desktop, Windows, 7**.
- 8 Ensure that the operator selection shows **not in (AND)**.
- 9 Run the report.

The result list contains requirements with the **Operating System** attribute **not** having the combination of the following values: **Desktop-Windows-XP**, **Desktop-Windows-Vista** or **Desktop-Windows-7**.

Not in (OR)

When choosing the **not in (OR)** operator, a requirement is added to the result list if the values of the group attribute do not match any of the queried values.

Example:

- 1 Select the class **Tests**.
- 2 Add the attribute **Operating System**.
- 3 In the group attribute boxes, select **Desktop, Windows, XP**.
- 4 Click  .
- 5 In the group attribute boxes, select **Desktop, Windows, Vista**.
- 6 Click  .
- 7 In the group attribute boxes, select **Desktop, Windows, 7**.
- 8 Ensure that the operator selection shows **not in (OR)**.

9 Run the report.

The result list contains requirements that contain neither **Desktop-Windows-XP**, **Desktop-Windows-Vista** or **Desktop-Windows-7** in its **Operating System** attribute.

Null

When choosing the **null** operator, a requirement is added to the result list if no group attribute value has been specified.

Not Null

When choosing the **not null** operator, a requirement is added to the result list if any group attribute value has been specified.

Operators

If you hover over the down arrow ▼ to the left of the attribute label, a list of operators opens. The list includes only the operators that are appropriate for the attribute type. The following table describes each operator.

Operator	Description
=	The attribute equals the value you specify. The wildcard characters *, %, and _ are supported. * or %: A wildcard character for any set of characters. _: A wildcard character for a single character.
not =	The attribute does not equal the value you specify. The wildcard characters *, %, and _ are supported. * or %: A wildcard character for any set of characters. _: A wildcard character for a single character.
<	The attribute is less than the value you specify.
>	The attribute is greater than the value you specify.
<=	The attribute is less than or equal to the value you specify.
>=	The attribute is greater than or equal to the value you specify.
between	The attribute is between the two values you specify. When you select the "between" operator, another field appears that allows you to type the second value.
not between	The attribute is not between the two values you specify. When you select the "not between" operator, another field appears that allows you to type the second value.
null	The attribute has not been set (not initialized).
not null	The value has been set (initialized).
in	The attribute equals one of the values you specify.
not in	The attribute does not equal one of the values you specify.

Runtime Choice

If you hover over the down arrow ▼ to the right of the attribute label, a list opens that lets you choose whether the attribute value is to be entered at runtime (that is, at script execution time) or stored as part of the query. The following table describes the choices in the list.

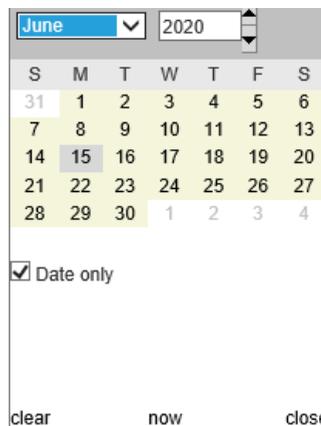
Choice	Description
Enter now	The attribute value is stored as part of the query.
Enter at runtime	The user is prompted to enter the attribute value when the query runs. When applying runtime options, they may be saved by checking ' Remember these Parameters '.
Current Date	This option is only available for date attributes. When running the report, the date field is compared to the date (and time) of the date attribute for which this option is selected.

Date and Time Control

The date and time shown in the date and time control matches the format specified in the attribute definition.

To use the date and time control:

- 1 Click the calendar icon .



- 2 To include time in the selection: uncheck 'Date Only'
- 3 Click **Today**, resetting the time if necessary, and click OK
- 4 Or select a month, year, day, (and time) and then click OK.

Relationship Constraints Tab

This tab uses relationship criteria to determine which requirements are included.



NOTE The constraints you select on the **Constraints** tab are combined using an AND operation. That is, the requirement must meet all the constraints that are specified before it is included in the report.

To complete the Relationship Constraints tab:

- 1 Click the **Relationship Constraints** tab.

- 2 *Traceability Report only*: Relationships constraints may be applied individually, by class. To limit criteria to a specific class, uncheck 'Apply for all Classes' and choose the relevant class from the Class drop-down.
- 3 Collection constraints describe collection memberships to be applied when retrieving requirements. Select collections from the **Collections** list, and select from the constraint options to specify whether they should be included in the query. To select multiple collections in the list, hold down the Control key while you select the collections. To select a range of collections, select the first collection, press the Shift key, and then select the last collection. You can find collections by scrolling in the list, or by typing a substring of the collection name in the **Find collection** box.

The constraint options include:

- **In any selected collection(s)** to include requirements in any of the collections you have selected
 - **Not in any selected collection(s)** to exclude requirements from any of the collections you selected
 - **In all selected collection(s)** to include requirements that are in each of the collections you selected
 - **Not in all selected collection(s)** to exclude requirements that are not in each of the collections you selected
 - **In any collection(s)** to include requirements in any - even just one - of the collections you selected
 - **Not in any collection(s)** to exclude requirements that are in any - even just one - of the collections you selected
- 4 Baseline constraints describe the baselined set of requirements used when retrieving requirements. Select baselines from the **Baselines** list, and select **In** or **Not In** to specify whether they should be included in the query. You can include more than one baseline constraint in the query. You can find baselines by scrolling in the list, or by typing a substring of the baseline name in the **Find baseline** box.

To select multiple baselines in the list, hold down the Control key while you select the baselines. To select a range of baselines, select the first baseline, press the Shift key, and then select the last baseline.

The constraint options include:

- **In any selected baseline(s)** to include requirements in any of the baselines you have selected
 - **Not in any selected baseline(s)** to exclude requirements from any of the baselines you selected
 - **In any baseline(s)** to include requirements in any - even just one - of the baselines you selected
 - **Not in any baseline(s)** to exclude requirements that are in any - even just one - of the baselines you selected
- 5 Document constraints describe documents to use when retrieving requirements. Select documents from the **Documents** list, and select **In** or **Not In** to specify whether they should be included in the query.

You can find documents by scrolling in the list, or by typing a substring of the document name in the **Find document** box.

To select multiple documents in the list, hold down the Control key while you select the documents. To select a range of documents, select the first document, press the Shift key, and then select the last document.

The constraint options include:

- **In any selected document(s)** to include requirements in any of the documents you have selected
 - **Not in any selected document(s)** to exclude requirements from any of the documents you selected
 - **In any document(s)** to include requirements in any - even just one - of the documents you selected
 - **Not in any document(s)** to exclude requirements that are in any - even just one - of the documents you selected
- 6 A snapshot is a version of a document at a specific point in time. Snapshot constraints describe snapshots to use when retrieving requirements. Select snapshots from the **Snapshots** list, and select **In** or **Not In** to specify whether they should be included in the query. You can include more than one snapshot constraint in the query. You can find snapshots by scrolling in the list, or by typing a substring of the snapshot name in the **Find snapshot** box.

To select multiple snapshots in the list, hold down the Control key while you select the snapshots. To select a range of snapshots, select the first snapshot, press the Shift key, and then select the last snapshot.

The constraint options include:

- **In any selected snapshot(s)** to include requirements in any of the snapshots you have selected
 - **Not in any selected snapshot(s)** to exclude requirements from any of the snapshots you selected
 - **In any snapshot(s)** to include requirements in any - even just one - of the snapshots you selected
 - **Not in any snapshot(s)** to exclude requirements that are in any - even just one - of the snapshots you selected
- 7 *Class, Graphical and Traceability Report only:* Relationships connect a primary and a secondary class. Select relationships from the **Relationships** list, and select **In** or **Not In** to specify whether they should be included in the query. You can include only one relationship constraint in a query.

You can find relationships by scrolling in the list, or by typing a substring of the relationship name in the **Find relationship** box.



NOTE

<**Source**> and <**Immediate**> are special relationships that are used to locate versions of requirements. The <**Source**> relationship refers to the original requirement in a chain of versions. The <**Immediate**> relationship refers to the immediate predecessor or successor of a requirement.

Display Options Tab

This tab determines which attributes are displayed and in what order. Slightly different versions of this tab appear in a number of dialogs. To populate this tab:

1 Click the Display Options Tab:

The screenshot shows the 'Class Report: Component_Requirements' dialog with the 'DISPLAY OPTIONS' tab selected. The dialog is divided into three main sections:

- ATTRIBUTES TO DISPLAY:** A list of attributes on the left includes 'Rqmt ID', 'Title', and 'Dev Effort', which are highlighted and moved to a right-hand list. The 'Add row count' checkbox is checked.
- SORTING ORDER:** A list of sorting options on the left includes '<Hierarchy>', '<Baselines>', '<Collections>', '<Containers>', '<Documents>', '<Snapshots>', '<Proposals>', '<Links Out>', and '<Links In>'. 'Rqmt ID' is selected in the right-hand list, and 'Alpha' sorting is chosen.
- ATTRIBUTES TO DISPLAY IN TOOLTIP:** A list of attributes on the left includes '<Baselines>', '<Collections>', '<Containers>', '<Documents>', '<Snapshots>', '<Proposals>', '<Links Out>', '<Links In>', and '<Links Out Details>'. No attributes are currently selected in the right-hand list.

At the bottom of the dialog, there are buttons for 'View Script', 'Preview', 'Run', and 'Cancel'.



NOTE

- The Display Options dialogs provide the following functions:
 - **Attributes to display:** All attributes highlighted and moved to the right hand list will be shown in the report or document.
 - **Sorting order:** Defines the sorting order for the selected requirements..
 - **Attributes to display in tooltip:** Defines the attribute information to show in a tooltip when you move the mouse pointer over a requirement in a report, collection, baseline, document, or snapshot. For documents and associated snapshots, the tooltip is shown in the document tree of the navigation pane.

- 2 *Traceability Report only:* All classes are available for selection on the Display Options Tab, but only those selected in "Related Classes to Display" are saved with the report.
- 3 The sort order can be selected for each class.
- 4 To specify the columns to display and their order, see chapter "[Sorting Order List](#)" on page 38.

- 5 *Class, Relationship and Traceability reports* have available the **Add row count** check box to display the total number of rows at the bottom of the report.
- 6 To specify the sort type and order, see chapter "[Sorting Order List](#)" on page 38.
- 7 Select the **Remember these options** check box to remember the settings on this tab the next time this dialog box is invoked. The settings are remembered if the same user invokes the dialog box from the same RM instance and reports on the same class or relationship. Remembered options are also available in **Link, Organize by Collections, and Add to Chapter** dialog boxes.



NOTE All of the dialog boxes cited above share the settings. For example, if you save the settings for the Marketing Requirements class in the **Class Report** dialog box, you will see the same settings for the Marketing Requirements class in the **Link** dialog.

Calculating Numeric Attribute Values in Reports

When creating a report, you may want to calculate sum, average, min, or max value of a numeric value (e.g. get the average processing time). All functions are just applied on the items of the report. The result will be shown at the end of the report in the same column as the attribute.

To calculate an attribute value for report output, do the following:

- 1 Add the numerical attribute for which you want to calculate sum, average, min, or max value to the list of displayed attributes.
- 2 Select the numerical attribute in the list of displayed attributes.
- 3 Click . This opens the **Calculation Settings** dialog:
 - From the **Function** box, select the desired function.
 - If desired, change the text in the **Label** box.
 - Click **OK** to close the Calculated Settings dialog.
- 4 The numeric attribute in the list of display attributes will contain the function selected in parenthesis, e.g. Dev Effort (Sum).



NOTE The wizard allows only one function per attribute. If you want to multiple functions to a single attribute, the script must be modified. For details, see chapter "[CALCULATE Statement](#)" on page 491.

Filtering Comments

When including comments in a report, you might want to filter based on age.

To add and filter comments do the following:

- 1 Add the **<Comments>** attribute to the list of displayed attributes.
- 2 Select the **<Comments>** attribute in the list of displayed attributes.
- 3 Click . This opens the **Filter Comments** dialog.

- 4 Select one of the predefined value from the list or enter the number of days set the maximum age for comments to be included.
- 5 Click **OK**. This will close the **Filter Comments** dialog.

Special Attributes

The lists contain some special attribute names which are enclosed by <>. These attributes are not class attributes, but contain collected or calculated values. The following list shows these attributes:

Attribute Name	Script Name	Description
<Baselines>	RTM_BASELINES	The names of the baselines referencing the requirement.
<Collections>	RTM_COLLECTIONS	The names of the collections referencing the requirement.
<Comments>	RTM_COMMENTS	The comments related to the requirement.
<Containers>	RTM_KEYWORD	The names of the containers referencing the requirement.
<Documents>	RTM_DOCUMENTS	The names of the documents referencing the requirement.
<Linked>	RTM_RELATION	Counts the requirements for which the linked requirement(s) match the specified attribute constraints. For example, specifying a list attribute value in the attribute constraints of the linked class, would count all requirements where the linked requirement(s) match that list attribute value as "Linked" and all those that do not match as "Not Linked". NOTE This attribute is only available in graphical reports.
<Links In Details>	RTM_LINKS_TO_DETAILS	The PUIDs of requirements linked from other requirements to the requirement. In result lists (i.e. Quick Search, reports or documents in Grid/Editable Grid Requirement Layout mode), you can open a linked requirement for editing by clicking the PUID.
<Links Out Details>	RTM_LINKS_FROM_DETAILS	The PUIDs of requirements this requirement links to. In result lists (i.e. Quick Search, reports or documents in Grid/Editable Grid Requirement Layout mode), you can open a linked requirement for editing by clicking the PUID. Note that by default, when using <Linked Test Cases>, test cases are no longer in the <Links Out Details> result list.

Attribute Name	Script Name	Description
<Linked Test Cases>	RTM_LINKED_TESTCASES	The PUIDs of test cases (see chapter " Test Case Management " on page 347) this requirement links to. In result lists (i.e. Quick Search, reports or documents in Grid/Editable Grid Requirement Layout mode), you can open a list of linked requirements by clicking the PUID, which opens that requirement for editing. Note that by default, when using <Linked Test Cases>, test cases are no longer in the <Links Out Details> result list.
<Links In>	RTM_LINKS_TO	The number of links from other requirements to the requirement. In result lists (i.e. Quick Search, reports or documents in Grid/Editable Grid Requirement Layout mode), you can open a list of linked requirements by clicking the arrow or number in the Links In column of a requirement in the result list. Clicking a requirement in the list opens that requirement for editing.
<Links Out>	RTM_LINKS_FROM	The number of links from the requirement to other requirements, which includes the number of linked test cases. In result lists (i.e. Quick Search, reports or documents in Grid/Editable Grid Requirement Layout mode), you can open a list of linked requirements by clicking the arrow or number in the Links Out column of a requirement in the result list. Clicking a requirement in the list opens that requirement for editing.
<Notification>	NOTIFICATION	Shows if e-mail notification for a project has been configured. Possible values: <ul style="list-style-type: none"> ■ Yes: Enabled ■ No: Disabled If no value has been specified, e-mail notification for the project has not been configured.
<Proposals>	RTM_PROPOSALS	The number of proposals related to the requirement in status Proposed . Accepted or rejected proposals are not counted. Clicking the number opens the Accept Changes dialog which allows you to accept or reject the proposal. For details, see chapter " Reviewing a Change Request " on page 125.
<Related Container>	RTM_RELATED_CONTAINER	Lists the containers associated with the related workflow item; included only with workflow. Opening a listed item will display the container type and detail.

Attribute Name	Script Name	Description
<Snapshots>	RTM_SNAPSHOTS	The names of the document snapshots referencing the requirement.
<Thread>	RTM_COMMENTS_TH READ	Only available for Sorting Order for comments. If comments are ordered by thread, a reply follows the comment it replies to.

Script names are used when writing or modifying report scripts or accessing Dimensions RM Web Services. For further information about scripts see chapter "[Script Syntax](#)" on page 479. For further information about Dimensions RM Web Services refer to the *Web Service and Rest Service Reference* guide.

Accessing Dimensions RM

Logging In

The login process that you experience will depend upon which login source has been implemented by your administrator:

- RM or LDAP
- Single Sign On (SSO)
- Single Sign On with SmartCard (CAC)
- Microsoft Azure



NOTE

- Cookies must be enabled to log in to RM Browser.
- After a period of inactivity, an RM Browser session times out, and you are logged out of RM Browser. A login dialog opens so you can log in again. By default, the session timeout is 30 minutes. Your administrator can modify this value. It is recommended that you log out of RM Browser when you finish your work in it.
- If you are using the RM Login with Two-Factor Authentication (2FA), you need an authenticator (e.g. NetIQ Advanced Authenticator, Google Authenticator, or Microsoft Authenticator), which can be downloaded from Google Play Store or Apple App Store. To allow the authenticator to support the login process, open the Change password dialog (see chapter "[Changing Your Password](#)" on page 62) and scan the QR code.

RM or LDAP Login

To log in to RM Browser:

- 1 Navigate to the URL provided by your administrator. The User Log in page opens.
- 2 Enter your user name and password.
- 3 Select the database in which you will be working; the first time you log in, the full list is included, after that the last database accessed is selected by default.

- 4 Select the RM instance in which you will be working. Only the RM instances to which you have access are displayed.
- 5 Click the **Login** button or press the **Enter** key.

Single Sign On Login

To log in via SSO:

- 1 Navigate to the URL provided by your administrator. The SSO sign in page opens.
- 2 Enter your user name and password.
- 3 Click the **Log In** button. The User Log in page opens.
- 4 Select the database in which you will be working; the first time you log in, the full list is included, after that the last database accessed is selected by default.
- 5 Select the instance in which you will be working. Only the instances to which you have access are displayed.
- 6 Click the **Login** button or press the Enter key.

Single Sign On with SmartCard Login

To log in via SmartCard:

- 1 Navigate to the URL provided by your administrator. The SSO sign in page opens.
- 2 Ensure that your SmartCard is inserted into a reader, and click the **SmartCard Login** button.
- 3 Select a valid certificate from your SmartCard (CAC) and enter the appropriate PIN.
- 4 Click the **OK** button. The User Log in page opens with the **Username** field populated and read-only.
- 5 Select the database in which you will be working; the first time you log in, the full list is included, after that the last database accessed is selected by default.
- 6 Select the instance in which you will be working. Only the instances to which you have access are displayed.
- 7 Click the **Continue** button or press the Enter key.

Azure Login

If your administrator configured login through Microsoft Azure, you may have to log in to Dimensions RM using Azure login credentials.

To log in via Azure:

- 1 Navigate to the URL provided by your administrator. Depending on the Dimensions RM environment configuration, either the Dimensions RM User Log in page, or the Azure login page opens.

- 2 If the Dimensions RM User Log in page opens, click the **Microsoft Azure Authentication** link, which is located under the **Login** button.
- 3 Enter your Azure user name and click **Next**.
- 4 Enter your password and click **Sign in**.
- 5 Select the database in which you will be working; the first time you log in, the full list is included, after that the last database accessed is selected by default.
- 6 Select the RM instance in which you will be working. Only the RM instances to which you have access are displayed.
- 7 Click the **Login** button or press the **Enter** key.

Logging Out

To log out of RM Browser:

Select **Log Out** from the **Welcome** menu. For more information on the Welcome menu, see chapter "[Welcome Menu](#)" on page 24



NOTE It is recommended that you log out of RM Browser when you finish working in it.

Switching to Another RM Instance

To switch to another RM instance within the same database, click on the ▼ button next to the current RM instance name:

RMDEMO ▼ >  RMDEMO

For switching to an RM instance in a different database, you must log out and then log into the desired database. See "[Accessing Dimensions RM](#)" on page 60.

Changing Your Password

It is best security practice for users to change their passwords from time to time. The RM administrator can enforce this practice by setting the number of days a password lasts before it expires. Additionally, the RM administrator can enforce password quality requirements, such as the minimum length; minimum number of characters that must be different between the new and the old password; the minimum number of letters, numerals, and special characters; and the number of old passwords that are stored to ensure that a password is not reused too soon. Using the procedure below, you can view the password rules that are in effect for the RM database.



NOTE The RM password rules do not affect logins via LDAP, as these would be managed in LDAP.

Before your current password is due to expire, you receive a warning dialog box that gives you the opportunity to change your password.

To change your password:

- 1 Click the **Welcome, UserID** link in the upper right of the screen. The Change Password dialog box appears.
- 2 To view the password rules in effect for this RM database, click the **Password Rules** link.



NOTE

- The rules apply to all RM instances in the database.
- The RM administrator can exempt individual users from the rules. However, exempt users will still see the rules if they click the Password Rules link.

- 3 Type your existing password in the **Old Password** field.
- 4 Type the new password in the **New Password** field.
- 5 Type the new password again in the **Confirm Password** field.
- 6 Click **OK**.

Getting Help

You can get help specific to the page or dialog box you are currently using, or use the TOC and Search features of the full help system to look up information.

To get help for the page or dialog box you are on:

- **Views:** (e.g. Home View, Document View, Quick Search), select **Help** from the **Welcome** menu. This opens the help topic for that view.
- **Dialogs:** Click the **Help** link at the top right of the dialog. This opens the help topic for that dialog.

Enabling and Disabling E-Mail Notifications

The e-mail notifications for a user account or a user group(s) can be enabled or disabled.

To enable e-mail notifications, do the following:

- 1 Select **Notifications** from the **Welcome** menu. This opens the **Notifications** dialog.
- 2 In the **Inactive Notifications** list, expand the desired class by clicking ► next to the class name.
- 3 Select the desired e-mail notification rule.
- 4 Click .

- 5 Click **Save**.
- 6 Click **Cancel** to close the dialog.

To disable e-mail notifications, do the following:

- 1 Select **Notifications** from the **Welcome** menu. This opens the **Notifications** dialog.
- 2 In the **Active Notifications** list, expand the desired class by clicking  next to the class name.
- 3 Select the desired e-mail notification rule.
- 4 Click .
- 5 Click **Save**.
- 6 Click **Cancel** to close the dialog.

Glossary

The glossary in Dimensions RM is only active if your administrator created the Glossary class as described in the *Administrator's Guide*.

With the glossary you can define your own entries. On HTML attribute and chapter texts, you can scan for glossary entries. For each matching word, a tooltip provides the explanation of that word. To recognize a match, the word is shown in white text and cyan background color.

The glossary may also contain expressions that are not recommended to be used. If a term is marked as **Not Recommended** and Glossary highlighting is enabled, the term is marked red. Not recommended expressions are not added to the Glossary chapter of a document.

The glossary is available

- as a tab on the Home View, see chapter ["Glossary Tab" on page 273](#);
- on HTML attributes in requirements and document chapters, see chapter ["HTML Text Formatting Toolbar" on page 39](#)
- in documents, clicking the  icon scans for glossary entries, see chapter ["Detail Pane" on page 190](#)

Graph Editor

The graph editor allows you to create and modify sophisticated diagrams and graphs. This is a list of some of its features:

- Create new diagrams and graphs

- Edit existing diagrams and graphs
- Import Microsoft® Visio files (in vsdx format)
- Provides a large number of shapes and charts
- Allows referencing of images (by URL)

Opening the Graph Editor

To open the graph editor in a requirement:

- 1 Open an existing requirement or create a new requirement.
- 2 Click into an HTML enabled text attribute.
- 3 Click .

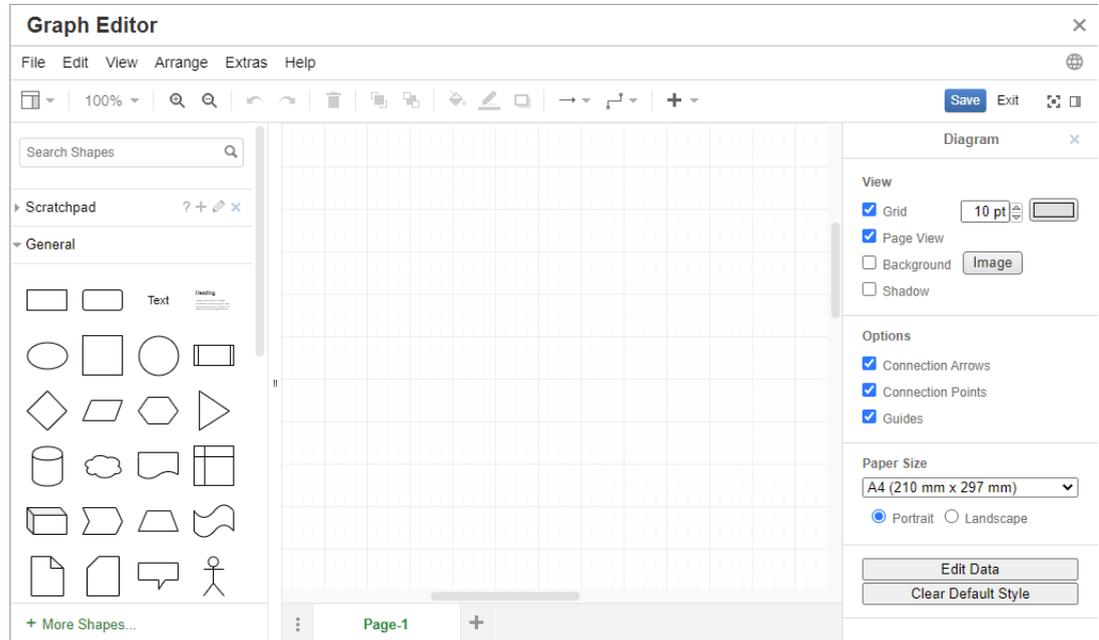
To open the graph editor in a document:

- 1 Open the chapter editor.
- 2 Click into the chapter description box.
- 3 Click .

The Graph Editor Dialog

The Graph Editor dialog allows editing diagrams and graphs. It is divided into these sections:

- Menu Bar
- Toolbar
- Shapes Panel
- Edit Area
- Diagram Panel or Format Panel



File Menu

The **File** menu provides the following functions:

- **Import from:** Allows import of Microsoft ® Visio files in vsdx format and other file formats. For further information about importing files, see chapter "[Importing Files](#)" on page 66.
- **Export as:** Allows to export the graph into different formats.
- **Page Setup:** Opens a dialog which allows you to choose:
 - Paper size
 - Orientation
 - Background color
 - Grid size (of the edit area)
- **Print:** Provides the following functions:
 - Printing
 - Preview
 - Scaling

Importing Files

The following file formats can be imported:

- MS Visio in **VSDX** format; other Visio formats (e.g. VSD) are not supported
- Images in GIF, JPG and PNG format

- HTML files

To import a file, do the following:

- 1 On the **File** menu, point to **Import from**, then select the file location:
 - a **Device...**: This opens the **Choose File to Upload** dialog. Then, select the file you wish to import and click **Open**.
 - b **URL...**: Enter the URL of the file you wish to import into the **URL** box.
- 2 Click **Import**.

Additional Information

Additional information on the Graph Editor can be found at <https://support.draw.io/display/D0/Draw.io+Online+User+Manual>.

Working with Comments

Comments can be added to chapters or requirements. Comments allow to discuss topics regarding a requirement or chapter. Rather than just discussing the topics by e-mail or personally, this provides an ability for team members to follow comment threads and to review all comments during the review and approval process. Comments can be searched for in Quick Search (for details, see chapter "Finding Requirements with Quick Search" on page 98).



NOTE To add a comment or reply to a comment, users must have the following permissions:

- **Create** permission on the Comment class
- **Read** permission on the requirement class
- **Create** permission on the relationship between the Comment class and the requirement class.

For Additional Details see:

["Managing Comments in Requirements" on page 68](#)

["Adding a Comment to a Requirement from the Actions Pane" on page 69](#)

["Adding a Comment from a Discussion" on page 70](#)

["Adding a Comment in a Document" on page 70](#)

["Replying to a Comment" on page 70](#)

["Adding a Comment to Text" on page 71](#)

Managing Comments in Documents

The **Comments** group provides these functions:

-  **Filtering:** By clicking **New**, **Active**, **Done**, **Accepted**, or **Rejected** buttons on top, you can filter by comments by state. The number on each state button shows the number of comments with that state.
-  **Show My Comments:** By clicking it, all comment threads the user participated in are shown.
-  **Show All Comments:** By clicking it, all comments in the document are shown. Clicking it again shows comments only for the selected chapter or requirement.
-  **Show Deleted Comments:** By clicking it, all comments that belong to deleted requirements or chapters, or from requirements that were removed from the document, are shown. Note that this function is not available for snapshots.
-  **Add Comment:** Opens a text input field at the end of the comment list. To confirm your comment, click **Save**. To discard your comment, click **Cancel**.
-  **Refresh:** Reloads the comment list.
-  **Previous Comment:** Selects the previous comment in the list.
-  **Next Comment:** Selects the next comment in the list.

Managing Comments in Requirements

The **Comments** group provides these functions:

-  **Filtering:** By clicking **New**, **Active**, **Done**, or **Rejected** buttons on top, you can filter by comments by state. The number on each state button shows the number of comments with that state.
-  **Add Comment:** Opens inputs at the bottom of the **Edit Attributes** dialog. To confirm your comment, click **Save**. To discard your comment, click **Close**.
-  **Refresh:** Reloads the comment list.

Comment States

A comment can have one of these states:

-  **New:** This comment has not been read by the current user.
-  **Read:** This comment has been read and has not been incorporated or rejected.
-  **Done:** This comment has been incorporated.
-  **Accepted:** This comment has been accepted.
-  **Rejected:** This comment has been rejected.

Comment Functions

A comment provides these functions:

-  **Incorporate:** Accepts/incorporates the comment.
-  **Accept:** This function is only available if your administrator configured to allow the Accept function. To accept a comment, you must first incorporate it.
-  **Reject:** Rejects the comment.
-  **Delete:** Deletes the comment. You can only delete a comment if it matches all of the following conditions:
 - The comment is your own comment.
 - There are no replies to this comment.
-  **Reply:** Adds a new comment as a reply. The text box to enter the comment is created within the comment.
To confirm your reply, click **Save**.
To discard your reply, click **Cancel**.
-  **Show Replies:** Shows the replies within the comment.
-  **Hide replies:** Hides the replies for the comment.
-  **Select User:** When typing the @ sign in a comment, a list is shown from which you can select users. If your administrator configured the e-mail notification service, users added to a comment will receive an e-mail when the comment is saved.

Adding a Comment to a Requirement from the Actions Pane

To add a comment to a requirement from the actions pane, do the following:

- 1 Select a requirement (e.g. on Home View, Quick Search or Document View).
- 2 Select **Add Comment** in the **Requirements** set of the **Actions** pane. This opens the **Add a Comment** dialog.
- 3 Enter a heading into the **Subject** box and your comment into the **Comment** box.
- 4 Fill out or select any other attributes as desired or required.
- 5 Click one of the following:
 - **Save:** Adds the comment to the selected requirement and keeps the dialog open.
 - **Close:** Adds the comment to the selected requirement and closes the dialog.

Adding a Comment from a Discussion

To add a comment from within a discussion, do the following:

- 1 Open a requirement for editing.
- 2 Expand the **Comments** section.
- 3 Click **+** or click **Reply** for a specific comment. This adds the required attributes **Subject** and **Comment** to the dialog as well as other attributes your administrator configured.



NOTE If you are starting a new discussion, type the subject of the discussion in the **Subject** box. If you are replying to a comment, the title is already filled in and has *Re.* pre-pended to it. If you change the title, the comment is no longer part of the original discussion thread, but will start a new discussion.

- 4 Fill out or select any other attributes as desired or required.
- 5 Click one of the following:
 - **Save:** Adds the comment to the selected requirement and keeps the dialog open.
 - **Close:** Closes the dialog without saving the comment.

Adding a Comment in a Document

To add a comment in a document, do the following:

- 1 Open the desired document.
- 2 Expand the **Comments** set in the **Actions** pane.
- 3 Select the chapter or requirement in the document tree to which you want to add the comment.
- 4 Click **+** or click **Reply** for a specific comment. This adds the required attributes **Subject** and **Comment** to the dialog as well as other attributes your administrator configured.
- 5 Enter your comment and click **Save**.

Replying to a Comment

In documents, you can quickly reply to a comment associated with a requirement or chapter by executing the steps below.

To reply to a comment in a document:

- 1 Open the desired document.
- 2 Select the root chapter in the document tree.
- 3 Expand the **Comments** set of the **Actions** pane.

- 4 If desired, filter the comments (see "[Managing Comments in Documents](#)" on page 68 for details).
- 5 For the desired comment, click **Reply**.
- 6 Enter your comment and click **Save**.

Adding a Comment to Text

In documents, comments can be added to any word in a chapter or requirement. After the comment is added, the word to which the comment has been added is highlighted. By clicking the comment, you navigate to the related chapter or requirement in the Document View.

To add a comment, do the following:

- 1 Select the word to which you want to add the comment.
- 2 In the **Comments** section of the **Actions** pane, click **+**.
- 3 Add your comment.
- 4 Click **Save**.

Opening the Full Interface

If you open an object (requirement, document, snapshot, collection, or baseline) through a link you receive from a third party, you may have to log in.

When logging in, you can enable the **Also open full interface** option, which displays the navigation elements for the related view as well as the object you opened. For Single Sign On (SSO), the **Also open full interface** option is not available.

If the object has been opened with the limited interface (either because the **Also open full interface** option was not selected or due to SSO log in), click **Open in full view** in the top right corner of the screen to show the full interface.

Viewing Version and System Information

To view version and system information:

- 1 Click the **About** link in the upper right of RM Browser. The **About Dimensions RM** dialog box opens.

The following information is displayed:

- **Version:** The version of Dimensions RM you are using.
- **Web Server:** The type of Web server that is hosting RM.
For example, Apache/Tomcat 6.0.26(Win32).
- **Web Server OS:** The operating system in use on the Web server.

- **Database:** The Oracle version in use.
 - **Browser Name:** The name of browser software you are using.
 - **Browser Agent:** Version specific information about the browser software you are using and its features.
 - **Attributions:** Third-party tools utilized by RM Browser.
- 2 For links to the Micro Focus home page, Micro Focus contact information, and other useful links, see the **Contact Information** tab.

Using Spell Check in RM Browser

Dimensions RM supports spell checking in these requirement input fields:

- Text boxes
- HTML Text boxes in Edit Attributes dialog or Editable Grid

Configuring Internet Explorer

Internet Explorer allows spell check for several languages. Note that only one language can be used at a time. The default language for spell check is either the language of your Windows installation or English.

To configure Spell Check in Internet Explorer 11, execute these steps:

- 1 Do one of the following
 - Click the cog, then select **Manage add-ons** from the shortcut menu.
 - Press the **Alt** key and release it, then select **Manage add-ons** from the **Tools** menu.
- 2 In the **Add-on Types** list, select **Spelling Correction**.
- 3 Ensure that the **Enable spelling correction** option is selected.
- 4 To change the spell check language, right-click the desired language and select **Set as default** in the shortcut menu.
- 5 Click **Close**.

Configuring Edge

Edge allows spell check for any dictionary installed to Windows. Note that only one language can be used at a time. The default language for spell check is the language of your Windows installation. To install additional dictionaries, see chapter ["Installing additional Dictionaries"](#) on page 73.

To correct a word in the current language:

- 1 Right-click the incorrect word. This opens a shortcut menu.
- 2 Select the correct spelling from the shortcut menu.

To correct a word in a different language for which a dictionary has been installed:

- 1 Select the incorrect word (left-click).
- 2 In systray, click the language shortcut next to the keyboard symbol (near the clock in the Windows taskbar). This opens a list of the installed languages and input methods.
- 3 Select the language you want to use for the spell check.
- 4 Right-click the incorrect word. This opens a shortcut menu.
- 5 Select the correct spelling from the shortcut menu.

Installing additional Dictionaries**To install dictionaries, do the following:**

- 1 Click the Windows start menu button.
- 2 Select the cog (Settings).
- 3 Select **Time & language**.
- 4 Select **Region & language**.
- 5 Click **Add a language**. This opens a list of available languages.
- 6 Select the desired language from the list. This starts the download and installs the dictionary.

Configuring Firefox

Firefox allows spell check for several languages. Note that only one language can be used at a time. The default language for spell check is the language of your Firefox installation.

To configure Spell Check in Firefox 61, execute these steps:

- 1 Do one of the following
 - Click ☰ , then select **Options** from the menu.
 - Press the **Alt** key and release it, then select **Options** from the **Tools** menu.
- 2 Type **Spelling** into the search box.
- 3 Ensure that the **Check your spelling as you type** option is selected.

Installing additional Dictionaries

To install dictionaries, execute these steps:



CAUTION! Dictionaries in Firefox are add-ons. Only install dictionaries if the policies of your organization allow installation of add-ons.

- 1 Do one of the following
 - Click ☰ , then select **Add-ons** from the menu.
 - Press the **Alt** key and release it, then select **Add-ons** from the **Tools** menu.
- 2 Select **Extensions** from the left pane.
- 3 Type a search expression into the search box, e.g. *German dictionary*.
- 4 Click one of the results which matches your preferred dictionary. This opens the **Add-ons** page for that dictionary.
- 5 Click **Add to Firefox**.
- 6 After download is complete, click **Add**.

Using Spell Check

Firefox allows spell checking for any language a dictionary has been installed. To install dictionaries, see chapter "[Installing additional Dictionaries](#)" on page 74.

To check the spelling of a text field, execute these steps:

- 1 Right-click the text field you want to check.
- 2 From the shortcut menu, select **Check Spelling**. This uses the language of your most recent spell check.
- 3 To repeat the spell check with a different language, execute these steps:
 - a Right-click the text field you want to check.
 - b In the **Languages** menu, select the language you want to use for your spell check.

Configuring Chrome

Chrome allows spell checking for any language a dictionary has been installed. To install dictionaries, see chapter "[Installing additional Dictionaries](#)" on page 75.

To enable or disable spell check in Chrome 78, execute these steps:

- 1 Click ☰ , then select **Settings** from the menu.
- 2 Click **Advanced**.
- 3 Select **Languages**.
- 4 Expand the **Language** section.
- 5 To enable or disable spell check, switch the slider next to the word **Spell check**. Spell check is enabled when the switch is on the right.

Installing additional Dictionaries

To add a dictionary to Chrome 78, execute these steps:

- 1** Click , then select **Settings** from the menu.
- 2** Browse to the end of the page and click **Advanced**.
- 3** Select **Languages**.
- 4** Expand the **Language** section.
- 5** Click **Add languages**.
- 6** In the **Languages** list, select the language you want to use.
Note that not all languages can be used for spell checking.
- 7** Click **Add**.
- 8** To enable or disable spell check, switch the slider next to the word **Spell check**. Spell check is enabled when the switch is on the right.

Chapter 2

Configuring User Settings and Instance Settings

User Settings Versus Instance Settings	78
Configuring User Settings and Instance Settings	78

User Settings Versus Instance Settings

By default, RM Browser uses the instance settings that are in effect for a given instance. If the RM administrator changes the instance settings, this affects all users who have not specified their own settings. Each user can override some of the instance settings by specifying their own. The following sections describe user settings and instance settings.



NOTE

- If this guide refers to a **Use Instance settings** checkbox, this checkbox only exists in the **User Settings** dialog.
- Some settings are grayed out and cannot be edited in the **User Settings** dialog. These settings are administrative settings and can only be changed in the **Instance Settings** dialog (thus affecting all users).

Configuring User Settings and Instance Settings

The following sections describe how to specify user and instance settings. Each sub-chapter refers to the settings you select in the pane on the left hand side.

To open the User Settings dialog:

Select **User Settings** from the **Welcome** menu at the top right corner of the screen.

To open the Instance Settings dialog:

Select **Instance Settings** from the **Administration** menu. Note that **Instance Settings** are only available to members of the Administrator group.

General Settings

Locale

Administrators or Users have the ability to localize the UI: to change the default language. Available languages include: Chinese, English, German, Japanese, Spanish, and Brazilian Portuguese.

Client Session Idle Timeout

This setting can only be changed in the **Instance Settings** dialog.

After a period of inactivity, an RM Browser session times out, and you are logged out of RM Browser. A login dialog opens so you can log in again. By default, the session timeout is 30 minutes.

To specify the RM Browser session time out value:

- 1 Type the number of minutes in the **Client session idle timeout (minutes)** box.
- 2 Click **OK**.

Categories: Show Inactive Categories

When this option is **enabled**, the category tree and all query dialogs show inactive categories. All objects (requirements, documents, collections, baselines and reports) in an inactive category are read-only. Inactive categories are represented by a gray folder icon and the name in gray and italic text.

If this option is **disabled**, the category tree and all query dialogs do not show inactive categories. All objects (requirements, documents, collections, baselines and reports) in an inactive category are not accessible.

To show or hide inactive categories, execute these steps:

- 1 Select **General**.
 - **Enable:** Select the **Show Inactive Categories** box in the **Categories** section.
 - **Disable:** Clear the **Show Inactive Categories** box in the **Categories** section.

To activate or deactivate categories, see chapter "[Click the Rename button.](#)" on page 393.

Categories: Use Default Category from Breadcrumb

This option defines how the category for new objects (i.e. requirements, proposals, documents, collections, baselines, and reports) is pre-selected.

When this option is **enabled**, the pre-selected category for new objects will be identical to the category shown in the bread crumb.

If this option is **disabled**, the pre-selected category for new objects will be identical to the category that was used last in any dialog or tab, when creating a new object.

Container: Automatic Refresh

You can choose whether all containers and collections based on reports should be refreshed by default when they are opened. Should collections based on reports significantly slow performance, you can choose to manually refresh their content as needed. For further information, see chapter "[Refreshing the Contents of a Collection](#)" on page 313.

To automatically refresh containers based on reports:

- 1 In the **Containers** section, select the **Automatic Refresh** checkbox.
- 2 Click **OK**.

Team Settings

This setting can only be changed in the **Instance Settings** dialog.

To enable teams, execute these steps:

- 1 Select **Instance Settings** from the **Administration** menu. This opens the **Instance Settings** dialog.
- 2 Select **General**.
- 3 Select the **Teams** option.
- 4 Click **OK**.

Agile

This setting can only be changed in the **Instance Settings** dialog.



IMPORTANT! Before enabling Agile, ensure that all required classes and relationships have been created by your Administrator. For further information on creating classes and relationships see chapter ["Editing the Instance Schema" on page 434](#).

To enable Agile, execute these steps:

- 1 Select **Instance Settings** from the **Administration** menu. This opens the **Instance Settings** dialog.
- 2 Select **General**.
- 3 Select the **Agile** option.
- 4 Click **OK**.

Once Agile has been enabled, the **Agile Settings** option will appear on the **Administration** menu. The **Agile Settings** allow the administrator to map Agile classes and to further define Agile relationships. For further details, see chapter ["Configuring Agile" on page 431](#).

Home Settings

Tabs

By changing the **Tabs** setting, you can choose which tabs you want to use in the Home View and the order of those tabs.

All tab names in the **Available Tabs** list will not be shown in the Home View.

All tab names in the **Visible Tabs** list will be shown in the Home View in the order of the list (top entry in the list is the left-most tab in the Home View).

Default View

This setting can only be changed in the **Instance Settings** dialog.

By changing the **Default View** setting, you can choose if the Home View shall show the Category View or the Hierarchy View the first time the user logs in.

Recent Items

You can choose which items the **Recent** list on the Home View should display:

- **Document / Snapshots:** If selected, the **Recent** list includes documents and snapshots. If cleared, the **Recent** list does not show documents and snapshots.
- **Requirements:** If selected, the **Recent** list includes requirements. If cleared, the **Recent** list does not show requirements.
- **Reports:** If selected, the **Recent** list includes reports. If cleared, the **Recent** list does not show reports.

- **Collections / Baselines:** If selected, the **Recent** list includes collections and baselines. If cleared, the **Recent** list does not show collections and baselines.

Documents: Show only most recent Snapshots

If you select the **Show only most recent Snapshots** setting, you only the most recent snapshot of a document are shown in Home View. By clearing this option, you will see all snapshot in the Home View.

Requirements Settings

Concurrent Editing

This setting can only be changed in the **Instance Settings** dialog.

RM Browser can be configured to use locking or merging to handle the situation where multiple users edit a requirement, chapter, or document at the same time. If locking is in effect and another user has an item locked, you will see that the item is locked and by whom if you open it for editing.



NOTE Baseline Locked indicates that the item version is part of a baseline and thus cannot be modified. This is unrelated to concurrent editing mode.

To specify the concurrent editing mode:

- 1 If you want to lock a requirement while you edit it, which means that no other user can make changes without unlocking it, select **Lock requirements while editing**.
- 2 If you want to allow others to make changes to a requirement while you are editing it, which means that the changes must be merged later, click **Allow concurrent editing and merging**.
- 3 Click **OK**.

Display Settings for Classes

Limit Classes Displayed: Often users are not interested in viewing all available classes. This setting allows an individual user or an administrator to limit the classes shown as well as the order in which selected classes will be listed. This setting will only limit the classes displayed by default, and will not affect link visibility or the listing of requirements in containers.

Choosing **All Classes** with limited classes selected will initially search only classes displayed. To search all classes, including Chapter and Glossary, click on **Show More**.

To specify different displayed classes for categories, do the following:

- 1 Click **Settings per Category...**
- 2 Select the category for which you want to change the displayed classes.
- 3 Clear the **Inherit from parent category** option.
- 4 Select the classes as desired.

- 5 Repeat steps 2 - 4 if you wish to configure other categories.
- 6 Click **Save**.

Display Settings for User Attributes

This setting can only be changed in the **Instance Settings** dialog.

By changing this setting you can define how user attributes will be displayed. This affects custom attributes as well as the system attributes **Created By**, **Initial Created By** and **Modified By**.

To change the display settings, execute these steps:

- 1 Select **Instance Settings** from the **Administration** menu. This opens the **Instance Settings** dialog.
- 2 Select **Requirements**.
- 3 In the Display Settings for User Attributes section, select one of these options:
 - **Show User ID**: Shows only the user ID, e.g. JOE.
 - **Show User Full Name**: Shows only the user's full name, e.g. Joe Manager.
 - **Show User Full Name and User ID**: Shows the user's full name and ID, e.g. Joe Manager (JOE).
 - **Show User ID and User Full Name**: Shows the user ID and the full name, e.g. JOE (Joe Manager).



CAUTION! When importing user attributes, the setting must be **Show User ID**.

Display Settings for Lists: Display first line only - expand on select

This option defines how multi-line text attributes behave in any list of requirements (e.g. result of a class report).

- **Enabled:** Any displayed multi-line attribute will only show the first line. Selecting the requirement will display the full attribute value.



NOTE Attributes that allow selection of multiple values will show all values on one line with a character separating those values:

- **List attribute:** List attribute values are separated by a pipe (|) character.
 - **User attribute:** User attributes values are separated by a comma.
 - **Group attribute:** Group attribute value sets are separated by a comma.
 - **Virtual attributes:** Values of virtual attributes (e.g. <Collections>, <Baselines>, <Documents>, <Snapshots>, <Containers>) are separated by a comma.
- **Disabled:** Any displayed multi-line attribute will show the full content.

Workflow

In the typical process, only the latest (current) version of an object is transitioned through workflow, however, this setting provides a facility for exceptions.

This setting can only be changed in the **Instance Settings** dialog.

To allow automatic transition on non-current objects (e.g. requirements with current status "Replaced"), execute the following steps:

- 1 Select **Instance Settings** from the **Administration** menu. This opens the **Instance Settings** dialog.
- 2 Select **Requirements**.
- 3 Select **Execute automatic transition on non-current objects**.

Attachment

This setting can only be changed in the **Instance Settings** dialog.



IMPORTANT! For reasons of safety and security, this setting forces RM Browser users to save file attachments before opening.

To force users to save attachments before they can be opened, execute these steps:

- 1 Select **Instance Settings** from the **Administration** menu. This opens the **Instance Settings** dialog.
- 2 Select **Requirements**.
- 3 At the **Attachment** option, select the box labeled **Disable automatic opening**.
- 4 Click **OK**.

Text Field Height

This setting can only be changed in the **Instance Settings** dialog.

The **Text Field Height** setting defines the height of the multi-line text field.

The following options are available:

- **Auto:** The default behavior
- **Fixed:** Selecting this option shows an input field which allows you to enter the height of text fields in pixels. Values must be between 50 and 2147483647.

Container

This setting can only be changed in the **Instance Settings** dialog.

The **Container** settings define if copied requirements are added to the original container.

The following options are available:

- **Add copied requirements to same collections as original requirements:** Copied requirements are added to the same collection as the source requirements are located in.
- **Add copied requirements to same documents as original requirements:** Copied requirements are added to the same document as the source requirements are located in.



NOTE When creating a document and having the **Copy Requirements** option enabled (see chapter "[Creating a New Document](#)" on page 203 for details), the original document will **not** receive the copies used in the new document.

Change Proposal: Change Reason

This setting can only be changed in the **Instance Settings** dialog.

You can require users to specify change reasons for new and changed proposals. For further information about proposing requirements, see chapter "[Proposing a New Requirement](#)" on page 117.

The following rules apply to change reasons depending on whether they are set to mandatory:

- When replacing requirements, the change reason is mandatory in the edit page.
- When updating requirements, even if the change reason is mandatory, if you do not enter a new reason the previously entered reason will be carried forward.
- When rejecting requirements.

To require change reasons for change requests:

- 1 Select **Instance Settings** from the Administration menu. This opens the **Instance Settings** dialog.
- 2 Select **Requirements**.
- 3 Select either of the following in the **Change Reason** section:
 - **Make Change Reason mandatory for Propose New**
 - **Make Change Reason mandatory for Propose Change**

Change Proposal: Non-Current Objects

This setting can only be changed in the **Instance Settings** dialog.

When selecting this option, users can propose changes for a requirement which has the status "Replaced".

To allow Change Proposals for replaced requirements:

- 1 Select **Instance Settings** from the **Administration** menu. This opens the **Instance Settings** dialog.
- 2 Select **Requirements**.
- 3 Select **Enable Propose Change for non-current objects**.

Suspect Links: Visualize upstream and downstream suspect links

This setting can only be changed in the **Instance Settings** dialog.

When this option is **enabled**, an arrow displays the direction, upstream or downstream, of the linked requirement responsible for the suspicion.

If this option is **not enabled**, the typical suspicion warning icon is shown.

Suspect Links: New Version Automatically Clears Suspect Links

This setting can only be changed in the **Instance Settings** dialog.

When this option is **enabled**, suspect links are automatically cleared when replacing a requirement.

If this option is **not enabled**, suspect links must be cleared manually when replacing a requirement.

Suspect Links: Confirm Clearing Suspect Links on Save

This setting can only be changed in the **User Settings** dialog.

Users can only change this option if the option **New version automatically clears suspect links** has not been enabled by the administrator.

When this option is **enabled**, a dialog is shown which allows all suspect links to be cleared on a "Save" operation.

If this option is **not enabled**, the requirement will be replaced without clearing the suspect links.

Change Class

These settings can only be changed in the **Instance Settings** dialog.

The **Change Class** settings define the behavior when changing the class of a requirement or changing a chapter into a requirement.

To modify the Change Class settings, execute these steps:

- 1** Select **Instance Settings** from the **Administration** menu. This opens the **Instance Settings** dialog.
- 2** Select **Requirements**.
- 3** At the **Change Class** setting, modify any of the following options:
 - **Retain Workflow State:** This option can be used if you have classes using Workflows (see chapter "[Workflows](#)" on page 109 for more details). If you do not use Workflows, you can ignore this option.

If this option is selected, the Workflow state is used with the new class, provided that the new class has a Workflow and a Workflow state with the same name exists.

If this option is not selected, or the Workflow state does not exist, the class change will be executed without considering the Workflow state.

- **Retain Links:** If this option is selected, all links will be preserved, provided that the new class allows to link to the same class. The **Links** section of **Change Class** dialog shows which links can be retained and which links will be removed when executing the change.

If this option is not selected, all links will be removed.

4 Click **OK**.

Comments: Include Accepted state

This setting can only be changed in the **Instance Settings** dialog.

By selecting this function, you can use the **Accepted** workflow state with comments. This allows you to set a comment to **Accepted** as well as filter comments for the **Accepted** state.

To modify the Include Accepted state setting, execute these steps:

- 1 Select **Instance Settings** from the **Administration** menu. This opens the **Instance Settings** dialog.
- 2 Select **Requirements**.
- 3 Change the **Include Accepted state** setting.
- 4 Click **OK**.

Upload File Restrictions

This setting can only be changed in the **Instance Settings** dialog.

By selecting this function, you can define file types users are allowed to upload.

To modify the Upload File Restrictions setting, execute these steps:

- 1 Select **Instance Settings** from the **Administration** menu. This opens the **Instance Settings** dialog.
- 2 Select **Requirements**.
- 3 Select the desired setting:
 - **Allow all file types:** This setting allows users to upload files of any type, which means that they can also upload potentially dangerous files (e.g. executables)
 - **Allow these file types:** This setting allows users to upload files of the specified file types. Any other file type cannot be uploaded.
 - **Disallow these file types:** This setting forbids users to upload files of any of the specified file types. Any other file type can be uploaded.
- 4 Click **OK**.

Quick Search Settings

Displayed Columns and Sort Order

By default, instance display properties determine the columns that are displayed in the Quick Search results for a specific class. You can personalize your Quick Search results, overriding the instance settings.



NOTE The instance defaults are set by the administrator in the **Instance Settings** dialog.

To change the columns displayed in Quick Search results:

- 1 Select a class in the **Choose a class** list. The **Attributes To Display** and **Sorting Order** sections are displayed.
- 2 **Use Instance settings:** Deselect this checkbox to override the display and order settings set by your administrator at the instance level for the selected class.



NOTE This first **Use Instance settings** checkbox appears in the upper portion of the dialog just below the Sorting Order controls. It applies only to the display and order settings of the selected class. You cannot edit these settings until you disable this checkbox.

- 3 To specify the columns to display, see chapter "[Attributes to Display List](#)" on page 37.
- 4 To specify the sort order, see chapter "[Sorting Order List](#)" on page 38.
- 5 Select another class, if necessary, and repeat the preceding steps.



NOTE You do not have to click **Apply** before you select another class. The changes you make are remembered as long as the dialog box is open.

Additional Settings

Automatically run default query: Select this checkbox to run the most recently used search criteria when you open the page. If this feature is not enabled, the Quick Search fields will be populated with the criteria of the most recent search, but no results will be displayed until you click the Search button.

Use Instance settings: Select this checkbox to override your local pagination settings with those set by your administrator at the instance level.



NOTE This second **Use Instance settings** checkbox appears in the lower portion of the dialog and applies only to the pagination settings. You cannot edit these settings until you disable this checkbox.

Activate Pagination: Select this checkbox to break the results up into multiple pages if they exceed a certain quantity. Specify that quantity in the **Number Of Records Display Per Page** field.

Split View

For configuration of Quick Search's Split View and Document Split View, see chapter "[Split View Settings](#)" on page 92.

Hierarchy Settings

The hierarchy settings define which attributes should be displayed or exported.

Attributes to Display

To allow modification of the **Attributes to display in the tree** or **Attributes to display in the tooltip** lists, ensure that the **Use Instance settings** box is cleared. Both lists work in the same way as described in chapter "[Attributes to Display List](#)" on page 37.

Attributes to Export

To allow modification of the **Attributes to export** list, ensure that the **Use Instance settings** box is cleared. The list works in the same way as described in chapter "[Attributes to Display List](#)" on page 37.

Add Requirements at

The **Add Requirements at** option defines at which position in a chapter the requirements are added in the tree:

- **Start of chapter:** Adds the requirement as the first requirement.
- **End of chapter:** Adds the requirement as the last requirement.

Order

The **Order** option defines how the Hierarchy View displays folders and requirements.

- **Folders before requirements:** Categories are displayed first, requirements follow the last category.
- **Requirements before folders:** Requirements are displayed first, categories follow the last requirement.

Document Settings

Export Options

In Documents View in RM Browser, requirements and chapters are numbered. By default, when you export a Microsoft® Word document from Documents View, the Word document includes the numbers you see in the document in Documents View.

To prevent the numbers from appearing in the Word document:

- 1 **Use Instance settings:** Deselect this checkbox in order to use your own numbering settings rather than those in the instance settings.
- 2 **Export Chapter Title numbering:** Clear this check box if you want to create your own styles in Word for chapters that include automatic numbering. In this case, the

automatic numbering may not match the numbers that you see in the document in Document View.

- 3 Export Requirement Title numbering:** Clear this check box if you want to create your own styles in Word for requirements that include automatic numbering. In this case, the automatic numbering may not match the numbers that you see in the document in Document View.
- 4** Click **OK**.

Autoloading of Documents

You set the default for autoloading of documents, that is, the document that was last opened in the previous RM Browser session is opened in the next session.

To set autoloading of documents:

- 1** Select or clear the **Auto load document** check box.
- 2** Click **OK**.

Lock Document During Edit

This setting can only be changed in the Instance Settings dialog.

If this option is enabled, the system automatically ensures that only one person can open a document in edit mode. A concurrent user opening the document is notified that the document is locked.

If this option is **not** enabled, an open document may be manually locked or, in the event that several users simultaneously edit a document, edits may be merged.

Manually Locking an individual document:

Users may 'declare' ownership of a document over time by selecting the **Lock** function under the **Actions** pane. The document will remain locked, even across multiple edit sessions, until the user chooses to unlock it. Should the user inadvertently leave the document locked, an administrator may unlock it (see "[Managing Document Locks](#)" on [page 398](#)).

While a document is manually locked, other users opening the document will receive a warning that the document has been opened in read only mode; the *name of the user responsible for locking the document is displayed to the right of the document title.*

Merging document edits:

The following discusses the merge operation, should 2 users modify the document simultaneously. The users in this example are JOE and EPHOTO:

Example 1:

JOE adds a chapter. EPHOTO adds a chapter after JOE.

EPHOTO will find JOE's chapter in his document tree, but JOE will not find EPHOTO's chapter in his document tree.

Resolution: JOE would either have to click  or add another chapter (which refreshes the document tree).

Example 2:

Both, JOE and EPHOTO, open the same chapter for editing. JOE saves his modifications first.

EPHOTO receives a warning that JOE made changes and that his changes can only be saved after the conflict has been resolved. For further information about resolving conflicts, see chapter "[Merging Chapter Changes](#)" on page 240.

Default Requirement Layout

The **Default Requirement Layout** option defines the default layout for requirements in a document. This default is only used when creating a document. After a document has been created, the default for that document can be changed with the **Format Document** or **Format Chapter** settings as described in chapters "[Formatting Documents](#)" on page 211 and "[Formatting Chapters](#)" on page 227.

To change the default requirement layout:

- 1 In the **Document Settings** section, select one of these options from the **Default Requirement Layout** list box:
 - Editable Grid
 - Grid
 - Paragraph
- 2 Click **OK**.

Default Document View Mode

The **Default Document View Mode** option defines how the detail pane of Document View displays the document. These modes are available:

- **Chapter:** Displays only the selected chapter and the child requirements.
- **Entire Document:** Displays the whole document.



NOTE You can also change the setting in Document View (see chapter "[Detail Pane](#)" on page 190). If you do, this updates the setting within the User Settings.

Add Requirements at

The **Add Requirements at** option defines at which position in a chapter the requirements are added when the chapter is selected:

- **Start of chapter:** Adds the requirement as the first requirement.
- **End of chapter:** Adds the requirement as the last requirement.

Default Workflow

The **Default Workflow** setting allows you to select a workflow that is used with documents and snapshots. This selected default workflow is used with any new document. The default workflow can be changed when creating a document.

Report Settings

Traceability Settings

Traceability reports can be displayed in either Gap View and Outline View. The default view is defined in the User Settings dialog.

To set the default view:

- 1 In **Traceability Settings, Default View**, select **Gap** or **Outline** from the list box.
- 2 Click **OK**.

Relationship Constraint Mode Settings

With the **Relationship Constraint Mode** setting, users can define how the relationship (specified as a **Relationship Constraint** for the executed report) between 2 requirements is evaluated.

By default, the **Only Current** setting is turned off. This means that a report will return a related requirement, even if its Status is other than "Current".

By turning on the **Only Current** setting, a report will only return related requirements with Status "Current".

This setting affects the relationship evaluation in both directions, outgoing relationship (from a requirement to another requirements) and incoming relationship (from another requirements to a requirement).

Link Browser Settings

For Link Browser, you can change the colors for each class and the node radius.

Use Instance Settings: Deselect the checkbox to use your own settings, or select it to use instance settings.

Predefined Colors

To change the class color by using predefined colors:

- 1 Select a class name from the **Choose a class** list.
- 2 Select a color from the **Choose a color** list.
- 3 Click **OK**.

Color Picker

The color picker allows you to select or define a color by entering values.

To change the class color by using the color picker:

- 1 Select a class name from the **Choose a class** list.
- 2 **Do one of the following:**
 - a From the vertical color bar, select the color range. Then, select the color in the preview box.
 - b Enter the desired values into the **H** (hue), **S** (saturation), and **V** (brightness) boxes.
H: Valid range 0 to 359
S: Valid range 0 to 100
V: Valid range 0 to 100
 - c Enter the desired values into the R (red), G (green), and B (blue) box. The valid range for R, G, and B is 0 to 255.
 - d Enter the hex value for the color. The hex value follows the RGB schema. Each color is represented by 2 characters, e.g. #ffeedd means R (ff)=255, G (ee)=238 B (dd)=221.
- 3 Click **OK**.

To change the node radius:

- 1 Ensure that the **Use Instance Settings** box is cleared before changing.
- 2 Do one of the following:
 - a Enter a number (minimum 40) into the **Node radius (px)**.
 - b Select the **Fit to PUID** check box. This will adjust the node radius to fit the length of the requirement ID.
- 3 Click **OK**.

Attributes to Display

To allow modification of the **Attributes to display** or **Attributes to display in tooltip** lists, ensure that the **Use Instance settings** box is cleared.

The lists attributes to display and Attributes to display in tooltip work in the same way as described in chapter "[Attributes to Display List](#)" on page 37. However, for this **Attributes to display** list, the following restrictions apply:

- It can only display up to 3 attributes as to avoid too much text in the requirement node.
- Virtual attributes (e.g. <Collection>) are not supported.

Split View Settings

For the Split View mode of Quick Search you can select the columns to be displayed.

To change the columns displayed in Split View mode:

- 1 Select a class in the **Choose a class** list. The **Attributes To Display** and **Sorting Order** sections are displayed.
- 2 **Use Instance settings:** Deselect this checkbox to override the display and order settings set by your administrator at the instance level for the selected class.
- 3 To specify the columns to display, see chapter "[Attributes to Display List](#)" on page 37.
- 4 To specify the sort order, see chapter "[Sorting Order List](#)" on page 38.
- 5 Select another class, if necessary, and repeat the preceding steps.



NOTE You do not have to click **Apply** before you select another class. The changes you make are remembered as long as the dialog box is open.

- 6 **Auto Run Query:** Select this checkbox to run the most recently used search criteria when you open the page. If this feature is not enabled, the Quick Search fields will be populated with the criteria of the most recent search, but no results will be displayed until you click the Search button.
- 7 **Limit Number Of Records Displayed In Grid:** Specify the number of records to be displayed.
- 8 Click **OK**.

Branch/Sync View Settings

Displayed Columns

For the Branch View mode of Quick Search, you can define separately which columns you want to display in Branch View mode.

To change the columns displayed in Branch View mode:

- 1 Select a class in the **Choose a class** list. The following sections are displayed:
 - **Attributes To Display**
 - **Sorting Order**
 - **Attributes to provide/merge from Project to Product**
 - **Attributes to provide/merge from Product to Project**
- 2 **Use Instance settings:** Deselect this checkbox to override the display and order settings set by your administrator at the instance level for the selected class.
- 3 To specify the columns to display, see chapter "[Attributes to Display List](#)" on page 37.
- 4 To specify the sort order, see chapter "[Sorting Order List](#)" on page 38.
- 5 Select another class, if necessary, and repeat the preceding steps.



NOTE You do not have to click **Apply** before you select another class. The changes you make are remembered as long as the dialog box is open.

- 6 Click **OK**.

Copying selected Attribute Values on Provide/Merge

This setting is only available on the **Instance Settings** dialog.

To change the attributes copied by provide/merge:

- 1 Select a class in the **Choose a class** list. The following sections are displayed:
 - **Attributes To Display**
 - **Sorting Order**
 - **Attributes to provide/merge from Project to Product**
 - **Attributes to provide/merge from Product to Project**
- 2 Select the desired attributes in the **Attributes to provide/merge from Project to Product** and/or **Attributes to provide/merge from Product to Project** lists.
- 3 Select another class, if necessary, and repeat the preceding steps.



NOTE You do not have to click **Apply** before you select another class. The changes you make are remembered as long as the dialog box is open.

- 4 Click **OK**.

Additional Settings

Provide with Links: Selecting this option defines the default of the option with the same name on the **Provide** dialog.

Activate Pagination: Select this option to break the results up into multiple pages if they exceed a certain quantity. Specify that quantity in the **Page Size** field.

Follow Settings

This setting can only be changed in the **Instance Settings** dialog.



IMPORTANT! The e-mails generated by Follow settings will only be sent if the Micro Focus Mail Service has been configured and is running. For further information on Mail Service configuration, see chapter "RM Mail Service" in the *Dimensions RM Administrator's Guide*.

Email Subject

The **Email Subject** box contains the text used as the subject for the notification e-mail. **Email Subject** can contain placeholders (see box below for further details).

Email Text

The **Email Text** box contains the body text used of the notification e-mail. **Email Text** can contain placeholders (see box below for further details).



NOTE With **Email Subject** and **Email Text** you can use placeholders which are filled with the attribute values of the requirement.

- **Regular attributes:** The placeholder uses the attribute name (**not the Display Name**) of an attribute with this format: `<#ATTRIBUTE_NAME#>`

Example: In RMDemo, the **Rqmt ID** attribute for the **Marketing_Requirements** class has the attribute name **PUID**. The placeholder would look like this: `<#PUID#>`.

- **Special attributes:** The placeholder uses the script name with this format: `<#SCRIPT_NAME#>`

Example: The **<Links Out Details>** attribute has the script name **RTM_LINKS_FROM_DETAILS**. The placeholder would look like this: `<#RTM_LINKS_FROM_DETAILS#>`. For further information about special attributes, see chapter "[Special Attributes](#)" on page 58.

Configuring Actions of the Actions Pane

Administrators or Users have the ability to define which actions should be shown in the Actions pane. This allows to hide all non-common functions, e.g. the *Remove* command for removing requirements.

To configure actions, do the following:

- 1 Move the mouse pointer over the section title of the action set you wish to edit.
- 2 Select the mode for editing
 -  : Click to edit instance settings. This option is only available for administrators.
 -  : Click to edit user settings.
- 3 To show a command, select its option box. To hide a command, clear its option box. For user settings, the option **Use Instance Settings** deactivates all other options and will show the options as defined by your administrator.
- 4 Click  to confirm your configuration.

Chapter 3

Working with Requirements

Requirement Basics	98
Working with Requirements and Change Requests	114
Exporting Requirements	125
Working with Links	133
Working with Containers	151
Working with File Attachments	155
Working with Group Attributes	156
Viewing Requirement History	157
Merging Requirement Changes	164
Branching and Merging Requirements	167
Polling	177
Participating in Discussions	180
NLP Complexity Analysis	181
NLP Similarity Analysis	182
Activating Risk Management	183

Requirement Basics

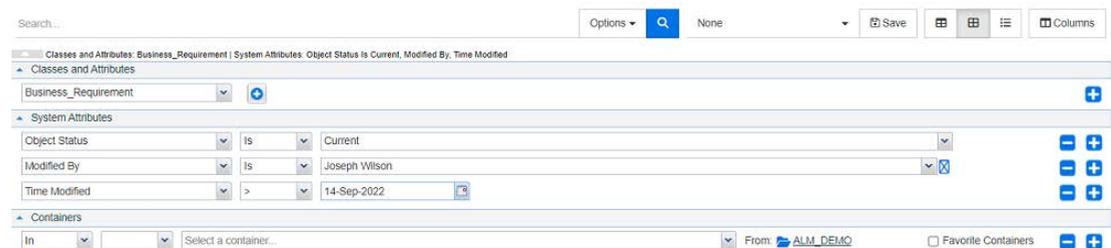
Finding Requirements with Quick Search

Quick Search, available from under **Views**, provides a dialog to simplify the creation of filters. Are you looking for all high priority requirements created or modified by Joseph Wilson this week? The answer is: use Quick Search. Users can filter content by category, class, attribute, container, text string or all of the above in the same filter.

The Quick Search is at the top of the list when you navigate to **Views**. In order to save space on the display, only the thin summary of the current selection may be visible:

Classes and Attributes: All Classes | System Attributes: Object Status Is Current

That line will indicate the current class and attribute selection. To display the dialog, click on the down arrow and enter your data set up your filter. Any system or custom attribute may be included in the filter.



Every time you enter or modify the search criteria:

Click  to refresh the search.

1 Using the Search Box:

- a In the **Search** box, enter a word or string to narrow the query results to objects containing the search string.
 - If you enclose a string in quotation marks, the search returns requirements containing the full string.
 - If you do not enclose a string in quotation marks, the search returns requirements containing each of the individual words in the string.
- b From the **Options** drop-down, choose one or more of the following options:
 - **PUID:** Select this checkbox, if you want to limit your search to the *PUID* attribute (the version independent ID) of the requirement. Depending on the class configuration, the PUID may be listed as Rqmt. ID or may use a local identifier.
 - **Title:** Select this checkbox, to limit your search string to the *Title* attribute. Depending on the class configuration, the Title attribute may have been assigned a different display name.

- **Description:** Select the checkbox to limit the search to the object text or statement.



NOTE

- If you clear the **PUID**, **Title** and **Description** checkboxes, text and alphanumeric attributes that are visible are included in the search. System attributes are not included in the string search.
- Selecting or clearing the **PUID**, **Title** and **Description** checkboxes defines what is searched, but does not change attributes displayed. To change the displayed columns see chapter "[Quick Search Settings](#)" on page 87.

- 2 Include Subcategories:** Select this checkbox to expand the filter to include the current category and child categories. Clear this checkbox to restrict the query to the current category.
- 3 Exclude Provided:** This option will be displayed if the instance is using Branching/Merging, selecting this option will limit the return to requirements that have not been merged. For further information on branching/merging, see chapter "[Branching and Merging Requirements](#)" on page 167.
- 4 Classes and Attributes, System Attributes, and Containers.** To edit these search settings, expand the Search Definition click .

- **Classes and Attributes**

- To add more than one class click on the rightmost plus icon
- To add attributes, click on the plus icon next to the class list
- When choosing multiple Class Attributes, i.e., more than one custom attribute within a selected class, it is possible to filter using a combination of '**AND**' and '**OR**' statements. For example, the search may include items with a High priority **or** items within a specific domain.

- **System Attributes:** Allows to select attributes like Current Status or Time Modified which exist with all requirement classes.
- **Containers:** Allows to find requirements which by checking their existence in a container. The search is configured by three drop downs:
 - a By selecting **In** or **Not In**, you define if the requirement must be in a container or not.
 - b Select the container type: **Collection**, **Baseline**, **Document**, or **Snapshot**.
 - c Select one or several containers (e.g. collections).



TIP To find your container more easily, type part of the container name into the drop-down box.

- 5** To search by attribute, select the attribute and chose **Is** or **Is Not** to compare an attribute having a value. Choose **Null** to include requirements with an empty attribute or **Not Null** to include requirements where the selected attribute has content.
- 6** Click the plus icon to add a new search criteria or click the minus icon to remove search criteria.

- 7 If you choose **Container** or **Versions**, select **In** or **Not In** and choose to include or exclude the following from the search:
 - a A specific container
 - b A version at a specific state such as *Current*
- 8 To change the **Category**, there are two options:
 - a Change the category for the whole search by choosing from the category drop-down list.
 - b Change the category for a single container by clicking on the link following the folder icon next to the container list
- 9 Click  to execute the search.



TIP

- To reset the Quick Search configuration, click on **Default Filter** in the **Actions** pane.
- For multi-selection of requirements, see chapter "[Selecting Multiple Requirements](#)" on page 36.



NOTE When selecting, for example, 'All Classes', only classes with content returned will be displayed.

Finding Requirements with Group Attributes

Normally, all attributes have to match selections when creating a query. As group attributes behave like a table with one or several values per row, Quick Search allows the user to define how the values in should be considered for the search. You can select one of the following:

- Is (AND)
- Is (OR)
- Is not (AND)
- Is not (OR)
- Null
- Not Null



NOTE When specifying only a single row in your query:

- **Is (AND)** and **Is (OR)** return the same results.
- **Is not (AND)** and **Is not (OR)** return the same results.

The following examples uses the **Tests** class of the **RMDEMO** instance.

Is (AND)

When choosing the **Is (AND)** operator, a requirement is added to the result list if all values of the group attribute match all queried values.

Example:

- 1 Select the class **Tests**.
- 2 Add the attribute **Operating System**.
- 3 In the group attribute boxes, select **Desktop, Windows, XP**.
- 4 Click  .
- 5 In the group attribute boxes, select **Desktop, Windows, Vista**.
- 6 Click  .
- 7 In the group attribute boxes, select **Desktop, Windows, 7**.
- 8 Ensure that the box shows **Is (AND)**.
- 9 Click **Search**.

The result list contains requirements with the **Operating System** attribute having the combination of the following values: **Desktop-Windows-XP**, **Desktop-Windows-Vista** or **Desktop-Windows-7**.

Is (OR)

When choosing the **Is (OR)** operator, a requirement is added to the result list if any of the values of the group attribute matches at least one of the queried values.

Example:

- 1 Select the class **Tests**.
- 2 Add the attribute **Operating System**.
- 3 In the group attribute boxes, select **Desktop, Windows, XP**.
- 4 Click  .
- 5 In the group attribute boxes, select **Desktop, Windows, Vista**.
- 6 Click  .
- 7 In the group attribute boxes, select **Desktop, Windows, 7**.
- 8 Ensure that the box shows **Is (OR)**.
- 9 Click **Search**.

The result list contains requirements that contain either **Desktop-Windows-XP**, **Desktop-Windows-Vista** or **Desktop-Windows-7** (among other values) in its **Operating System** attribute.

Is not (AND)

When choosing the **Is not (AND)** operator, a requirement is added to the result list if the values of the group attribute do not match all of the queried values.

Example:

- 1 Select the class **Tests**.
- 2 Add the attribute **Operating System**.
- 3 In the group attribute boxes, select **Desktop, Windows, XP**.
- 4 Click  .
- 5 In the group attribute boxes, select **Desktop, Windows, Vista**.
- 6 Click  .
- 7 In the group attribute boxes, select **Desktop, Windows, 7**.
- 8 Ensure that the box shows **Is not (AND)**.
- 9 Click **Search**.

The result list contains requirements with the **Operating System** attribute **not** having the combination of the following values: **Desktop-Windows-XP**, **Desktop-Windows-Vista** or **Desktop-Windows-7**.

Is not (OR)

When choosing the **Is not (OR)** operator, a requirement is added to the result list if the values of the group attribute do not match any of the queried values.

Example:

- 1 Select the class **Tests**.
- 2 Add the attribute **Operating System**.
- 3 In the group attribute boxes, select **Desktop, Windows, XP**.
- 4 Click  .
- 5 In the group attribute boxes, select **Desktop, Windows, Vista**.
- 6 Click  .
- 7 In the group attribute boxes, select **Desktop, Windows, 7**.
- 8 Ensure that the box shows **Is not (OR)**.
- 9 Click **Search**.

The result list contains requirements that contain neither **Desktop-Windows-XP**, **Desktop-Windows-Vista** or **Desktop-Windows-7** in its **Operating System** attribute.

Null

When choosing the **Null** operator, a requirement is added to the result list if no group attribute value has been specified.

Not Null

When choosing the **Not Null** operator, a requirement is added to the result list if any group attribute value has been specified.

Saving Search Filters for Reuse or for use in Document View

Quick Search allows users to save filters for use it at a later time. Once you select 'Save' and give the filter a name, it is available for reuse in Quick Search as well as in **Document View**.

To save a search filter, execute the following steps:

- 1 Click  . This opens the **Enter filter name** dialog.
- 2 Type the name under which you want the filter to be saved.
- 3 Click **OK**. This saves the filter and closes the **Enter filter name** dialog.

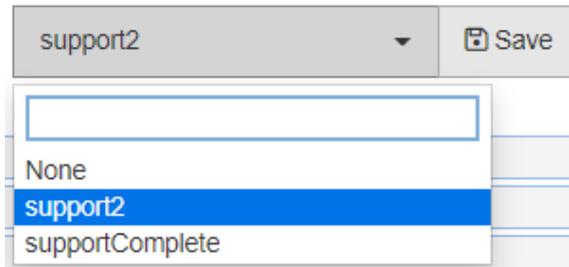


Figure 3-1. Filters Saved in Quick Search can be used in Document View

Using Search Filters

To use a previously saved search filter, do the following:

- 1 Open the list of search filters by clicking the little arrow of the search filter box. The search filter box is located left from the  button.
- 2 Select an entry from the list.

Deleting Search Filters

To delete a search filter, do the following:

- 1 Open the list of search filters by clicking the little arrow of the search filter box.
- 2 Move the mouse pointer over the search filter you want to delete. This highlights the search filter and a little "x" appears next to the search filter name.
- 3 Click the little "x" next to the search filter name.
- 4 Click **OK**, to confirm the deletion.

Refreshing Data

Click  to refresh the search.



NOTE Pressing the F5 key in RM Browser does not refresh the displayed data. This action instead brings the RM Browser page to its initial state.

Printing Requirements

To print requirements displayed from Quick Search, select **Export** from the items below **Category** on the Actions pane. The default is Excel, however a list of alternate formats is available for selection.



NOTE To print the Form view of a single requirement, see ["Printing a Requirement" on page 122](#).

To print a work page:

- 1 Select **Print to fit** from the items below **Category** on the Actions pane. A window opens with the content formatted for printing.
- 2 Your system's Print dialog opens. Click **Print**. The content is sent to your printer.
- 3 After the content has printed, close the window of formatted content.

Global Search

Global Search, the search icon available from any view, opens a dialog to search for a term used within any current requirement or in the title of any container or report. Are you searching for all requirements relating to the TDRO component? Or, for all documents containing the term "Verified" in the title? Use Global Search! It is always selectable from the Menu Bar.

Quick Search is excellent for building complex queries, for limiting filters to objects created this week, by Adam Cooper and included in a specific SRS. Global search is simpler (we might even say quicker) for returning the names of all containers relating to "Requirements Release 3".



- Global Search opens with a click on the Menu Bar search icon, and closes with another click.
- The search text, filter settings, as well as the collapsed search results are stored in user settings and reloaded the next time the dialog is opened.
- If you clear the box: "Limit Search to PUID, Title, Description" all text and alphanumeric attributes in current objects are searched. System attributes are not searched.

- Search results from the global dialog are limited to 100 items per item type (requirements, reports etc). If the list is longer '> 100' is displayed in the result count; the data is not displayed. Long lists are more easily displayed and accessed using Quick Search.
- The result section lists results in groups of 10, if more remain to be displayed a "Show more..." link provides access to an additional 10 items.

Explaining Update and Delete Functions

Dimensions RM allows users to defined processes that address requirement modifications in several fundamentally different ways. It is critical to understand the difference between these options and to choose the one that works best at each step in the process:

- **Save** creates a new version while maintaining a history of changes. This allows the team to trace change to a requirement over time. This is the recommended method for changing requirements to ensure auditability.
- **Update** overwrites the content of the requirement version without maintaining a record of what was changed. This option, although not recommended for the life of the requirement, may work best during the definition phase or when correcting erroneous entries that need not be part of an audit. It is important to note that Trend reports, for example, require the history information to calculate the trend.

- **Delete** marks the requirement as deleted and makes it unavailable for modification. However, it remains in the database and can be undeleted later on. By default, deleted requirements are not visible; however, you can query for them.
- **Remove** removes the current version of a requirement from the database and makes the previous version current. Unlike Delete, a removed requirement cannot be restored.
- **Undelete** restores a requirement which has been deleted with the Delete function.

Edit Attributes Using the Action Shortcuts

Requirements can be opened for editing from just about anywhere by either double clicking the requirement, or highlighting the requirements and selecting **Edit** from the items below **Requirements** on the Actions pane.

The title pane, located at the top of the **Edit Attributes** dialog, provides some shortcuts for common functions.

The following actions are available:

Action	Description
	Allows to subscribe or unsubscribe e-mail notification for changes to the requirement.
	Reloads the current dialog. Reloading will lose any changes applied, returning the requirement to its original state.
	Opens the Print dialog
	Opens the online help.

Edit Attributes Using the Actions Box

The **Actions** box provides a shortcut to other functions and is located in the top right corner of the **Edit Attributes** dialog. To use the **Actions** box, open an existing requirement or create a new requirement. The Actions available will depend on permissions and workflow status.

The following actions may be available:

Action	Description
Link	Opens the Link Requirements dialog. For further information, see chapter "Using the Create Link Action" on page 135.
Create New & Link	Opens the New & Link dialog to create a new requirement and link it with the existing requirement.
Browse Links	Opens the Link Browser dialog. For further information, see chapter "Using Link Browser" on page 148.

Action	Description
Add Comment	Puts the requirement into Add a Comment mode (same as clicking Start a new discussion in the Comments section). For further information about comments, see chapter "Participating in Discussions" on page 180 .
Propose Changes	Allows to create a change request based on the current requirement and links it to the requirement. For further information about creating change requests, see chapter "Submitting a Change Request" on page 123 .
Accept/Reject	Allows the user to review and to accept or reject a change request. For further information, see chapter "Reviewing a Change Request" on page 125 .
Add to Collection	Opens the Add to Collection dialog to add the current requirement to a collection. For further information about collections see chapter "About Collections" on page 308 .
Create direct URL	Opens the Requirement Link dialog which shows the link to the current requirement.
Clear content	Clears all editable attributes of a requirement.
Refresh	Reloads the current dialog. Reloading a new requirement means that you will lose your entered or selected data.
Print	Opens the printable view and the Print dialog from which you can select a printer.
Class Information	Opens the Class Information dialog that provides details about attributes and Workflow states and transitions (if the class uses a Workflow). For further information, see chapter "Viewing Information about a Class" on page 107 .
Help	Opens the online help.

Viewing Information about a Class

When populating attributes on a class form or considering relevant workflow transitions there is always help available with **Class Information**. This action, available from an open requirement form, identifies and describes the attributes defined on the form

To view the **class information**, follow these steps:

- 1 Open a requirement or create a new requirement of the desired class.
- 2 At the top of the window, open the **Actions** box and select **Class Information**.

The **Information about class** dialog provides:

- A description of the class
- Workflow diagram (if the selected class uses a workflow)
- State descriptions
- Transition descriptions
- Detail concerning each Custom attribute
- System attribute descriptions

About Requirement Versions

When replacing a requirement, a new version of the requirement is created. These versions allow users to follow the change history of a requirement: who changed it, when was it changed and what was changed. It is also possible to compare any two versions of a requirement. For further detail, see chapter "[Viewing Requirement History](#)" on page 157.

When opening requirements for modification, users may open a requirement that is not the current version; this often happens when the view is not refreshed as you work through a set of changes. When this occurs, a warning message is displayed in the **Edit Attributes** dialog. This warning message disappears after 5 seconds; you can click the **Edit Current Version** link displayed which opens the current (latest) version.

Notification of Selected Requirement Changes

When you want to be informed of changes made to requirements important to a current set of tasks, it is possible to subscribe to email notification. This feature allows users to receive an email when selected requirements are changed.



IMPORTANT! The notification e-mails generated will only be sent if the Micro Focus Mail Service has been configured and is running. For further information on Mail Service configuration, see chapter "*RM Mail Service*" in the *Dimensions RM Administrator's Guide*.

Subscribing a Requirement Change Notification

To subscribe to the change notification e-mail, it is possible to highlight the desired requirement in a work pane and select **Follow** or **Unfollow** from the **Actions** pane or, to view list information do the following:

- 1 Highlight the desired requirement in a work pane.
- 2 Select **Edit** from the **Requirements** set of the **Actions** pane. This opens the **Edit Attributes** dialog.
- 3 In the title pane, click . This opens the **Follower** dialog, consisting of the Follow (or Unfollow) button as well as a list of the users who are subscribed to notification e-mails for this requirement.
- 4 Click **Follow**.

The title and text of the notification e-mail can be configured by your administrator. This configuration is described in the chapter "[Follow Settings](#)" on page 94.

Unsubscribing a Requirement Change Notification

To unsubscribe the requirement change notification e-mail, do the following:

- 1 Selecting the desired requirement in a work pane.
- 2 Select **Edit** from the **Requirements** set of the **Actions** pane. This opens the **Edit Attributes** dialog.
- 3 In the title pane, click . This opens the **Follower** popover. The list contains the users who subscribed notification e-mails for this requirement.

4 Click **Unfollow**.

About Requirement Locks



NOTE RM Browser can be configured to use locking or merging to handle the situation when multiple users want to edit a requirement or chapter at the same time. This section describes the locking mechanism. See ["Merging Requirement Changes" on page 164](#).

This configuration is set through the Instance Settings dialog, which is available only to administrators. For further information, see chapter ["Concurrent Editing" on page 81](#).

Requirements and chapters (including the "root chapter" of a document, which is the document itself) are locked persistently when you open the respective "edit" dialog box. When a requirement or chapter is locked, a lock icon is displayed in the dialog box banner, and other users cannot edit the requirement or chapter.

The lock icon is displayed in the following scenarios:

- The current user locked the requirement.
- Another user locked the requirement.
- The requirement is CM locked.
- The requirement is baselined.

In the last three scenarios, the user receives a warning message about the lock. A tooltip, which is displayed when you hover over the icon, indicates the reason the requirement is locked.

Locks are removed when one of the following occurs:

- You close the dialog.
- You save changes.
- You use the Administer Locks dialog to remove locks (see ["Managing Requirement Locks" on page 398](#)). Users can unlock the requirements or chapters they locked; users with *Unlock* permission can unlock requirements or chapters that others locked.

Workflows

For each requirement class, the administrator can define a workflow. A workflow ensures the proper flow of requirements using a defined process that consists of attributes, states and transitions. Requirements must follow the rules established by this workflow from the time they are submitted.

For any requirement opened in the **Edit Attributes** dialog, the Workflow State badge (**In Analysis** in the example below) is displayed next to the requirement title. The Workflow State badge is also included in reports.

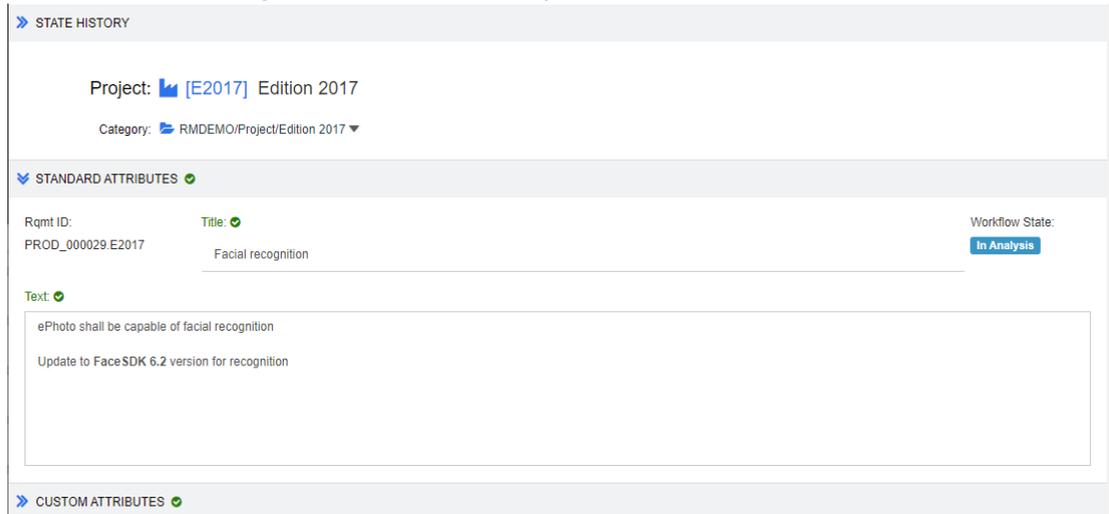


Figure 3-2. Workflow state of a requirement

Workflow Elements

A workflow consists of two elements: states and transitions.

State: A state is a position in a workflow where the requirement resides. While in a given state, it is assigned the owner responsible for performing a specific task (e.g., review, analysis, etc.) before transitioning it to the next state. All previous states of a requirement are displayed in the **State History** section.



Figure 3-3. State History

Transition: A transition activates the movement of a requirement from one workflow state to another. For example, the transition 'To Analysis' will cause the requirement to be moved from the 'Proposed' state to 'In Analysis'.

Details: Selecting **Details** (at the bottom of each transition entry in the **State History**), opens a report listing attribute changes applied during the workflow transition.



Figure 3-4. Transition Details Dialog

The **History Differences** dialog can be opened by clicking  located in the title bar of the transition details dialog, shown above.

Transitioning Requirements to a different Workflow State

A transition may be defined as regular or quick.

The regular transition requires the owner to manually review the requirement prior to selecting the next workflow state whereupon a dialog (workflow form) is raised containing attributes that may or that **must** be populated prior to the successful completion of the transition.

A quick transition is one that is automatically executed once all mandatory criteria have been met. For example, if a transition from Proposed to Review requires that an Analyst be assigned, the requirement may be transitioned automatically as soon as that attribute is populated.

For additional information concerning workflow elements, transition forms and settings see ["Editing Workflows" on page 452](#).

Transitioning Requirements with Electronic Signatures

An electronic signature may be required to ensure that the person recorded as responsible for the change is, in fact, the person making the change. This is done through an electronic signature.

When transitioning a requirement for which the electronic signature has been enabled, the user must confirm his identity by typing their password. The successfully signed and transitioned requirement will be displayed in the transition details as well as in the **State History** section:



Figure 3-5. Electronic Signature shows in State History

Transitioning a Single Requirement to a different Workflow State

Selected requirements may be transitioned by:

- Highlighting the requirement from within a document, from **Quick Search**, or from any view in which requirements are listed will allow the user to select **Execute Transition** from the Requirements set of the Actions pane.
- Selecting the workflow badge on a requirement in an open document. This badge, if requirements are stored in grid or editable grid view, will act as a drop-down listing possible transition targets.
- Clicking on the transition from the top of the Edit Attributes dialog.



Figure 3-6. Transition to Approve, Reject or Return

Transitioning Multiple Requirements to a different Workflow State

To transition multiple requirements:

- 1 Collect the requirements to be transitioned from a document, collection or using Quick Search, see chapter ["Finding Requirements with Quick Search" on page 98](#).
- 2 Highlight the requirements to be transitioned.
- 3 Click **Execute Transition** in the Requirements set of the Actions pane. This opens the Execute Transition for **Multiple Requirements** dialog.
- 4 Select the desired transition from the **Transition** box.
- 5 Click **OK**.
If the transition is a regular transition, this opens a dialog for editing the attribute values of the requirement(s). Continue with step [Step 6](#).
If the transition is a quick transition (which shows no form) this initiates the execution of the transition - assuming all criteria have been met. Continue with [Step 8](#).
- 6 Populate and/or modify the attributes displayed.



NOTE

- If attribute or relationship constraints have been defined on a transition, the transition will only display if those constraints have been met.
- If multiple requirements are transitioned, the values specified will be applied to all requirements..

- 7 Click **OK** to start execution of the transition.
- 8 When the process has completed, the **Transition Result** dialog opens. To view the IDs of the transitioned requirements, expand the result list by clicking .

Copying the URL of a Requirement to the Clipboard

You can copy the URL of a requirement and paste it into a file for future use and reference. When that URL is later invoked, it will open RM Browser to that requirement.

You can copy a URL that will always lead to the most current version of the requirement, or you can copy a URL to a specific version of the requirement. See the appropriate section below.

Copying the URL of the Latest Version of a Requirement

To copy the URL of the latest version of a requirement:

- 1 Open the requirement for editing. See ["Editing a Requirement" on page 118](#).
- 2 Expand the **System Attributes** section of the Edit Attributes dialog.
- 3 Right-click on the URL labeled as the **Requirement Link**.
- 4 Select **Copy Shortcut** (or a similar menu item, depending upon the browser you are using).

The URL is now on the Windows clipboard. You can now paste it into the file in which you wish to keep it.

Copying the URL of a Specific Version of a Requirement

To copy the URL of a specific version of a requirement:

- 1 Open the requirement for editing. See ["Editing a Requirement" on page 118](#).
- 2 Expand the **History** section of the Edit Attributes dialog.

Pedigree			Properties	Differences	C
	Time Modified	Modified By	Current Status		
	18-MAY-2006@08:59:35	Ryan Forbes	Replaced (Baselined)		
	30-SEP-2015@01:41:48	Ryan Forbes	Replaced		
	28-JUL-2020@06:15:11	Joseph Wilson	Current		

- 3 Right-click the link icon next to the version that you want.
- 4 Select **Copy Shortcut** (or a similar menu item, depending upon the browser you are using).

The URL is now on the Windows clipboard. You can now paste it into the file in which you wish to keep it.

Working with the Hierarchy View

In general, you might use collections or documents to structure requirements. If this is not desired, you can use the Hierarchy View for structuring requirements. The Hierarchy View is available in the category tree of the Home View. To switch to the Hierarchy View, click .

As a default, the Hierarchy View shows all requirements of a category as a simple list for that category. By dragging requirements and dropping them on other requirements, these dropped requirement will become a child of the requirement it dropped on.



NOTE

- Dropping a requirement onto another requirement **does not** link the two requirements.
- The structure is the same for all users.

To export requirements from the Hierarchy View, see chapter ["Exporting Requirements in the Hierarchy View" on page 132](#).

To change the displayed or exported columns, see chapter ["Hierarchy Settings" on page 88](#).

To add one or several requirements to one or several documents, see chapter ["Adding Requirements to a Document from the Hierarchy View" on page 231](#).

Working with Requirements and Change Requests

When creating, editing, or viewing a requirement or change request, on top of the dialog, you will find the names of the sections which you find in the dialog.

[ALL](#) [STANDARD](#) [CUSTOM](#) [SYSTEM](#) [ATTACHMENTS \(3\)](#) [COMMENTS \(9\)](#) [LINKS \(2\)](#) [HISTORY \(5\)](#) [POLLS \(1\)](#) [CONTAINERS \(2\)](#)

Clicking a section name will show only the attributes of that section, which improves the overview. To restore the original view, click **All**. The following tabs may show the number of items: **Attachments**, **Comments**, **Links**, **History**, **Polls**, and **Containers**.

Creating a New Requirement

You can create a new requirement if you have **Create** permission for the class to which the requirement belongs. If you do not have **Create** permission, but you do have **CreateCR** permission, you can submit a change request for the new requirement. See ["Proposing a New Requirement" on page 117](#).



TIPS

- If you are using Firefox, you can enable the Firefox spell-check feature. Consult Firefox online help for more information.
- The **Actions** box provides several functions and shortcuts. For further information, see chapter ["Edit Attributes Using the Actions Box" on page 106](#).

To create a new requirement:

- 1 Select **Requirement** from the **New** menu. The **New** dialog opens.
- 2 **Class:** Select the class to which the new requirement will belong. This list includes all of the classes for which you have "create" or "submit" permission.



NOTE

- If a requirement was selected or open when you invoked the dialog, the dialog opens with a class already selected.
- If you invoked the New dialog by clicking the **Create New and Link** button in the **Links** section of the Edit Attributes dialog, you cannot change the class selection.
- If you use Agile and want to create a new product, it is strongly suggested, to create the product with the function Agile provides (see chapter ["Adding Products" on page 368](#)). To use an existing product with agile, see chapter ["Manual Product Assignment" on page 369](#).

- 3 **Category:** Select the category to which the new requirement will belong.
- 4 **Attributes:** Complete the fields in the attributes sections, as needed. Attributes that are incomplete or incorrect are flagged with a red exclamation mark (❗). A green

check mark () indicates that the value is acceptable. To view a tip as to what values are acceptable, hover over the attribute's exclamation mark or check mark.



NOTE

- **Group Attributes:** If this section appears, the requirement class has been defined to include one or more group attributes. See ["Working with Group Attributes" on page 156](#).
- **Applying HTML Formatting:** If a text attribute can accept HTML formatting, a text formatting tool bar appears when you click in the attribute's field. See ["HTML Text Formatting Toolbar" on page 39](#).

- 5 **File Attachments:** To attach a file to the requirement, expand this section and click **Attach**. The Add Attachment dialog opens. Enter the full path to the file or click **Browse** to locate the file, and then click the **OK** button.
- 6 **Containers:** To add the new requirement to a collection, expand this section and click one of the following buttons:
 - **+ Create New Collection & Add** to create a new Collection and add the new requirement to it. The *New Collection* dialog opens. See ["Creating a New Collection" on page 309](#), but ignore the **Based on** section as that does not apply to this invocation of the dialog.
 - ** Add to Collection** to add the new requirement to an existing collection. The *Add to Collection* dialog opens. Select the desired collection or collections and click **OK**.
- 7 **Add as subrequirement:** (only appears if the New dialog was invoked from a document) If you invoked the dialog while a requirement was selected in a document, select this checkbox to add the new requirement as a subrequirement of the selected requirement; or deselect this checkbox to add the new requirement to the parent chapter of the selected requirement. If a requirement was not selected when you invoked the dialog, this checkbox does not appear, and the new requirement is added to whatever element was selected in the document tree.
- 8 **Close after save:** Select this check-box to close the requirement after saving it. Otherwise, the requirement opens for editing after you save it.
- 9 Click one of the following buttons:
 - **Save** to create the new requirement and close the New dialog. The requirement opens for editing if the **Close after save** checkbox is not selected. See ["Editing a Requirement" on page 118](#).
 - **Save & Copy** to create the new requirement and retain the attribute values for creating another new requirement.



NOTE An attribute is copied into the next requirement only if the administrator selected the **Populate On Copy** option when defining the attribute. See ["Defining an Attribute" on page 410](#)

- **Save & New** to create the new requirement and clear the attribute values for creating another new requirement.

Mass Creating Requirements

Dimensions RM allows creating large numbers of requirements which are linked to a base requirement. This may be the case when you use Test Case Management and want to create Test Runs for Test Cases. Note that mass creation of requirements is only available for classes which allow linking.

Mass Creating Requirements in Quick Search

To mass create requirements, do the following:

- 1 Select one or several requirements, i.e. in Quick Search result, a report result, or in a document. For information on finding requirements, see chapter ["Finding Requirements with Quick Search" on page 98](#).
- 2 From the **Requirements** set of the **Actions** pane, click **Create New & Link**. This opens the **Mass Create New & Link** dialog.
- 3 From the **Create New Requirement for** box, select the class for the new requirements.
- 4 Click **Next >**.
- 5 If desired, specify a prefix in the **Prefix for Title** box. The prefix will be used with the title attribute of the new requirements and allows to locate the requirements more easily.
- 6 Fill out any attributes and/or change the category as desired or required.
- 7 Click **Save**. This starts creation and linking of the requirements. When the process is complete, the **Created** dialog opens. This dialog contains a table with the original requirement and the created requirement. By clicking the ID of a requirement, you can open it for editing (see ["Editing a Requirement" on page 118](#)).
- 8 Click **Close**.

Mass Creating Requirements for Collections

To mass create requirements, do the following:

- 1 Select a collection on the collections tab of the Home View. For information on the Home View, see chapter ["Working with the Home View" on page 255](#).
- 2 In the **Requirements** set of the **Actions** pane, click **Create New & Link**. This opens the **Mass Create New & Link** dialog.
- 3 From the **Base Class** box, select the class which should receive the created and linked requirements.
- 4 From the **Create New Requirement for** box, select the class for the new requirements.
- 5 Click **Next >**.
- 6 If desired, specify a prefix in the **Prefix for Title** box. The prefix will be used with the title attribute of the new requirements and allows to locate the requirements more easily.
- 7 Fill out any attributes and/or change the category as desired or required.

- 8 By default, the **Add to collection <Collection Name>** box is selected. If the box selected, the new requirements will be added to the original collection. If the box is cleared, the new requirements will not be added to any collection.
- 9 Click **Save**. This starts creation and linking of the requirements. When the process is complete, the **Created** dialog opens. This dialog contains a table with the original requirement and the created requirement. By clicking the ID of a requirement, you can open it for editing (see ["Editing a Requirement" on page 118](#)).
- 10 Click **Close**.

Proposing a New Requirement

If you have permission to submit change requests (CreateCR), you can propose a new requirement. This is true even if you do not have permission to create new requirements. In doing so, you can specify the desired attributes for the new requirement.

To propose a new requirement:

- 1 Do one of the following:
 - Select **Propose New** from the **Requirements** set of the Actions pane. The *Propose New Requirement* dialog opens. Then, select the class to which the new requirement will belong from the **Class** box. This list includes all of the classes for which you have **create** or **submit** permission.



NOTE If a requirement was selected or open when you invoked the dialog, the dialog opens with a class already selected.

- From the **New** menu, in the menu bar, select the class for which you want to create the change request. This opens the dialog for creating a new requirement. Then, select **Propose New** from the **Actions** drop down list.
- 2 **Category:** Select the category to which the new requirement will belong.
 - 3 **Attributes:** Complete the fields in the attributes sections, as needed. Attributes that are incomplete or incorrect are flagged with a red exclamation mark (❗). A green check mark (✅) indicates that the value is acceptable. To view a tip as to what values are acceptable, hover over the attribute's exclamation mark or check mark.



NOTE

- **Group Attributes:** If this section appears, the requirement class has been defined to include one or more group attributes. See ["Working with Group Attributes" on page 156](#).
 - **Applying HTML Formatting:** If a text attribute can accept HTML formatting, a text formatting tool bar appears when you click in the attribute's field. See ["HTML Text Formatting Toolbar" on page 39](#).
- 4 **File Attachments:** To attach a file to the requirement, expand this section and click **Attach**. The Add Attachment dialog opens. Enter the full path to the file or click **Browse** to locate the file, and then click the **OK** button.
 - 5 **Reason for change:** Enter the reason you want to create a new requirement.

- 6 ECP:** If you want to link the new requirement to an ECP class object, select the desired ECP from the list. If no ECPs have been defined, the list does not appear.



NOTE ECPs are a high-level change management class type (Engineering Change Proposal) that can be used to collect multiple change requests into a single package.

- 7 Add change request to the document:** If you invoked the dialog from a Document work page, you have the option of adding the change request to that document.
- 8 Close after save:** Select this check-box to close the change request after saving it. Otherwise, the requirement opens for editing after you save it.
- 9 Click one of the following buttons:
 - **Submit** to submit the change request and close the dialog.
 - **Submit & Next** to submit the change request and keep the dialog open for submitting another change request.



NOTE When creating a new proposal, links and collections are inherited from the original requirement. For further information, see chapters "[Inherited Links](#)" on page 147 and "[Inherited Containers](#)" on page 152.

Editing a Requirement

This section describes using the Edit Attributes dialog to edit an existing requirement.



TIPS

- Some attributes can be directly edited in the Editable Grid view. In this view, it is possible to edit an attribute across multiple requirements at once. See "[Editable Grid, Grid, and Form Views](#)" on page 33.
- The **Actions** box provides several functions and shortcuts. For further information, see chapter "[Edit Attributes Using the Actions Box](#)" on page 106.

To edit a requirement:

- 1** After selecting the desired requirement in a work pane, select **Edit** from the Requirements set of the Actions pane. The **Edit Attributes** dialog opens.
- 2 Category:** Click the arrow next to the category to select a different category.
- 3 Attributes:** Complete updates in the attributes sections, as needed. Attributes that are incomplete or incorrect are flagged with a red exclamation mark (❗). A green

check mark () indicates that the value is acceptable. To view a tip as to what values are acceptable, hover over the attribute's exclamation mark or check mark.



NOTES

- **List Attributes:** If an entry in a list appears in a different color, this entry has been deleted and cannot be selected.
- **Group Attributes:** If this section appears, the requirement class has been defined to include one or more group attributes. See "[Working with Group Attributes](#)" on page 156.
- **User Attributes:** If a user attribute shows a user name with a link, you can open a popup window with the user information (e.g. full name, e-mail address, phone number) by clicking that link. Note that only those data will be available which have been entered upon user creation. If the user attribute shows a group name, the popup shows the users of the group.
- **Applying HTML Formatting:** If a text attribute can accept HTML formatting, a text formatting tool bar appears when you click in the attribute's field. See "[HTML Text Formatting Toolbar](#)" on page 39.

- 4 **File Attachments:** To attach a file to, or remove a file from, the requirement, expand this section. See "[Working with File Attachments](#)" on page 155.
- 5 **Comments:** To view comments associated with the requirement or participate in or start a discussion, expand this section. See "[Participating in Discussions](#)" on page 180.
- 6 **Containers:** To add/remove the requirement to/from a collection, expand the Container section. See chapter "[Working with Containers](#)" on page 151.
- 7 **Links:** The links section can be expanded to list classes related to the requirement, to list existing links, or to add or remove links. Suspect links may also be displayed. See "[Working with Links](#)" on page 133.



NOTE Any linked objects displayed here are the current version of the object. See the Container section for object links specific to the version in a container.

- 8 **Dimensions CM:** If the implementation has been integrated with Dimensions CM, this section displays Dimensions CM projects and requests associated with the requirement.
- 9 **History:** This section displays information such as the date and time the requirement was modified, who modified it, and its status.
- 10 **Polls:** To create a poll associated with the requirement, modify an existing poll, vote in a poll, or view poll results, expand this section. See "[Polling](#)" on page 177.
- 11 **Link Attributes:** The **Link Attributes** section is only visible if you create a new requirement or change request and linking it to a requirement. For details, see "[Editing Link Attributes](#)" on page 142.
- 12 **Show navigation bar / Hide navigation bar:** Click to show/hide the navigation bar at the bottom of the dialog. You can browse through the requirements in sequence with the **First**, **Previous**, **Next**, and **Last** controls.

- 13 Close after save:** Select this check-box to close the requirement after saving it. Otherwise, the requirement opens for editing after you save it. **Close after save** is not available if the navigation bar is visible.
- 14** Click one of the following buttons:
- **Copy** to copy the attribute values for use in creating a new requirement. If the user does not have the **Create** right but the **CreateCR** right for classes, a proposal will be created instead. The New *ClassName* dialog opens (see "[Creating a New Requirement](#)" on page 114).



NOTE An attribute is copied into the next requirement only if the administrator selected the **Populate On Copy** option when defining the attribute. See "[Defining an Attribute](#)" on page 410

- **Copy with Links** As above, but includes links to other requirements.
- **Update** to close the dialog and save your changes without creating a new version of the requirement. (This option is not recommended if you need to maintain a history, or audit trail, of changes to requirements over time.) The requirement remains open for editing if the **Close after save** checkbox is not selected.

Update & Next: As above, except the dialog remains open and the next requirement is loaded. This version of the button appears when the Navigation Bar is visible.
- **Save** to close the dialog and save your changes as a new version of the requirement. The requirement remains open for editing if the **Close after save** checkbox is not checked. Depending on your configuration, replacing a requirement may trigger the **Clear Suspect for** dialog (see "[Clearing Suspect Links When Replacing a Requirement](#)" on page 145).
- **Save & Next:** The dialog remains open and the next requirement is loaded. This version of the button appears when the Navigation Bar is visible. Depending on your configuration, replacing a requirement may trigger the **Clear Suspect for** dialog (see "[Clearing Suspect Links When Replacing a Requirement](#)" on page 145).



NOTE If the requirement is contained in an ECP-controlled document to which an ECP has not been assigned, and **Update to Current (Tip)** is in effect, this action may be halted. See "[Merging Document Changes](#)" on page 218.

Copying a Requirement

It is often the case when creating groups of requirements, that they may have share common attributes, perhaps there may even be similarities in title and description. In such cases, it is useful to use the **Copy** function, and, when saving the modified requirement to use **Save & Copy**.



NOTE Only attributes selected at setup are copied into a new requirement when using **Copy** or **Save & Copy**. See "[Common Attribute Properties](#)" on page 411

You can use the Copy function at these locations:

- In the **Edit Attributes** dialog by using the **Copy** or **Copy with Links** buttons.
- In the **Actions** pane when highlighting a requirement in almost any view or context.

Using the Expand Feature

Expand allows a requirement to be "branched" such that the original requirement is locked, while one or more new requirements are created with the linkage to the parent displayed in the **Pedigree View** (see chapter "Using Pedigree View" on page 162).

To expand a requirement:

- 1 In **Requirements View**, select one or several requirements with object status **Current** or **Expanded**.
- 2 Click **Expand** in the **Requirements** set of the **Actions** pane. This opens the **New Class Name** dialog.
- 3 Make modifications as desired.
- 4 Click **Save**.



NOTE Expanding a requirement sets the object status of the original requirement to **Expanded**. The new requirement has the object status **Current**.

Deleting a Requirement

When you delete a requirement, it is marked as deleted, but the data is retained. You can delete requirements whose state is "Current" if you have "Delete" permission for its class. When you delete a requirement, a new version is created to ensure that a full audit trail of the requirement's deletion is maintained.

To delete a requirement:

- 1 Select one or several requirements in a work pane.
- 2 Select **Delete** from the **Requirements** set of the **Actions** pane.
- 3 Click **OK** to confirm the operation.

Undeleting a Requirement

When you delete a requirement, it is marked as deleted, but the data is retained. When you undelete a requirement, a new version replaces the previous version to ensure that a full audit trail of the requirement's deletion is maintained.

To undelete a requirement:

- 1 Select one or several requirements in a work pane.
- 2 Select **Undelete** from the **Requirements** set of the **Actions** pane.
- 3 Click **OK** to confirm the operation.

Removing a Requirement Version

When you remove a requirement, the selected version is permanently removed from the instance, and the previous version is made current. You can remove requirements whose state is "Current" if you have "Remove" permission for its class.



CAUTION! A remove operation cannot be undone.

To remove a requirement:

- 1 Select one or several requirements in a work pane.
- 2 Select **Remove** from the **Requirements** set of the **Actions** pane.
- 3 **Include all versions:** If this option is selected, all versions of the requirement will be removed. Note that you cannot remove all versions if one or several of the versions are included in a baseline or snapshot.
- 4 Click **OK** to confirm the operation.

Printing a Requirement

You can print a requirement from the **Edit Attributes** dialog box.

To print a requirement:

- 1 After selecting the desired requirement in a work pane, select **Edit** from the Requirements set of the Actions pane. The Edit Attributes dialog opens.
- 2 You must expand sections and sub-sections if you wish to print their contents.
- 3  Click the **Print** button at the top right of the dialog box. A window opens with content formatted for printing; the RM controls shown in this window are non-functional.
- 4 Your system's Print dialog opens. Click **Print**. The requirement is sent to your printer.
- 5 After the content has printed, close the window that displayed the formatted content.

Changing the Class of a Requirement

At times it may be necessary to change the class of a requirement, e.g. because it was accidentally created with the wrong class. By using the **Change Class** function, this can be done easily and the change appears in the requirement's history, which may be important for audit trails.

To change the class of a requirement, do the following:

- 1 Select one or several requirements, i.e. in Quick Search result, a report result, or in a document.
- 2 Click **Change Class** in the **Requirements** set of the **Actions** pane. This opens the **Change Class** dialog.

- 3 From the **New Class** box, select the class you want to convert the requirement to. If you selected several requirements, all requirements will be converted into the selected class.
- 4 Click **Next**.
- 5 Fill out any attributes and/or change the category as desired or required.
- 6 Click **Save**. This opens the **Changed** dialog which presents an overview of the changed requirements. By clicking the left ID link (the name depends on the original class) of a requirement, you open the original version. By clicking the **New ID** link the current requirement version opens for editing. For further information about editing requirements, see chapter ["Editing a Requirement" on page 118](#).
- 7 Click **Close**.

**NOTE**

- The corresponding Title and Text attributes (the names depend on the related classes) are transferred automatically.
- If the Workflow feature is enabled for the target class, after class conversion, the requirement will always be in the state following the **New** transition.
- Depending on the Dimensions RM configuration, the linked requirements may become suspect.

Viewing the Requirements in a Category, Document, Report, Collection, or Baseline

To view the list of requirements in a specific item:

- 1 Open the Home View by clicking .
- 2 To view the requirements in a:
 - **Category or subcategory**, select the desired categories in the Category pane. Then click **View Requirements** from the Category set of the Action pane.
 - **Document or snapshot**, double-click the desired document or snapshot in the Documents tab of the selection pane.
 - **Report**, double-click the desired report in the Reports tab of the selection pane.
 - **Collection**, double-click the desired collection in the Collections tab of the selection pane.
 - **Baseline**, double-click the desired baseline in the Baselines tab of the selection pane.

Submitting a Change Request

To submit a change request, you must have "CreateCR" permission for classes.



NOTE To submit a change request that proposes the creation of a new requirement, see ["Proposing a New Requirement" on page 117](#).

To submit a change request for a requirement:

- 1 After selecting the desired requirement in a work pane, select **Propose Change** from the **Requirements** set of the Actions pane. The **Propose a Change** dialog opens.
- 2 Change the attributes in the attributes sections as desired. Changes are marked by .
- 3 In the **Reason for change** box, type the justification for the change request. There is no practical limit to the number of characters. The HTML editing control is not available in the **Reason for change** field.
- 4 If you want to link the change request to an Engineering Change Proposal (ECP) class object, select the object in the **ECP** list. The **ECP** list box does not appear if no ECPs have been defined.
- 5 **Exchange in:** If the request was submitted from a document, you can select this checkbox to replace the version in the document with the new version.
- 6 **Close after save:** Select this check-box to close the change request after saving it. Otherwise, the change request opens for editing after you save it. **Close after save** is not available if the navigation bar is visible.
- 7 Do one of the following:
 - Click **Submit** to submit the change request. The change request opens for editing if the **Close after save** checkbox is not selected.
 - Click **Submit & Next** to submit the change request and then load the next requirement in the query results.

**NOTE**

- The labels on the buttons vary depending on whether the navigation bar is shown or hidden. If it is shown, **Submit & Next** appears. If it is hidden, **Submit** appears.
- You can also submit a change request for a new requirement from the **New Change Request** dialog box. For more information, see ["Proposing a New Requirement" on page 117](#).

- 8 The navigation bar at the bottom of the dialog box allows you to navigate to other requirements from the query from which the displayed requirement was generated. To hide the navigation bar, click **Hide navigation** bar. To show the navigation bar, click **Show navigation bar**. The navigation bar is not visible if there only one requirement in the query results. The name of the entity from which the list of requirements was generated is displayed in the navigation bar. These entities include a script name, **Quick Search**, and **Query Results**.
- 9 To navigate to the next or previous requirement in the query from which the requirement was generated, click the next  or previous  button. To navigate to the first requirement or last requirement, click the first  or last  button.



- NOTE** When submitting a change request, links and containers are inherited. For further information see chapters ["Inherited Links" on page 147](#) and ["Inherited Containers" on page 152](#).

Reviewing a Change Request

When a change request is accepted, the changed requirement replaces the current version of the requirement. If there are multiple change requests against the requirement, requests that have not been reviewed remain linked.

The proposed change, whether rejected or accepted remains in the requirement history.

To review change requests submitted against a requirement:

- 1 Highlight the desired requirement in a work pane, prior to selecting **Accept/Reject** from the **Requirements** set of the **Actions** pane, **or** open the Requirement for editing and select **Accept/Reject** from the **Actions** drop-down. **In either case, the Accept/Reject Proposals** dialog opens.
- 2 A list of all pending change requests against the requirement is displayed in the left pane. Select a change request to view its details.

The differences between the proposed changes and the current version are marked in the text.
- 3 Enter a reason for accepting or rejecting the change, if mandatory.
- 4 Click **Accept** to accept the change request or **Reject** to reject it. In either case the reason for change entered when the request was submitted will be carried forward.



NOTE If the requirement is in an ECP-controlled document that you have not assigned an ECP to, and **Update to Current (Tip)** is in effect, the action will be halted and you will receive a message upon clicking the **Accept** button. See "[Merging Document Changes](#)" on page 218.

- 5 **To accept a previously rejected change request, do the following:**
 - a Click the **Show previously rejected requests** link at the top left of the dialog box.
 - b Select the rejected change request.
 - c If you have permission to approve the rejected change request, the **Accept** button is enabled. Click the **Accept** button.
 - d Click **Close**.

Exporting Requirements

For exporting requirements in the Hierarchy View, see chapter "[Exporting Requirements in the Hierarchy View](#)" on page 132.

Export as a Microsoft Excel Spreadsheet

To export the requirements as an Excel spreadsheet, follow these steps:

- 1 Run a report, or a query in Quick Search, or open a collection or a baseline.

- 2 Click **Export** from the **Category** set of the **Actions** pane. This opens the **Export** dialog.
- 3 From the **Export as** list, select **Excel Spreadsheet (*.xlsx)**.
- 4 Select any of these options if desired:
 - a **Include images:** If selected, images are exported into the Excel file.
 - b **Include the script:** If selected, the script used to query the requirements is included in the Excel spreadsheet.
- 5 Click one of these buttons:
 - **Export:** Exports all requirements.
This button is shown if there is only one result page.
 - **All Pages:** Exports all requirements.
This button is shown if there is more than one result page.
 - **Selected Page:** Exports the requirements of the currently selected page.
This button is shown if there is more than one result page.



NOTE On the server, Microsoft Excel is required to generate XLSX files. If Microsoft Excel is not installed on the server, Microsoft Excel spreadsheets are created with file extension .xls instead of .xlsx. When opening an .xls file, you might receive a message that informs you that this file is in a different format than .xls. You can safely click **Yes** in this dialog box and the file will open in Excel.

Export as a Microsoft Word Document

To export the requirements Word document, follow these steps:

- 1 Run a report, or a query in Quick Search, or open a collection or a baseline.
- 2 Click **Export** from the **Category** set of the **Actions** pane. This opens the **Export** dialog.
- 3 From the **Export as** list, select **Word Document (*.docx)**.
- 4 If desired, change the page orientation between portrait and landscape by selecting the related option.
- 5 Click one of these buttons:
 - **Export:** Exports all requirements.
This button is shown if there is only one result page.
 - **All Pages:** Exports all requirements.
This button is shown if there is more than one result page.
 - **Selected Page:** Exports the requirements of the currently selected page.

This button is shown if there is more than one result page.



NOTE

- On the server, Microsoft Word is required to generate DOCX and PDF files. If Microsoft Word is not installed on the server, Microsoft Word documents are created with file extension .doc instead of .docx. When opening a .doc file, you might receive a message that informs you that this file is in a different format than .doc. You can safely click **Yes** in this dialog box and the file will open in Word.
- If a .doc file is created, all links in the Table of Contents point to page number one. To correctly number the entries in the Table of Contents, right-click the Table of Contents and select **Update** in the context menu.

Export as an Adobe PDF Document

To export the requirements as an Adobe PDF document, follow these steps:

- 1 Run a report, or a query in Quick Search, or open a collection or a baseline.
- 2 Click **Export** from the **Category** set of the **Actions** pane. This opens the **Export** dialog.
- 3 From the **Export as** list, select **PDF Document (*.pdf)**.
- 4 If desired, change the page orientation between portrait and landscape by selecting the related option.
- 5 Click one of these buttons:
 - **Export:** Exports all requirements.
This button is shown if there is only one result page.
 - **All Pages:** Exports all requirements.
This button is shown if there is more than one result page.
 - **Selected Page:** Exports the requirements of the currently selected page.
This button is shown if there is more than one result page.



NOTE

- On the server, Microsoft Word is required to generate PDF files. If Microsoft Word is not installed on the server, PDF documents are created with file extension .doc instead of a .pdf. When opening a .doc file, you might receive a message that informs you that this file is in a different format than .doc. You can safely click **Yes** in this dialog box and the file will open in Word.
- If a .doc file is created, all links in the Table of Contents point to page number one. To correctly number the entries in the Table of Contents, right-click the Table of Contents and select **Update** in the context menu.

Export as an XML Document

To export the requirements as an XML document, follow these steps:

- 1 Run a report, or a query in Quick Search, or open a collection or a baseline.
- 2 Click **Export** from the **Category** set of the **Actions** pane. This opens the **Export** dialog.
- 3 From the **Export as** list, select **XML Document (*.xml)**.
- 4 To include images and formatting (e.g. text colors, text alignment), select the **Encode text columns to include images and formatting** option.
- 5 Click one of these buttons:
 - **Export:** Exports all requirements.
This button is shown if there is only one result page.
 - **All Pages:** Exports all requirements.
This button is shown if there is more than one result page.
 - **Selected Page:** Exports the requirements of the currently selected page.
This button is shown if there is more than one result page.

Understanding an Exported XML Document

This section includes excerpts from an example XML document that is produced by exporting requirements, and a table that describes the elements in the excerpts.

```

1 - <?xml version="1.0" encoding="iso-8859-1" ?>
2 - <REPORT name="Baseline Check" project="SPRINT5" user="EPHOTO"
3 -   xmlns="http://schemas.serena.com/itm/2005">
4 - <SUBREPORT>
5 - <LAYOUT>
6 -   <COLUMN name="PUID" attrId="26" classId="1">PUID</COLUMN>
7 -   <COLUMN name="TEXT" attrId="31" classId="1">Baseline 1</COLUMN>
8 -   <COLUMN name="PUID" attrId="26" classId="1">PUID</COLUMN>
9 -   <COLUMN name="TEXT" attrId="31" classId="1">Baseline 2
10 -   Modifications</COLUMN>
11 - </LAYOUT>
12 - <SCHEMA>
13 - <CLASS name="MARKETING_REQUIREMENTS" id="1">
14 - <ATTRIBUTE name="PUID" id="26" type="puid" mandatory="false" editable="false"
15 -   unique="false" visible="true">
16 -   <FORMAT>MRKT_<#></FORMAT>
17 -   <DISPLAYNAME>Rqmt ID</DISPLAYNAME>
18 - </ATTRIBUTE>
19 - <ATTRIBUTE name="TEXT" id="31" type="text" mandatory="true" editable="true">
20 -   unique="false" visible="true">
21 -   <DEFAULTVALUE>Dummy Text</DEFAULTVALUE>
22 -   <DISPLAYNAME>Text</DISPLAYNAME>
23 - </ATTRIBUTE>
24 - </CLASS>
25 - </SCHEMA>
26 - <requirement class="MARKETING_REQUIREMENTS" id="1" version="1">
27 -   puid="MRKT_000001">
28 -   <attribute id="PUID">MRKT_000001</attribute>
29 -   <attribute id="TEXT">
30 -     This system shall enable the user to browse an on-line photo album. It
31 -     shall look and feel just like an electronic photo album.
32 -   ]]>
33 - </attribute>
34 - <LINK name="Marketing_Requirements_CHANGE">
35 - </LINK>
36 - <requirement class="MARKETING_REQUIREMENTS" id="8" version="1">
37 -   puid="MRKT_000001">
38 -   <attribute id="PUID">MRKT_000001</attribute>

```

```

    shall look and feel just like an electronic photo album, just
    like the one on the coffee table.
  ]]>
</attribute>
- <LINK name="Marketing_Requirements_CHANGE">
- <requirement class="MARKETING_REQUIREMENTS" id="8" version="1"
  puid="MRKT_000001">
<attribute id="PUID">MRKT_000001</attribute>
- <attribute id="TEXT">
  The ePhoto system shall enable the user to browse an on-line photo
  album. It shall look and feel just like an electronic photo album, just
  like the one on the coffee table.
  ]]>
</attribute>
</requirement>
- <requirement class="MARKETING_REQUIREMENTS" id="42" version="1"
  puid="MRKT_000001">
<attribute id="PUID">MRKT_000001</attribute>
- <attribute id="TEXT">
  The ePhoto system shall enable the user to browse an on-line photo
  album. It shall look and feel just like an electronic photo album, just
  like the one on the coffee table.
  ]]>
</attribute>
</requirement>
</LINK>
</requirement>
- <requirement class="MARKETING_REQUIREMENTS" id="2" version="1"
  puid="MRKT_000002">
<attribute id="PUID">MRKT_000002</attribute>
</requirement>
</SUBREPORT>
</SCRIPT>
- <![CDATA[
select <PUID>PUID <Baseline 1>TEXT from Marketing_Requirements where
group in ('Baseline 1') and STATUS != 'Deleted'

xref source secondary_history

select <PUID>PUID <Baseline 2 Modifications>TEXT from
Marketing_Requirements where group in ('Baseline 2')

plus

select <PUID>PUID <Baseline 2 Additions>TEXT from
Marketing_Requirements where group in ('Baseline 2') and group not
in ('Baseline 1') and NOT_SECONDARY_IN immediate

plus

select <PUID>PUID <Baseline 1 Deletions>TEXT from
Marketing_Requirements where group in ('Baseline 1') and
STATUS='Deleted'
]]>
</SCRIPT>
</REPORT>

```

The following table describes the elements in the preceding excerpts. Note the following terms:

- **Tags** are enclosed by < > brackets.
- **Attributes** are anything of type name=value within a tag.
- **Content** is any plain text between opening and closing tags.

Key	Description
①	<REPORT> is the root tag in the XML document. It has attributes for the query name, the instance name, and the user who performed the query.
②	A PLUS statement in a query can be used to join multiple scripts into one script. The outcome of the resulting script is multiple reports produced in one data extraction run. If a PLUS report is run, there are additional <SUBREPORT> tags for each subreport.
③	Each <REPORT> or <SUBREPORT> tag contains a <LAYOUT> tag that describes the mapping from the Dimensions RM attribute names and the display names to be used in a report.
④	The <SCHEMA> tag contains the classes used in the query and more details about the attributes involved. NOTE: The <LAYOUT> tag may define the same attribute more than once, but the <SCHEMA> tag displays the attribute only once.
⑤	The <CLASS> tag is created for each requirement that is returned from the query. The content of the tag is the class name and the class ID.
⑥	Each <ATTRIBUTE> tag has attributes for name, ID, and type; and mandatory, editable, unique, and visible flags. For each RM attribute of type "puid," "alphanumeric," or "date," a <FORMAT> tag is created. The attribute type determines the attributes of the <FORMAT> tag. For each Dimensions RM attribute of type "list," a <LISTVALUES> tag is created that lists the valid values for the attribute.
⑦	For each Dimensions RM requirement returned from the query, a tag is created that matches the Dimensions RM class name (for example, <requirement class>) and that contains the requirement ID. Each requirement tag then contains the attributes requested in the query (see element number 8).
⑧	For each Dimensions RM attribute requested in the query for a particular requirement, a tag is created that matches the Dimensions RM attribute name (for example, <TEXT>). The content of the tag is the value of the Dimensions RM attribute.
⑨	The XREF statement in a query allows you to show the linkage or traceability between requirements. If an XREF report is run, the relationships are shown as nested <LINK> tags. The "name" attribute is the name of a Dimensions RM relationship. The <LINK> tag contains tags for the related requirements. There may be more than one <LINK> tag at the same level to indicate multiple links to the same requirement. The same requirement may appear more than once in the XML output because of different relationships to the same requirement.
⑩	The last tag in the report is the <SCRIPT> tag. The content of the tag is the query string used for the query. Because it may contain incompatible XML text, it is wrapped in a [!CDATA] block to preserve all text.

Export as a Web Page

To export the requirements as a web page, follow these steps:

- 1 Run a report, or a query in Quick Search, or open a collection or a baseline.

- 2 Click **Export** from the **Category** set of the **Actions** pane. This opens the **Export** dialog.
- 3 From the **Export as** list, select **Web Page (*.html)**.
- 4 Click one of these buttons:
 - **Export:** Exports all requirements.
This button is shown if there is only one result page.
 - **All Pages:** Exports all requirements.
This button is shown if there is more than one result page.
 - **Selected Page:** Exports the requirements of the currently selected page.
This button is shown if there is more than one result page.

Export as a CSV File

To export the requirements as a CSV file, follow these steps:

- 1 Run a report, or a query in Quick Search, or open a collection or a baseline.
- 2 Click **Export** from the **Category** set of the **Actions** pane. This opens the **Export** dialog.
- 3 From the **Export as** list, select **CSV (Comma delimited) (*.csv)**.
- 4 Click one of these buttons:
 - **Export:** Exports all requirements.
This button is shown if there is only one result page.
 - **All Pages:** Exports all requirements.
This button is shown if there is more than one result page.
 - **Selected Page:** Exports the requirements of the currently selected page.
This button is shown if there is more than one result page.



NOTE When exporting *Test Case* or *Test Run* requirements (as defined for "[Test Case Management](#)" on page 347) to CSV format:

- The Test Step columns will be split into these individual columns:
 - Test Steps - Description
 - Test Steps - Expected Result
 - Test Steps - Actual Result (only for *Test Run* requirements)
- The Test Step number will not be exported.



CAUTION! When exporting *Test Case* or *Test Run* requirements (as defined for "[Test Case Management](#)" on page 347) to CSV format, you **must** include an ID column (PUID or object ID) if you want to re-import the CSV file. For further information about importing *Test Case* or *Test Run* requirements, see chapter "[Importing Test Case and Test Run Requirements](#)" on page 339.

Export as a Plain Text File

To export the requirements as a plain text file, follow these steps:

- 1 Run a report, or a query in Quick Search, or open a collection or a baseline.
- 2 Click **Export** from the **Category** set of the **Actions** pane. This opens the **Export** dialog.
- 3 From the **Export as** list, select **Plain Text (*.txt)**.
- 4 Click one of these buttons:
 - **Export:** Exports all requirements.
This button is shown if there is only one result page.
 - **All Pages:** Exports all requirements.
This button is shown if there is more than one result page.
 - **Selected Page:** Exports the requirements of the currently selected page.
This button is shown if there is more than one result page.

Export as a Plain Text Table File

To export the requirements as a plain text table file, follow these steps:

- 1 Run a report, or a query in Quick Search, or open a collection or a baseline.
- 2 Click **Export** from the **Category** set of the **Actions** pane. This opens the **Export** dialog.
- 3 From the **Export as** list, select **Plain Text Table (*.txt)**.
- 4 Click any one of these buttons:
 - **Export:** Exports all requirements.
This button is shown if there is only one result page.
 - **All Pages:** Exports all requirements.
This button is shown if there is more than one result page.
 - **Selected Page:** Exports the requirements of the currently selected page.
This button is shown if there is more than one result page.

Exporting Requirements in the Hierarchy View



TIP Before starting exporting requirements, select the category you wish to export in the Category View. Then switch to Hierarchy View.

To export requirements from the Hierarchy View:

- 1 Change to the Hierarchy View.
- 2 In the **Hierarchy** set of the **Actions** pane, click **Export**.

- 3 Select the desired export options.
- 4 Click **Export**.



NOTE On the server, Microsoft Excel is required to generate XLSX files. If Microsoft Excel is not installed on the server, Microsoft Excel spreadsheets are created with file extension .xls instead. When opening an .xls file, you might receive a message informing you that this file is in a different format than .xls. You can safely click **Yes** in this dialog box and the file will open in Excel.

Working with Links

Links provide traceability, the tracking of requirements throughout the development lifecycle.

A single business requirement may generate 10 use cases, 30 functional requirements, and another 40 test cases. When product management checks the status of that initial business requirement the goal is to be able to track it through the system in order to understand when each one of those test cases have been marked with a pass.

In RM Browser, links can be created through:

- the requirement definition process,
- Actions such as Create Link, Create New & Link, and from an open document there is also Create New, Link & Add to Document
- Split View and Document Split view provide Quick Search filtering to support drag and drop linking
- Relationship matrix, which provide one click linking
- Link Browser, which not only displays relationships but provides the facility for building new ones.

The default behavior is to create a link between requirements, not requirement versions. A link joining a business with one or more functional requirements will hold, even if all involved are modified. The link will hold until it is deleted, and even then, if the link was included in a baseline, its history will remain for as long as the instance remains.

The **Link** icons listed in the link section of the Edit Requirements dialog, among other locations in across the browser can be translated as follows:

	Browse Links: Opens the Link Browser dialog. For details, see chapter "Using Link Browser" on page 148 .
	Suspect History: Opens the Suspect History dialog. For details, see chapter "Using the Suspect History" on page 146 .
	Expand: Expands all link sections. This function is not available once a user has shifted to Quick View.
	Collapse: Collapses all link sections. This function is not available when using Quick View.

	Quick View: Lists all linked requirements in a single table. Because requirements of different classes are listed, only common attributes are available for display. Classes with no active links are not displayed. Double-clicking a requirement in the table opens the requirement.
	Extended View: Lists linked requirement by class, each in its own table; the properties function can be used to expand the display. Double-clicking a requirement in the table opens the requirement.
	Properties: Opens the <i>Link Properties</i> dialog. For details, see chapter "Link Properties" on page 141.
	Clear all suspicious links: Clears all suspicious links. For details, see chapter "Clearing Suspect Links" on page 145.
	Link Existing: Opens the <i>Link Requirements</i> dialog which allows to link the current requirement to an existing requirement. Link Existing is available if the user has the <i>Link</i> permissions for classes and the <i>Create</i> permission for relationships.
	Create New & Link: Opens a dialog to select the relationship to be created, assuming more than one possibility, before opening the New requirement dialog; the newly created requirement will be linked and, if you choose Save & Copy, the next requirement will also be linked. This is a good function to use when creating multiple new child requirements from the same parent.
	Propose New & Link: Opens the <i>Propose New Requirement</i> dialog and links the created proposal. Propose New & Link is only available if the team has chosen to use proposals, rather than relying on the workflow process.
	Edit Link Attributes: Opens the <i>Edit Link Attributes</i> dialog that allows you to view and modify custom attributes for a link. For details, see chapter "Editing Link Attributes" on page 142.
	Delete Link: Deletes the selected link. Delete Link is available if the user has the <i>Link</i> right for classes and the <i>Delete</i> right for relationships.
 	Remove Link: Permanently removes a link. Remove Link is available if the user has the <i>Link</i> right for classes and the <i>Remove</i> right for relationships. CAUTION! You cannot restore a removed link.
	Undelete Link: Restores a deleted link. Undelete Link is available if the user has the <i>Link</i> right for classes and the <i>Undelete</i> right for relationships. For details on how to undelete a deleted link, see chapter "Link Properties" on page 141.
	Raise Suspicion: Makes a linked requirement suspect. Raise Suspicion is available if the user has the <i>Link</i> right for classes and the <i>Raise Suspect Links</i> right for relationships. For details about suspect links see chapter "Suspect Links" on page 143.
	Resolve Suspicion: Clears suspicion from one or more highlighted linked objects. Resolve Suspicion is available if the user has the <i>Link</i> right for classes and the <i>Clear Suspect Links</i> and <i>Mass Clear Suspect Links</i> rights for relationships. For details about clearing suspect links see chapter "Suspect Links" on page 143.

Using the Create Link Action

The relevant functions offered from the **Link** section of the Edit Requirements dialog are also offered using **Create Link** from almost anywhere in the browser.

To use Create Link, highlight a requirement (or more if the same class) and select the **Create Link** action to link one or more requirements. If the object intended for linking was recently created or edited, simply click inside the *search* and the target will be presented. If it's not listed, enter a text string to help in locating it - and if it is still not found, use the advanced search. Additional detail associated with linking can be found in the sections below.

Link Existing

The **Link Existing Requirements** or the **Create Link** action provide the following:

- to list and link to recently accessed requirements,
- to use the search capability to limit the recent list,
- to optionally choose a related class, if multiple possibilities, as well as a category
- to choose *Advanced Search* dialog to access the full range of the *Find Now* dialog

To link to Existing Requirements:

- 1 Highlight one or more requirements and select the **Create Link** action.
- 2 Or from within the Edit Attributes dialog for a requirement.
 - a Expand the **Links** section.
 - b Click  . This opens the *Link Existing Requirements* dialog.
- 3 To display the list of recently accessed requirements (as shown below):
 - a Click into the search box which opens the list of recent requirements of related classes.
 - b If displayed, select the relevant requirement from the list.
 - c Click **Add**.
 - d **Link More** to return to the *Link Existing Requirements* dialog.

Link Business_Requirement: BR_0052

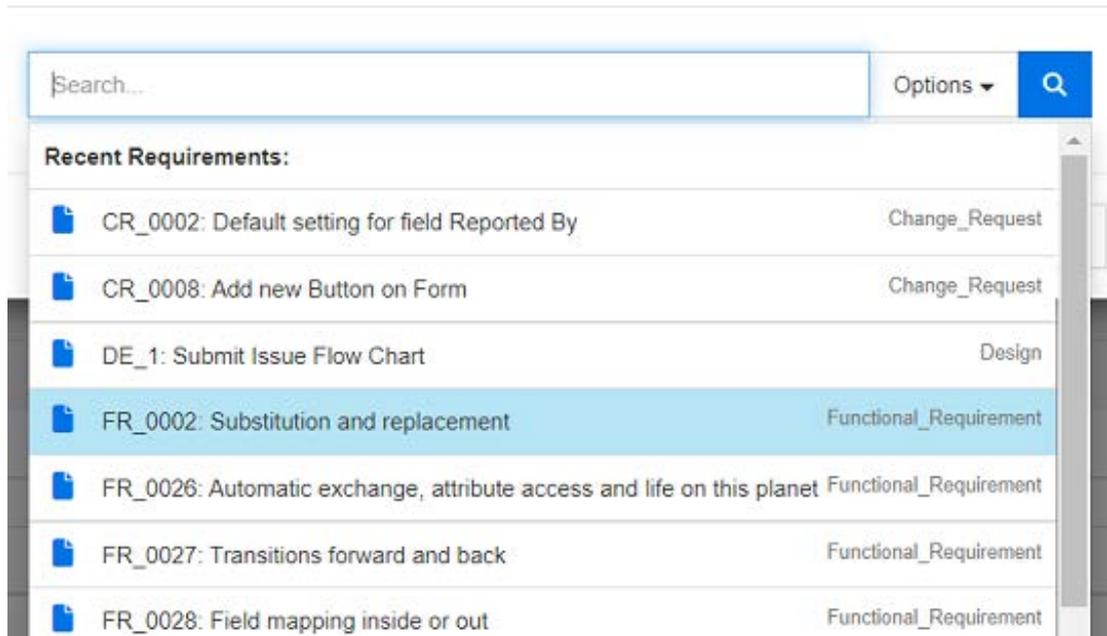


Figure 3-7. Click into the 'Search' box to force the display of recently accessed requirements or type a search string.

- 4 If you want to limit the search to one or several classes or categories, do the following:
 - a Click **Options**.
 - b Select the class or classes you want to link.
 - c Select the category or categories you want to search in.
- 5 Specify a text string into the search box.
- 6 Click .
- 7 Select one or use **ctrl+click** to select multiples
- 8 Click **Add**.

To use Advanced Search Mode

- 9 Click **Advanced Search**.
- 10 **Constraints:** As needed, specify criteria to locate the desired requirements. See "[Attribute Constraints Tab](#)" on page 47 and "[Relationship Constraints Tab](#)" on page 53.
- 11 **Display Options:** As needed, specify how to display the results. See "[Display Options Tab](#)" on page 56.
- 12 **Link Attributes:** This option is only available if link attributes have been defined for the selected relationship.
 - a Click **Link Attributes**. This opens the *Edit Link Attributes* dialog.

b Edit or select the desired or required attributes (see ["Editing Link Attributes" on page 142](#)).

c Click **Save**.

13 Remember these options: Select this checkbox to retain the current settings as the default for future invocations of the dialog.

14 Filters: If you saved filters in Quick Search, you can use these filters to search the requirement you wish linking to.

15 Find Now: Click this button to run the search. The results are displayed in the lower pane of the dialog. Each requirement that is linked to the original requirement has a chain icon  next to it.

	Rqmt ID	Title
	COMP_000001	Utilize Tcl/Tk
	COMP_000002	Application settings will be saved
	COMP_000003	Default window size 140x100

16 New Search: Click this button to clear the current search criteria and results.

17 Select one or use **ctrl+click** to select multiples

18 Click on **Add Link**.

Linking Existing Requirements through Split View

The **Split View** and **Document Split View** selections under the **Views** tab offer a simpler method for linking existing requirements.

Using the filtering of Quick Search, the requirements available from both sides of a relationship (e.g., business requirements on the left, and functional on the right side of the split view) requirements can be dragged into the relationship or an existing relationship can be modified.

The list from either split view panel can be modified to limit the view to requirements contained in a document, or you may choose **Document Split View** to select two documents to input to linking. This is helpful in cases where, for example, design requirements need to be linked to their functional breakdown.

For further information about finding requirements, refer to chapter ["Exporting Requirements" on page 125](#).

To use Split View for linking, follow these steps:

1 In the menu bar, click **Requirements** to open Quick Search.

- 2 In the Actions pane, click **Split View**. This divides the Quick Search window into two Quick Search windows. The left Quick Search window allows selection of a class (parent or child) while the right then allows selection of any related class.

Category	Design ID	Title	Modified By	Time Modified
RMDemo	DESIGN_00001	ePhoto Actions	Ryan For...	31-AUG-2016@01:24:44
RMDemo	DESIGN_00002	Photo upload	Ryan For...	31-AUG-2016@01:19:30
RMDemo	DESIGN_00003	Photo uploader DB Connection	Ryan For...	31-AUG-2016@01:20:16
RMDemo/Product/CloudData	DESIGN_00004	CloudData Flow	Ryan For...	18-AUG-2017@02:50:21

Right ID	Title	Links In	Links Out	Time Modified
COMP_000001	Utilize Tortix	4	2	23-FEB-2021@07:11:34
COMP_000002	Application settings will be saved	4	1	19-FEB-2018@15:50:58
COMP_000003	Default window size 140x100	4	1	19-FEB-2018@15:51:18
COMP_000004	Images can be expanded to full size	4	2	19-FEB-2018@15:54:39
COMP_000005	Last 5 images will be remembered	4	3	28-JUL-2020@06:08:14
COMP_000006	Multiline text annotations	4	2	19-FEB-2018@15:55:06
COMP_000007	Cut and paste text	4	1	19-FEB-2018@15:55:42
COMP_000008	Search and replace supported	4	1	19-FEB-2018@15:55:53
COMP_000009	DB supports Create, Read, Update, Delete	4	1	19-FEB-2018@15:56:07
COMP_000010	Database supports Create, Read, Update, and Delete	0	2	30-SEP-2015@01:41:47
COMP_000011	Annotations stored in database	4	2	19-FEB-2018@17:15:34
COMP_000012	Ascii based database	4	2	30-SEP-2015@01:41:47
COMP_000013	At least 1024 entries stored	4	1	30-SEP-2015@01:41:47
COMP_000014	Name of DB unique	4	1	19-FEB-2018@15:57:16
COMP_000015	Each user has own DB	4	1	18-AUG-2017@01:11:12
COMP_000016	DB's installed in central location.	4	1	19-FEB-2018@15:57:36
COMP_000017	Windows Desktop used	4	1	19-FEB-2018@15:57:50
COMP_000018	Launched from Windows 'Start'	4	1	19-FEB-2018@15:58:02
COMP_000019	GUI complies with Presentation Manager style guide	4	1	19-FEB-2018@15:58:17
COMP_000020	Minimum VGA supported	4	1	28-JUL-2020@06:15:11
COMP_000021	Will run on 300 MHz Celeron with 32 megs ram	4	1	30-SEP-2015@01:41:48
COMP_000022	Installed software less than 5 megs	0	1	18-AUG-2017@01:12:58

Figure 3-8. Quick Search in Split View mode

The right Quick Search window provides these extra functions:



Create Link: Links one or more child class requirements to one parent class requirement. Create Link is available if the user has the *Link* right for classes and the *Create* right for relationships.



TIP You can also use drag & drop to link requirements.



Delete Link: Deletes the links between one or several child class requirements and one parent class requirement. Delete Link is available if the user has the *Link* right for classes and the *Delete* right for relationships.



Remove Link: Permanently removes the links between one or several child class requirements and one parent class requirement. Remove Link is available if the user has the *Link* right for classes and the *Remove* right for relationships.



CAUTION! You cannot restore a removed link.



Undelete Link: Restores previously deleted links between one or several child class requirement and one parent class requirement. Undelete Link is available if the user has the *Link* right for classes and the *Undelete* right for relationships.

Relationship: Shows all relationships between the parent class and the child class.

Show: Filters the requirements of the child class. You can select one of these values:

- **All:** Shows all requirements.
- **Linked:** Shows only requirements which are linked.
- **Not Linked:** Shows only requirements which are not linked.
- **Deleted Links:** Shows only requirements with deleted links.

☰ **Grid View:** Shows requirements in a table. This is the standard view for Quick Search.

☰ **Matrix View:** Shows requirement links in a table as rows and columns.

☰ **Card View:** Show requirements as separate cards. Each card shows the following information:

- Requirement ID
- Title
- Owner
- Last modification date
- Number of links



To return to the regular Quick Search window, click **Quick Search** in the Actions pane.



NOTE In order to create, delete, remove or undelete a link, you need to select one parent class requirement and one or several child class requirements.

Creating a new Requirement and linking to it

- 1 Highlight one or more requirements and select the **Create New & Link** action.
 - a Select the class containing the requirement you want to link to.
 - b Select **Next**
- 2 Or from within the Edit Attributes dialog for an open requirement.
 - a Expand the Links section.
 - b Click  to open the Link Existing Requirements dialog. Open the *Edit Attributes* dialog for a requirement.
 - c Expand the **Links** section.
 - d Expand the class which contains the requirement you want to link to.
 - e Click  . This opens the dialog to add a new requirement.

- 3 In the New Requirement dialog, populate the attributes.
- 4 If your administrator configured link attributes, you may have to edit or select attribute values in the **Link Attributes** section.
- 5 Click on **Save**.



NOTE If configured by the administrator, the attribute values of the parent requirement might be copied to the newly created requirement.

Proposing a new Requirement and linking to it

If your process is using the propose requirement functions, you may use the **Propose New** action to propose a new requirement and use the **Create Link** Action to link it to an existing requirement, or use **Propose New & Link** as described below.

- 1 Open the *Edit Attributes* dialog for a requirement.
- 2 Expand the **Links** section.
- 3 Expand the class which contains the requirement you want to link to.
- 4 Click . This opens the dialog to add a new requirement.
- 5 Fill out the attributes.
- 6 If your administrator configured link attributes, you may or have to edit or select attribute values for the link between the two requirements in the **Link Attributes** section.
- 7 Click on **Submit**.



NOTE If configured by the administrator, the attribute values of the parent requirement might be copied to the newly created requirement.

Deleting or Removing Links



NOTE Baselined links (i.e., linked parent and child objects included in a single baseline) cannot be deleted, as this would alter the baseline content. In the case of an attempt to delete a baselined link, a warning is raised "linked objects must be replaced. Do you want to proceed?" If the user clicks OK, a new version of the requirement is created and the baselined link is unchanged.

- 1 Open the *Edit Attributes* dialog for a requirement.
- 2 Expand the **Links** section.
- 3 Expand the class which contains the requirement you want to delete or to remove.
- 4 Select the requirements you want to delete or to remove.

- 5 To delete, click on  . To remove, click on  .



CAUTION!

- You cannot restore a removed link.
- Deleting a link removes the link attribute values as well. Adding the link again **will not** restore the link attribute values.

- 6 Confirm the popup message.

Restoring a deleted Link

A deleted link is only shown in the list if you turned on the option Show deleted links for the class. For details on how to show deleted links, see chapter ["Link Properties" on page 141](#).

To restore a deleted link:

- 1 Open the *Edit Attributes* dialog for a requirement.
- 2 Expand the **Links** section.
- 3 Expand the class which contains the requirement you want to restore.
- 4 Select the deleted links you want to restore. Deleted links use an italic font and red text color.
- 5 Click on  .
- 6 Confirm the popup message.

Clearing a Suspect Link

The icon indicating suspicion is displayed wherever the Suspect column has been selected, as well as on the header within the Edit Requirements dialog.



There are many ways to clear suspicion, although, based on the process defined, you may simply highlight one or more requirements and select the **Resolve Suspicions** action. Or, from within the Edit Attributes dialog click on the Suspect icon.

For further information about suspect links, see chapter ["Suspect Links" on page 143](#) or ["Clearing Suspect Links" on page 145](#).

Link Properties

In the *Link Properties* dialog you can define for each class which data should be displayed in the **Links** section. These settings are available:

- **Attributes To Display:** To specify the attributes to display, see chapter ["Attributes to Display List" on page 37](#).
- **Sorting Order:** To specify the sort order, see chapter ["Sorting Order List" on page 38](#).

- **Include all requirement versions:** If checked, shows all versions of the requirements. It is recommended to include the **Current Status** attribute in the **Attributes To Display** list.
- **Show link creation information:** If checked, the list shows date and time the link was created. Note that the link creation information is used for all classes, and not just for the class selected when the dialog was opened.
- **Show deleted links:** If checked, shows delete links including the user who deleted it and date and time it was deleted.

Editing Link Attributes

Link attributes are available if your administrator configured them for a relationship. When creating a link on a requirement or change request, you can (or must for mandatory attributes) fill those attributes.

You can edit link attributes:

- when creating a link on an existing requirement (see chapter ["Using the Create Link Action" on page 135](#));
- when creating a link on a new requirement (see chapter ["Creating a new Requirement and linking to it" on page 139](#));
- when creating a link on a new change request (see chapter ["Proposing a new Requirement and linking to it" on page 140](#));
- on existing links (see below).

To edit link attributes on an existing link:

- 1 Open the *Edit Attributes* dialog for a requirement.
- 2 Expand the **Links** section.
- 3 Select a linked requirement.
- 4 Click . This opens the *Edit Link Attributes* dialog.
- 5 Fill out or select the attribute values as required or desired.
- 6 Click **Save**.



CAUTION! Deleting a link removes the link attribute values as well. Adding the link again **will not** restore the link attribute values.

Suspect Links

Suspect is a system attribute maintained in every class; this attribute is set to 'True' when change to a linked object raises suspicion which suggests a review. The **Suspect** attribute is typically included in requirement reports.

Typically, each class is related to at least one other class. Without this connection, it is not possible to establish traceability between classes of information maintained by the schema. It is typical to set relationships such that certain changes, perhaps title and description, in a parent or upstream requirement will force a review of the child or downstream requirement - this is the job of the suspect link.

We should note that it is also possible to cause suspicion to be raised in a parent when the child is changed; it is less typical but a decision made to address the needs of the process.

	<p>The standard suspect link icon indicates that the associated object is suspect. Opening the object and clicking on the icon will raise a dialog indicating the source of the suspicion and, should permissions apply,</p>
	<p>Should the setup include the setting <i>Visualize upstream and downstream suspect links</i>, a down arrow will be displayed if the source of the suspicion was initiated by an upstream change.</p>
	<p>Should the setup include the setting <i>Visualize upstream and downstream suspect links</i>, an up arrow will be displayed if the source of the suspicion was initiated by an downstream change.</p>

When is suspicion raised:

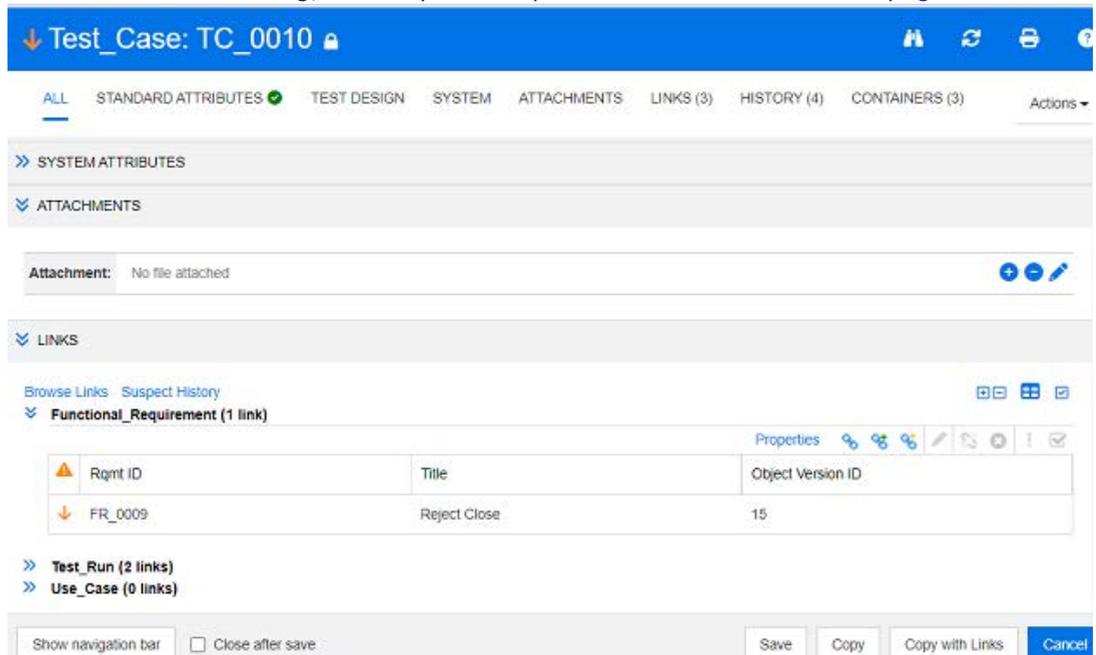
Not every change in a parent requirement will raise suspicion in the child, nor every change in the child will initiate a review of the parent. Certain attributes may be exempted, for example, a change in the Notes attribute or the priority may not raise suspicion, while a change in the a title, statement, description or business benefit will. Changes in relationships may also raise suspicion, a deleted link, for example, or a workflow status change.

The system allows the team to raise suspicion when it is sensible to do so, and the suspect links feature allows users to list all objects with suspect links, review the source of the suspicion as well as its impact and to clear the suspicion in keeping with the established process.

Identifying Suspect Links

	<p>The standard suspect link icon indicates that the associated object is suspect. Opening the object and clicking on the icon will raise a dialog indicating the source of the suspicion and, should permissions apply,</p>
	<p>Should the setup include the setting <i>Visualize upstream and downstream suspect links</i>, a down arrow will be displayed if the source of the suspicion was initiated by an upstream change.</p>
	<p>Should the setup include the setting <i>Visualize upstream and downstream suspect links</i>, an up arrow will be displayed if the source of the suspicion was initiated by a downstream change.</p>

- 1 After highlighting the desired requirement in a work pane, select **Edit** from the Requirements set of the Actions pane. The Edit Attributes dialog opens.
- 2 A suspect link icon is displayed in the top left corner of the dialog box if the requirement is suspect. The icon will remain until all modifications that raised the suspicion have been cleared.
- 3 You may click this icon to open the **Suspect Reason** dialog. For further information about this dialog, see chapter "[Suspect Reason Information](#)" on page 145.



The screenshot shows the 'Test_Case: TC_0010' dialog box. The 'LINKS' section is expanded, showing a table of links for the 'Functional_Requirement (1 link)'.

Rqmt ID	Title	Object Version ID
FR_0009	Reject Close	15

Other sections visible include 'SYSTEM ATTRIBUTES', 'ATTACHMENTS', and 'LINKS' (with sub-sections for 'Test_Run (2 links)' and 'Use_Case (0 links)').

- 4 Or you may expand the **Links** section to understand the cause of the suspicion. For example, it may be a small change in an upstream requirement that will require no further action.

- 5 Change the requirement if there is impact, or highlight the requirement and clear the suspect link if it does not affect the requirement.



NOTE The suspect link icon may be displayed in other areas of RM Browser, such as in the Quick Search query results and the navigation tree of the Document and Traceability work pages.

Suspect Reason Information

The **Suspect Reason** dialog appears when clicking the suspect link icon in the Edit Attributes dialog, or by using the **Show Suspect Reason** item in the shortcut menu of a link in Link Browser. This dialog provides information concerning the attribute(s) modified, who made the change and when.

Class	PUID	Attribute	New Value	Raised At	Raised By
<input checked="" type="checkbox"/> Functional_Requirement	FR_0005	Owner	RYAN FORBES JOSEPH WILSON	01-DEC-2021@08:12:39	Joseph Wilson
<input checked="" type="checkbox"/> Functional_Requirement	FR_0002	Owner	RYAN FORBES JOSEPH WILSON	01-DEC-2021@08:12:39	Joseph Wilson

STANDARD ATTRIBUTES

Test ID: TC_0003

Description:

Show navigation bar Close after save

Save Copy Copy with Links Cancel

Clearing Suspect Links

To clear suspect links:

- 1 Review the changes that raised suspicion; for more detail click the PUID.
- 2 Uncheck requirements for which suspicion should not be cleared at this time.
- 3 Select Clear suspect links.
- 4 Should the process require it, the **Resolve Suspicions** dialog is raised. (see ["Specifying a Reason for Resolving a Suspect Link"](#) on page 146).

Clearing Suspect Links When Replacing a Requirement

When a requirement under suspicion is modified and saved, the suspect links may be automatically cleared, assuming this option has been selected by the administrator. Otherwise, the suspect link must be cleared after making the change.

The exact behavior depends on the local configuration (see ["Suspect Links: Confirm Clearing Suspect Links on Save"](#) on page 85).

Specifying a Reason for Resolving a Suspect Link

The **Resolve Suspicions** dialog is shown when you want to resolve a suspect link manually.

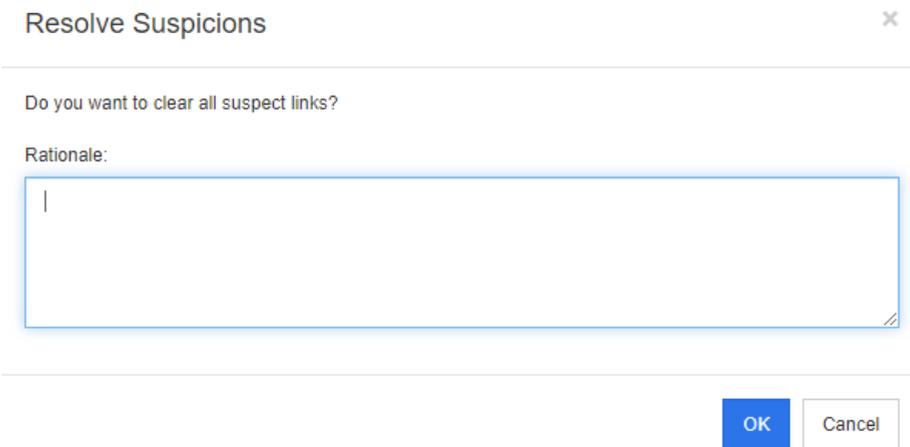


Figure 3-9. Resolve Suspicions Dialog

To resolve one or several suspect links, do the following:

- 1 If desired, specify a reason for resolving the suspect link in the **Comment** box.
- 2 Click **OK** to resolve the suspect link with the specified comment.

Using the Suspect History

Whenever a requirement becomes suspect, an entry in the Suspect History is created. Each entry provides detailed information about the related clearance process.

To open the Suspect History:

- 1 Select the desired requirement in a work pane.
- 2 Select **Edit** from the **Requirements** set of the **Actions** pane. The **Edit Attributes** dialog opens.
- 3 Expand the **Links** section.
- 4 Click **Suspect History** to open the **Suspect History** dialog.

The Suspect History table provides the following information and functionality:

Column	Description
Class	Shows the class of the linked requirement.
PUID	Shows the PUID of the linked requirement. Clicking the PUID opens the linked requirement for editing.
Attribute	The name of the attribute that changed and made the requirement suspect.

Column	Description
New Value	The new value of the changed attribute.
Modified By	The name and/or ID of the user who modified the requirement and made the requirement suspect along with the date and time of the change.
Suspicion Cleared	Shows the name and/or ID of the user who cleared the suspect status for the linked requirement along with the date and time the suspicion was cleared. Clicking the user name or ID opens a popup with information about the user. The reason why the suspect status was cleared is also shown: <ul style="list-style-type: none"> ■ Manual: The user shown under Cleared By cleared the suspect status manually. ■ Replaced: The user shown under Cleared By cleared the suspect status by replacing the requirement with a new version.
Rationale	A comment added by the user responsible for the resolution.

Inherited Links

When making a proposal, any links on the originating requirement are inherited.

To identify inherited links:

- 1 After selecting the desired proposal in a work pane, select **Edit** from the Requirements set of the Actions pane. The Edit Attributes dialog opens.

Marketing_Requirements: MRKT_000003

ALL STANDARD ✓ CUSTOM SYSTEM ATTACHMENTS COMMENTS LINKS (3) HISTORY (9) POLLS CONTAINERS (3) Actions ▾

Category: RMDEMO ▾

>> STANDARD ATTRIBUTES ✓
 >> CUSTOM ATTRIBUTES
 >> SYSTEM ATTRIBUTES
 >> ATTACHMENTS
 >> COMMENTS
 >> LINKS

Browse Links Suspect History + + +

>> ECPs (0 links)
 >> Product_Requirements (3 links)

	Rqmt ID	Title	Object Version ID
⚠	PROD_000020	256 color VGA	8
⚠	PROD_000021	Run on 300 Mhz celeron with 32 megs of ram	9
⚠	PROD_000022	Install footprint less than 5 megs of disk space	9

>> HISTORY
 >> POLLS
 >> CONTAINERS

Close after save

 Update Copy Copy with Links Cancel

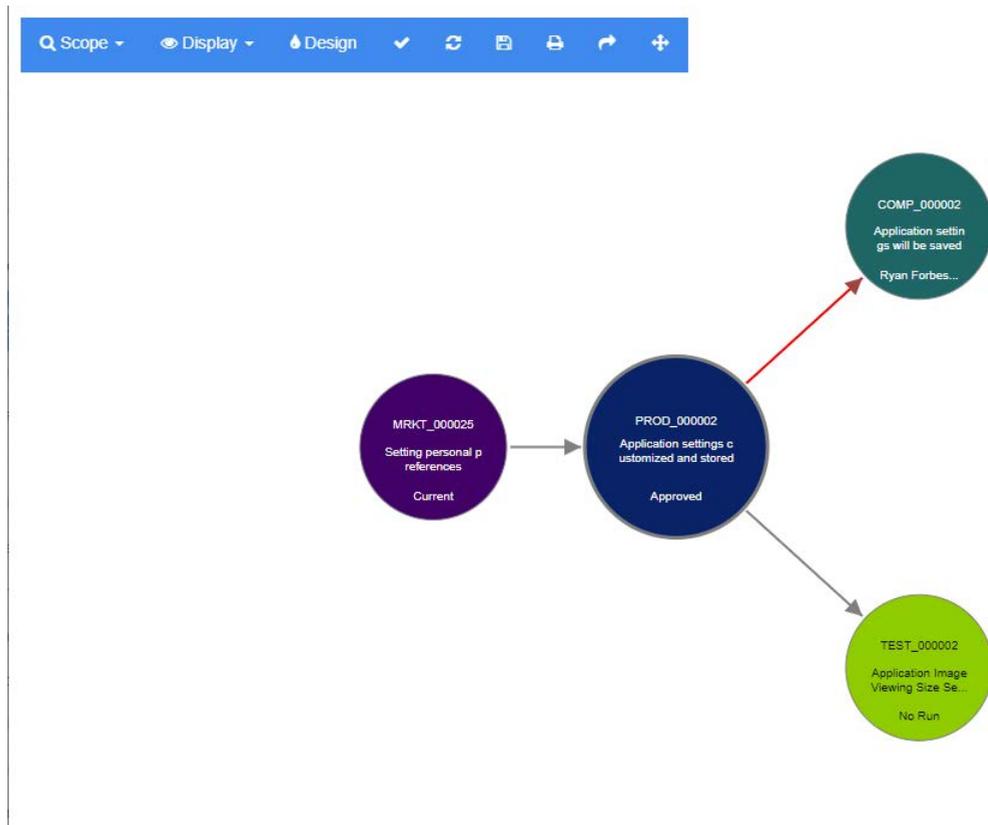
- 2 Expand the **Links** section.
- 3 Open a class which has links.
- 4 Inherited links are marked by  .



NOTE When making a proposal, also the collections of the original requirement are inherited. For further information, see chapter "[Inherited Containers](#)" on page 152.

Using Link Browser

Link Browser displays the relationship of requirements and containers. To access Link Browser, select one or several requirements with links in the **Requirement View** and click on **Browse Links** in the **Requirements** set of the **Action** pane.



By clicking on a requirement, the child requirements and containers to which the requirement belongs to are shown. Double-clicking a requirement opens the *Edit Attributes* dialog. Link Browser allows zoom in or zoom out by turning the mouse-wheel.

Toolbar

The toolbar provides these general functions:



Scope: Clicking on this icon opens a sub-menu with these entries:

Classes and Relationships: Allows to select classes and/or links from one class to another class the linked requirements must belong to in order to be displayed. If you unselect all classes, Link Browser will only show the current class.

Category: Allows to select the category the linked requirements must belong to in order to be displayed.

Container: Allows to select which container the linked requirements must belong to in order to be displayed.

After making your changes, click on **Apply**.



Display: Clicking on this icon opens a sub-menu with these entries:

Containers

- **Containers:** If checked, Link Browser shows the containers the requirements belong to. A container is displayed as a light blue rectangle.
- **Only Current Objects:** If checked, Link Browser only shows current requirements and links. The status of a non-current requirement is shown at the bottom of the requirement.
- **Show Deleted Links:** If checked, Link Browser also shows deleted links. A deleted link is shown as a dashed line.
- **Highlight Suspect Links:** If checked, suspect links will be colored red.
- **Relation depth:** The specified value defines to which depth links should be followed when a requirement is loaded or clicked on. A value of 1 means that only children are displayed. Setting a value of 2 means that children and grandchildren are displayed.

After making your changes, click on **Apply**.



Design: Opens the *User Settings* dialog which allows to set the color for each class. This is identical to selecting **User Settings** in the **Login menu** and then selecting **Link Browser**. For further information on Link Browser settings, see chapter "[Link Browser Settings](#)" on page 91.



Apply: Applies the option changes and loads the objects based on the current view.



Reload: Applies the option changes and loads the objects based on the original object.



Save: Creates an image of the current Link Browser dialog which can be downloaded.



Print: Prints the Link Browser dialog.



Return to default filter: Resets the scope to its default.

Context Menu

The context menu provides functions for requirements and links.

Context Menu for Requirements

This context menu is only available when selecting a requirement. Not all of these functions may be available for every requirement:

- **Edit:** Opens the dialog for editing the requirement's attributes.
- **Browse Links:** Opens a new Link Browser dialog with the selected requirement as parent.
- **Delete:** Deletes the selected requirement.
- **Remove:** Removes the selected requirement.
- **Undelete:** Undeletes the selected requirement.
- **Resolve Suspicions:** Clears all suspect links.
- **Create Link:** Opens the *Link Requirements* dialog. This allows linking a requirement to the selected requirement.
- **Create New & Link:** When selecting a class from the sub-menu, this opens the New requirement dialog for the selected class. When saving the requirement, the new requirement is linked to the selected requirement.
- **Add to Collection:** Opens the *Add to Containers* dialog. This allows adding the selected requirement to a collection.

Context Menu for Links

This context menu is only available when selecting a link. Not all of these functions may be available for every link:

The context menu provides these functions:

- **Delete:** Deletes the link.
- **Remove:** Removes the link.
- **Undelete:** Undeletes a link.
- **Show Suspect Reason:** Opens the **Suspect Reason** dialog, which shows which requirement and attribute change caused the requirement to become suspect. For further information see chapter "[Suspect Reason Information](#)" on page 145.
- **Resolve Suspicion:** Clears the suspected link.

Working with Containers

Containers can hold requirements of any class. You can add requirements of different classes into the same container. For further information about containers, see chapter "About Collections" on page 308.

The **Container** section offers these functions:

	Properties: Opens the <i>Container Properties</i> dialog. For details see chapter "Container Properties" on page 153.
	Add to Collection: Opens the <i>Add to Collection</i> dialog which allows to add the current requirement to an existing collection. Add to Collection is available if the user has the <i>Link</i> right for classes and the <i>Link</i> right for collections.
	Remove from Collection: Permanently removes the requirement from the selected collection(s). Remove from Collection is available if the user has the <i>Link</i> right for classes and the <i>Link</i> right for collections.
	Open Container: Opens the desired container. If the container is a document or snapshot, it will open at the first location of the requirement in the document. If the container is a collection or baseline, it will select the requirement which opened it.

The data of all containers the requirement has been added to is shown in a table. You can sort the entries of that table by clicking a column header. Clicking a column header toggles between ascending and descending sort order. A little arrow next to the sorted column name shows the sort order.

	Ascending order: The entries are sorted by the values of the marked column in ascending order (0...9, A...Z).
	Descending order: The entries are sorted by the values of the marked column in descending order (9...0, Z...A).

To create, remove, or view links in the context of a specific container, expand the container's subsection. See "Working with Links" on page 133.



NOTE The version of any linked objects displayed here corresponds to the version of the object that is in the container. That may, or may not, be the current version of the object (see the Current Status column).

See the Links section if you want to see only links to the current version of an object.

Adding a Requirement to an Existing Container

- 1 Open the *Edit Attributes* dialog for a requirement.
- 2 Expand the **Containers** section.
- 3 Click . This opens the *Add to Collection* dialog.
- 4 Select the collection you want to add the requirement to.
- 5 Click **OK**.

Removing a Requirement from a Container

- 1 Open the *Edit Attributes* dialog for a requirement.
- 2 Expand the **Containers** section.
- 3 Select the containers you want to delete or to remove.
- 4 Click  .



NOTE If you remove a requirement from a container, linked requirements may become suspect depending on the relationship settings.

Opening a Container

- 1 Open the *Edit Attributes* dialog for a requirement.
- 2 Expand the **Containers** section.
- 3 Click  next to the container you want to open.

Inherited Containers

When making a proposal, any containers on the originating requirement are inherited.

To identify inherited containers:

- 1 After selecting the desired proposal in a work pane, select **Edit** from the Requirements set of the Actions pane. The Edit Attributes dialog opens.

Marketing_Requirements: MRKT_000004

ALL STANDARD CUSTOM SYSTEM ATTACHMENTS (1) COMMENTS LINKS HISTORY POLLS CONTAINERS (3) Actions ▾

Category: RMDEMO ▾

>> STANDARD ATTRIBUTES
 >> CUSTOM ATTRIBUTES
 >> SYSTEM ATTRIBUTES
 >> ATTACHMENTS
 >> COMMENTS
 >> LINKS
 >> HISTORY
 >> POLLS
 >> CONTAINERS

Type	Name	Time Created	Time Modified	Modified By
>> Collection	ePhoto - Release 1.1	25-NOV-2014@08:24:59	19-FEB-2018@13:59:24	Ryan Forbes
>> Document	ePhoto Requirements	18-MAY-2006@00:00:00	23-FEB-2022@16:37:06	Joseph Wilson
>> Collection	User	01-MAY-2003@22:53:39	19-FEB-2018@14:00:20	Carter Benton

Show navigation bar Close after save

Update Copy Copy with Links Cancel

- 2 Expand the **Container** section.
- 3 Inherited containers are marked by .



NOTE When making a proposal, also the links of the original requirement are inherited. For further information, see chapter "[Inherited Links](#)" on page 147.

Container Properties

In the *Container Properties* dialog you can define which data should be displayed in the **Container** section.

COLUMNS TO DISPLAY

Description	Name
Category	Time Created
Created By	Time Modified
Owner	Modified By
State	
ID	
Approver	
Author	
DocumentNo	
End Date	
Reviewer	
Start Date	

To add columns:

- 1 Select one or more columns in the **Columns to Display** list.
- 2 Click to add the selected columns.

To specify column order:

- 1 Select one or more columns in the right-hand list.
- 2 Click  or  to specify in which order you want the columns to appear.

To remove columns:

- 1 Select one or more columns in the right-hand list.
- 2 Click  to remove the selected columns.

Adding Requirements to an Existing Collection

From the Requirements view, you can add requirements to an existing collection or collections simply by selecting them and clicking a button.



TIP To add a larger and/or more complex set of requirements to a collection, use Attribute Constraints and Relationship Constraints. See ["Creating a New Baseline" on page 314](#).

To add requirements to an existing collection:

- 1 Select one or several requirements in a work pane.
- 2 Select **Add to Collection** from the **Requirements** set of the **Actions** pane. The **Add to Collections** dialog opens.
- 3 Select the desired collection or collections.



TIP To filter the list of containers, enter a string in the **Find Container** field.

- 4 Click **OK**.

Removing Requirements from a Collection

From the Requirements view, you can remove requirements from a collection or collections simply by selecting them and clicking a button.

To remove requirements from a collection:

- 1 Select one or several requirements in a work pane.
- 2 Select **Remove from Collection** from the **Requirements** set of the **Actions** pane. The **Remove from Collection** dialog opens.
- 3 Select the desired collection or collections.
- 4 Click **OK**.

Working with File Attachments

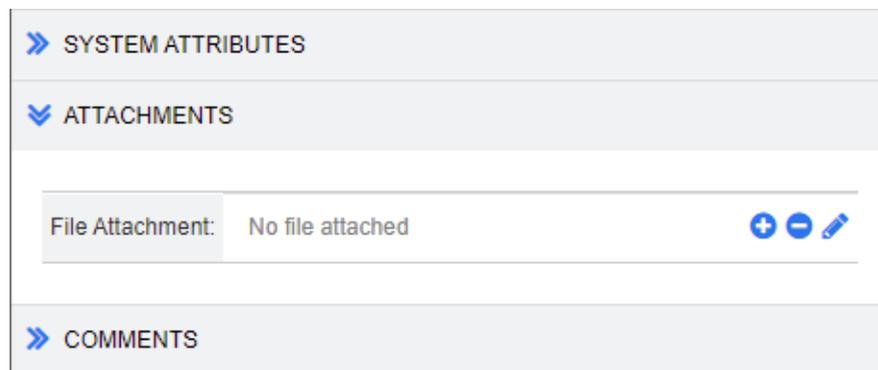
You can add file attachments as attributes to an requirement. Each file attachment attribute for the requirement is represented by a single line in the **Attachments** section on the **Edit Attributes** dialog box. Depending on the configuration of the file attachment attribute, it can hold a single file or multiple files.



NOTE Before file attachment lines appear in the **Attachments** section, an administrator must add one or more File Attachment attributes to each relevant class. For more information, see ["Defining Attributes" on page 409](#)

To attach, replace, delete, or download a file:

- 1 After selecting the desired requirement in a work pane, select **Edit** from the **Requirements** set of the **Actions** pane. The **Edit Attributes** dialog opens.
- 2 If it is collapsed, expand the **Attachments** section on the **Edit Attributes** dialog box.



- 3 Do any of the following:
 - : Click this button to attach a file to the requirement. The Add Attachment dialog opens. Type the full path to the file or click **Browse** to locate the file, and then click **OK**.
 - : Click this button to detach the file from the requirement.
 - : Click this button to replace the existing file with a different file. The Replace Attachment dialog box opens. Type the full path to the file or click **Browse** to locate the file, and then click **OK**.
 - **FileName**: Click the filename link to download the file to your computer. You are prompted to either **Save** or **Open** the file.



CAUTION! File attachment changes are not saved until you click the **Update** or **Save** button as described below.

- 4 **Show navigation bar / Hide navigation bar:** Click to show/hide the navigation bar at the bottom of the dialog. You can browse through the requirements in sequence with the **First**, **Previous**, **Next**, and **Last** controls.
- 5 Click one of the following buttons:

- **Copy** to close the dialog and copy the attribute values for use in creating a new requirement. The New *ClassName* dialog opens (see "Creating a New Requirement" on page 114).



NOTE An attribute is copied into the next requirement only if the administrator selected the **Populate On Copy** option when defining the attribute. See "Common Attribute Properties" on page 411

- **Update** to close the dialog and save your changes without creating a new version of the requirement. (This option is not recommended if you need to maintain a history, or audit trail, of changes to requirements over time.)

Update & Next: As above, except the dialog remains open and the next requirement is loaded. This version of the button appears when the Navigation Bar is visible.

- **Save** to close the dialog and save your changes as a new version of the requirement.

Save & Next: As above, except the dialog remains open and the next requirement is loaded. This version of the button appears when the Navigation Bar is visible.

Working with Group Attributes

A group attribute is like a list attribute in that it provides a predefined list of values for user selection. But unlike a simple list attribute, a group attribute is composed of a series of sub attributes. The choices available to the user depend upon the selections they made in the higher level, or parent, attributes within the group attribute.

For example, a group attribute named *Operating System* contains the sub (member) attributes: *Platform*, *Family*, and *Version*. *Platform* is the first (parent) attribute in the group and includes the following values for selection: *Mobile*, *Desktop*, and *Server*. If *Desktop* is selected, desktop operating system names are available for selection in the *Family* sub attribute. If one of the other values is chosen in *Platform*, such as *Mobile*, the *Family* attribute would show mobile operating system names.

Tests: TEST_000001

ALL STANDARD CUSTOM SYSTEM ATTACHMENTS LINKS (4) HISTORY (7) CONTAINERS Actions

Designer: Engineer 1 Estimated DevTime: 0

Execution Date: 29/11/2021 Execution Status: Passed

Operating System

Platform	Family	Version
Desktop	Windows	XP
Desktop	Windows	7

Clear All

Planned Execution Date: 11/30/2021

Prerequisites:

In the example above, the Family sub attribute also has a child attribute, Version, whose available values depend upon the selection made for Family. The chain of dependencies flows from left to right through the sub attributes of the group attribute.



NOTE As shown in the example above, any given requirement may include multiple value-sets (rows) of a group attribute.

In the Grid View, the example looks like the selected row of the image below:

PUID▲	Test Name	Operating System
TEST_000001	Application CRUD Processing 111	Desktop-Windows-XP Desktop-Windows-7
TEST_000002	Application Image Viewing Size Settings	Mobile-Android-KitKat
TEST_000003	Application Opens Image on Windows	Desktop-Windows-7, Desktop-Windows-XP, Desktop-W



NOTE Each value-set of the group attribute, Requester, appears on its own line within the requirement's row.

For display in the grid, the individual values of the group attribute are separated by a dash character (-). The first line (value-set) in our example is: Desktop-Windows-7, so Desktop is the value of Platform, Windows is the value of Family, and 7 is the value of Version.

The icons to the rightmost attribute box provide these functions:

-  Adds a new (empty) row
-  Adds a new row with the values of the selected row
-  Removes the selected row; the **Clear All** removes all rows in the group.



NOTE If configured by your administrator,  and  are not available and you can only select one row of values for this group attribute.



TIP To quickly create value-sets representing each possible value of a given member, select the **Select All** drop-down menu item for that member.

Viewing Requirement History

A requirement history lets you track changes to a requirement over time. A **History** section is displayed on a requirement form if the requirement is displayed in grid format. You can select the attributes that you see in the form and the order in which the attributes are displayed. You can also use the **History** section to see the differences between the requirement that is open and a selected version of the requirement or between two other versions of the requirement.

To view the history of a requirement:

- 1 After selecting the desired requirement in a work pane, select **Edit** from the Requirements set of the Actions pane. The Edit Attributes dialog opens.
- 2 Expand the **History** section.

	Time Modified	Modified By	Current Status
	18-MAY-2006@09:16:32	Ryan Forbes	Replaced
	25-NOV-2014@08:22:31	Ryan Forbes	Replaced (Baselined)
	30-SEP-2015@01:54:24	Ryan Forbes	Current

When using branching, you may get additional information by hovering over the icon in the **Current Status** cell of the **History** set. Note that an icon may not be present in all cases.

: The requirement was branched (provided) to a different product or project or the requirement version was used to create a new version by synchronization.

: The requirement was branched (provided) from another product or project.

: The requirement was synchronized.

Clicking (preceding a history entry), opens the history details dialog between the current and the selected item.

History Details

Attribute	Prior Value	New Value
Text	This effort shall be undertaken using the Tcl/Tk scripting language. This ensures rapid prototyping and high portability. Tcl/Tk currently runs on: Windows 3.11, Windows 95, Windows NT and various UNIX flavors.	This effort shall be undertaken using the Tcl/Tk scripting language. This ensures rapid prototyping and high portability. Tcl/Tk currently runs on: Windows 7, Windows 10 and various UNIX flavors.
Priority		High
Workflow State	In Analysis	Approved
Owner		Ryan Forbes
Effort Estimation		7.25
Title	Try to use Tcl/Tk	Try to use Tcl/Tk
Verification Status	Incomplete	Scheduled

Figure 3-10. History Details Dialog

You can open the **History Differences** dialog by clicking , which is located in the title bar of the history details dialog.

Viewing History Differences

You can view the differences between the open requirement and a selected version of the requirement, or between two versions of the requirement.

To view the differences:

- 1 Expand the **History** section, if it is not already expanded.

» LINKS

» HISTORY

Pedigree [Properties](#) [Differences](#)

	Time Modified	Modified By	Current Status
	18-MAY-2006@08:59:35	Ryan Forbes	Replaced (Baselined)
	30-SEP-2015@01:41:48	Ryan Forbes	Replaced
	28-JUL-2020@06:15:11	Joseph Wilson	Current

- 2 Click **Differences**.

- 3 Perform one of the following actions:

- If you want to compare the open requirement with another version of the requirement, select the other version and then click **Differences**.
- If you want to compare two versions of the requirement, select them and then click **Differences**.

The **History Differences** dialog box opens, and contains visual indications of what changed between the two versions.

History Differences for Product_Requirements: PROD_000001

Category: RMDEMO/Interface

STANDARD ATTRIBUTES

Rqmt ID: PROD_000001 Title: Try to use Tc/TK-

Text: This effort shall be undertaken using the Tc/TK scripting language. This ensures rapid prototyping and high portability. Tc/TK currently runs on: Windows 7, Windows 95, Windows NT, and various UNIX flavors.

CUSTOM ATTRIBUTES

SYSTEM ATTRIBUTES

Created By: Ryan Forbes Current Status: ReplacedCurrent

Initial Created By: Carter Benton Initial Time Created: 08-NOV-2001@23:53:39

Modified By: Ryan Forbes Object ID: 24144

Object Version ID: 28 Owner: Ryan Forbes

Requirement Link: <http://supportvm2016.8080/rtm/Browser/cgi-bin/rtm/Browser.exe?goto=req&db=RTM&proj=RMDEMO&c=2&o=144> Suspect: YesNo

Time Created: 07-MAR-2004@13:48:2630-SEP-2015@03:49:58 Time Modified: 03-JUL-2016@04:29:6225-APR-2017@01:33:37

Workflow State: Proposed/Approved

Close



NOTE

- If only one version is displayed in the **History** section, and you click **Differences**, an error message is displayed, because you cannot compare a requirement to itself.
- If you select more than two versions in the **History** section, the **Differences** link is disabled, because you can only compare two versions at the same time.
- The version with the greater Object ID is used as the newer item.
- A new requirement is not displayed in the **History** section.
- In the default.xml file, the **History** section is called "history." If this conflicts with the name of a user-customized section, the administrator must modify the customization. For more information about Web form customizations, see the *Dimensions RM Administrator's Guide*.

Making a Previous Version Current

When making a previous version current, a new version is created with the data of the previous version.

To make a previous version current:

- 1 Expand the **History** section, if it is not already expanded.

	Time Modified	Modified By	Current Status
	18-MAY-2006@08:59:35	Ryan Forbes	Replaced (Baselined)
	30-SEP-2015@01:41:48	Ryan Forbes	Replaced
	28-JUL-2020@06:15:11	Joseph Wilson	Current

- 2 Select the requirement version you want to make current.
- 3 Click .

**NOTE**

- Making a previous version current, does not change the Workflow State or any other attribute the user cannot overwrite (e.g. due to security restrictions).
- You can also make previous versions current in the Pedigree View (see chapter "Using Pedigree View" on page 162).

Changing the Attributes in the History Section

You can change the attributes that you see in the **History** section, and specify the order of the attributes.

**NOTE**

- In the **History Properties** dialog box, if you move all attributes from the boxes on the right to the **Attributes to Display** and **Sorting Order** boxes, the default attributes and sorting are used in the **History** section.
- The attributes and their order are remembered for each class and are used when viewing the history for any requirement in that class.

To change the attributes:

- 1 Expand the **History** section, if it is not already expanded.
- 2 Click **Properties**. The **History Properties** dialog box opens.
- 3 To specify the attributes to display, see chapter "Attributes to Display List" on page 37.
- 4 To specify the sort order, see chapter "Sorting Order List" on page 38.

Changing Requirement Versions in Documents

In some cases, you need to change the requirement within a document to a different version as the one which is already in the document. To do this, execute these steps:

- 1 Open the document with the requirement you want to change the version for.
- 2 Select that requirement.
- 3 Expand the **History** section.

 HISTORY

Pedigree [Properties](#) [Differences](#) [C](#)

	TIME MODIFIED	MODIFIED BY	CURRENT STATUS
  	18-MAY-2006@09:17:06	Ryan Forbes	Replaced
  	25-NOV-2014@08:23:23	Ryan Forbes	Replaced
	30-SEP-2015@01:54:24	Ryan Forbes	Current (Baselined)

 POLLS

- 4 Find the version you want to use and click . This opens the **Exchange Requirement** dialog.

Exchange Requirement x

Are you sure you want to exchange requirement 'MRKT_000030' version 3 with version 1?

Also exchange requirements in these document(s):

<input type="checkbox"/>	Name	Time Created	Time Modified	Modified By
<input type="checkbox"/>	ePhoto Tablet Requirements	30-AUG-2021@12:32:08	30-AUG-2021@12:32:15	Joseph Wilson

By selecting the documents in the list, the requirement version will be exchanged for these documents as well. To select a document, click into the box next to its name. To select all documents, click the box in the heading (next to the **Name:** heading).



NOTE The **Exchange Requirement** dialog only shows those documents which have the **Update To Current (Tip)** option disabled.

- 5 Click **Yes**.

Using Pedigree View

Pedigree View is a graphical representation of the history of a requirement.

To open Pedigree View, follow these steps:

- 1 Select the desired requirement in the Requirements View.
- 2 Click **Pedigree** in the Requirements set of the Actions Pane. This opens the **Pedigree View** dialog.

If the requirement is shown in the **Edit Attributes** dialog, you can follow these steps:

- 1 Expand the **History** section.
- 2 Click **Pedigree**. This opens the **Pedigree View** dialog.

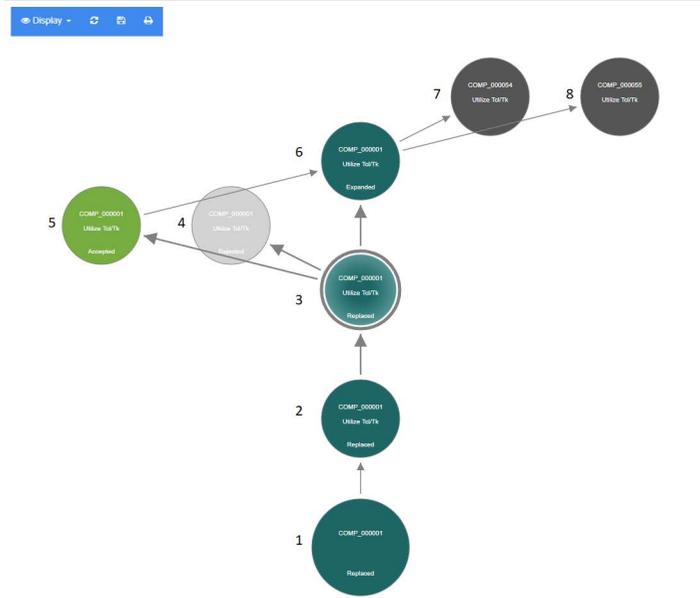


Figure 3-11. Pedigree View of a requirement

The elements in the figure above have the following meaning:

- 1 This is the original requirement.
- 2 This is a modified version of #1.
- 3 This is a modified version of #2.
- 4 This is a rejected proposal based on #3.
- 5 This is an accepted proposal based on #3.
- 6 This is the requirement which resulted on the accepted proposal (#5).
This requirement has been expanded (split) into 2 requirements (#7 and #8).
- 7 This is a requirement which was created by expanding #6.
- 8 This is a requirement which was created by expanding #6.

The Pedigree View tool bar provides these functions:



Reload: Reloads the Pedigree View dialog.



Download: Creates an image of the current Pedigree View dialog which can be downloaded.



Print: Prints the Pedigree View dialog.

The shortcut menu (right-click a requirement element), provides these functions:

Open: Opens the selected version of the requirement.

Make Current: Creates a new version of the requirement with the data of the selected version.

NOTE

- Making a previous version current, does not change the Workflow State or any other attribute the user cannot overwrite (e.g. due to security restrictions).
- You can also make previous versions current in the History section of the *Edit Attributes* dialog (see chapter "[Making a Previous Version Current](#)" on page 160).

Expand: Expands the requirement.

Note that you can only expand requirements with object status **Current** or **Expanded**. For further information about expanding requirements, see chapter "[Using the Expand Feature](#)" on page 121.

Show Differences: Opens the **History Differences** dialog which shows the changes between the selected version and the current version. Note that this function is not available if the selected version is the current version.

Browse Links: Opens **Link Browser** on the selected version of the requirement.

Pedigree: Opens another **Pedigree View** dialog for the selected requirement.



NOTE Pedigree View uses the settings of Link Browser. If you change the settings for Link Browser, this also changes the settings for Pedigree View.

Merging Requirement Changes



NOTE RM Browser can be configured to use locking or merging to handle the situation when multiple users want to edit a requirement or chapter at the same time. This section describes requirement merging. For information about the locking mechanism, see "[About Requirement Locks](#)" on page 109.

This configuration is set in the **Instance Settings** dialog. See "[Configuring Instance Settings](#)" on page 431.

If RM Browser is configured to use merging, requirement changes must be merged when two users edit a requirement at the same time.

Changes can be *automatic* or *conflicting*, as described in the following table.

Change Type	Description
Automatic	When the change made by the first user is the same as the change made by the second user or when the change made by the first user is distinct from any change made by the second user, automatic merging can occur because a review of the change is not strictly necessary. However, it is recommended that the second user review the change made by the first user before accepting it.
Conflicting	When the change the second user makes conflicts with the change the first user made, the second user must review the changes and do one of the following: <ul style="list-style-type: none"> ■ Accept the change the second user made ■ Accept the change the first user made ■ Accept the original value ■ Combine the changes manually by editing the value directly in the main part of the dialog box

The following scenario summarizes the actions that lead to requirement merging.

- 1 Two users edit a requirement at the same time.
- 2 The first user clicks **Save** on the **Edit Attributes** dialog box. The requirement is replaced and the **Edit Attributes** dialog box closes.
- 3 The second user clicks **Save** on the **Edit Attributes** dialog box.
- 4 The second user is notified that the first user made one or more changes to the requirement. The notification either tells the second user that the merge can be done automatically (because the change the first user made does not conflict with the change the second user made) or that the changes conflict and must be resolved before the second user can replace the requirement.
- 5 The second user clicks **OK** on the notification message. The **Edit Attributes** dialog box becomes the **Merge Attributes** dialog box. The **Merge Attributes** dialog box differs from the **Edit Attributes** dialog box in that the **Merge Attributes** dialog box:
 - Has a section at the top that summarizes the changes and provides a user interface for merging the changes
 - Does not have an **Update** button
 - Has visual indications next to its attributes that identify the type of merge that the second user selected
- 6 The second user uses the merge section at the top of the **Merge Attributes** dialog box to resolve the changes as described in ["Viewing Prior Versions of the Requirement" on page 166](#) and ["Merging Changes" on page 167](#).

Merge Status

The merge status of the changes made by Mary and Joe are highlighted in the **Changed Attributes** section at the top of the **Merge Attributes** dialog box.

The screenshot shows the 'Merge Attributes' dialog box for 'Component_Requirements: COMP_000024'. At the top, there is a navigation bar with tabs for 'ALL', 'STANDARD', 'CUSTOM', 'SYSTEM', 'ATTACHMENTS', 'COMMENTS (1)', 'LINKS (1)', 'HISTORY (4)', 'POLLS', and 'CONTAINERS'. Below this is the 'Changed Attributes' section, which contains a table with the following data:

Attribute	Changes by Joseph Wilson	Changes by Mary Jones	Merge Status
Text	This effort shall be undertaken using the Tcl/Tk scripting language. This ensures rapid prototyping and high portability. Tcl/Tk currently runs on: Windows 3.11, Windows 95, Windows NT, <u>Windows XP</u> , and various UNIX flavors.	None	Automatic
Verification Level	Component	ComponentModule	Conflict
Verification Method	Analysis	AnalysisInspection	Conflict

Below the table, the 'STANDARD ATTRIBUTES' section is expanded, showing the details for the 'Text' attribute. The 'Rqmt ID' is 'COMP_000024' and the 'Title' is 'Utilize Tcl/Tk'. The 'Text' field contains the same description as in the table above. At the bottom of the dialog, there are buttons for 'Save', 'Copy', 'Copy with Links', and 'Cancel', along with checkboxes for 'Show navigation bar' and 'Close after save'.

Joe made the first change when he added "Windows XP" to the *Text* attribute. In the **Merge Status** column, **Automatic** is selected in the list, because the change does not involve a conflict with a change that Mary made. The icon that represents an automatic merge is a diamond shape with a merge arrow in it  and is displayed to the left of the **Merge Status** list and to the left of the **Text** attribute box in the main part of the dialog box.

The second change and third change involve conflicts. In the second change, Joe changed the *Verification Level* attribute value to **Component**, but Mary changed this attribute value to **Module**. In the **Merge Status** column, **Conflict** is selected in the list. The icon that represents a conflict is a triangle with an exclamation point in it  and is displayed to the left of the **Merge Status** list and to the left of the *Verification Level* attribute in the main part of the dialog box.

The third change also involves a conflict because Mary changed the *Verification Method* attribute value to **Inspection** while Joe changed it to **Analysis**.

Viewing Prior Versions of the Requirement

It can be useful to view prior versions of the requirement before you resolve changes.

- The second user can view the original version of the requirement by clicking the **View original version of requirement** button  or by clicking **Original** in the appropriate **Merge Status** column list.
- The second user can view the requirement in the state it was in after the first user made changes but before the second user made changes by clicking the **New version of requirement prior to your changes** button .

Merging Changes

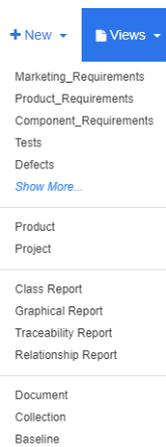
After the second user has decided how to resolve the changes, he or she can merge them.

To merge changes:

- 1 If **Automatic** is selected in the **Merge Status** column list box, perform one of the following steps:
 - Retain the **Automatic** selection to accept the change.
 - Select the name of the user who made the change to accept the change.
 - Select **Original** to restore the attribute to its original value.
- 2 If **Conflict** is selected in the **Merge Status** column list box, perform one of the following steps:
 - Select the name of the user whose change you want to accept.
 - Select **Original** to restore the attribute to its original value.
 - Edit the value manually in the main form so that it matches the value you want to accept.
- 3 If you want to accept all changes made by a particular user (for example, Mary or Joe), click the **Accept all changes by Mary Jones** button  or the **Accept all changes by Joseph Wilson** button  .
- 4 Click **Save**.

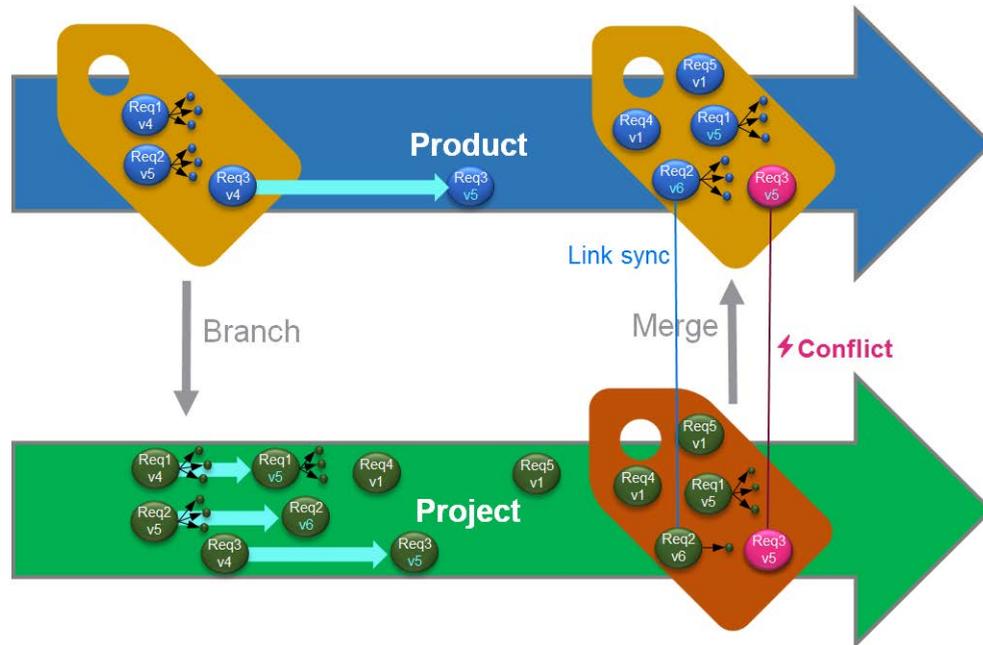
Branching and Merging Requirements

If your administrator created the Product and Project classes, you can use the branching and merging functionality for requirements. Note that the classes are not necessarily named "Product" and "Project". However, for simplicity, this guide uses the names "Product" and "Project". To verify if the Product and Project classes are installed, open the **New** menu in the menu bar. If you can see two class names underneath the **Requirement** entry as in the image below, branching is available.



About Branching and Merging

Branching and merging of requirements provides support for maintaining variants. Requirements that belong to a product, may be branched, modified and later merged back into the original product requirements. The initial branch creation copies requirements from the product (the parent) to the project (the child), but they remain connected - even if their versions change..



The image above shows the following scenario:

- 1 For Product, a branch (the Project) is created. This copies the (blue) requirements Req1, Req2 and Req3 to Project (shown as green requirements). You can see that the version number for each of the green requirements is identical with their counterparts of the blue requirements.
- 2 In Project, the green requirements Req1, Req2 and Req3 are modified. For Req2 also the links are removed. Due to these modifications, the version numbers of the green requirements increase.
- 3 For Product, requirement Req3 is modified as well. Although both, blue and green, Req3 requirements share the version number (both are v5), they are not identical.
- 4 During the process, requirements Req4 and Req5 are created for Project.
- 5 When merging the requirements from Project to Product, you
 - a can specify if you want to take over the new requirements Req4 and Req5;
 - b can choose if you want to remove or keep links;
 - c can choose which attribute values you want to copy from each Project requirement.

Creating a New Project

The creation of a project will create a category of the same name. Requirements created within or copied to the Project will be placed into this category, or into a category below it.

To create a new project, do the following:

- 1 In the menu bar, click **New** and select *Project* (the third entry) from the menu. This opens the **New Project** dialog.
- 2 If desired, you can choose a subcategory. However, sub-categories have the following limitations:
 - A subcategory must not be a project itself.
 - A subcategory can only be underneath the **Project** category.
- 3 Specify the **Short Name**; the short name must be unique.



NOTE If your administrator only created the Project class, the **Short Name** attribute may not be available.

- 4 If desired, specify the **Description**.
- 5 To assign products to the new project, do the following:
 - a Click **Assignment**. This opens the **Assign Product(s)** dialog.
 - b From the list, select the product or products you wish to assign.
 - c Click **OK**.
- 6 If desired, assign the project to a container. For further information on containers, see chapter "[Working with Containers](#)" on page 151.
- 7 **Close after save:** Select this check-box to close the project after saving it. Otherwise, the project opens for editing after you save it.
- 8 Click one of the following buttons:
 - **Save** to create the new project and close the **New Project** dialog. The project opens for editing if the **Close after save** checkbox is not selected. See "[Editing a Requirement](#)" on page 118.
 - **Save & Copy** to create the new project and retain the attribute values for creating another new project.



NOTE An attribute is copied into the next project only if the administrator selected the **Populate On Copy** option when defining the attribute. See "[Common Attribute Properties](#)" on page 411.

- **Save & New** to create the new project and clear the attribute values for creating another new project.

Creating a New Product

The creation of a product will create a category of the same name. Requirements created within or copied to the Product will be placed into this category, or into a category below it.

To create a new product, do the following:

- 1 In the menu bar, point to **New** and select **Product** (the second entry) from the menu. This opens the **New Product** dialog.
- 2 If desired, you can choose a subcategory. However, sub-categories have the following limitations:
 - A subcategory must not be a product itself.
 - A subcategory can only be underneath the **Product** category.
- 3 Fill the **Name** box.
- 4 If desired, specify the **Description**.
- 5 Specify the **Short Name**; the short name must be unique.



NOTE If your administrator only created the Product class, the **Short Name** attribute may not be available.

- 6 If you want to assign this product to one or several projects, do the following:
 - a Click **Assignment**. This opens the **Assign Project(s)** dialog.
 - b From the list, select the project or projects you wish to assign this product to.
 - c Click **OK**.
- 7 If desired, assign the project to a container. For further information on containers, see chapter "[Working with Containers](#)" on page 151.
- 8 **Close after save:** Select this check-box to close the product after saving it. Otherwise, the product opens for editing after you save it.
- 9 Click one of the following buttons:
 - **Save** to create the new product and close the **New Product** dialog. The product opens for editing if the **Close after save** checkbox is not selected. See "[Editing a Requirement](#)" on page 118.
 - **Save & Copy** to create the new product and retain the attribute values for creating another new product.



NOTE An attribute is copied into the next product only if the administrator selected the **Populate On Copy** option when defining the attribute. See "[Common Attribute Properties](#)" on page 411.

- **Save & New** to create the new product and clear the attribute values for creating another new product.

Editing a Project

This section describes using the **Edit Attributes** dialog to edit an existing Project.



TIP Some attributes can be directly edited in the Editable Grid view. In this view, it is possible to edit an attribute across multiple requirements at once. See ["Editable Grid, Grid, and Form Views"](#) on page 33.

To edit an existing Project, do the following:

- 1 After selecting the desired Project in a work pane, select **Edit** from the **Requirements** set of the **Actions** pane. This opens the **Edit Attributes** dialog.
- 2 Continue with point 2 in chapter ["Creating a New Project"](#) on page 169.

Editing a Product

This section describes using the **Edit Attributes** dialog to edit an existing Product.



TIP Some attributes can be directly edited in the Editable Grid view. In this view, it is possible to edit an attribute across multiple requirements at once. See ["Editable Grid, Grid, and Form Views"](#) on page 33.

To edit an existing Product, do the following:

- 1 After selecting the desired Product in a work pane, select **Edit** from the **Requirements** set of the **Actions** pane. This opens the **Edit Attributes** dialog.
- 2 Continue with point 2 in chapter ["Creating a New Product"](#) on page 169.

Branching a Single Requirement

Requirements may be branched from a working *Project* to an existing *Product*, and from a working *Product* into a related *Project*. The branch targets listed in the Provide dialog are based on the current location.

To branch a requirement, do the following:



NOTE The attributes displayed with the Project or Product classes in the **Provide** dialog use the attributes selected in Quick Search for Project and Product Classes (see ["Quick Search Settings"](#) on page 87).

- 1 Open the requirement for editing (see chapter ["Editing a Requirement"](#) on page 118).
- 2 Expand the **Used in Project** section.
- 3 Click **Provide** to open the Provide dialog.
 - **Product:** Select the *Project* you want to branch the *Product* to.
 - **Project:** Select the *Product* you want to branch to the *Project*.
- 4 Click **OK**. This branches the requirement immediately, you do not have to choose **Save** or **Update**.

Branching Multiple Requirements in Branch View

Branching several requirements is most conveniently done through **Branch View**. Branch View is a specialized view and allows you

- to query the requirements of a *Product* and branch them to the related *Project* or
- to query the requirements of a *Project* and branch them to the related *Product*.

To open Branch View, do the following:

- 1 In the menu bar, point to **Requirements**.
- 2 Select **Branch View** from the menu.

Branch View is split into 2 parts:

- The left-hand side allows querying requirements for the selected *Product* or *Project*.
- The right-hand side allows branching and merging.

You can branch one or several requirements from Branch View. If you select a single requirement, Branch View shows some additional info in the table on the right-hand side:

- 📄 The selected requirement has been branched.
- 🔔 The selected requirement or the branched requirement has been modified.



NOTE Branch View also allows you to merge a single requirement. If you want to merge several requirements, it is recommended to use Synchronize View (see chapter "[Merging Multiple Requirements](#)" on page 175).

Branching All Requirements of a Category

To branch all requirements of a category, do the following:

- 1 In the menu bar, point to **Requirements** and select **Branch View** from the menu.
- 2 From the **Source** box, select the *Product* or *Project* for which you want to branch requirements.
- 3 Expand the **Category** section.
- 4 Select the desired category.
- 5 Click **Provide**. This opens the *Provide Category Content* dialog.
- 6 Select the target product(s) or project(s) for the provided requirements.
- 7 If you want to keep links to other requirements, ensure that the **Provide with Links option** is selected.
- 8 Click **OK**.

Branching All Requirements of a Document

To branch all requirements of a category, do the following:

- 1 In the menu bar, point to **Requirements** and select **Branch View** from the menu.
- 2 From the **Source** box, select the *Product* or *Project* for which you want to branch requirements.
- 3 Expand the **Documents** section.
- 4 Select the desired document.
- 5 Click **Provide**. This opens the *Provide Category Content* dialog.
- 6 Select the target product(s) or project(s) for the provided requirements.
- 7 If you want to keep links to other requirements, ensure that the **Provide with Links option** is selected.
- 8 Click **OK**.

Branching Requirements

To branch one or multiple requirements, do the following:

- 1 In the menu bar, point to **Requirements** and select **Branch View** from the menu.
- 2 From the **Source** box, select the *Product* or *Project* for which you want to branch requirements.
- 3 Expand the **Class** section.
- 4 Click  to view the query sections.
- 5 In the **Classes and Attributes** section, select the class which contains the requirements you want to branch.
- 6 If desired, add attributes or containers to filter the requirements. For further information, see chapter "[Finding Requirements with Quick Search](#)" on page 98.
- 7 Click **Search**.
- 8 Select the requirements you wish to branch.
- 9 Click **Provide**.
- 10 On the success message, click **OK**.

Branching All Requirements of a Category

To branch all requirements of a category, do the following:

- 1 Open the Home View by clicking .
- 2 In the category tree, select the category that holds the requirements you wish to branch. The category must be a child of either the *Product* or *Project* category.
- 3 Click **Provide Category** from the **Category** set of the **Actions** pane. This opens the **Provide Category Content** dialog.

- 4 Select the target product(s) or project(s) for the provided requirements.
- 5 If you want to keep links to other requirements, ensure that the **Provide with Links option** is selected.
- 6 Click **OK**.

Branching All Requirements of a Document

For regular documents (not Parent or Child documents), you can branch all requirements that are linked of the document.

To branch all requirements of a document, do the following:

- 1 Open the Home View by clicking .
- 2 Select the **Documents** tab.
- 3 In the category tree, select the category that holds the document with the requirements you wish to branch. The category must be a child of either the *Product* or *Project* category.
- 4 Select the document (which is not a Parent or Child document) with the requirements you wish to branch.
- 5 Click **Provide** from the **Category** set of the **Actions** pane. This opens the **Provide Document Content** dialog.
- 6 Select the target product(s) or project(s) for the provided requirements.
- 7 If you want to keep links to other requirements, ensure that the **Provide with Links option** is selected.
- 8 Click **OK**.

Merging a Single Requirement

Using the Synchronize Dialog

The **Synchronize** dialog is used on a single requirement.

- 1 On top of the **Synchronize** dialog, you can choose from these options:
 - a **Apply changes to <REQUIREMENT_ID> (source)**: This copies all attribute values from the *Project* requirement to the associated *Product* requirement.
 - b **Apply changes to <REQUIREMENT_ID>.<SHORT_NAME> (provided)**: This copies all attribute values from the *Product* requirement to the associated *Project* requirement.
 - c **Ignore changes**: This disables all attributes.
- 2 Next to attribute names, you might see . This means that this attribute is disabled and will not be synchronized. You can enable these attributes by clicking .

- 3 An enabled value may show an arrow next to the attribute name. Clicking toggles between these synchronize options for the attribute:
 - Apply changes to <REQUIREMENT_ID> (source)
 - Apply changes to <REQUIREMENT_ID>.<SHORT_NAME> (provided)
 - Ignore changes
- 4 Click **OK**. This branches the requirement immediately, so you do not have to click **Save** or **Update**.

Merging a Single Requirement with the Edit Attributes Dialog

To merge a requirement, do the following:

- 1 Open the requirement for editing (see chapter ["Editing a Requirement" on page 118](#)).
- 2 Expand the **Used in Project** section.
 - **Product:** Select the *Product* you want to branch the *Product* to.
 - **Project:** Select the *Product* you want to branch to the *Project*.
- 3 Click **Synchronize**. This opens the **Synchronize** dialog.
- 4 Follow instructions as described in chapter ["Using the Synchronize Dialog" on page 174](#).

Merging a Single Requirement with Branch View

To merge a requirement, do the following

- 1 In the menu bar, point to **Requirements** and select **Branch View** from the menu.
- 2 From the **Source** box, select the *Product* or *Project* for which you want to merge a requirement.
- 3 Click  to view the query sections.
- 4 In the **Classes and Attributes** section, select the class which contains the requirement you want to merge.
- 5 If desired, add attributes or a container to filter the requirements. For further information, see chapter ["Finding Requirements with Quick Search" on page 98](#).
- 6 Click **Search**.
- 7 Select the requirement you wish to merge.
- 8 Click **Synchronize**. This opens the **Synchronize** dialog.
- 9 Follow instructions as described in chapter ["Using the Synchronize Dialog" on page 174](#).

Merging Multiple Requirements



NOTE When merging multiple requirements, all attribute values are accepted.

To merge multiple requirements, do the following:

- 1 In the menu bar, point to **Requirements** and select **Synchronize View** from the menu.
- 2 From the **Source** box, select the *Product* or *Project* for which you want to merge a requirement.
- 3 From the **Target** box, select the *Project* or *Product* (entries depend on your choice in **Source**).
- 4 Do one of the following:
 - Click < to select a single requirement for merging.
To indicate that the requirement will be synchronized, the button changes color.
 - Click « to select all requirements for merging.
To indicate that the requirements will be synchronized, the buttons change color.



TIP

- Clicking < toggles the current selection for one requirement.
- Clicking « toggles the current selection for all requirements.

- 5 Click **Apply Changes**. This synchronizes all selected requirements.

Removing a Single Requirement from a Branch

To remove a requirement from a branch, do the following:

- 1 Open the requirement for editing (see chapter ["Editing a Requirement" on page 118](#)).
- 2 Expand the **Used in Project** or **Used in Product** section.
- 3 Select the project or product you want to remove the requirement from.
- 4 Click **Unprovide**. This opens the **Unprovide Requirement(s)** dialog.
- 5 Click **OK**. This removes the link between the requirement and the product or project immediately. The requirement will change its Current Status to **Deleted**.



NOTE If you add the requirement back to the project or product you deleted it from, the requirement will be undeleted and the link will be restored.

Using Product or Project without Branching

If your administrator created only the *Product* or *Project* class, branching is not available. However, the functionality for creating/editing a Product or Project is still available.

Polling

Polling allows you to solicit feedback about a requirement from selected users. Polls are typically used to decide whether a specific requirement should be accepted, or to reach consensus concerning the content of a requirement.

A poll consists of a question, at least two answers, and at least one participant. In RM Browser, if you have the appropriate permissions, you can create and modify polls. Poll participants use RM Browser to vote and view current poll results.

Creating a Poll

A user with the "Create" permission for the Poll class can create a poll. Before a poll can be created, the Poll class and a relationship to the relevant classes must be added using the Schema Definition. When creating relationships between other classes and the Poll class, the other classes must be primary and the Poll class must be secondary.

To create a poll:

- 1 After selecting the desired requirement in a work pane, select **Setup Poll** from the Requirements set of the Actions pane. The **Setup Poll** dialog opens.
- 2 Type the title of the poll. The poll title does not have to be unique; other polls can have the same title.
- 3 Type the question for which you need feedback.
- 4 Type at least two answers to the poll.

There is no practical limit to the number of answers that you can include. When you begin typing in the last answer field, a new answer field is automatically created below it.

Setup Poll: COMP_000017

GENERAL PARTICIPANTS

Title: Documentation

Question: What documentation should be included in this package?

Answers:

- Getting Started Guide
- Online Help
- Tutorial

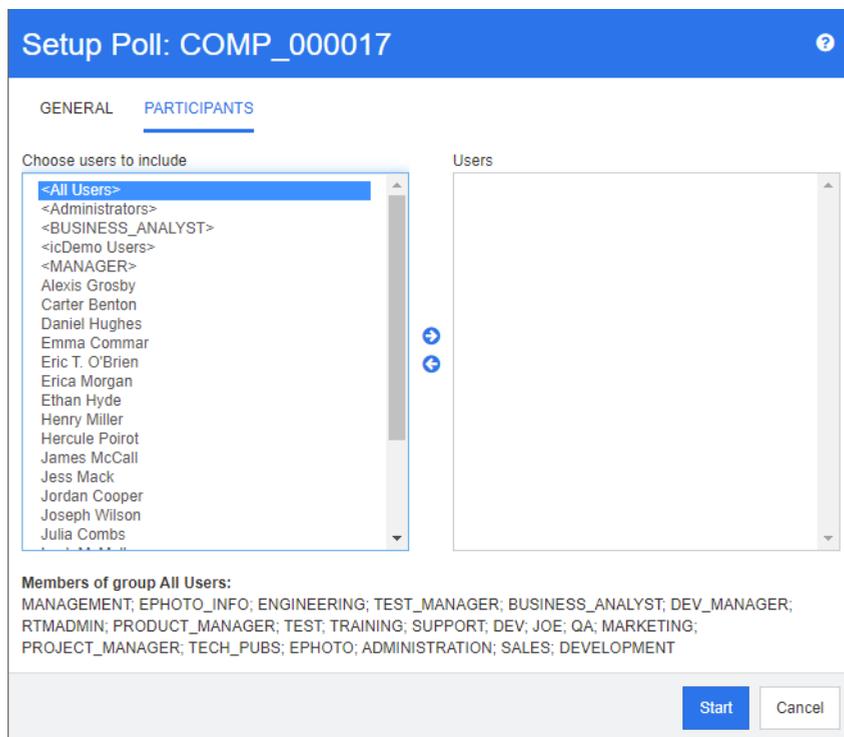
Response deadline: No deadline

Start Cancel

- 5 To rearrange the answers:
 - Click the **insert** button  to add a new answer above the selected answer, instead of adding it to the end of the list.
 - Select an answer and click the **delete** button  to delete it. Blank answers do not have to be deleted because they are ignored.
 - Click the up arrow  and down arrow  buttons to move the selected answer up or down in the list.
 - Click the **sort** button  to sort the answers alphabetically.
- 6 In the **Response deadline** section, either select **No deadline** or select the date and time that the poll should close.

The poll closes when the selected date and time have passed, when the poll creator clicks the **Stop** button, or when all participants have voted.
- 7 Click the **Participants** tab.
- 8 Select the users you want to participate in the poll. A minimum of one participant is required.

If you select a user group, its members are displayed below the lists on the **Create Poll** dialog box.



Setup Poll: COMP_000017

GENERAL PARTICIPANTS

Choose users to include

- <All Users>
- <Administrators>
- <BUSINESS_ANALYST>
- <icDemo Users>
- <MANAGER>
- Alexis Grosby
- Carter Benton
- Daniel Hughes
- Emma Commar
- Eric T. O'Brien
- Erica Morgan
- Ethan Hyde
- Henry Miller
- Hercule Poirot
- James McCall
- Jess Mack
- Jordan Cooper
- Joseph Wilson
- Julia Combs

Users

Members of group All Users:
 MANAGEMENT; EPHOTO_INFO; ENGINEERING; TEST_MANAGER; BUSINESS_ANALYST; DEV_MANAGER;
 RTMADMIN; PRODUCT_MANAGER; TEST; TRAINING; SUPPORT; DEV; JOE; QA; MARKETING;
 PROJECT_MANAGER; TECH_PUBS; EPHOTO; ADMINISTRATION; SALES; DEVELOPMENT

Start Cancel

- 9 Click **Start** to start the poll.

Modifying a Poll

The user who created the poll or a user with the "Update" permission for the Poll class can modify an existing poll. If the poll is already active, you can stop the poll, change the deadline, or add users or groups to the list of participants. The user cannot change the poll title or question.

To modify a poll:

- 1 Click **Modify** under **Polls** on the **Edit Attributes** dialog box or on the Requirements View. The **Modify Poll** dialog box opens.
- 2 Change the polling information.
- 3 Click **Modify**.

Closing a Poll**To close a poll:**

- Click **Modify** under **Polls** on the **Edit Attributes** dialog box. The **Modify Poll** dialog box opens.
- Click **Stop**.

The poll also closes if the specified deadline passes or if all participants have voted.

Casting a Vote

Users with the "Read" permission for the Poll class can vote in a poll. Poll participants cast votes from the **Cast Vote** dialog box. Participants typically receive an e-mail message when the poll has started that provides a link that takes them to the **Cast Vote** dialog box. The **Cast Vote** dialog can also be accessed from the **Polls** section of the **Edit Attributes** dialog box or from the List view of Requirements View.



NOTE Before polling e-mail notifications can be sent, an administrator needs to configure and enable the RM Mail service. For information, see the *Dimensions RM Administrator's Guide*.

To cast a vote:

- 1 Do one of the following:
 - Click the link in an e-mail message you received, and then log in to Dimensions RM.
 - Click the **Vote** link from the **Polls** section of the **Edit Attributes** dialog box or List view of Requirements View.

The **Cast Vote** dialog box opens.

- 2 Select a single answer. Before you vote, you can view the details of the requirement for which the poll is being placed, and view the current results of the voting. To do so, click the link at the bottom left of the dialog box.
- 3 If you want, type a comment in the **Additional comment** section.
- 4 Click **Vote**.

Viewing Polling Results

You can view the details of a poll that is in progress or has already completed. The current polling status is displayed after you cast a vote. You can also view the polling status from the **Edit Attributes** dialog box or the List view of Requirements View.

To view polling results:

- 1 Do one of the following:
 - Cast a vote.
 - Click the **View details** link at the bottom of the **Cast Vote** dialog box before you cast your vote.
 - Edit a requirement and display the Edit Attributes dialog box.
 - Navigate to the List view of Requirements View.
- 2 If you used the first method in [Step 1](#), the **Poll Results** dialog box opens.
- 3 If you used the second, third, or fourth method in the preceding step, expand the **Polls** section on the dialog box that opens (if it's not already expanded), and then expand the poll you want to view.
- 4 To view who voted for each answer and their comments, click **Show details**. To hide this information, click **Hide details**.
- 5 To view a list of participants who have not voted yet, click **View users who haven't voted**.

Adding Active Polls to My Work Dashboard

Polls can be viewed using the **Recent Polls** report, a built-in report in the **My Work** dashboard.

To add a built-in report to the My Work dashboard:

- 1 Open the Home View by clicking .
- 2 Select the **Dashboards** tab.
- 3 Select **Add Widget** in the **Dashboard** set of the **Actions** pane.
- 4 In the **Report Type** box, select **My Work**.
- 5 Select **Recent Polls** and click **Save**.

Participating in Discussions

Comments can be added to chapters or requirements. Comments allow to discuss topics regarding a requirement or chapter. Rather than just discussing the topics by e-mail or personally, this allows to review all comments at any time, e.g. during an approval process. For further information about comments, see chapter "[Working with Comments](#)" on page 67.

NLP Complexity Analysis

Natural Language Processing, as implemented in Dimensions RM, is based on the Flesch-Kincaid readability tests. Warnings or errors may be raised based on the complexity of a text attribute.

This functionality must be implemented by the System Administrator and, once implemented, may then be activated in any database instance. Instructions for implementation can be found in the Administrator's Guide, in Chapter "Special Functions in Dimensions RM".

Many customers implement special functions like complexity and similarity analysis in a test environment, or a test instance, allowing users to try things out and to judge for themselves the benefit it will bring to their own processes.

To Activate and Apply Complexity Analysis:

NLP complexity analysis is disabled by default. The setting may be modified from the RM Browser, -->Administration menu by the Instance Administrator:

- 1 Administration-->Instance Settings
- 2 Choose the Requirements tab, and scroll down to **Complexity Analysis**.

Complexity Analysis

Disabled

Warning

Error

Allowed Complexity: 57/120 High Low [Settings per Class...](#)

When the option is set to **Warning** a yellow exclamation is raised on the Edit Requirement form when saving the requirement.

When the option is set to **Error** the yellow exclamation is raised and the user will not be able to save the requirement until the statement is reworked to meet an acceptable level of complexity.

The level of complexity allowed is established through the use of the slider. The higher the bar is set, the less likely to raise a warning. The message reports the complexity level based on the current settings.

Selecting the **Settings per Class** button allows the administrator to set complexity warnings based on class. This allows the analysis to be applied to attributes in classes expected to reach a higher level of complexity.

Select Class: Business_Requirement

Enabled

Select Attribute: Description

Enabled

Allowed Complexity: 50/120 High Low

Save Close

NLP Similarity Analysis

Natural Language processes designed to analyze sentence similarity or semantic textual similarity provides a measure of how similar two pieces of text are, or to what degree they express the same meaning.

This functionality must be implemented by the System Administrator and, once implemented, may then be activated in any database instance. Instructions for implementation can be found in the Administrator's Guide, in Chapter "Special Functions in Dimensions RM".

Many customers implement new functionality in a test environment, or a test instance, allowing users to try things out and to judge for themselves the benefit it will bring to their own processes.

To Activate Similarity Analysis

From the RM Browser, Administration menu:

- 1 Administration-->Instance Settings
- 2 Choose the Requirements tab, and scroll down to **Similarity Analysis**.
- 3 Check the box to the left of 'Enabled'.

Once Activated, requirements may be checked for similarity from the Edit Requirements dialog by selecting the 'Find Similar' icon.

Activating Risk Management

Risk Management Class Definition

Risk Management is a core discipline in Business Analysis and Systems Engineering whose function is to identify, analyze, and evaluate risks that could negatively impact the product outcome.

To implement Risk Management a new class of type: **Risk** is now available in Schema Definition. As with all class types defined for use within the solution, this class has been populated with suggested attributes, which may be modified to meet the needs of the local process.

To create the class, follow these steps:

- 1** Start **RM Manage** (you might also use **Schema Definition** in the Browser}.
- 2** Login and expand the database in which your instance resides.
- 3** Right-click your instance and select **Define Instance Schema** in the shortcut menu.
- 4** In the Class Definition dialog, right-click on a free space and select **Add Class | Risk** from the shortcut menu.
- 5** Click on a free space to place the new class.
- 6** Change the name to your liking, e.g. Risk_Mgt.
- 7** Save the class definition.

The default Risk class contains the following User Defined Attributes, any or all of which may be modified (see "[Defining Attributes](#)" on page 409). The full range of functionality with this class includes a **Risk** tab on the **Home View**.

Attribute Name	Description
Action Taken	Text attribute that describes the action taken to mitigate the risk.
Description	Text attribute that describes the risk.
Mitigation Strategy	Text attribute that provides a summary of the risk mitigation strategy.
Occurrence Rating (Initial)	Numeric attribute identifying the initial occurrence rating of the risk. 1 - Improbable 2 - Possible 3 - Probable
Occurrence Rating (Final)	Numeric attribute identifying the Final occurrence rating of the risk. 1 - Improbable 2 - Possible 3 - Probable
Potential Causes	Text attribute listing potential faults causing a failure

Attribute Name	Description
Potential Effects	Text attribute listing potential effects of failure
Reason for Change	Standard text attribute that identifies the reason for a proposed object change. If change proposals will not be used, it is best to hide this attribute from view in case the process changes in future (see " Hiding an Attribute " on page 412).
Recommended Action	Text attribute identifying remedial action, e.g. addition of safety feature(s), recommended to reduce the Risk Priority Number (RPN).
Responsible	User attribute identifying the responsible user or group responsible for mitigation.
Severity Rating - Final	Numeric attribute that identifies the final severity rating of the risk. 1 - Acceptable 2 - Tolerable 3 - Undesirable 4 - Intolerable
Severity Rating - Initial	Numeric attribute that identifies the initial severity rating of the risk. 1 - Acceptable 2 - Tolerable 3 - Undesirable 4 - Intolerable
Title	Alphanumeric attribute that contains the title or summary of the risk.

Risk Management Reporting

In addition to all standard reporting facilities, a **Risks** tab may be added to the Home View. The tab is defined in **Instance Settings**, using the attribute names defined in class definition. This tab was designed to use color coding to calculate and display the current risk threat.

Title	Severity Rating - Initial	Occurrence Rating - Initial	Severity Rating - Final	Occurrence Rating - Final	Risk Priority - Initial	Risk Priority - Final
Performance goals...	3	3	2	2	High	Medium
SLA not reached	3	2	2	1	High	Medium
Data loss in integr...	4	2	4	2	Extreme	Extreme
Increasing round-tr...	2	2	2	3	Medium	High

To define and activate the Risks tab:

- 1 Administration-->Instance Settings --> Risks
- 2 Name the levels of risk impact and use the color bar to reflect those levels. The icons to the right allow the deletion of a row, or the re-ordering of the display.

Name	Color	Description	
Low		Low probability with little or no effect	X ↑ ↓
Medium		Some annoyance, but not critical to the operation	X ↑ ↓
High			X ↑ ↓
Extreme			X ↑ ↓

Severity: Acceptable
Little to no effect on event

Occurrence:

Color picker: R: 241, G: 255, B: 51

3 The matrix calculation is based on the content of the Occurrence and Severity Initial and the Occurrence and Severity Final. Names and Descriptions may be modified.

	Severity: Acceptable Little to no effect on event	Tolerable Effects are felt, but not critical to outcome	Undesirable Serious impact to the course of action and outcome	Intolerable Could result in disaster
Occurrence: Improbable Risk is unlikely to occur	Low	Medium	Medium	High
Possible Risk will likely occur	Low	Medium	High	Extreme
Probable Risk will occur	Medium	High	High	Extreme

Chapter 4

Working with Documents

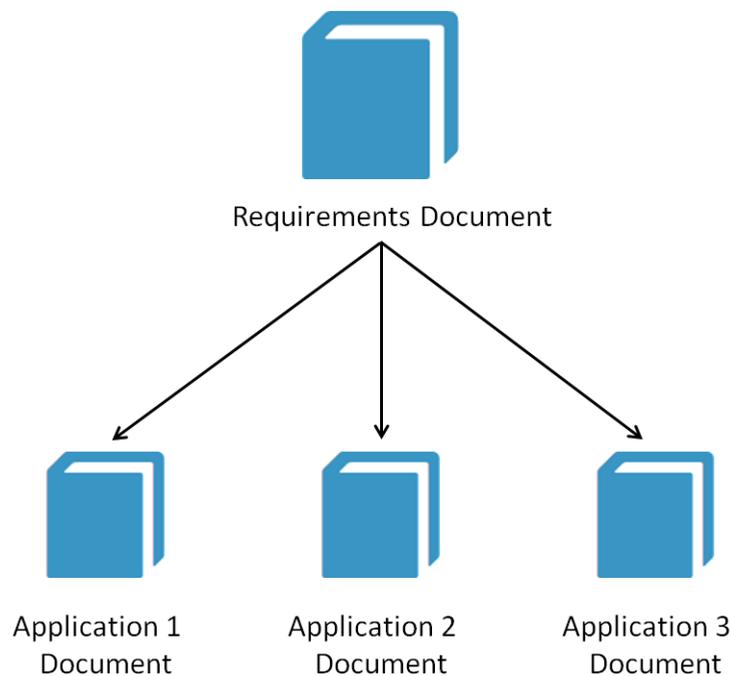
About Documents	188
Document Basics	188
Working with Documents	203
Working with Chapters and Requirements	221
Working with Comments	242
Working with Snapshots	243
Exporting Documents	247
Using Workflows with Documents	253

About Documents

Documents provide the facility to create structure by arranging requirements into chapters and subchapters with free form text added as description. Working in documents allows users to create and to publish reports such as system or software requirement specifications. Requirements can be added to, removed from or created within the document.

Parent and Child Documents

A child document inherits its layout from a parent document. Changes to the parent document can be propagated immediately to any related child document. In a child document, any parts inherited from the parent document are read-only and thus cannot be modified. The following image shows a use case for parent/child documents.



Document Basics

["Navigation Pane" on page 189](#)

["Detail Pane" on page 190](#)

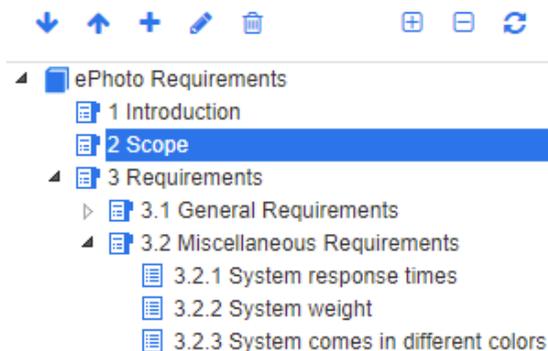
["Document Filtering" on page 191](#)

["Document Layouts" on page 192](#)

["Opening Documents or Snapshots" on page 196](#)

Navigation Pane

The left pane in the document view appears as a Table of Contents:



The icons above and beside elements indicate the following:



Down/Up: These buttons move the selected chapter or requirement down or up in the document's structure.



New chapter: This button invokes the New Chapter. dialog. The new chapter will be placed at the same level as the currently selected chapter, unless the **Add as subchapter** checkbox is enabled or the root of the document is currently selected. See ["Creating a New Chapter" on page 221.](#)



Edit chapter: This button invokes the **Edit Chapter** dialog of the selected chapter. The **Edit Chapter** dialog allows changes to the chapter title, content or formatting. See ["Editing a Chapter" on page 223](#) and ["Formatting Chapters" on page 227.](#)



Delete chapter: This button deletes the currently selected chapter. To complete the operation, click **OK** on the resulting confirmation dialog. See ["Deleting a Chapter" on page 225.](#)



Expand all chapters: This button expands all chapters in the document tree.



Collapse all chapters: This button collapses all sub-chapters, leaving only the root-chapters visible.



Reload this document: This button retrieves the currently open document from the server and reloads it into the work page.



Root: This is the root level of the document.



Chapter: This a chapter in the document.



Auto Refresh: This chapter is based on a report and hierarchy and is refreshed automatically. All structure changes (e.g. adding or removing requirements) to child objects (i.e. sub-chapters or requirements) are reverted when the chapter is refreshed.



Requirement: This is a requirement in the document.



Requirement with CR: This is a requirement with a CR in state "Proposed".



Suspect Link: This is a requirement that has a suspect link.



NOTE The Foreword, if there is one, is located in the root of the document. It typically contains items such as the company logo, copyright information, and a history table. It does not include the Table of Contents.

When the document is exported, the Foreword is displayed before the Table of Contents.

Note the following functional aspects of the Navigation pane:

- Chapters and requirements are automatically numbered using a hierarchical outline format. This numbering updates whenever a change is applied to the structure or order of the document's contents.
- To make a requirement a sub-requirement of a requirement, select the requirement's name and drag it to the parent requirement.
- To make a chapter a subchapter of another chapter, select the chapter and drag it to the parent chapter.
- The classes that the document or a chapter can include are displayed as a tool tip when you hover your cursor over the name of the document or chapter.
- The PUID and object ID of each requirement is displayed as a tool tip when you hover your cursor over the requirement name.
- The contents of the element selected in the Navigation pane will be displayed in the Detail pane.

Detail Pane

The look of the Detail pane depends on what element is selected in the Navigation pane, what layout is selected in the Detail pane, as well as the format settings in effect at the document and chapter levels.

If the selected chapter or document root contains:

- **Only requirements**, it can be displayed with either the Grid or Paragraph layouts. The user can switch between the layouts as desired, as well as set the default layout used for a given chapter or the entire document.
- **Only chapters**, it is displayed with the Paragraph layout.
- **Both chapters and requirements**, the chapters are displayed with the Paragraph layout, but the requirements section can be switched between the Grid and Paragraph layouts as desired.

Chapters can be viewed in these modes:

- **Document Layouts:** Shows the chapter and requirements in book style.
- **Grid Layout:** Shows the requirements in table format.
- **Editable Grid Layout:** Shows the requirements in table format. In this mode you can edit the displayed attributes without opening the Edit dialog.

Users can switch between **Paragraph**, **Grid** and **Editable Grid** Layout by selecting the desired layout in the Format Chapter tab of the Edit Chapter dialog.

Detail Pane Icons (excluding those associated with Document Filtering)

The following icons indicate document change status:

-  **Save document changes** or select checkbox to initiate auto save.
-  **Select/Deselect** all requirements in the document in order to execute permitted Actions such as "Add to Collection".
-  **No changes:** The document has not changed since the last visit.
-  **Changed:** The document changed since the last visit. Clicking the **Changed** bulb lists recent changes. For further information on document changes, see chapter "[Working with Document Changes](#)" on page 198.
-  **Scan for glossary entries:** Scans the text for glossary entries. Depending on the Document View mode, scans either the selected chapter or the whole document. Note, that this function is only available if your administrator created the Glossary class. For further information on the glossary, see chapter "[Glossary](#)" on page 64.
-  **Entire Document View:** One of two possible view modes, the Entire Document View allows users to scroll through the whole document. See "[Document View Mode](#)" on page 194.
-  **Chapter Content View:** Changes the document view to the Chapter Content view, which allows you to scroll through individual chapters. See "[Document View Mode](#)" on page 194.
-  **Find and replace:** This button invokes the **Find and Replace in Document** dialog so you can search the document or the selected chapter for a string. See "[Finding and Replacing Character Strings](#)" on page 199.
-  **Print:** This button invokes your system's Print dialog to print the current contents of the Details pane. See "[Printing](#)" on page 196.
-  **Refresh:** This button repopulates the Detail pane with fresh data from the database.

Document Filtering

- It is possible to limit the document display based on a Filter string entered to the left of the options tab.
- The Options drop-down allows the Filter string entered to be applied only to the PUID (Requirement ID), title or description. For example, if the word *system* is entered into the Filter string, and the Description is checked in the Options list, the search will be limited to requirement description or statement (i.e. the Default Description Attribute).
- If **Include Chapters** is enabled under Options, the chapter title and/or description will be included in the search.
- if **Show context** is enabled, and the search is applied in **Entire Document View** the document chapter will be displayed in the results.
- Filters may be created and saved for reuse, or existing filters may be selected and edited. A filter created in **Quick Search** may be applied to documents, with or

without additional edits. If edited and saved with the same name, the edits will be applied to **Quick Search**.

- To create a new filter, clear the filter selection (select None) and click on the pencil; this will raise the **New Filter** dialog. Apply the search criteria and assign a **Filter Name**. For a complete description of the **Quick Search** functionality see "[Finding Requirements with Quick Search](#)" on page 98.
- To raise the **Edit Filter** dialog, select the filter from the list and click on the pencil

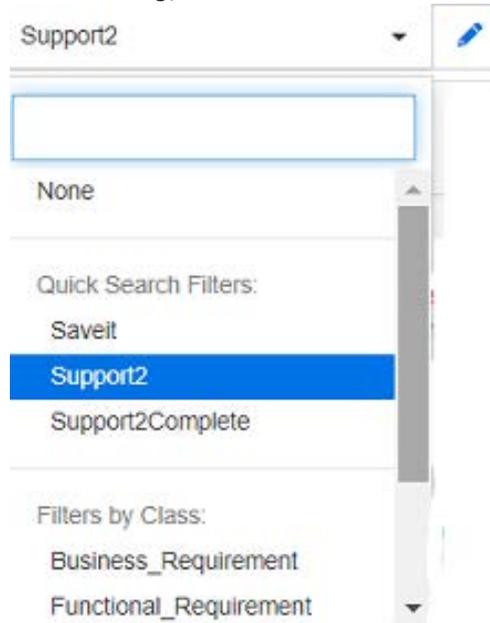


Figure 4-1. From the Document View, choose a Filter to edit

Document Layouts

Paragraph Layout

3.2 Miscellaneous Requirements

Requirements Layout: Editable Grid | Grid | Paragraph

3.2.1 System response times

Suspect: No Rqmt ID: MRKT_000029 Priority: High
 Time Modified: 30-SEP-2015@01:54:24
 The system response time shall not be greater than 3 seconds for 80 percent of the transactions.

3.2.2 System weight

Suspect: No Rqmt ID: MRKT_000030 Priority: High
 Time Modified: 30-SEP-2015@01:54:24
 The system shall weigh less than 8 pounds.

3.2.3 System comes in different colors

Suspect: No Rqmt ID: MRKT_000031 Priority: High
 Time Modified: 30-SEP-2015@01:54:24
 The system shall be available in a variety of colors.

To perform an action on a requirement listed in the Paragraph layout, select the requirement and then select the desired action from the **Requirements** group of the **Actions** pane.

Grid Layout

3.2 Miscellaneous Requirements

Requirements							Layout: Editable Grid Grid Paragraph
#		Rqmt ID	Title	Text	Priority	Time Modified	
3.2.1		MRKT_000029	System respon...	The system res...	High	30-SEP-2015...	
3.2.2		MRKT_000030	System weight	The system sh...	High	30-SEP-2015...	
3.2.3		MRKT_000031	System comes ...	The system sh...	High	30-SEP-2015...	

Grid Layout provides:

- **Sorting:** Click a column heading to sort by that attribute.
- **Requirement Editing:** Double click a requirement to open the *Edit* dialog.

To perform an action on a requirement listed in the Grid layout, select the requirement and then click on the desired action from the **Requirements** group of the **Actions** pane.

Editable Grid Layout

3.2 Miscellaneous Requirements

Requirements							Layout: Editable Grid Grid Paragraph
Row count: 3							
#	Rqmt ID	Title	Text	Priority	Time Mo...		
<input type="checkbox"/> 3.2.1	MRKT_000029	System response times	The system response time shall not be greater than 3 seconds for 80 percent of the transactions.	High	30-Sep-2015@01:54:24		
<input type="checkbox"/> 3.2.2	MRKT_000030	System weight	The system shall weigh less than 8 pounds.	High	30-Sep-2015@01:54:24		
<input type="checkbox"/> 3.2.3	MRKT_000031	System comes in different colors	The system shall be available in a variety of colors.	High	30-Sep-2015@01:54:24		

Editable Grid Layout provides:

- **Sorting:** Click a column heading to sort by that attribute.
- **Attribute Editing:** Double click the table cell to edit the attribute of the requirement.
- **Requirement Editing:** Double click a requirement to open the *Edit* dialog.

To perform an action on a requirement listed in the Grid layout, select the requirement and then click on the desired action from the **Requirements** group of the **Actions** pane.

Form Layout

3.2.2 System weight



Propose

Refresh

Edit

Print

Category: RMDemo/Functional/Design and Construction

STANDARD ATTRIBUTES

Rqmt ID:
MRKT_000030

Title:
System weight

Text:
The system shall weigh less than 8 pounds.

CUSTOM ATTRIBUTES

SYSTEM ATTRIBUTES

ATTACHMENTS

COMMENTS

LINKS

HISTORY

POLLS

CONTAINERS

This layout includes the following controls and features:

- **Propose:** This button invokes the Submit a Change Request dialog so you can propose a change to the currently selected requirement. See ["Submitting a Change Request" on page 123](#).
- **Refresh:** This button repopulates the Detail pane with fresh data from the database.
- **Edit:** This button invokes the Edit Requirements dialog. See ["Editing a Requirement" on page 118](#).
- **Print:** This button invokes your system's Print dialog to print the current contents of the Details pane. See ["Printing" on page 196](#).



NOTE The contents of the sections in the Form layout are printed only if the sections are expanded.

- To perform an action on the currently selected requirement, select the desired action from the Requirements group of the Actions pane.

Document View Mode

For documents, there are two view modes available: Chapter and Entire Document. The view mode defines how the document is displayed in the detail pane. The Document View Mode can be changed either through Instance Setting/User Setting (see chapter ["Default](#)

Document View Mode" on page 90) or by clicking  or  in the Detail Pane (see chapter "Detail Pane" on page 190).

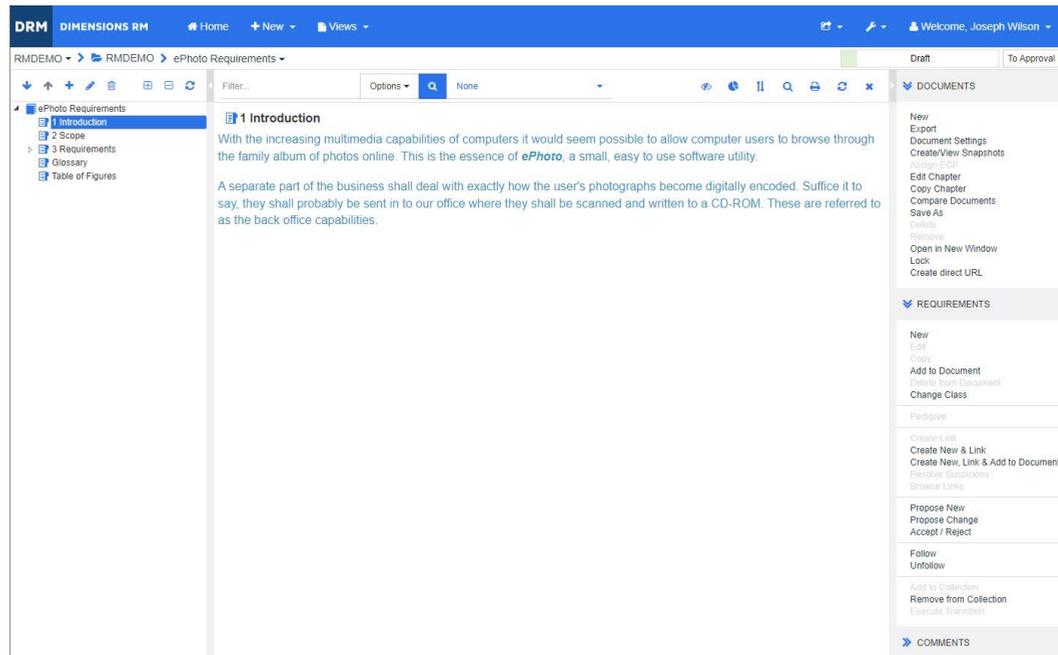


Figure 4-2. Document View Mode: Chapter

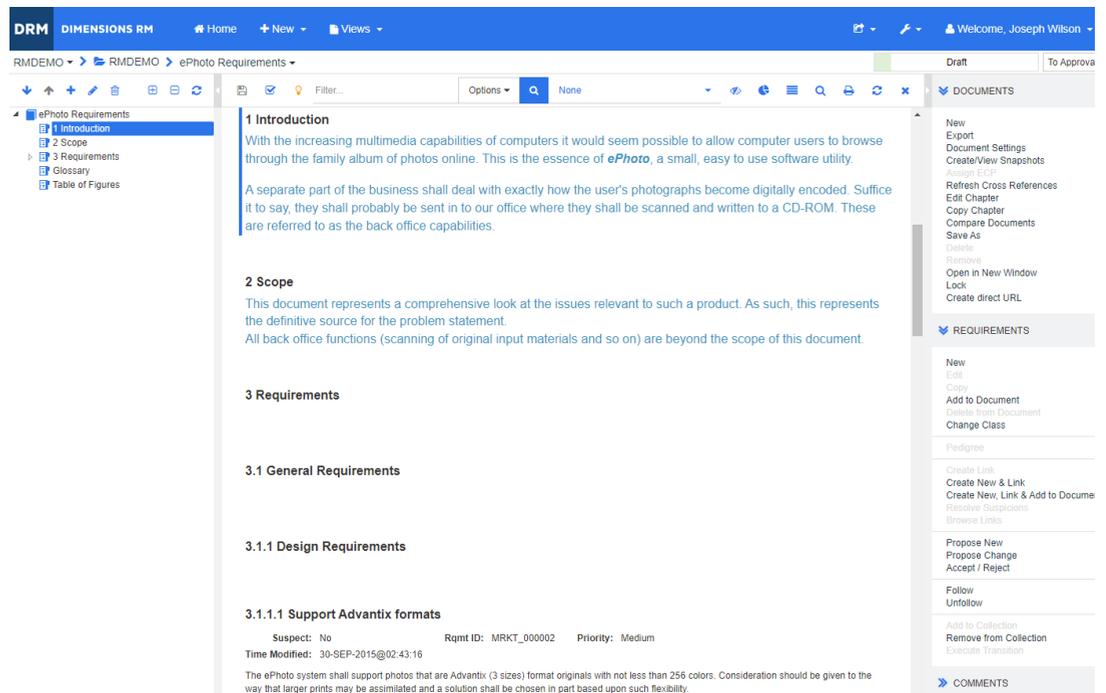


Figure 4-3. Document View Mode: Entire Document (Standard Mode)

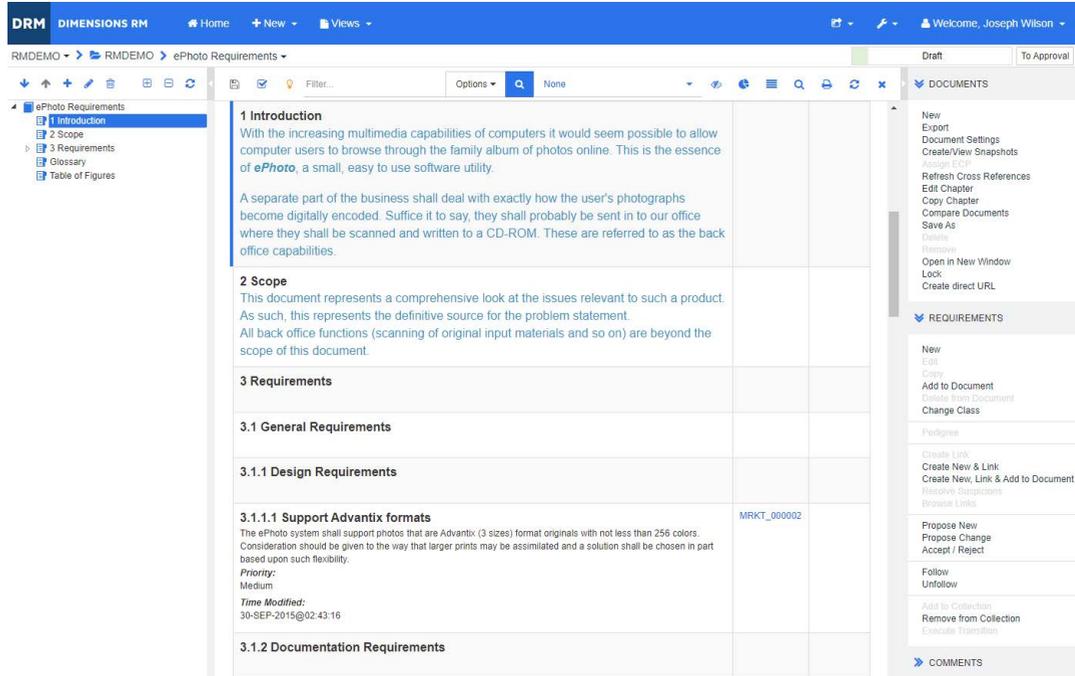


Figure 4-4. Document View Mode: Entire Document (Compact Mode)

Printing

You can print the contents of the Detail pane when you select a requirement, chapter, or document in the Navigation pane.

To print the contents of the Detail pane:

- 1 Click **Print** in the Detail pane. A window opens with content formatted for printing; the RM controls shown in this window are non-functional.



NOTE The contents of the sections in the Form layout are printed only if the sections are expanded.

- 2 Your system's Print dialog opens. Click **Print**. The requirement is sent to your printer.
- 3 After the content has printed, close the window that displayed the formatted content.

Opening Documents or Snapshots

Opening Documents

To open a document:

- 1 Open the Home View by clicking .
- 2 Select the **Documents** tab.
- 3 If the document resides in a different category, select the category in the category tree.

- 4 Double-click the desired document. This opens the document in the Document View.

Opening Snapshots

To open a snapshot:

- 1 Open the Home View by clicking .
- 2 Select the **Documents** tab.
- 3 Click **Show Snapshots** to show the snapshots column on the Documents tab.
- 4 Double-click the desired snapshot. This opens the snapshot in the Document View.

Opening the Current Document or Snapshot in a New Browser Window

This chapter assumes that you opened the document or snapshot as described in the previous sections.

To open the currently open document/snapshot in a new window:

- 1 Click **Open in New Window** from the Documents group in the Actions pane. The document or snapshot opens in a new browser window.

Opening a Document and the Snapshot List

If you are working with many snapshots for a document, you may want to open the document and the list of snapshots at the same time. If you need to open the same document often, you might want to bookmark the URL for easy access.

To open a document and the list of snapshots, do the following:

- 1 Open the Home View by clicking .
- 2 Select the **Documents** tab.
- 3 Select the document and click **Create Snapshot**. This opens the list of snapshots for the selected document.
- 4 Do one of the following:
 - **Click:** Opens the document and the list of snapshots in a new browser tab or window.
 - **Right-Click:** Select **Copy link address** (or similar entry) from the shortcut menu to retrieve the URL that allows you to create a bookmark.

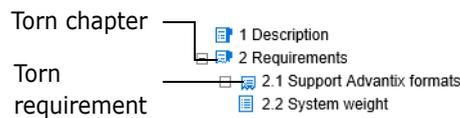
Working with Limited Permissions

If you navigate to a Document work page and one or more of the requirements in the chapter belongs to a class to which you do not have "read" permission, or if one or more requirements belong to a category to which you do not have permission, the following occurs:

- The chapter or requirement icon is displayed as being torn.

- A torn chapter icon means that the user does not have permission to read one or more requirements within that chapter, or that the category containing a requirement has been deactivated and deactivated categories are not shown. To get read-only access to deactivated categories see chapter "[Categories: Show Inactive Categories](#)" on page 79.
- A torn requirement icon means that the user does not have permission to read one or more subrequirements under that requirement, or that the category containing a sub-requirement has been deactivated and deactivated categories are not shown. To get read-only access to deactivated categories see chapter "[Categories: Show Inactive Categories](#)" on page 79.
- A message informs you that not all requirements in the document are displayed due to permissions issues.

The following illustration shows this scenario.



Working with Document Changes

When opening a document that has been modified since the last visit, a message shows that the document has changed. You can easily see the changes done by other users on the document, but also see the changes done on the requirements outside of the document.

In the toolbar of the document section, the  icon indicates that there are changes. No changes are indicated by . Clicking the icon opens a table that shows the number of changes and the individual changes. In addition, it changes the detail pane to show the following:

- Drop-down list with the following options:
 - **Recent changes:** Show the changes made by other users since you opened the document the last time. This is the default.
 - **Changes since date:** Shows a date selector, which allows you to choose a date.
 - **Changes since snapshot:** Shows a drop-down list with all snapshots of this document along with the date the snapshot was created.
- : Starts the search for the selected options.
- **Include parent changes** option: This option is available in child documents. When selected, also changes in the parent document are shown. The default is off (only changes of the child document are shown).
- **Show only changes** option: Updates the document tree to show only the changed chapters, requirements, or change requests along with the parent chapters or requirements.

After the search for changes has been executed, you will see a table with the changes (if there are any). To filter the contents of the table, enter text into one or several boxes on the first line of the table. The modified chapter or requirement can be opened by clicking

the related entry in the table. Also note that the modified chapters and requirements are highlighted in the document tree.

If there are changes in a chapter or requirement, the  symbol is shown next to it. To view all changes of the respective chapter or requirement, click . This will show the changes for each displayed attribute. Removed values are struck-through and colored red. To indicate that the attribute differences are shown, the  symbol changes to . To return to the current attribute values, click .

Finding and Replacing Character Strings

You can find and replace character strings in chapters and requirements in an open document. You can find and replace character strings in the following:

- An entire document or a selected chapter
- Title and Description attributes or all alphanumeric, list or user attributes



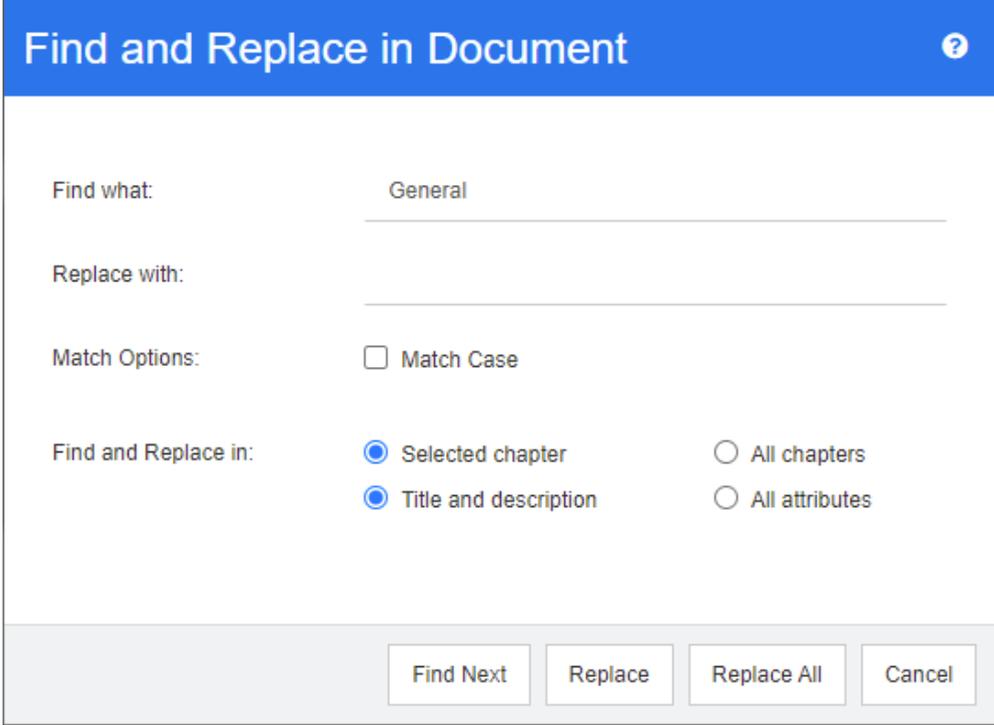
NOTE

- The **Find and Replace** menu item is disabled while you are comparing a document and its snapshot (see "[Comparing Documents and Snapshots](#)" on page 244).
- For read-only objects (snapshots and ECP-controlled documents without an ECP assigned), the **Replace** and **Replace All** buttons are not shown. With these objects, you only Search feature of the dialog works.
- To use the **Replace** and **Replace All** commands, you must have permission to replace a requirement or chapter. If only some attributes can be changed, they are changed, and you receive a message saying that you do not have permission to replace the string in all attributes.

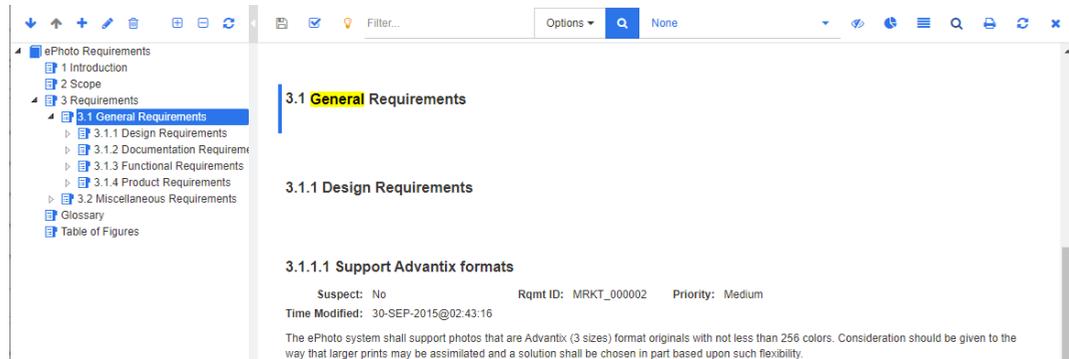
To find and replace character strings:

- 1 Open the document to the Document work page, if it is not already open. See "[Open the Home View by clicking .](#)" on page 196.
- 2 If you wish to search within a specific chapter, select it in the Navigation pane.

- 3 Click the **Find and replace** () button. The Find and Replace dialog opens.



- 4 **Find what:** Enter the string you want to find.
- 5 **Replace with:** If you want to replace the string, enter the replacement string here.
- 6 **Match case:** Enable this check box to include the case of the string in the match criteria.
- 7 Select one of the following:
- **Selected chapter:** To search only the selected chapter and any subchapters and requirements it contains.
 - **All chapters:** To search all chapters and their contents.
- 8 Select one of the following:
- **Title and description:** To search only Title and Description attributes.
 - **All attributes:** To search all alphanumeric, list and user attributes.
- 9 Click any of the following buttons:
- **Find Next:** This button to displays the first chapter or requirement containing one or more instances of the string. The chapter or requirement is selected in the Navigation pane, and the found string is highlighted in the Detail pane. To display the next match, click the button again.



- **Replace:** The chapter or requirement that is currently selected is replaced, and the new version contains the string you specified in the **Replace with** box.
- **Replace All:** This button replaces all chapters and requirements containing the string you specified in the **Find what** field with the string you specified in the **Replace with** field.

The Find and Replace dialog closes, and a "Replacing all strings" message is displayed. After this operation finishes, a dialog displays how many chapters and requirements were replaced and reports any errors.

Moving a Document or Snapshot to a different Category

To move a document to a different category, do the following:

- 1 Open the Home View by clicking .
- 2 Select the **Documents** tab.
- 3 If you want to move a snapshot, click **Show Snapshots**.
- 4 Drag the document or snapshot and drop it at the desired category in the **Categories** tree.

Copying the URL of a Document to the Clipboard

You can copy the URL of a document or snapshot and paste it into a file for future use and reference. When that URL is later invoked, it will open RM Browser to that document or snapshot. See the appropriate section below.

Copying the URL of an Open Document or Snapshot

To copy the URL of an open document or snapshot:

- 1 With the document or snapshot open in a work page, click **Create direct URL** in the **Document** set of the Actions pane. This opens the **Direct URL** dialog.
- 2 Right-click the URL and select **Copy link address**. This copies the URL to the clipboard.
- 3 Click **Close** to close the dialog.

- 4 Use **Ctrl + V**, or the relevant application-specific menu command, to paste the URL into the file or application where you wish to use it.

Copying the URL of a Closed Document

To copy the URL of a closed document:

- 1 Open the Home View, if it is not already open. For further information on the Home View, see chapter ["Working with the Home View" on page 255](#).
- 2 Select the **Documents** tab.
- 3 Select the desired document. To open a dependent document, select the dependent document from the child documents column (see chapter ["Documents Tab" on page 268](#)).
- 4 Click **Create direct URL** in the **Documents** group of the **Actions** pane. This opens the **Direct URL** dialog.
- 5 Right-click the URL and select **Copy link address**. This copies the URL to the clipboard.
- 6 Click **Close** to close the dialog.
- 7 Use **Ctrl + V**, or the relevant application-specific menu command, to paste the URL into the file or application where you wish to use it.

Copying the URL of a Closed Snapshot from the Home View

To copy the URL of a closed snapshot from the Home View:

- 1 Open the Home View, if it is not already open. For further information on the Home View, see chapter ["Working with the Home View" on page 255](#).
- 2 Select the **Documents** tab.
- 3 If the Snapshot column is not already open, click **Show Snapshots**.
- 4 Select a document with snapshots.
- 5 Select the desired snapshot.
- 6 Click **Create direct URL** from the **Documents** section of the **Actions** pane. This opens the **Direct URL** dialog.
- 7 Right-click the URL and select **Copy link address**. This copies the URL to the clipboard.
- 8 Click **Close** to close the dialog.
- 9 Use **Ctrl + V**, or the relevant application-specific menu command, to paste the URL into the file or application where you wish to use it.

Copying the URL of a Closed Snapshot from the Document View

To copy the URL of a closed snapshot from the Document View:

- 1 Open the document to the Document work page, if it is not already open. See ["Opening Documents" on page 196](#).

- 2 Click **Create/View Snapshots** in the Documents group of the Actions pane. The Snapshots dialog opens.
- 3 Right-click the link  icon next to the desired snapshot.
- 4 Select **Copy link address** (or a similar menu item, depending upon the browser you are using). This copies the URL to the clipboard.
- 5 Use **Ctrl + V**, or the relevant application-specific menu command, to paste the URL into the file or application where you wish to use it.

Working with Documents

Creating a New Document

When you create a new document, you can use one of the following as a template:

- The blank template.
- The chapter structure of an existing document.
- The chapter structure and requirements of an existing document.



NOTE

- You must have the "Create" permission for both the chapter class and for collections.
- If you select **Chapters Only** or **Chapters and Requirements** for the Create Options, you must also have the following additional permissions:
 - Chapter class: "Read"
 - Collections: "Link" and "Create Based on Existing Collection"

To create a new document:

- 1 Select **Document** from the **New** menu. The **New Document** dialog opens.
- 2 **Name:** Enter a name for the document.



NOTE A document name can contain a maximum of 256 characters and cannot include single quotes (').

- 3 **Description:** Enter a description of the document. This description will be shown in the **Document Settings** dialog.



NOTE

- The description is not copied if you are creating a document from an existing document.
- The administrator specifies the maximum length of the **Description** field in the Chapter class in Schema Definition.

- 4 **Create Options:** Select one of the following:

- a **Blank:** Creates the document from the blank template. When you select this option, the documents in the Template list are disabled. This is the default.
- b **Chapters Only:** Creates the document based upon the chapter structure of an existing document that you select from the Template list.
- c **Chapters and Requirements:** Creates the document based upon the chapter structure and requirements of an existing document that you select from the Template list.
- d **Copy Requirements:** This option is only available if the option **Chapters and Requirements** is selected.
If this option is selected, all requirements of the original document will be copied and the copy will be added to the new document. Links between requirements are copied as well if the linked requirements are part of the document.
If this option is not selected, all requirements of the original document will be linked to the new document.
- e **As Child:** Shows a list of parent documents to which this newly created child document should relate to.
- f **Based on Sibling:** This option is only available when **As Child** is selected. If you select this option, the parent document list contains child documents which you can select. The new child document will be a copy of the selected child document and also have the same parent document.
- g **Find Template:**
 - Select the category in which the document to use as the template is located.
 - Select the document to use as the template. If needed, use the box next the the category to filter the documents shown in the list.



NOTE

- These controls are enabled only if you did **NOT** choose **Blank** from the Create Options.
- If you restrict classes in a document, these restrictions are inherited by the new document. For further information about restricting classes in a document see chapter "[Merging Document Changes](#)" on page 218.

5 Document Settings:

- a **Inherit from selected Document:** If selected, the document options (as listed below) will use the same as the selected document. To specify your own set of options on document creation, clear this option.
- b **Export Title:** Select to use the string in the **Name** field as the document's title when exporting to Word.
- c **Update To Current (Tip):** If this option is selected, the document will always use the most recent version of the included requirements. This affects any requirement added to the document after setting this option — existing requirements will not be affected. Clearing this option will keep the requirement version in the document from the time it was added. The option has no effect if the requirement that was added to the document has a status other than "Current" (e.g. Replaced).

Example Scenario:

- 1 You add a requirement to a document. The requirement has the state "Current". The description of the requirement is "This is the original text."

- 2 You close the document.
- 3 You modify the description to "This is the modified text."
- 4 You open the document.

With option **Update To Current (Tip)** selected, the requirement in the document shows "This is the modified text.". If this option is clear, the requirement in the document shows "This is the original text.".

When creating a document with option **Blank, Update To Current (Tip)** will be set from the value specified on the form. If a document is created by using a template (**Chapters Only** or **Chapters and Requirements**), then **Update To Current (Tip)** will be set from the template document.



NOTE To manually change the version of a specific requirement that is included in the document, see ["Change which Requirement Version Is Included in a Document" on page 236](#).

- d **Glossary:** Select this option to automatically create the chapter "Glossary". This chapter contains the explanations for the terms used in this document.
- e **ECP Controlled:** Select this option if you want to require that users link the document to an ECP class object before editing it.



CAUTION! Once ECP Control is enabled on a document, **it cannot be disabled**.



NOTE

- ECPs are a high-level change management class type (Engineering Change Proposal) that can be used to collect multiple change requests into a single package.
- If ECP Control is in effect, but the current user has not assigned an ECP, the document will be Read-Only until he assigns an ECP to it. A notice to this effect will be displayed to the right of the Instance Bread Crumb.
- To assign an ECP, see ["Merging Document Changes" on page 218](#).

- f **Parent Document:** Select this option to make the document a parent document.
 - g **Table of Figures:** Select this option to automatically create the chapter "Table of Figures". This chapter contains all images or tables with captions (see "Add caption" in chapter ["HTML Text Formatting Toolbar" on page 39](#)). It is updated when a document is opened or reloaded.
- 6 **Category:** Select the category to which to add the new document. A document can belong to any category to which you have access.
 - 7 **Workflow:** Select the workflow to be used with documents. Selecting a workflow loads the attributes (e.g. Reviewer) of the workflow in this dialog. If a workflow has been selected, this will show custom attributes in the **Custom Attributes** section. Depending on the definition of the **Create New** transaction of the workflow, some attributes may be mandatory. Mandatory attributes must be filled out to allow creation of the document.
 - 8 Click **OK**.

Creating a New Document from the Hierarchy View

The steps below describe a quick method to create a document with default settings if you are in the Home View and use the Hierarchy View. If you wish to use more options, or you are not in the Home View, or do not use the Hierarchy View, follow the steps described in chapter ["Creating a New Document" on page 203](#).



NOTE

- You must have the "Create" permission for both the chapter class and for collections.
- If you select **Chapters Only** or **Chapters and Requirements** for the Create Options, you must also have the following additional permissions:
 - Chapter class: "Read"
 - Collections: "Link" and "Create Based on Existing Collection"

To create a new document:

- 1 Do one of the following:
 - Select a category.
 - Select one or several requirements.
- 2 Select **Create Document** from the **Hierarchy** set of the Actions pane. The **New Document** dialog opens.
- 3 **Name:** Enter a name for the document.



NOTE A document name can contain a maximum of 256 characters and cannot include single quotes (').

- 4 **Description:** Enter a description of the document. This description will be shown in the **Document Settings** dialog.



NOTE

- The description is not copied if you are creating a document from an existing document.
- The administrator specifies the maximum length of the **Description** field in the Chapter class in Schema Definition.

- 5 Click **OK**.

Deleting a Document

When you delete a document, it is marked as deleted, but the data is retained. You can delete documents if you have "Delete" permission for documents and collections.



NOTE Deleting a document will also delete the associated snapshots.

Deleting a Document from the Home View

- 1 Open the Home View by clicking .
- 2 Select the document you wish to delete.
- 3 Click **Delete** in the **Documents** group of the Actions pane.
- 4 When prompted, confirm that you want to delete the document. For a Parent document, select how to handle Child documents. If you select **Break dependency of all child documents**, the dependency cannot be restored if you restore the Parent document.

Deleting a Document from the Document View

- 1 In the Navigation pane of the Document work page, select the root of the document.
- 2 Click **Delete** in the Documents group of the Actions pane.
- 3 When prompted, confirm that you want to delete the document. For a Parent document, select how to handle Child documents. If you select **Break dependency of all child documents**, the dependency cannot be restored if you restore the Parent document.

Undeleting a Document

When you delete a document, it is marked as deleted, but the data is retained. When you undelete a document, the document, chapters, and associated snapshots are restored.

Undeleting a Document from the Home View

- 1 Open the Home View by clicking .
- 2 Select **Show Deleted Documents** in the **Documents** group of the Actions pane.
- 3 Select the document you wish to undelete.
- 4 Click **Undelete** in the **Documents** group of the Actions pane.
- 5 When prompted, confirm that you want to undelete the document.

Undeleting a Document from the Document View

- 1 In the Navigation pane of the Document work page, select the root of the document.
- 2 Click **Undelete** in the **Documents** group of the Actions pane.
- 3 When prompted, confirm that you want to undelete the document.

Removing a Document



CAUTION! Removing a document removes the document with its chapters and associated snapshots from the database **permanently**. Removed documents, chapters, and snapshots cannot be restored.

Removing a document, **does not** remove requirements from the database. You can remove documents if you have "Remove" permission for documents, collections, and classes.

Removing a Document from the Home View

- 1 Open the Home View by clicking .
- 2 Select the document you wish to delete.
- 3 Click **Remove** in the **Documents** group of the Actions pane.

Removing a Document from the Document View

- 1 In the Navigation pane of the Document work page, select the root of the document.
- 2 Click **Remove** in the **Documents** group of the Actions pane.
- 3 When prompted, confirm that you want to delete the document.

Saving a Copy of a Document Under a New Name

This feature saves a copy of the currently open document under a new name.



PRIVILEGES Save As requires the following permissions:

- Chapter class: "Create" and "Read"
- Collections: "Create," "Link," "Create Based on Existing Collection"

To save a document under a new name:

- 1 Open the document to the Document work page, if it is not already open. See "[Open the Home View by clicking .](#)" on page 196.
- 2 Click **Save As** in the Documents group of the Actions pane. The Document Save As dialog opens.
- 3 **Name:** Enter a name for the new copy of the document.
- 4 **Description:** Enter a description of the document.
- 5 **Chapters and Requirements:** Select this option to copy chapters and requirements to the new document.
- 6 **Copy Requirements:** This option is only available if the option **Chapters and Requirements** is selected. With this option is selected, all requirements of the original document will be copied and the copy will be added to the new document. Links between requirements are copied as well if the linked requirements are part of the document.
If this option is not selected, all requirements of the original document will be linked to the new document.
- 7 **Chapters Only:** Select this option to copy only the chapters of the original document (no requirements).
- 8 Click **OK**.

Document Settings

The **Document Settings** dialog provides different tabs which allow you to change various document related settings. To open the **Document Settings** dialog, click **Document Settings** in **Document** section of the **Actions** pane of the Document View.

- **General:** Allows you to change document name, description, and other settings which define the document. For further information, see chapter "[Editing Document Attributes](#)" on page 209.
- **Format Document:** Allows you to specify the document layout for a chapter or the whole document. For further information, see chapter "[Formatting Documents](#)" on page 211.
- **Display Options:** Allows you to specify the visible attributes when using Grid, Editable Grid, or Paragraph mode (without Template). For further information, see chapter "[Display Options](#)" on page 215.
- **Export Options:** Allows you to specify the attributes for each class when exporting the document. For further information, see chapter "[Export Options](#)" on page 216.
- **Restrict Classes:** Allows you to specify the classes that can be used with the document. For further information, see chapter "[Restricting Requirement Classes in a Document](#)" on page 217.
- **Dependencies:** Shows the dependencies between a parent document and a child document. For further information, see chapter "[Document Dependencies](#)" on page 217.

Editing Document Attributes

These are the attributes from the General, Foreword, and System Attributes tabs of the New Document dialog.

To edit a document's attributes:

- 1 Open the document to the Document View, if it is not already open. See "[Opening Documents or Snapshots](#)" on page 196.
- 2 Click Select **Document Settings** in the **Documents** set of the **Actions** pane. This opens the **Document Settings** dialog.
- 3 Do any of the following as needed:
 - **Name:** Edit the name of the document.
 - **Description:** Edit the description of the document.
 - **Workflow:** Select the workflow to be used with documents. Selecting a workflow loads the attributes (e.g. Reviewer) of the workflow in this dialog. Selecting a workflow may also show the **Custom Attributes** set which allows you to enter or select attributes specific to the document.
 - **Export Title:** Select to use the string in the **Name** field as the document title when exporting to Word.
 - **Update To Current (Tip):** If this option is selected, the document will always use the most recent version of the included requirements. This affects any requirement added to the document after setting this option — existing requirements will not be affected. Clearing this option will keep the requirement version in the document

from the time it was added. The option has no effect if the requirement that was added to the document has a status other than "Current" (e.g. Replaced).

Example Scenario:

- 1 You add a requirement to a document. The requirement has the state "Current". The description of the requirement is "This is the original text."
- 2 You close the document.
- 3 You modify the description to "This is the modified text."
- 4 You open the document.

With option **Update To Current (Tip)** selected, the requirement in the document shows "This is the modified text.". If this option is clear, the requirement in the document shows "This is the original text."

When creating a document with option **Blank, Update To Current (Tip)** will be set from the value specified on the form. If a document is created by using a template (**Chapters Only** or **Chapters and Requirements**), then **Update To Current (Tip)** will be set from the template document.



NOTE To manually change the version of a specific requirement that is included in the document, see ["Change which Requirement Version Is Included in a Document"](#) on page 236.

- **Glossary:** Select this option to automatically create the chapter "Glossary". This chapter contains the explanations for the terms used in this document.
- **ECP Controlled:** Select this option if you want to require that users link the document to an ECP class object before editing it.



CAUTION! Once ECP Control is enabled on a document, **it cannot be disabled.**



NOTE

- ECPs are a high-level change management class type (Engineering Change Proposal) that can be used to collect multiple change requests into a single package.
 - If ECP Control is in effect, but the current user has not assigned an ECP, the document will be Read-Only until he assigns an ECP to it. A notice to this effect will be displayed to the right of the Instance Bread Crumb.
 - To assign an ECP, see ["Merging Document Changes"](#) on page 218.
- **Parent Document:** Select this option to make the document a parent document.
 - **Table of Figures:** Select this option to automatically create the chapter "Table of Figures". This chapter contains all images or tables with captions (see "Add caption" in chapter ["HTML Text Formatting Toolbar"](#) on page 39). It is updated when a document is opened or reloaded.
 - **Update from Parent:** This option is only available for child documents. When selected, any change on the parent document will be forwarded to the child document. When creating a new child document, this option is enabled by default.

- 4 Click **OK**.

Formatting Documents

You can specify whether the document uses the Grid or Paragraph layout. If the document uses the Paragraph layout, you can select a custom template from which to export the document. You can also number requirements separately from chapters and specify the character string that delineates the two.

To specify document format:

- 1 Open the document to the Document View, if it is not already open. See "[Opening Documents or Snapshots](#)" on page 196.
- 2 Select the root of the document in the Navigation pane.
- 3 Select **Document Settings** from the **Documents** group of the **Actions** pane. This opens the **Document Settings** dialog.

The screenshot shows the 'Document Settings' dialog for 'ePhoto Requirements'. The 'FORMAT DOCUMENT' tab is selected. The settings are as follows:

- Page Orientation on Export:** Inherit from publish template, Portrait, Landscape. A 'Reset all chapters' button is present with the tooltip: 'Click to reset page orientation for all chapters to 'Inherit'.'
- Entire Document View:** Standard Mode, Compact Mode.
- Requirement Layout:** Editable Grid, Grid, Paragraph.
- Show and export Labels for:** <Default Title>, <Default Description>. A 'Format selected chapter' button is present with the tooltip: 'Click to force 'Inherit from parent' for all document chapters.'
- Export Req. Template:** None (dropdown menu).
- First Chapter Number:** 1.
- Document Numbering:** Separate chapters and requirements numbering. A 'Format string' field contains '#'. A tooltip for the button says: 'Click to force 'Inherit from parent' for all document chapters.'
- Document Tree:** Show count of assigned Requirements in chapters title, Show count of assigned Requirements in chapters tool tip, Highlight Requirements with change proposals.

Buttons for 'OK' and 'Cancel' are at the bottom right.



TIP If you selected a chapter, or a requirement within a chapter, when you opened the **Document Settings** dialog, a **Format currently selected chapter instead** link is displayed. If you wish to format only that chapter, click the link to open the **Format Chapter** dialog.

- 4 **Page Orientation on Export:** The page orientation setting changes the orientation for the remainder of the document starting from the beginning of the document.

- a **Inherit from publish template:** Uses the same page orientation as specified in the publish template. If no publish template has been specified, the default (portrait) is used.
 - b **Portrait:** Sets the page orientation to portrait.
 - c **Landscape:** Sets the page orientation to landscape.
 - d **Reset all chapters:** Resets the page orientation for all chapters to inherit from the previous chapter. This means that all chapters will use the same orientation as specified with above setting.
- 5 **Entire Document View:** Specifies how chapters and requirements are displayed when selecting the Entire Document View mode.
- a **Standard Mode:** Chapters are shown as individual section. Requirements are shown as defined with the **Requirement Layout** setting.
 - b **Compact Mode:** Chapters and requirements are shown in a single table. Note that when exporting a document in Compact Mode to Microsoft Word, the titles of chapters and requirements will not be shown in the Navigation pane of Microsoft Word. This is a limitation of Microsoft Word.
- 6 **Requirement Layout:**
- a **Editable Grid:** Requirements are displayed in a table (one requirement per row). When editing a document in RM Browser, you can modify the attributes of a requirement. Only attributes are displayed/exported which are specified in the **Display Options** settings (see chapter "[Display Options](#)" on page 215).
 - b **Grid:** Requirement are displayed in a table (one requirement per row). Only attributes are displayed/exported which are specified in the **Display Options** settings (see chapter "[Display Options](#)" on page 215).
 - c **Paragraph:** Requirements are displayed individually. If a publish template for the requirement class exist, the layout is specified in the template. If no publish template exists, only attributes are displayed/exported which are specified in the **Display Options** settings (see chapter "[Display Options](#)" on page 215).



NOTE If there is no chapter in a document or if there are mixed requirements from different classes in the same chapter or sub-chapter, the Grid option is disabled.



TIP If you want to include requirements of different classes into the same chapter, put the requirements of each class into a separate sub-chapter.

- 7 **Show and export LABELS for:** The following settings change how attribute labels are shown in the Detail pane and in the exported document. They are only relevant when using the **Requirement Layout** option **Paragraph**.
- a **<Default Title>:** If selected, the name of title attribute precedes the name of the requirement title, e.g. *Title: Database stores at least 1024 entries*
 - b **<Default Description>:** If selected, the name of the description attribute precedes the description, e.g. *Text: The database shall store not less than 1024 entries.*
- 8 **Reset all chapters:** This button reverts the *Requirement Layout* and *Show and export LABELS for* settings of all chapters in the document to the default of inheriting the settings from their parents.

- 9 Export Req. Template:** To use a custom template to export the document, select a template from the list. This list contains templates that your administrator defined. If you select **None**, the standard grid or paragraph format is used.



NOTE To use a custom template, the requirement must be in a chapter that uses paragraph format. If it is in a chapter that uses grid format, the requirement is displayed in the standard grid format.

- 10 Document Numbering:** To change chapter numbering within the document, do the following:
- a** To **Separate chapters and requirements numbering**, select the check box. Else, any requirements located at the same level in the document as the top-level chapters will be counted as a chapter for numbering purposes. Adding or removing such a requirement would result in the renumbering of all chapters in the document.
 - b** To define the **Format string** that will be used to display requirement numbers in the document, enter the desired format in this field. The string can be up to 10 characters long. The following characters have special meaning:
 - The number (#) character represents the position of the requirement number. (The number character is known by many names around the world, including: pound, hash, and octothorp.)
 - The caret (^) character serves as an escape symbol. You would use it in front of a # character if you wanted an # character to be displayed rather than representing the position of the requirement number.

The examples below assume two requirements located in a sub chapter numbered 2.1.1.

String	Example Results
.#	2.1.1.1 Mac Support 2.1.1.2 Deadline (This is the default.)
-#	2.1.1-1 Mac Support 2.1.1-2 Deadline
^##	2.1.1#1 Mac Support 2.1.1#2 Deadline
^^#	2.1.1^1 Mac Support 2.1.1^2 Deadline
RQ:#	2.1.1RQ:1 Mac Support 2.1.1RQ:2 Deadline
ReqNumber#	2.1.1ReqNumber1 Mac Support 2.1.1ReqNumber2 Deadline
	Mac Support Deadline NOTE There will be no requirement numbering displayed in the document, document tree, or the grid layout.



NOTE After changing the numbering settings and clicking **OK**, you will be prompted to make a snapshot of the document before the new settings are applied. If you do not wish to make a snapshot, just Cancel the snapshot dialog when it appears.



TIP Click the **Refresh** button to see changes to numbering take effect on the work page.

- 11 Document Tree:** By changing these options you can specify if additional information should be shown in the document tree.
 - **Show count of assigned Requirements in chapters title:** Shows the number of requirements in the chapter or sub-chapter after the title.
 - **Show count of assigned Requirements in chapters tool tip:** Shows the number of requirements in the chapter or sub-chapter in a tool tip which is displayed if you move the mouse pointer over a chapter title.
 - **Highlight Objects with change proposals:** Highlights in orange requirements with status "Proposed" as well as chapters holding proposed objects.
- 12** Click **OK**.

Display Options

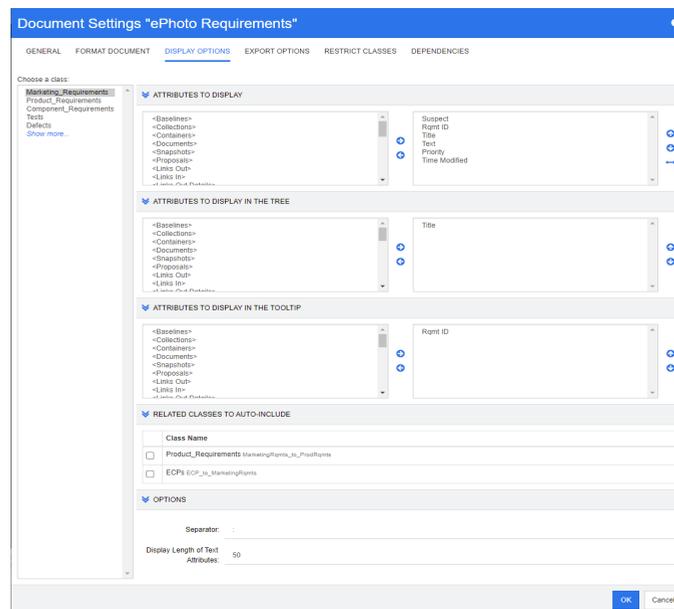
On the **Display Options** tab of the **Document Settings** dialog, you can specify which attributes are displayed for the requirements in a class.



NOTE These settings are specific to the current document. You must specify properties for each document individually.

To specify document properties:

- 1 Open the document to the Document View, if it is not already open. See ["Opening Documents or Snapshots"](#) on page 196.
- 2 Click **Document Settings** in the **Documents** group of the **Actions** pane. This opens the **Document Settings** dialog.
- 3 Select the **Display Options** tab.



- 4 In the **Choose a class** list, select the class for which you want to specify properties.
- 5 **Attributes To Display:** To specify the attribute columns to display in the Details pane of the document, see chapter ["Attributes to Display List"](#) on page 37.
- 6 **Attributes to Display in the Tree:** To specify the attributes to display in the Navigation pane of the document, see chapter ["Attributes to Display List"](#) on page 37.
- 7 **Attributes to Display in the Tooltip:** To specify the attributes to display in the Navigation pane tooltips of the document, see chapter ["Attributes to Display List"](#) on page 37.
- 8 **Related Classes to Auto-Include:** By selecting a relationship, linked requirements will be added automatically to the document.
- 9 **Options:**
 - **Separator:** Specifies the separator between attribute values in a tooltip for the selected class.

- **Display Length of Text Attributes:** Changes the maximum display length for text attributes for both, the Navigation pane and tooltips. If the total length of the combined attribute string exceeds this limit, the string will be truncated and end in an ellipsis (...). The default is 50 characters.

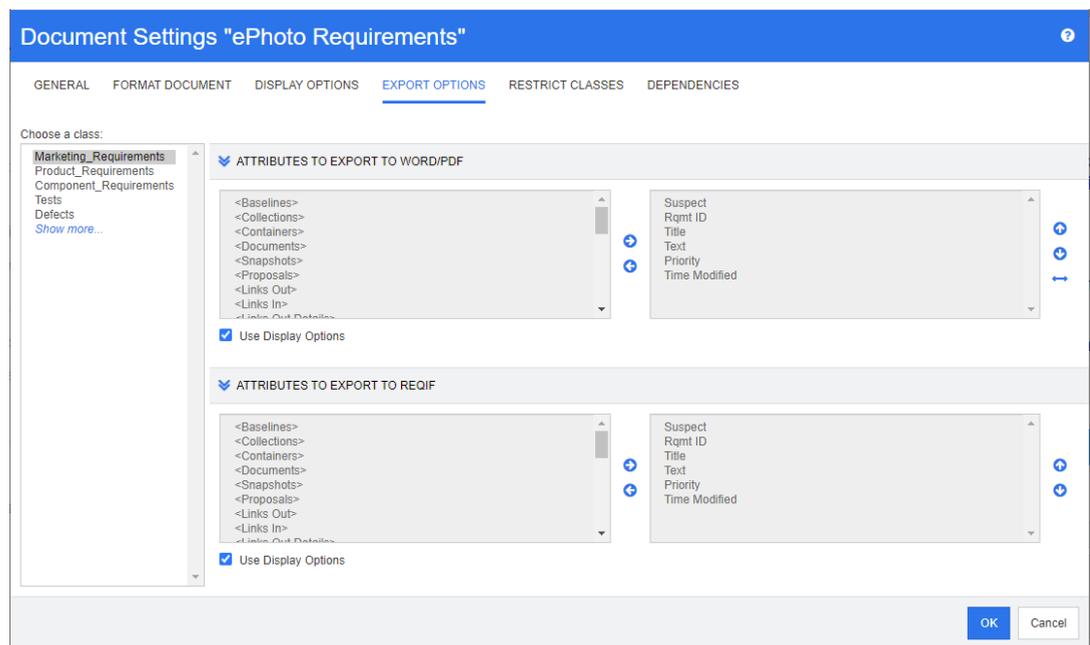
10 Click **OK**.

Export Options

The export options allow to specify the attributes of each class to be exported. By default, the attributes specified in **Display Options** (see chapter "Display Options" on page 215) are exported.

To specify attributes for export:

- 1 Open the document to the Document View, if it is not already open. See "Opening Documents or Snapshots" on page 196.
- 2 Click **Document Settings** in the **Documents** group of the **Actions** pane. This opens the **Document Settings** dialog.
- 3 Select the **Export Options** tab.



- 4 Expand the section for the format you wish export (e.g. **Attributes to export to Word/PDF**).
- 5 Clear the **Use Display Options** box.
- 6 Add or remove attributes to the right list (see chapter "Attributes to Display List" on page 37).
- 7 Click **OK**.

Restricting Requirement Classes in a Document

A document may be restricted to allow only certain classes in a document. This setting can be made at any time and has no effect on requirements which exist in the document already. To be able to restrict a document to certain requirement classes, your user account must have the **Create** and **Update Properties** rights for documents.

To restrict certain classes to a document, execute these steps:

- 1 Open the document you want to restrict to the Document View, if it is not already open. See ["Opening Documents or Snapshots" on page 196](#).
- 2 Click **Document Settings** in the **Documents** group of the **Actions** pane.
- 3 Select the **Restrict Classes** tab.
- 4 In the **Select Allowed Classes** table, clear the checkboxes of those classes you do not want to be added to the document. To toggle all checkboxes, click the checkbox next to **Name**.
- 5 Click **OK**.



NOTE

- The **Add to Chapter** dialog does not offer restricted classes.
- Documents created on a document with class restrictions inherit those restrictions.

Document Dependencies

A child document depends on a parent document. This dependency can be viewed in the **Document Settings** dialog for both, parent and child documents.

To review the dependencies between parent and child documents:

- 1 Open the parent or child document for which you want to show the dependencies to the Document View, if it is not already open. See ["Opening Documents or Snapshots" on page 196](#).
- 2 Click **Document Settings** in the **Documents** section of the **Actions** pane.
- 3 Select the **Dependencies** tab.

If the document is a child document, you can change the document to an independent document by clicking  .

Referencing Elements in a Document

When using the Entire Document View, you can create links to chapters, requirements, images, and tables. This allows you to easily navigate to these items. For further

information on how to create references, see chapter "[HTML Text Formatting Toolbar](#)" on page 39.



NOTE It is **strongly recommended** to reference tables or images **only in chapters**. Using references in requirements is not recommended for the following reasons:

- When using references in requirements, the reference name (e.g. Table 3) may be correct in one document, but wrong in another (where it may be the first table). This would require to update the references each time the document is exported or to change the references in the exported document.
- When updating references, a new version of the requirement is created, which could trigger the requirement to become suspect.
- Users must have the right to replace requirements of that class and the category the requirement is located in. If a user does not have the right, the reference is cannot be updated.

When using the **Entire Document** view mode, you can refresh a single reference or all references in a document.

- To refresh a single reference, do the following:
 - a Select the cross reference.
 - b In the HTML text formatting toolbar, open the drop-down menu of the Cross Reference button.
 - c Select **Refresh**
- To refresh all references in the document, select **Refresh Cross References** in the **Documents** section of the **Actions** pane.

Merging Document Changes

The configuration is set through the **Instance Settings** dialog.



NOTE RM Browser can be configured to use locking or merging to handle the situation where multiple users edit a requirement or chapter at the same time. This section describes document merging (the "root chapter" of a document is the document itself).

If RM Browser is configured to use merging, document changes must be merged when two users edit the same document at the same time.

Changes can be *automatic* or *conflicting*, as described in the following table.

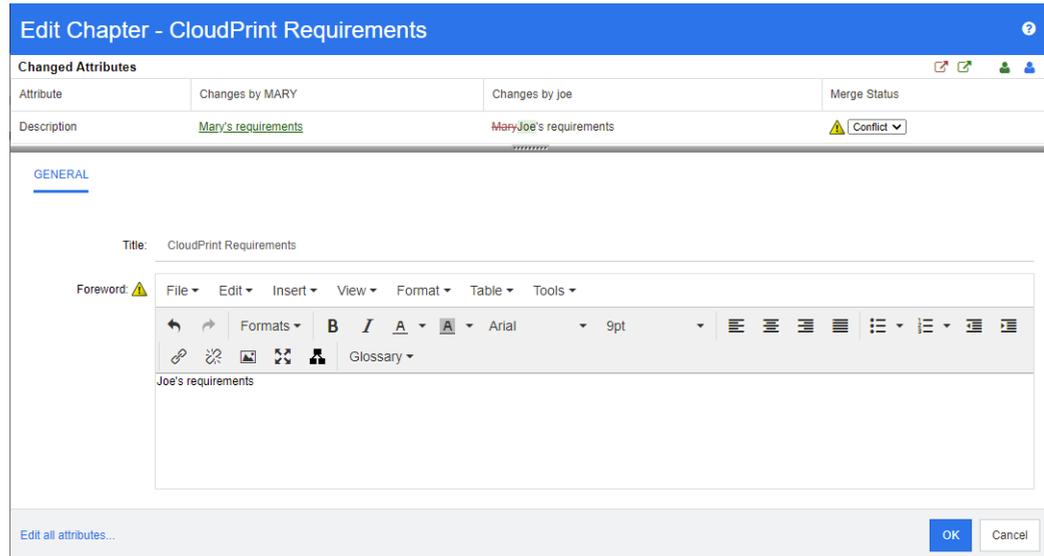
Change Type	Description
Automatic	When the change made by the first user is the same as the change made by the second user or when the change made by the first user is distinct from any change made by the second user, automatic merging can occur because a review of the change is not strictly necessary. However, it is recommended that the second user review the change made by the first user before accepting it.
Conflicting	When the change the second user makes conflicts with the change the first user made, the second user must review the changes and do one of the following: <ul style="list-style-type: none"> ■ Accept the change the second user made ■ Accept the change the first user made ■ Accept the original value ■ Combine the changes manually by editing the value directly in the main part of the dialog

The following scenario summarizes the actions that lead to document merging.

- 1 Two users edit the same document at the same time.
- 2 The first user clicks **OK** in the **Edit Document** dialog. The **Edit Document** dialog closes.
- 3 The second user clicks **OK** in the **Edit Document** dialog.
- 4 The second user is notified that the first user made one or more changes to the document. The notification either tells the second user that the merge can be done automatically (because the change the first user made does not conflict with the change the second user made) or that the changes conflict and must be resolved before the second user can replace the document.
- 5 The second user clicks **OK** on the notification message. The **Edit Document** dialog becomes the **Merge Document** dialog. The **Merge Document** dialog box differs from the **Edit Document** dialog in that the **Merge Document** dialog:
 - Has a section at the top that summarizes the changes and provides a user interface for merging the changes
 - Has visual indications next to its attributes that identify the type of merge that the second user selected
- 6 The second user uses the merge section at the top of the **Merge Document** dialog to resolve the changes as described in ["Viewing Prior Versions of the Document" on page 220](#) and ["Merging the Changes" on page 220](#).

Merge Status

The merge status of the changes made by Mary and Joe are highlighted in the **Changed Attributes** section at the top of the **Merge Document** dialog box.



Mary made the first change when she changed the Foreword to "Mary's requirements" but Joe changed this attribute value to "Joe's requirements." In the **Merge Status** column, **Conflict** is selected in the list. The icon that represents a conflict is a triangle with an exclamation point in it  and is displayed to the left of the **Merge Status** list and to the left of the *Foreword* attribute in the main part of the dialog.

Viewing Prior Versions of the Document

It can be useful to view prior versions of the document before you resolve changes.

The second user can view the original version of the document by clicking the **View original version of the document** button  or by clicking **Original** in the appropriate **Merge Status** column list.

The second user can view the document in the state it was in after the first user made changes but before the second user made changes by clicking the **New version of document prior to your changes** button .

Merging the Changes

After the second user has decided how to resolve the changes, he or she can merge them.

To merge changes:

- 1 If **Automatic** is selected in the **Merge Status** column list, perform one of the following steps:
 - Retain the **Automatic** selection to accept the change.
 - Select the name of the user who made the change to accept the change.
 - Select **Original** to restore the attribute to its original value.
- 2 If **Conflict** is selected in the **Merge Status** column list box, perform one of the following steps:

- Select the name of the user whose change you want to accept.
 - Select **Original** to restore the attribute to its original value.
 - Edit the value manually in the main form so that it matches the value you want to accept.
- 3 If you want to accept all changes made by particular user (for example, Mary or Joe), click the **Accept all changes by Mary** button  or the **Accept all changes by Joe** button .
 - 4 Click **OK**.

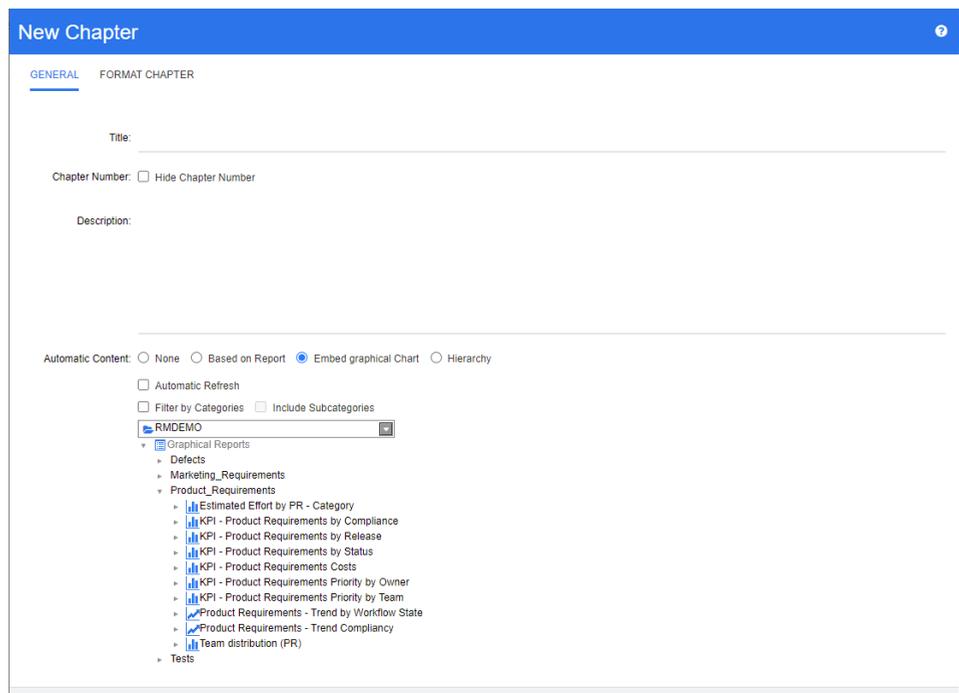
Working with Chapters and Requirements

Creating a New Chapter

You can create a chapter and then add individual requirements to it at a later time, or a chapter may be based on an existing report, including graphical reports. In the case of a report, this may be a one time operation or the chapter can be linked to the report, and then updated along with it.

To create a chapter:

- 1 Open the document to the Document work page, if it is not already open. See ["Opening Documents" on page 196](#).
- 2 Click the **New Chapter** button in the Navigation pane. The **New Chapter** dialog opens.



- 3 In the **Title** field, type the name of the chapter.

- 4 Click in the box under the title. The HTML edit control is displayed. Type the description in the box.
- 5 To hide the chapter number, in the document tree and when exporting, select the **Hide Chapter Number** option. Note that this option is only available if your administrator configured it.
- 6 To populate the content of the chapter automatically, do the following:
 - **Based on Report:** Adds all requirements queried by the report to the chapter. The following options are available:
 - **Automatic Refresh:** Refreshes the content of the chapter by executing the report when opening the document.
 - **Filter by Categories:** If selected, the report only queries data matching the category. If unselected, the report queries all data.
 - **Include Subcategories:** If selected, the report queries data from the selected category and its subcategories. Note that the **Include Subcategories** option is only enabled, if **Filter by Categories** is selected.
 - **Embed graphical Chart:** Adds all requirements queried by the report to the chapter. In addition, the graphical representation of the report is added to the chapter. The options are identical to those described for **Based on Report**.
 - **Hierarchy:** Adds all requirements of the selected category and sub-categories to the chapter. Sub-categories are represented as chapters.



CAUTION! You may edit the content of chapters generated from sub-categories. However, the content of those chapters will be gone if you select a different category for the **Hierarchy** setting of the chapter that contains the report.

- 7 Select the report to be imported and used as the basis for the chapter's content. To modify or view the report settings, click  next to the report name.



NOTE If the report returns multiple versions or non-current versions of a requirement, they will be included in the document.

- 8 Optionally select the **Automatic Refresh** option to dynamically refresh the content in the chapter when the report is updated.



NOTE

- If the report specifies requirement version by status (Current, Replaced, etc.), the version(s) included in the document will be updated to reflect whichever version of the requirement is assigned to the specified status.
- If the report specifies a specific object version number, that version of the requirement will remain in the document regardless of changes to its status.

- 9 If you selected a chapter when you clicked **Create**, the **Add as subchapter** check box is enabled. Select this check box if you want to add this chapter as a subchapter of the selected chapter.

- 10 Click **OK**.



NOTE Any chapter created in a parent document, will become available in the related child documents immediately.

Creating a Chapter in the Entire Document View

The Entire Document View allows to create chapters even more conveniently as described in chapter ["Creating a New Chapter" on page 221](#).

To create a chapter, do the following:

- 1 Move the mouse pointer at the location where you want to insert the new chapter. This will display a class selection dialog like this: 
- 2 Select the first entry from the list (in this example "Chapter"). The name of the first entry depends on your environment.
- 3 In case you add the chapter after an existing chapter, the following options are available:
 - **As Sibling:** The new chapter will be created on the same level as the previous chapter. If the previous chapter has the chapter number 1, the new chapter will have the chapter number 2.
 - **As Child:** The new chapter will be created as a child of the previous chapter. If the previous chapter has the chapter number 1, the new chapter will have the chapter number 1.1.
- 4 Click **+**. This adds an empty chapter to the document.
- 5 Specify title and content and click .

Editing a Chapter

You can change the name and description of a chapter, and change it to populate its content based on a report.

To change the name and description of a chapter:

- 1 Open the document to the Document work page, if it is not already open. See ["Opening Documents or Snapshots" on page 196](#).
- 2 Select the chapter in the Navigation pane.
- 3 Click the **Edit** button in the Detail pane. The **Edit Chapter** dialog opens.



NOTE If the document is a child document, you cannot edit a chapter inherited from the parent document.

- 4 Edit the title and description as desired. For information on formatting text, see ["HTML Text Formatting Toolbar" on page 39](#).
- 5 To populate the content of the chapter based on a report or graphical chart, select either **Based on Report**, or **Embed graphical Chart**.

- 6 Select the report to be imported and used as the basis for the chapter's content. To modify or view the report settings, click  next to the report name.



NOTE If the report returns multiple versions or non-current versions of a requirement, they will be included in the document.

- 7 Optionally choose the **Automatic Refresh** checkbox to dynamically refresh the content in the chapter when the report is updated.



NOTE

- If the report specifies requirement version by status (Current, Replaced, etc.), the version(s) included in the document will be updated to reflect whichever version of the requirement is assigned to the specified status.
- If the report specifies a specific object version number, that version of the requirement will remain in the document regardless of changes to its status.

- 8 Click **OK**.



NOTE Clicking **Edit all attributes...** opens the Edit Attributes dialog which provides access to all attributes (also system attributes) as well as the history of changes.

Editing a Chapter or Requirement in Entire Document View Mode

If a chapter or requirement, is viewed in "Entire Document" view mode, you can still edit it as described in chapter ["Editing a Chapter" on page 223](#). However, it is much quicker to change attributes directly in the detail pane.

To quickly change text, do the following:

- 1 Open the document to the Document work page, if it is not already open. See ["Opening Documents or Snapshots" on page 196](#).
- 2 In the detail pane, click the desired attribute of a chapter or requirement:
 - **Text attribute / alphanumeric attribute:** Clicking it shows the HTML editor for that text attribute.



NOTE For plain text attributes or alphanumeric attributes, the formatting options are disabled.

- **Date attribute:** Shows a calendar popup that allows you to select date/time depending on the configuration of the date attribute.
- **List attribute:** Shows a popup list with the values. By typing into the text box on top of the popup, you can filter the list values.
- **Numeric attribute:** Clicking it shows an input box in which you can enter a number.
- **User attribute:** Shows a popup list with the users or teams (depending on the configuration of the user attribute). By typing into the text box on top of the popup, you can filter the list values.

- 3 Edit the content as desired.
- 4 Click **Save** in the toolbar of the HTML editor.

**NOTE**

- If you leave Document View (e.g. by navigating to the Home View) and there are unsaved changes, you will receive a message that allows you to leave the page (and lose your changes) or to stay on the page (which allows to save the changes).
- If you select another chapter or requirement and you have not saved your changes, you will see the  indicator. Hovering the indicator shows the differences between the previous version and your (unsaved) changes. Clicking the  indicator opens a dialog that shows the differences. The dialog allows to review many changes as you can scroll within the text attribute if the text does not fit the screen.

Deleting a Chapter

To remove a chapter:

- 1 Select the chapter in the navigation tree. To select more than one chapter, click additional chapters while holding the CTRL key.
- 2 Click the **Delete** button.



NOTE If the document is a child document, you cannot delete a chapter from the parent document.

- 3 When prompted, confirm that you want to delete the selected chapters.

**NOTE**

- The selected chapters and any sub chapters are deleted from the document.
- Any requirements in the selected chapter are removed from the document, but not from the RM database.
- The **Delete** command is enabled only if you have the *Remove* permission for the Chapter class.

Copying Chapters

In the Document View, you can copy a chapter either from the current document to another document and vice versa. For both copy directions, the following options are available in the **Create Options** section:

- **Include Subchapters:**

When **enabled**, the selected chapter and all sub-chapters (all levels) will be copied.

If **disabled**, only the selected chapter will be copied.

- **Include Requirements:**

When **enabled**, any requirements of the selected chapter (and sub-chapters if **Include Subchapters** is enabled) will be added as well.

If **disabled**, no requirements will be added.

- **Copy Requirements:** This option is only available if **Include Requirements** is **enabled**.

When **enabled**, the requirements will be copied, meaning that new requirements (with different IDs than the original requirements) will be created.

If **disabled**, the existing requirements will be used.

Copying a Chapter to Another Document

Executing the steps below will copy a chapter from the currently open document into another document. The chapter will be added to the end of the other document.

To copy a chapter to another document, do the following:

- 1 Open the document to the Document work page, if it is not already open. See ["Opening Documents or Snapshots" on page 196](#).
- 2 Select the chapter you want to copy.
- 3 Click **Copy Chapter** in the **Documents** section of the **Actions** pane. This opens the **Copy Chapter** dialog.
- 4 Ensure that the **Copy Direction** box shows **Copy to Document**.
- 5 From **Create Options**, enable or disable the desired options (see chapter ["Copying Chapters" on page 225](#)).
- 6 From the **Document** box, select the document you wish to copy the chapter to. To find the document more easily, you can filter the document list by typing part of the document name in the text box above the list.

To open the selected document in a different tab or window, click .
- 7 Click **OK**.

Copying a Chapter from Another Document

Executing the steps below will copy a chapter from another document into the currently open document.

To copy a chapter from another document, do the following:

- 1 Open the document to the Document work page, if it is not already open. See ["Opening Documents or Snapshots" on page 196](#).
- 2 Select the location where you want the chapter to be inserted.

Selecting the root in the document tree will insert the chapter as the last chapter.
Selecting a chapter will insert the chapter as a sub-chapter.
- 3 Click **Copy Chapter** in the **Documents** section of the **Actions** pane. This opens the **Copy Chapter** dialog.

- 4 From the **Copy Direction** box, select **Copy from Document**.
- 5 From **Create Options**, enable or disable the desired options (see chapter "[Copying Chapters](#)" on page 225).
- 6 From the **Document** box, select the document you wish to copy the chapter from. This will show the **Select Chapter** section, which allows you to select a chapter from the selected document.
- 7 Click **OK**.

Copying a Chapter within a Document

Executing the steps below will copy a chapter within the currently open document. The chapter will be added to the end of the document.

To copy a chapter to another document, do the following:

- 1 Open the document to the Document work page, if it is not already open. See "[Opening Documents or Snapshots](#)" on page 196.
- 2 Select the chapter you want to copy.
- 3 Click **Copy Chapter** in the **Documents** section of the **Actions** pane. This opens the **Copy Chapter** dialog.
- 4 Ensure that the **Copy Direction** box shows **Copy to Document**.
- 5 From **Create Options**, enable or disable the desired options (see chapter "[Copying Chapters](#)" on page 225).
- 6 Click , which is located next to the **Document** box. This selects the current document.
- 7 Click **OK**.

Formatting Chapters

For formatting the root chapter (which includes the foreword), see chapter "[Formatting Documents](#)" on page 211.

To specify the layout you want for a chapter:

- 1 Click the **Edit chapter** () button. This opens the **Edit Chapter** dialog.

- 2 Select the **Format Chapter** tab.

The screenshot shows the 'Edit Chapter - Scope' dialog box with the 'FORMAT CHAPTER' tab selected. The 'GENERAL' tab is also visible. The settings are as follows:

- Page Orientation on Export:**
 - Inherit from previous chapter
 - Portrait
 - Landscape
- Inherit:** Inherit Layout from Parent
- Requirements Layout:**
 - Editable Grid
 - Grid
 - Paragraph
- Show and export Labels for:**
 - <Default Title>
 - <Default Description>

A note at the bottom states: 'Note: All other Attribute Labels are shown and published'. At the bottom right, there are 'OK' and 'Cancel' buttons, and a link 'Edit all attributes...' on the left.

- 3 **Page Orientation on Export:** The page orientation setting changes the orientation for the remainder of the document starting with the selected chapter.
- Inherit from previous chapter:** Uses the same page orientation as the chapter that was exported before the selected chapter.
 - Portrait:** Sets the page orientation to portrait.
 - Landscape:** Sets the page orientation to landscape.
- 4 **Inherit Layout from Parent:** Selecting this check box reverts the *Requirement Layout* and *Show and export LABELS for* settings of the chapter to the default of inheriting the settings from its parent.
- 5 **Requirement Layout:**
- Editable Grid:** Requirements are displayed in a table (one requirement per row). When editing a document in RM Browser, you can modify the attributes of a requirement. Only attributes are displayed/exported which are specified in the **Display Options** settings (see chapter "Display Options" on page 215).
 - Grid:** Requirement are displayed in a table (one requirement per row). Only attributes are displayed/exported which are specified in the **Display Options** settings (see chapter "Display Options" on page 215).
 - Paragraph:** Requirements are displayed individually. If a publish template for the requirement class exist, the layout is specified in the template. If no publish template exists, only attributes are displayed/exported which are specified in the **Display Options** settings (see chapter "Display Options" on page 215).



NOTE If there are mixed requirements from different classes in the same chapter or sub-chapter, the Grid option is disabled.



TIP If you want to include requirements of different classes into the same chapter, put the requirements of each class into a separate sub-chapter.

- 6 **Show and export LABELS for:** The following settings change how attribute labels are shown in the Detail pane and in the exported document. They are only relevant when using the **Requirement Layout** option **Paragraph**.
 - a **<Default Title>:** If selected, the name of title attribute precedes the name of the requirement title, e.g. *Title: Database stores at least 1024 entries*
 - b **<Default Description>:** If selected, the name of the description attribute precedes the description, e.g. *Text: The database shall store not less than 1024 entries.*
- 7 Click **OK**.

Creating a New Requirement and Adding it to a Document

The following steps describe how to create a requirement in the document view and add it to the document.

To create a new requirement, do the following:

- 1 Select the chapter to which you want to add the new requirement.
- 2 Select **New** from the **Requirements** set of the Actions pane. This opens the **New** dialog.
- 3 From the **Class** box, select the class for the requirement you wish to create.
- 4 Fill out the requirement attributes as required..
- 5 Click **Save**.

Creating a New Requirement in the Entire Document View

The Entire Document View allows to create chapters even more conveniently as described in chapter ["Creating a New Chapter" on page 221](#).

To create a chapter, do the following:

- 1 Move the mouse pointer at the location where you want to insert the new chapter. This will display a class selection dialog like this: 
- 2 Select the class to create the requirement from.
- 3 Click **+**. This adds an empty requirement to the document.
- 4 Specify the attribute values for the requirement.



NOTE Mandatory attributes are always shown even if they are not configured to be displayed in the document.

- 5 Click  to create the requirement and add it to the document.

Adding Requirements to a Document

To add a requirement, you search for existing requirements and then add them to a chapter or document. If a requirement is selected when you issue the **Add** command, you have the option of adding the requirements that are returned as subrequirements of the selected requirement.

To add requirements:

- 1 Open the document to the Document work page, if it is not already open. See ["Opening Documents" on page 196](#).
- 2 In the Navigation pane, select the chapter to which you want to add the requirements.
- 3 Click **Add to Chapter** in the Requirements group of the Actions pane. The **Add to Chapter** dialog opens.
- 4 Select a class in the **Look for class** list.
- 5 **Filters:** If you saved filters in Quick Search, you can use these filters to search the requirement you wish to add.
- 6 **Constraints:** As needed, specify criteria to locate the desired requirements. See ["Attribute Constraints Tab" on page 47](#) and ["Relationship Constraints Tab" on page 53](#).
- 7 **Display Options:** As needed, specify how to display the results. See ["Display Options Tab" on page 56](#).
- 8 Select the **Case sensitive search** check box if you want the search results to exactly match the capitalization of the specified attribute values.
- 9 **Find Now:** Click this button to run the search. The results are displayed in the lower pane of the dialog.
- 10 **New Search:** Click this button to clear the current search criteria and results.
- 11 Select the desired requirements in the search results. For multi-selection of requirements, see chapter ["Selecting Multiple Requirements" on page 36](#).



NOTE

- A chapter icon is displayed next to a requirement if the requirement is in the chapter (including the root of the document) to which you are adding requirements.
- A document icon is displayed next to a requirement if the requirement is included in the document but is not in the chapter to which you are adding requirements.

- 12 **Add as subrequirement:** Select this checkbox if you want the requirements to be added as subrequirements of the requirement currently selected in the Navigation pane. This checkbox is available only if a requirement is selected in the Navigation pane.
- 13 Do any of the following:
 - **Add:** Click this button to add the selected requirements to the document.

- **Remove:** Click this button to remove the selected requirements from the document.



TIP To manually change the version of a specific requirement that is included in the document, see ["Change which Requirement Version Is Included in a Document" on page 236](#).

Adding Requirements to a Document from the Hierarchy View

The steps below describe a quick method to add requirements to a document if you are in the Home View and use the Hierarchy View. The requirements are added to the root node of the document. If you wish to add the requirements to a specific chapter, or you are not in the Home View, or do not use the Hierarchy View, follow the steps described in chapter ["Adding Requirements to a Document" on page 230](#).

To create a new document:

- 1 Select one or several requirements.
- 2 Select **Add to Document** from the **Hierarchy** set of the Actions pane. The **Add to Document** dialog opens.
- 3 Select the document(s) to which you wish to add the requirement(s) to.
- 4 Click **OK**.

Deleting a Requirement from a Document

To delete a requirement from a document:

- 1 In the Navigation pane of the Document work page, select the requirement you wish to remove from the document. To select more than one requirement, click additional requirements while holding the CTRL key.
- 2 Click **Remove from Document** from Requirements set of the Actions pane. The **Remove from Document** dialog box opens.
- 3 If you also want to delete the requirement from the instance, select the **Also delete from instance** option.
- 4 Click **Yes** to confirm that you want to delete the requirement.



NOTE If you remove a requirement from a document, linked requirements may become suspect depending on the relationship settings.

Moving Chapters and Requirements

You can move chapters or requirements in a document by using drag and drop. For all drag and drop operations, these rules apply:

- You cannot drop a chapter onto a requirement.

- When dropping chapters or requirements onto a chapter, they become children of that chapter. The new children are inserted before any existing children.
- When dropping requirements onto a requirement, they become children of that requirement. The new children are inserted before any existing children.
- Dropping chapters or requirements in-between chapters or requirements inserts them at that location.
- When dropping chapters or requirements, the original sequence of the selected chapters or requirements is maintained.
- If automatic numbering is enabled, moving chapters or requirements changes the numbering of the moved chapters or requirements and all subsequent chapters or requirements.

To move a single chapter or requirement:

- 1 Select a chapter or requirement.
- 2 Do one of the following:
 - Click  or .
 - Drag the chapter or requirement and drop it at its new location.

To move several chapters:

- 1 Select a chapter.
- 2 Do one of the following:
 - Shift-click a chapter: This selects all chapters between the chapter selected in step 1 and the shift-clicked chapter (including it).
 - Ctrl-click one or several chapters: This adds the chapters you Ctrl-clicked to the selection.
- 3 Drag one selected chapter and drop it at its new location.

To move several requirements:

- 1 Select a requirement.
- 2 Do one of the following:
 - Shift-click a requirement: This selects all requirements between the requirement selected in step 1 and the shift-clicked requirement (including it).
 - Ctrl-click one or several requirements: This adds the requirements you Ctrl-clicked to the selection.

- 3 Drag one selected requirement and drop it at its new location.



TIPS

- Ctrl-clicking a selected chapter or requirement removes it from the selection.
- If you have a large block of chapters or requirements with just some exclusions, it may be quicker to select the block with Shift-click and deselecting some chapters or requirements with Ctrl-click rather than Ctrl-clicking all chapters or requirements you want to move.

Proposing Changes to a Chapter

Even if you do not have the right to create or edit chapters, you can request a change on a chapter if you have the "CreateCR" right for classes and the "Update" right for attributes.

To propose a change, do the following:

- 1 Select the chapter you want to propose a change for.
- 2 Click **Propose Change** from the **Requirements** group of the **Actions** pane. This opens the **Propose a Change** dialog.
- 3 Modify the Title and/or Chapter Description texts as desired.
- 4 Enter the reason for the change in the **Reason for change** box.
- 5 **Exchange in:** You can select this checkbox to replace the version in the document with the new version.
- 6 **Close after save:** Select this checkbox to close the change request after saving it. Otherwise, the change request opens for editing after you save it. **Close after save** is not available if the navigation bar is visible.
- 7 Click **Submit** to submit the change request. The change request opens for editing if the **Close after save** checkbox is not selected.

Converting Chapters into Requirements

A chapter can be converted into a requirement. However, note that you cannot convert a requirement into a chapter. This means that once you converted the chapter into a requirement, you cannot convert it back. In this case you would have to create a chapter and copy the title and content.

To convert chapters into requirements, do the following:

- 1 Select one or several chapters you want to convert.
A chapter can only be converted if:
 - it does not have any sub-chapters; but it may have requirements linked to it;
 - it does not belong to a parent document.
- 2 Click **Change Class** in the **Requirements** group of the **Actions** pane. This opens the **Change Class** dialog.

- 3 From the **New Class** box, select the class you want to convert the chapter to. If you selected several chapters, all chapters will be converted into the selected class.
- 4 Click **Next**.
- 5 Fill out any attributes and/or change the category as desired or required.
- 6 Click **Save**. This opens the **Changed** dialog which gives you an overview about the changed chapters. By clicking the **Req ID** link of a chapter, you open the original version. By clicking the **New ID** link, the current requirement version opens for editing. For further information about editing requirements, see chapter "[Editing a Requirement](#)" on page 118.
- 7 Click **Close**.



NOTE

- The Title and Description attributes are transferred to the corresponding Title and Text attributes (the names depend on the target class) automatically.
- After conversion, the requirement may not be at the same position as before. This is because sub-chapters must follow the requirement of the parent chapter.
- If the Workflow feature is enabled for the target class, the requirement will always be created with the **New** transition.

Converting Selected Chapter Content into a Requirement

When converting selected chapter content into a requirement, the selected content will become the description of the requirement and will be removed from the chapter. The requirement will become a child of the chapter from which it was created.

Note that this function is only available in the Entire Document View mode.

To convert selected chapter content into a requirement, do the following:

- 1 Select the content of a chapter you want to convert into a requirement.
- 2 In the text editor of the chapter, click **Split** and select **Split text to new object**. This opens the **Split text to new object** dialog.
- 3 From the **New Class** list, select the class type for the requirement you wish to convert the selected content to.
- 4 Click **Next**.
- 5 Fill out any attributes and/or change the category as desired or required.
- 6 Click **Save**. This opens the **Split text to** dialog which gives you an overview about the requirement you created. By clicking the **Req ID** link of a chapter, you open the original version. By clicking the **New ID** link, the current requirement version opens for editing. For further information about editing requirements, see chapter "[Editing a Requirement](#)" on page 118.

7 Click **Close**.**NOTE**

- The Title of the chapter is transferred to the corresponding Title attribute (the names depend on the target class) of the requirement automatically.
- If the Workflow feature is enabled for the target class, the requirement will always be created with the **New** transition.

Assigning an ECP to a Document

ECPs are a high-level change management class type (Engineering Change Proposal) that can be used to collect multiple change requests into a single package.

If ECP Control is enabled on the document, the name of current ECP is displayed to the right of the Instance Bread Crumb.

RMDEMO > > RMDEMO > ePhoto Requirements > ECP-00001 (Changes to Support Advantix Prints) Draft To Approval

If ECP Control is in effect, but the current user has not assigned an ECP, the document will be Read-Only until he assigns an ECP to it. Instead of the name of an ECP, you will see this message: **(No ECP, document is read-only)**.



NOTE To enable ECP Control on a document, see ["Editing Document Attributes" on page 209](#).

To assign an ECP:

- 1 Open the document to the Document work page, if it is not already open. See ["Opening Documents" on page 196](#).
- 2 Click **Assign ECP** in the Documents group of the Actions pane. The Assign ECP dialog opens.
- 3 Select **ECPs** in the **Look for class** list.
- 4 **Filters:** If you saved filters in Quick Search, you can use these filters to search the ECPs.
- 5 **Constraints:** As needed, specify criteria to locate the desired ECP. See ["Attribute Constraints Tab" on page 47](#) and ["Relationship Constraints Tab" on page 53](#).
- 6 **Display Options:** As needed, specify how to display the results. See ["Display Options Tab" on page 56](#).
- 7 Select the **Case sensitive search** check box if you want the search results to exactly match the capitalization of the specified attribute values.
- 8 **Find Now:** Click this button to run the search. The results are displayed in the lower pane of the dialog.
- 9 **New Search:** Click this button to clear the current search criteria and results.
- 10 Select the desired ECP in the search results.

- 11** Do any of the following:
- **Assign:** Click this button to assign the selected ECP to the document.
 - **Clear:** Click this button to remove the selected ECP from the document.

Change which Requirement Version Is Included in a Document

You can swap the version of a requirement currently in use in a document for another version of the requirement.

To change which requirement version is included in a document:

- 1** In the Navigation pane of the Document work page, select the requirement you wish to change.
- 2** Expand the **History** section of the requirement in the Detail pane.

The screenshot shows the 'History' section of a requirement detail pane. It features a table with the following data:

Pedigree				Properties	
		Time Modified	Object ID	Modified By	Current Status
			18-MAY-2006@09:17:06	Ryan Forbes	Replaced
			25-NOV-2014@08:23:23	Ryan Forbes	Replaced
			30-SEP-2015@01:54:24	Ryan Forbes	Current (Baseline)

The version in use by the document will not have an Exchange () icon (nor will rejected versions).

- 3** Click of the version you want to use in the document. This opens the **Exchange Requirement** dialog.
- 4** Click **Yes** to confirm the change.

Using Placeholders in Documents

Within chapters or requirements you can define placeholders which are filled during the export process. These placeholders provide information of the document or snapshot and the workflow of the document or snapshot (if you assigned a workflow).

Document Placeholders

The following document placeholders are available:

Placeholder	Description
Document Category	The name of the category the document resides in, e.g. <i>Maintenance</i> .
Document Category Path	The full path of the category the document resides in, e.g. <i>RMDEMO\Support\Maintenance</i> .
Document Chapter Count	The number of chapters in the document.
Document Created At	The date or date and time the document was created. For information on how to format date placeholders, see chapter "Specifying a Format for Date Placeholders" on page 238 .
Document Created By	The name of the user who created the document. The format depends on the display setting for user attributes (see chapter "Display Settings for User Attributes" on page 82).
Document Modified At	The date or date and time of the most recent modification of the document. For information on how to format date placeholders, see chapter "Specifying a Format for Date Placeholders" on page 238 .
Document Modified By	The name of the user who made the most recent modification of the document. The format depends on the display setting for user attributes (see chapter "Display Settings for User Attributes" on page 82).
Document Owner	The name of the user who owns the document. The format depends on the display setting for user attributes (see chapter "Display Settings for User Attributes" on page 82).
Document Requirement Clount	The number of requirements in the document.
Document Revision Number	The revision number of a snapshot (e.g. <i>1.2</i>). For documents, the revision number is always 0.0.
Document Revision Number (Major)	The major part of the revision number of a snapshot. If the revision number is <i>2.1</i> , the major part would be <i>2</i> . For documents, it is always 0.
Document Revision Number (Minor)	The minor part of the revision number of a snapshot. If the revision number is <i>2.1</i> , the minor part would be <i>1</i> . For documents, it is always 0.
Document Title	The name of the document
Document Workflow	The name of the workflow assigned to the document. If no workflow is assigned, this placeholder is empty.
Document Workflow State	The state of the document in the workflow. If no workflow is assigned, this placeholder is empty.
Document Workflow State Reached At	The date or date and time the document reached the state in the workflow. If no workflow is assigned, this placeholder is empty.

Adding a Placeholder to a Chapter or Requirement

To add a placeholder to a chapter or requirement, do the following:

- 1** Open the Document View (see chapter ["Opening Documents or Snapshots" on page 196](#)).
- 2** Ensure that the document is shown in the Entire Document View (see chapter ["Editing a Chapter or Requirement in Entire Document View Mode" on page 224](#)).
- 3** Click into the chapter description or a text attribute of a requirement that allows Rich Text editing.
- 4** Select the desired placeholder from the **Fields** drop-down list.
- 5** Click **Save**.

Specifying a Format for Date Placeholders

Date placeholders can be formatted to display certain dates. Due to a limitation of Microsoft Word, the format has to be specified with the placeholder in the HTML of the chapter description or text attribute.

The following table shows the supported format specifiers. All examples assume the following date/time: September 1, 2008 14:03:04

Format	Description
d	Single-digit day (if possible). Example: 1
dd	Two-digit day: Example: 01
ddd	Abbreviated name of the day. The name depends on language setting on the server. Example: Mon
dddd	Name of the day. The name depends on language setting on the server. Example: Monday
M	Single digit month (if possible). Example: 9
MM	Two-digit month: Example: 09
MMM	Abbreviated name of the month. The name depends on language setting on the server. Example: Sep
MMMM	Name of the month. The name depends on language setting on the server. Example: September
y	Single-digit year (if possible). Example: 8
yy	Two-digit year Example: 08

Format	Description
yyyy	Four-digit year. Example: 2008
h	Single-digit hour (if possible) in 12 hour format. Example: 2
hh	Two-digit hour in 12 hour format. Example: 02
H	Single-digit hour (if possible) in 24 hour format: Example: 14
HH	Two-digit hour in 24 hour format: Example: 14
m	Single-digit minute (if possible). Example: 3
mm	Two-digit minute. Example: 03
s	Single-digit second (if possible). Example: 4
ss	Two-digit second. Example: 04
a	AM/PM specifier. Actual values depend on system setting. Default: AM and PM
p	AM/PM specifier. Actual values depend on system setting. Default: AM and PM

To specify or change the format for a date placeholder, do the following:

- 1 Click into the description or text attribute that holds your placeholder.
- 2 In the Rich Text editor, select **Source code** from the **Tools** menu.
- 3 Locate the date placeholder for which you want to specify the format.

Example:

```
<a target="_blank" class="rmPlaceholder"
data-rmplaceholderformat=""
data-rmplaceholderfriendlyname="Document Created At" data-
rmplaceholdername="rmDocumentCreatedAt">###Document Created At###</
a>
```

- 4 Modify the data-rmplaceholderformat attribute to your desired format.

Example:

```
<a target="_blank" class="rmPlaceholder"
data-rmplaceholderformat="MMMM/dd/yyyy hh:mm:ss"
data-rmplaceholderfriendlyname="Document Created At" data-
rmplaceholdername="rmDocumentCreatedAt">###Document Created At###</
a>
```

- 5 Click **OK**.

- 6 When using the Entire Document View or creating a new requirement, click **Save**.
 With the **New Chapter** or **Edit Chapter** dialog, click **OK**.
 With the **Edit Attributes** dialog, click **Save** or **Update**.

Merging Chapter Changes

The configuration is set through the **Instance Settings** dialog box, which is available to administrators.



NOTE RM Browser can be configured to use locking or merging to handle the situation where multiple users edit a requirement or chapter at the same time. This section describes chapter merging.

If RM Browser is configured to use merging, chapter changes must be merged when two users edit the same chapter at the same time.

Changes can be *automatic* or *conflicting*, as described in the following table.

Change Type	Description
Automatic	When the change made by the first user is the same as the change made by the second user or when the change made by the first user is distinct from any change made by the second user, automatic merging can occur because a review of the change is not strictly necessary. However, it is recommended that the second user review the change made by the first user before accepting it.
Conflicting	When the change the second user makes conflicts with the change the first user made, the second user must review the changes and do one of the following: <ul style="list-style-type: none"> ■ Accept the change the second user made ■ Accept the change the first user made ■ Accept the original value ■ Combine the changes manually by editing the value directly in the main part of the dialog box.

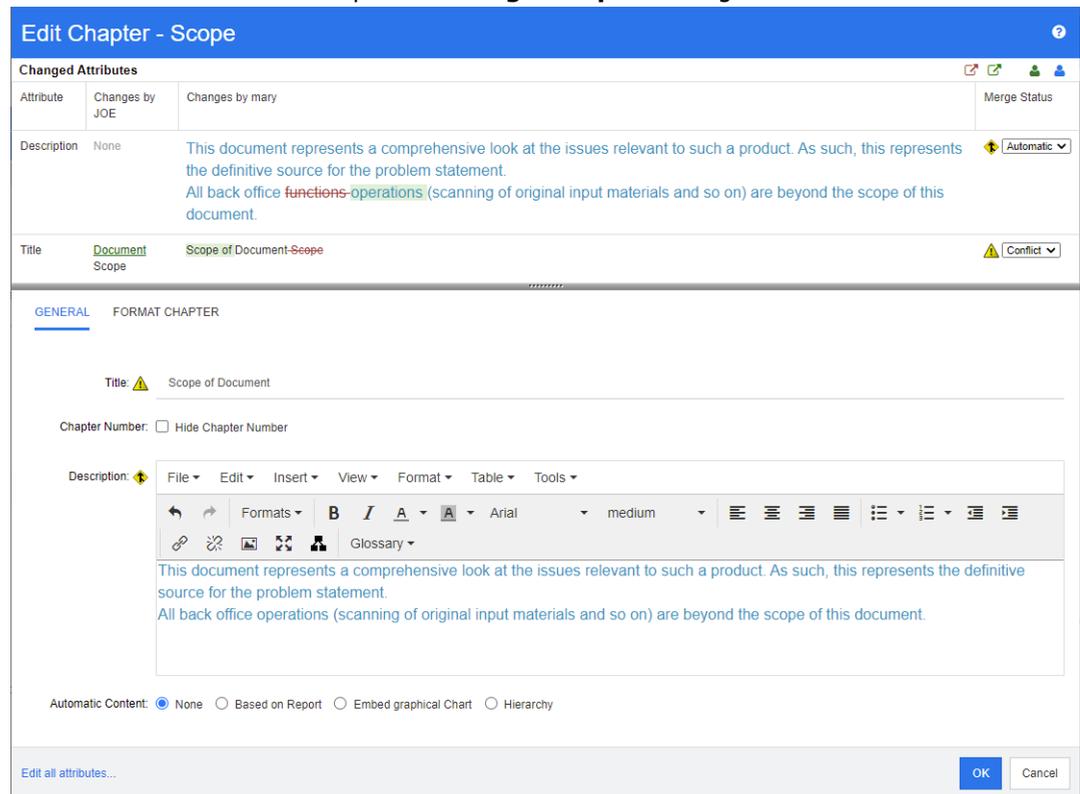
The following scenario summarizes the actions that lead to chapter merging.

- 1 Two users edit the same chapter at the same time.
- 2 The first user clicks **OK** in the **Edit Chapter** dialog.
- 3 The second user clicks **OK** in the **Edit Chapter** dialog.
- 4 The second user is notified that the first user made one or more changes to the chapter. The notification either tells the second user that the merge can be done automatically (because the change the first user made does not conflict with the change the second user made) or that the changes conflict and must be resolved before the second user can replace the chapter.
- 5 The second user clicks **OK** on the notification message. The **Edit Chapter** dialog becomes the Merge Chapter dialog. The **Merge Chapter** dialog differs from the **Edit Chapter** dialog in that the **Merge Chapter** dialog:

- Has a section at the top that summarizes the changes and provides a user interface for merging the changes
 - Has visual indications next to its attributes that identify the type of merge that the second user selected
- 6 The second user uses the merge section at the top of the **Merge Chapter** dialog to resolve the changes as described in "Viewing Prior Versions of the Chapter" on page 241 and "Merging the Changes" on page 242.

Merge Status

The merge status of the changes made by Joe and Mary are highlighted in the **Changed Attributes** section at the top of the **Merge Chapter** dialog.



Joe made the first change when he changed the *Title* attribute from "Scope" to "Document Scope." This change involves a conflict, because Mary changed the *Title* attribute from "Scope" to "Scope of Document." In the **Merge Status** column, **Conflict** is selected in the list. The icon that represents a conflict is a triangle with an exclamation point in it  and is displayed to the left of the **Merge Status** list and to the left of the box in the main part of the dialog.

Mary made the second change when she changed "office functions" to "office operations." In the **Merge Status** column, **Automatic** is selected in the list, because the change does not involve a conflict with a change that Joe made. The icon that represents an automatic merge is a diamond shape with a merge arrow in it  and is displayed to the left of the **Merge Status** list and the box in the main part of the dialog.

Viewing Prior Versions of the Chapter

It can be useful to view prior versions of the chapter before you resolve changes.

- The second user can view the original version of the chapter by clicking the **View original version of the chapter** button  or by clicking **Original** in the appropriate **Merge Status** column list.
- The second user can view the chapter in the state it was in after the first user made changes but before the second user made changes by clicking the **New version of chapter prior to your changes** button .

Merging the Changes

After the second user has decided how to resolve the changes, he or she can merge them.

To merge changes:

- 1** If **Automatic** is selected in the **Merge Status** column list box, perform one of the following steps:
 - Retain the **Automatic** selection to accept the change.
 - Select the name of the user who made the change to accept the change.
 - Select **Original** to restore the attribute to its original value.
- 2** If **Conflict** is selected in the **Merge Status** column list box, perform one of the following steps:
 - Select the name of the user whose change you want to accept.
 - Select **Original** to restore the attribute to its original value.
 - Edit the value manually in the main form so that it matches the value you want to accept.
- 3** If you want to accept all changes made by a particular user (for example, Joe or Mary), click the **Accept all changes by Joe** button  or the **Accept all changes by Mary** button .
- 4** Click **OK**.

Working with Comments

Comments can be added to chapters or requirements. Comments allow to discuss topics regarding a requirement or chapter. Rather than just discussing the topics by e-mail or personally, this allows to review all comments at any time, e.g. during an approval process. For further information about comments, see chapter "[Working with Comments](#)" on page 67.

Working with Snapshots

Creating a Snapshot of a Document

A snapshot is a read-only copy of a document. It preserves the current state of the document for future reference. While creating a snapshot, you can also create a baseline of the requirement versions currently in the document.



NOTE

- When you create a snapshot of a document, the settings specified in the Properties dialog box are maintained.
- To create a snapshot, you must have the "Create Baseline" permission for collections.

To create a snapshot of a document:

- 1 Open the document to the Document work page, if it is not already open. See ["Opening Snapshots" on page 197](#).
- 2 Click **Create/View Snapshots** in the Documents group of the Actions pane. The **Snapshots** dialog opens.
- 3 Click the **New Snapshot** button. The **Create Snapshot** dialog opens.
- 4 **Name:** Initially this field will contain the name of the original document. Modify it as needed.
- 5 **Major version** and **Minor version:** Increase the version number snapshot name. Any modifications will be overwritten.
Example:
Assuming the snapshot version is 1.1:
 - **Major version** will increase it to 2.0.
 - **Minor version** will increase it to 1.2.
- 6 **Description:** Initially this field will contain the description of the original document. Modify it as needed.
- 7 **Workflow:** Allows the selection of the workflow to be used with this snapshot.
- 8 **Automatically create corresponding Baseline:** Enable this checkbox if you want to create a baseline of the requirement versions currently in the document.



NOTE The baseline creation process runs in the background and is likely still in progress after the snapshot creation process has completed. No notice will appear upon either completion or failure of the baseline creation process.

- 9 Click the **OK** button in the **Create Snapshot** dialog.
- 10 Click the **Close** button in the **Snapshots** dialog.

Working with Snapshots of an Open Document

To access a snapshot follow these steps:

- 1 With the document open in the Document work page, click **Create/View Snapshots** in the Documents group of the Actions pane. The **Snapshots** dialog opens.
- 2 Select the desired snapshot from the list.
- 3 Click one of the following buttons:
 - **Open:** The snapshot opens in the Document work page.
 - **Edit:** The **Modify Snapshot** dialog opens. Do one of the following and click **Save** when you completed your modifications:
 - Modify the **Name** and **Description** fields as needed.
 - Select a workflow from the **Workflow** list as needed.
 - **Remove:** This opens the **Remove Snapshot** dialog. Click **OK** to delete the snapshot.



TIP You can also directly open snapshots from the **Documents** tab of the Home View. See ["Working with Snapshots of a Closed Document" on page 244](#).

Working with Snapshots of a Closed Document

To access a snapshot follow these steps:

- 1 Select the document of the desired snapshot in the **Documents** tab of the Home page.
- 2 Select the desired snapshot. (Usually, snapshots reside in the same category as the document they were created from. If this is the case, expand the document to allow selection of the snapshot.)
- 3 Click one of the following in the Actions pane:
 - **View/Edit:** The snapshot opens in the Document work page.
 - **Export:** The **Export Document** dialog prompts you to choose in which format you want to export the document. Choose **Word Document (*.docx)** or **PDF document (*.pdf)** and click **Export**. When prompted by your browser, click **Save** to save the file to your local system. See ["Restricting Requirement Classes in a Document" on page 217](#) for more information on exporting documents.
 - **Save As:** Saves the selected snapshot as a new document.
 - **Delete:** Click **OK** on the resulting confirmation dialog. The snapshot is deleted.

Comparing Documents and Snapshots

You can compare a document with another document or snapshot or two snapshots. It is not required for the snapshots to be of the same document. The differences are flagged in the Navigation and Detail panes.

To compare documents and snapshots:

- 1 Open the Home View by clicking .
- 2 Select the category containing the document or snapshot in the category tree.
- 3 Select the document or snapshot you wish to compare. (Usually, snapshots reside in the same category as the document they were created from. If this is the case, expand the document to allow selection of a snapshot.)
- 4 Click **Compare Document** in the **Documents** group of the Actions pane. The **Compare Snapshots** dialog opens.
- 5 **Select a document or snapshot by using one of these methods:**
 - **Select a snapshot of the same document:**
 - 1 Select the snapshot in the list below.
 - 2 Click the arrow next to **Base Version** or **Changed Version** to populate the respective field.
 - **Select a different document:**
 - 1 Click ... to open the **Select Document** dialog.
 - 2 If the document resides in a different category, select it from the **Category** box.
 - 3 Select the document from the list below. You can shorten the list by typing parts of the name into the **Search** box.
 - 4 Click **Select**.
 - **Select a different snapshot:**
 - 1 Click ... to open the **Select Document** dialog.
 - 2 If the document resides in a different category, select it from the **Category** box.
 - 3 Select the document from the list below. You can shorten the list by typing parts of the name into the **Search** box.
 - 4 Click **Select**.
 - 5 Select the snapshot from the list below.
 - 6 Click the arrow next to **Base Version** or **Changed Version** to replace the document name with the snapshot name.
- 6 Click **Compare**. This closes the **Compare** dialog and compares the selected document(s) and/or snapshot(s). As a result, the Navigation pane of the Document work page now contains the union of all of the chapters in the selected document(s) and/or snapshot(s), and the detail pane contains a **Requirement Difference Summary**. For details, see chapters ["Working with the Compare Document Navigation Pane" on page 246](#) and ["Working with the Requirement Difference Summary" on page 247](#).

Working with the Compare Document Navigation Pane

When comparing a document, the Navigation pane of the Document work page contains the union of all of the chapters in the selected document(s) and/or snapshot(s), and the detail pane contains a **Requirement Difference Summary** (see ["Working with the Requirement Difference Summary"](#) on page 247 for details).

The Navigation pane has these functions:

- Icons in the Navigation pane indicates the modification status of a given chapter or requirement.
 - **Chapters**
 - : The chapter is unmodified.
 - : The chapter has been modified.
 - : The chapter has been added.
 - : The chapter has been removed.
 - **Requirements**
 - : The requirement is unmodified.
 - : The requirement has been modified.
 - : The requirement has been moved.
 - : The requirement has been added.
 - : The requirement has been removed.
- At the chapter level, the change icons account only for the chapter description, not for the requirements in the chapter. Therefore, if a description of a chapter did not change, but subchapters or requirements in the chapter changed, the chapter icon indicates that the chapter is unchanged.
- If the title of a chapter or requirement is different in the two documents, both titles are displayed in the Navigation pane.
- When a chapter is selected in the Navigation pane, the Detail pane shows requirements in the grid view.



NOTE The attributes shown are those defined for display in the document. See ["Display Options"](#) on page 215.

- The icon that indicates whether the requirement was added, removed, moved, changed, or unchanged is also shown in the grid view.
- When you select a changed requirement in the Navigation pane:
 - The Detail pane shows the differences between the two versions.
 - An icon is displayed next to the sections in the Detail pane that include changed attributes, and the sections that include changed attributes are expanded.
- The comparison is relative to the base version, especially for moved requirements (requirements that have been added and removed as a result of a drag-and-drop operation).

Working with the Requirement Difference Summary

The **Requirement Difference Summary** is a special chapter that is displayed before all other chapters in the Navigation pane and contains the modification status for each requirement of the documents/snapshots you compared. For each requirement, the requirement ID, title and class are shown.

The **Requirement Difference Summary** contains these sections:

-  **Added Requirements:** Contains a list of requirements that have been added to the document or snapshot.
-  **Removed Requirements:** Contains a list of requirements that have been removed from the document or snapshot.
-  **Moved Requirements:** Contains a list of requirements that were already present in the base document or snapshot, but changed the position (e.g. by moving to a different chapter).
-  **Changed Requirements:** Contains a list of modified requirements (e.g. by changing the description text) that were already present in the base document and snapshot.
-  **Unchanged Requirements:** Contains a list of unmodified requirements, that were already present in the base document or snapshot.

Exporting the Document Differences Report

The **Export** command lets you export a Microsoft Word document from the Document work page, as described in "[Export as a Microsoft Word Document](#)" on page 247. However, the Table of Contents will have **[ADDED]**, **[REMOVED]**, **[MOVED]**, **[CHANGED]**, or **[UNCHANGED]** appended to the end of each chapter title in the exported document.

Viewing a Snapshot or Document

You can view the individual snapshot or document from the "compare" version of the Document work page.

To view a snapshot or document from the "compare" version of Documents View:

- Click a document or snapshot link next to **Go to:** at the top of the Detail pane.
The normal Document work page of the document or snapshot is displayed. Because snapshots are read-only, their chapters, subchapters, and requirements are dimmed in the Navigation pane.

Exporting Documents

Export as a Microsoft Word Document

You can export an RM document or snapshot as a Microsoft Word file from the **Document View**.

- The RM document name becomes the name of the Word file.
- The RM document name becomes the title of the Word document, unless you cleared the **Export Title** check box in either the *New Document* or *Edit Document* dialog.
- The Navigation pane becomes the table of contents for the Word document.
- The content and layout in the Detail pane define the body of the Word document.

You can download or open the Word document after it is exported.



NOTE

- The exported Word document is not stored in the Dimensions RM database.
- If Microsoft Word is not installed on the server, Microsoft Word documents are created with file extension .doc instead of .docx. When opening a .doc file, you might receive a message that informs you that this file is in a different format than .doc. You can safely click **Yes** in this dialog box and the file will open in Word.
- If a .doc file is created, all links in the Table of Contents point to page number one. To correctly number the entries in the Table of Contents, right-click the Table of Contents and select **Update** in the context menu.
- If you want to give a Word Document to someone for external editing and later import the changes, you might want to use a Roundtrip document instead of a regular Word document. For further information on Roundtrip documents, see chapter "[Export as a Roundtrip Document](#)" on page 250.

To export to a Microsoft Word file:

- 1 Open the document or snapshot to the Document work page, if it is not already open. See "[Opening Documents or Snapshots](#)" on page 196.
- 2 Click **Export** in the **Documents** set of the **Actions** pane.
- 3 The **Export Document** dialog prompts in which format you want to export the document. Select **Word Document (*.docx)** and click **Export**.
- 4 When prompted by your browser, click **Save** to save the file to your local system.



NOTE An administrator can configure the system to print headers and footers in the exported document and use custom styles for the exported document. An administrator can also create custom templates that you can select for the exported document.

To select an existing custom template, see "[Restricting Requirement Classes in a Document](#)" on page 217. To create a custom template, see chapter "[Creating Templates to Export Requirements](#)" in *Dimensions RM Administrator's Guide*.

Viewing Attachments in the Exported Document

If requirements in the document contain file attachment attributes, they can be included as links in the exported Word document. To see the links, you must add the File Attachment attribute to the **Attributes to Display** list in the **Document Settings** dialog box. For information about this dialog box, see "[Display Options](#)" on page 215.

The links are displayed as icons. Double-click the icon in the exported document to open the associated file.



NOTE

- Because the exported document and the file attachments are stored in one document, the size of the document can be quite large. Its size depends on the number of requirements that have file attachments and the size of the file attachments.
- You can install Microsoft Word on your Dimensions RM Web server to export attachments within your document, or you can choose to install it on other server. An administrator can configure the server if you do not want Word installed on the Web server. For more information, please see the *Dimensions RM Administrator's Guide*.

The following illustration shows the file attachment links in the exported document in grid layout.

3.1.3 Functional Requirements

#	Rqmt ID	Title	Text	File Attachment
3.1.3.1	MRKT_000001	EPhoto will be an online photo album	The ePhoto system shall enable the user to browse an on-line photo album. It shall look and feel like an electronic photo album, just like the one on the coffee table.	no file attached
3.1.3.1.1	MRKT_000024	Stored photo slideshows	The ePhoto system shall provide the capability to create a slide shows of stored photos.	 prototype.png
3.1.3.1.2	MRKT_000023	EPhoto will be an online photo album	The ePhoto system shall enable the user to browse an on-line photo album. It shall look and feel like an electronic photo album, just like the one on the coffee table.	 prototype.png

The following illustration shows the file attachment links in the exported document in paragraph layout:

3.1.3 Functional Requirements

3.1.3.1 EPhoto will be an online photo album

Rqmt ID: MRKT_000001 **File Attachment:** no file attached

This ePhoto system shall enable the user to browse an on-line photo album in a manner similar to browsing the one on the coffee table.

3.1.3.1.1 Stored photo slideshows

Rqmt ID: MRKT_000024

File Attachment:

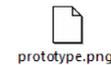


The ePhoto system shall provide the capability to create a slide shows of stored photos.

3.1.3.1.2 Displaying stored photo infos

Rqmt ID: MRKT_000023

File Attachment:



The ePhoto system shall allow users to display any of the information stored with the photo.

Export as a Roundtrip Document

If you want to give a Word Document to someone for external editing and later import the changes, you might want to use a Roundtrip document instead of a regular Word document. The difference between a Roundtrip document and a regular Word document is that the Roundtrip document uses a defined format on the exported requirements, and specifies IDs to chapters and the document header. These IDs - as well as the IDs in the requirements - allow recognition of changes during import.

To export to a Roundtrip document:

- 1 Open the document or snapshot to the Document work page, if it is not already open. See ["Opening Documents or Snapshots" on page 196](#).
- 2 Click **Export** in the **Documents** set of the **Actions** pane.
- 3 The **Export Document** dialog prompts in which format you want to export the document. Select **Roundtrip Word Document (*.docx)** and click **Export**.
- 4 When prompted by your browser, click **Save** to save the file to your local system.

Export as an Adobe PDF Document

You can export an RM document or snapshot as an Adobe PDF file from the **Document View**.

- The RM document name becomes the name of the PDF file.
- The RM document name becomes the title of the PDF document, unless you cleared the **Export Title** check box in either the *New Document* or *Edit Document* dialog.
- The Navigation pane becomes the table of contents for the PDF document.
- The content and layout in the Detail pane define the body of the PDF document.

You can download or open the PDF document after it is exported.



NOTE

- The exported PDF document is not stored in the Dimensions RM database.
- Attachments cannot be embedded into a PDF document.
- On the server, Microsoft Word is required to generate PDF files. If Microsoft Word is not installed on the server, Microsoft Word documents are created with file extension .doc instead of a PDF file. When opening a .doc file, you might receive a message that informs you that this file is in a different format than .doc. You can safely click **Yes** in this dialog box and the file will open in Word.

To export to an Adobe PDF file:

- 1 Open the document or snapshot to the Document work page, if it is not already open. See "[Opening Documents or Snapshots](#)" on page 196.
- 2 Click **Export** in the **Documents** set of the **Actions** pane.
- 3 The **Export Document** dialog prompts in which format you want to export the document. Select **PDF Document (*.pdf)** and click **Export**.
- 4 When prompted by your browser, click **Save** to save the file to your local system.



NOTE An administrator can configure the system to print headers and footers in the exported document and use custom styles for the exported document. An administrator can also create custom templates that you can select for the exported document.

To select an existing custom template, see "[Restricting Requirement Classes in a Document](#)" on page 217. To create a custom template, see "[Creating Templates to Export Requirements](#)" in *Dimensions RM Administrator's Guide*.

Export as a Microsoft Excel Spreadsheet

You can export an RM document or snapshot as a Microsoft Excel file from the **Document View**.

- The RM document name becomes the name of the Excel file.
- The content and layout in the Detail pane define the cell contents of the Excel spreadsheet.

- You can download or open the Excel file after it is exported.



NOTE The exported Excel file is not stored in the Dimensions RM database.

To export to a Microsoft Excel file:

- 1 Open the document or snapshot to the Document work page, if it is not already open. See ["Opening Documents or Snapshots" on page 196](#).
- 2 Click **Export** in the **Documents** set of the **Actions** pane.
- 3 The **Export Document** dialog prompts in which format you want to export the document. Select **Excel Spreadsheet (*.xlsx)**.
- 4 Select any of these options if desired:
 - a **Include images:** If selected, images are exported into the Excel file.
 - b **Export all displayed attributes:** If selected all attributes selected in the Attributes to Display list (see chapter ["Display Options" on page 215](#)) are exported into the Excel spreadsheet. If this option is clear, only Title and Description attributes are exported into the Excel spreadsheet.
- 5 Click **Export**.
- 6 When prompted by your browser, click **Save** to save the file to your local system

Export as a ReqIFZ Document

You can export an RM document or snapshot as a ReqIFZ document file from the **Document View**.

- The RM document name becomes the name of the ReqIFZ file.
- Title and Description are stored as ReqIF.Name and ReqIF.Description values.

You can download the ReqIFZ file after it is exported.



NOTE

- The exported ReqIFZ file is not stored in the Dimensions RM database.
- Attachments cannot be embedded into a ReqIFZ document.

To export to an ReqIFZ file:

- 1 Open the document or snapshot to the Document work page, if it is not already open. See ["Opening Documents or Snapshots" on page 196](#).
- 2 Click **Export** in the **Documents** set of the **Actions** pane.
- 3 The **Export Document** dialog prompts in which format you want to export the document. Select **ReqIF Document (*.reqifz)** and click **Export**.
- 4 Select the **DOORS Support for image export** option to convert images for import into DOORS. If this option is clear, images are exported in their original format.
- 5 When prompted by your browser, click **Save** to save the file to your local system.

Copying the Export URL of a Document to the Clipboard

If you need a document to be exported in a specific format frequently, you can simplify that task by storing a Export URL of that document in your web browser. Clicking the Export URL will then export that document (e.g. in PDF format) and allow you to open or save it (depends on your web browser settings).

To copy the Export URL of a document:

- 1 Open the document or snapshot to the Document work page, if it is not already open. See ["Opening Documents or Snapshots" on page 196](#).
- 2 Click **Export** in the **Documents** group of the **Actions** pane.
- 3 The **Export Document** dialog prompts in which format you want to export the document. Select the desired format.
- 4 Click **Create direct URL**. This opens a dialog with the URL.
- 5 Select the URL and press **Ctrl + C**, or right-click on the highlighted URL and select **Copy** from the shortcut menu to copy the URL to the Clipboard.
- 6 Click **Cancel** to close the dialog.
- 7 Press **Ctrl + V**, or the relevant application-specific menu command, to paste the URL into the file or application where you wish to use it.



TIP You can add user name and password to the URL which allows you to export the document without having to log in.

Add the following to the URL: `&u=user_name&pwd=password`

Using Workflows with Documents

In order to assign a Workflow to documents (or any type of container), a class of type Workflow Container must exist. If no workflow box is shown, or the Workflow drop-down has no content in document settings, check with your administrator.

1. Open the document (see chapter ["Opening Documents or Snapshots" on page 196](#)).
2. Click Document Settings in the Documents group of the Actions pane.
3. From the Workflow box, select the desired workflow.

Assigning a Document to a Workflow

To assign a document to a workflow, do the following:

- 1 Open the document (see chapter ["Opening Documents or Snapshots" on page 196](#)).
- 2 Select **Document Settings** from the **Documents** set of the **Actions** pane. This opens the **Document Settings** dialog.

- 3 Ensure that the **General** tab is selected.
- 4 From the **Workflow** box, select the desired workflow.



CAUTION! Once you confirm the dialog, the Workflow setting for the document cannot be changed. Thus, verify that you selected the correct workflow.

- 5 Click **OK**.

Executing a Transition on a Document

In order to use a workflow with a document, a Workflow must be assigned to that document (see chapter ["Assigning a Document to a Workflow" on page 253](#)).

To execute a transition, do the following:

- 1 Open the document (see chapter ["Opening Documents or Snapshots" on page 196](#)).
- 2 Click the button for the desired transition, which is located underneath the **Welcome** menu in the top right corner of the screen. Executing the transition may open a form for input which must be filled out to complete the transition.

Next to the transition button(s), you find a progress bar, which shows the current state. If configured by your administrator, the value of the progress bar may change according to the workflow state.

Viewing Information about a Document

If a document is assigned to a workflow, you can use the same functions as for requirements, e.g. view/modify attributes or see the state change history, or execute a transition.

To open the document information, do the following:

- 1 Open the document (see chapter ["Opening Documents or Snapshots" on page 196](#)).
- 2 Click the progress bar showing the current state. This opens the **Edit Attributes** dialog for the document.

For further information about the **Edit Attributes** dialog, see ["Editing a Requirement" on page 118](#) (start with point 2 of the list) and ["Workflows" on page 109](#).

Chapter 5

Working with the Home View

About the Home View	256
Dashboard	257
Boards Tab	266
Documents Tab	268
Requirements Tab	269
Reports Tab	270
Collections Tab	272
Baselines Tab	273
Glossary Tab	273
Working with Products and Projects	276
Copying Category Content	277

About the Home View



From the Home View users may run dashboards, or access documents, requirements, reports, collections, baselines or glossary entries. Home includes the following elements:

- **Search:** This field limits the display in the active tab to those items that match the search string. The search is dynamic, and increasingly narrows the displayed results as you enter more characters. To return to displaying all items, delete the string from the Search field or click the **X** button in the Search field.
- **Tabs:** A number in the title of each tab indicates how many of each item type exist in the selected category. Double-click an item to open it in the relevant work page, or select the item and then click an action in the Actions pane. See the following subsections for a description of each tab.

To open the Home View, click  in the menu bar. For more information about the menu bar, see chapter "Menu Bar" on page 25.

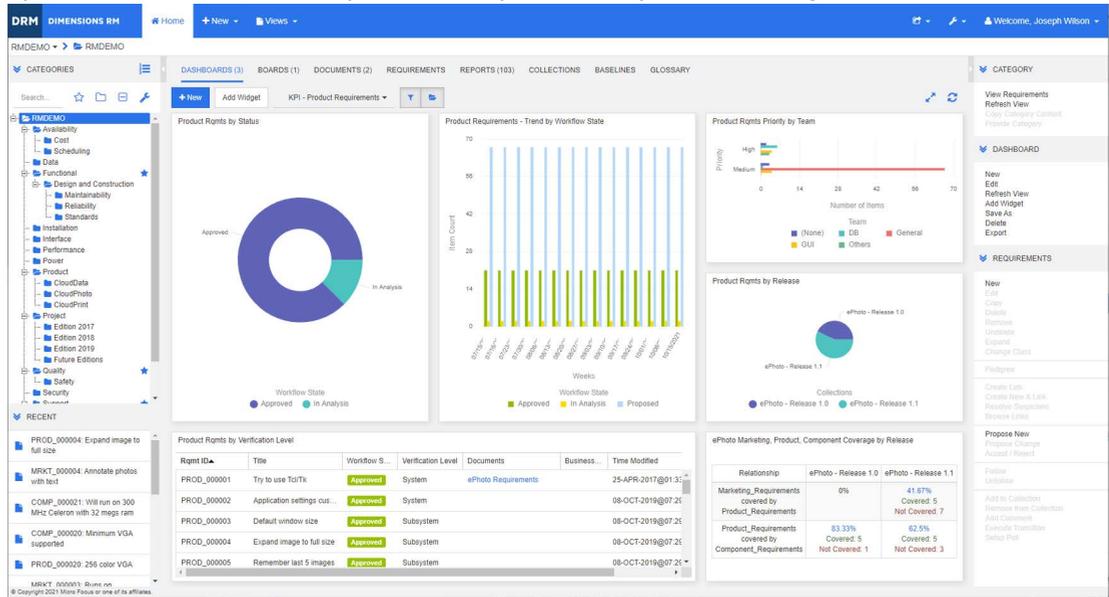
The tabs available from Home are dependent on the needs of the process. The following may have been included (for details see chapter "Tabs" on page 80):

Tab Name	Description
Baselines	The Baselines tab allows you to create, open, delete, and modify baselines. For details, see chapter "Baselines Tab" on page 273.
Boards	The Boards tab allows you to create, modify, and delete boards for viewing Kanban reports. For details, see chapter "Boards Tab" on page 266.
Collections	The Collections tab allows you to create, open, delete, and modify collections. For details, see chapter "Collections Tab" on page 272.
Dashboard	The Dashboards tab allows you to create, modify, delete, and export dashboards. For details, see chapter "Dashboard" on page 257.
Documents	The Documents tab allows you to create, open, delete, and export documents. For details, see chapter "Documents Tab" on page 268.
Glossary	The Glossary tab allows you to create, edit, and delete glossary entries. For details, see chapter "Glossary Tab" on page 273.
Reports	The Reports tab allows you to create, open, edit, and delete reports and export the report results. For details, see chapter "Reports Tab" on page 270.
Requirements	The Requirements tab allows you to create, edit, delete, and export requirements. For details, see chapter "Requirements Tab" on page 269.

Dashboard

The RM Dashboard was designed to provide product and project teams with an overview of performance and release status using information managed within RM.

Team Leads can add an unlimited number of dashboards configuring each to address key process indicators, or to report status specific to a product management team.



Using Dashboards

To access a dashboard, select the **Home View** and click on the **Dashboards** tab. The dashboard displayed defaults to the last dashboard selected or, if the first time referencing a category, the default dashboard. To switch to another dashboard, select it from the drop-down list to the right of the **Add Widget** button.

Dashboard reports use the requirements of the category selected in the **Categories** tree on the left hand side of the screen. If a dashboard was created for a specific category it is only available within that category or in subcategories, if that box was checked.

Limiting Dashboard Data

The Funnel and the Folder provide the ability to control Dashboard content.

Choice	Description
	If neither funnel nor folder is selected (both with white background), the data displayed will be collected from all categories.
	Selecting the funnel, as shown, enables report filtering by currently selected category. If the folder is selected as well the data collected reflects the currently selected category as well as it's subcategories.



NOTE If a report has constraints on one or more categories, such constraints will override the category selected in the **Categories** tree.

About the My Work Dashboard

The My Work dashboard is a dashboard with pre-defined reports. As the dashboard does not exist when a new Dimensions RM instance is created, you or your administrator must create it.

The following reports are available for the **My Work** dashboard:

- **Proposals** — If the **Filter By Me** option is clear (this is the default setting), this section shows proposals that were created or updated by **any user**, and shows pending proposals that were submitted as requests for new requirements by **any user**.
If the **Filter By Me** option is selected, this section shows proposals that were created or modified by the **logged-in user** or where the associated requirement was created or modified by the **logged-in user**.
Only applicable if the organization has selected a process that uses proposals.
- **Recent Comments** — Shows comments that were added to requirements that were created or updated by any user within the specified time frame.
- **Recently Changed Requirements** — Shows requirements that have been modified or created by any user within the specified time frame.
- **Recent Polls** — Shows polls that meet the specified conditions within the specified time frame.

To create the My Work dashboard, execute these steps:

- 1 Open the Home View by clicking .
- 2 Create a dashboard and name it *My Work* (see chapter "Creating a Dashboard" on page 260).
- 3 Click the **Configure** link in a section to which you want to add a report. This opens the **Edit Widget** dialog.
- 4 From the **Report Type** box, select **My Work**.

- 5 Select the report you want to add and click **Next**.
- 6 If desired, change the title.
- 7 Provide parameters for the report as required or desired.
- 8 Click **Save**.

Using Dashboard Widgets

When moving the cursor over the title bar of a report, these functions become available:



Chart Style: Select an alternate chart style from the list displayed.

-  **Settings:** Opens the *Edit Widget* dialog. This dialog offers the same functionality as the *Add Widget* dialog. For further information refer to chapter "Adding a Standard Report to the Dashboard" on page 261, "Adding a Graphical Report to the Dashboard" on page 262, or "Adding a Website to the Dashboard" on page 263.
-  **Fullscreen:** Expands the report to fill the whole screen.
-  **Refresh:** Refreshes the data of the report. To refresh the data of all reports, click on **Refresh View** from those listed below **Dashboard** in the **Actions** pane.
-  **Delete:** Removes the report from the dashboard.

Moving Widgets

You can move reports freely within the selected dashboard by following these steps:

- 1 Move the mouse pointer to the report you want to move.
- 2 Click on the title bar and keep holding the mouse button.
- 3 Move the report to the new position. The new position is marked by dashed lines. If a report is already at the new position, it is moved away.
- 4 Release the mouse button.

Resizing Widgets

Apart from resizing a report to full screen by clicking the Fullscreen icon  in the report's title bar, you can also resize it to fill one or several tiles by following these steps:

- 1 Move the mouse pointer to the bottom right corner of the report you want to resize. The mouse pointer changes to a double-arrow pointer.
- 2 Click on the corner and keep holding the mouse button.

- 3 Move the mouse pointer to the position to which you want to extend the report. If a report is already at the new position, it is moved away.
- 4 Release the mouse button.

Creating a Dashboard

To create a dashboard:

- 1 Go to the **Home View** and click on the **Dashboards** tab.
- 2 Click the **+ New** button under the Dashboards tab or click **New** from below **Dashboard** in the **Action** pane. This opens the *New Dashboard* dialog.



NOTE The dashboard will be available in the category selected in the Category tree and optionally also in the subcategories.

- 3 Enter the **Title** of the dashboard.
- 4 If your user account has the Create Public permission, you can do the following:
 - **Public Dashboard:** Select the Public Dashboard option to allow other users to access the dashboard. If this option is clear, only the user who created the dashboard can access it.
 - **Visible for:** This option is only available if **Public Dashboard** is selected. It allows you to choose which groups can access the dashboard. To give all users permission to access the dashboard, select **All**. The selected groups are marked with a check mark.
 - **Editable for:** This option is only available if **Public Dashboard** is selected. It allows you to choose which groups can edit the dashboard. To give all users permission to edit the dashboard, select **All**. The selected groups are marked with a check mark.
 - **Default Dashboard for Category:** This option is only available if **Public Dashboard** is selected. If **Default Dashboard for Category** is selected, this dashboard is used when a user selects the category for the first time.
- 5 If **Show in Subcategories** is checked it means that the dashboard can be accessed in subcategories of the category it was created in.
- 6 Select one of these layouts:



Freestyle: Allows to add reports anywhere on the dashboard.



Tile 9: Creates a matrix of 3x3 tiles.



Tile 16: Creates a matrix of 4x4 tiles.



Horizontal 3: Creates 3 rows of identical size.



Horizontal 2: Creates 2 rows of identical size.



Horizontal 2/3: Creates 2 rows with the first to use about 2/3 of the dashboard.



Horizontal 1/3: Creates 2 rows with the first to use about 1/3 of the dashboard.



Vertical 3: Creates 3 columns of identical size.



Vertical 2: Creates 2 columns of identical size.



Vertical 2/3: Creates 2 columns with the first to use about 2/3 of the dashboard.



Vertical 1/3: Creates 2 columns with the first to use about 1/3 of the dashboard.



Vertical 4: Creates 4 columns of identical size.

- 7 Click on **Save**.

Adding a Standard Report to the Dashboard

Standard reports show their data in a table. To create your own reports, see chapter ["Working with Reports" on page 279](#).

To add a standard report to the dashboard:

- 1 Go to the **Home View** and click on the **Dashboards** tab.
- 2 Select a dashboard from the Dashboard list or create a dashboard as described in chapter ["Creating a Dashboard" on page 260](#).
- 3 Click on the **Add Widget** button under the Dashboards tab or click **Add Widget** from the **Dashboard** set of the **Action** pane. This opens the *Add Widget* dialog.
- 4 Ensure that the **Widget Type** box shows **Show a report**.
- 5 In the **Category** box, select the category in which the report is located.

- 6 Select a report.



TIP You can get a better overview by selecting an entry from the **Report Type** list and/or entering part of the report name into the **Title Filter** text box.

- 7 It is possible to change the title of the report by changing the text in the **Widget Title** text box.
- 8 If the selected report uses runtime parameters, see chapter ["Using Reports with Runtime Parameters"](#) on page 262.
- 9 Click **Save**.

Adding a Graphical Report to the Dashboard

Graphical reports show their data in with diagrams. To create your own graphical reports, see chapter ["Creating a Graphical Report"](#) on page 285.

To add a graphical report to the dashboard:

- 1 Go to the **Home View** and click on the **Dashboards** tab.
- 2 Select a dashboard from the Dashboard list or create a dashboard as described in chapter ["Creating a Dashboard"](#) on page 260.
- 3 Click on the **Add Widget** button under the Dashboards tab or click **Add Widget** from the **Dashboard** set of the **Action** pane. This opens the *Add Widget* dialog.
- 4 Ensure that the **Widget Type** box shows **Show a report**.
- 5 Select **Graphical** from the **Report Type** list.
- 6 In the **Category** box, select the category in which the report is located.
- 7 Select a report.



TIP You can get a better overview by entering part of the report name into the **Title Filter** text box.

- 8 If you like, change the title of the report by changing the text in the **Widget Title** text box.
- 9 If the selected report uses runtime parameters, see chapter ["Using Reports with Runtime Parameters"](#) on page 262.
- 10 Select the **Report Style** tab to select the style for the report.
- 11 Click **Save**.

Using Reports with Runtime Parameters

Some reports may require that you enter or select data when running the report. These runtime parameters must be defined when adding the report to the dashboard. If a report has runtime parameters, a tab named **Parameters** appears next to the **Report** tab.

To enter or select Runtime Parameters:

- 1 Select the **Parameters** tab.
- 2 Enter a value or select from the list of each parameter.

**TIPS****■ Using Lists Parameters:**

To select or deselect all entries in a list, click **Select all** or **Deselect all**.

■ Using Category Parameters:

To open or close all categories, click **Open all** or **Close all**.

To select or clear all categories, click **Check all** or **Uncheck all**.

Adding a Calendar Report to the Dashboard

The calendar report provides an overview about requirements in a calendar sheet, which can be helpful when meeting deadlines. For filtering, a user attribute and a date attribute must be specified. Only requirements for which the user attribute matches the currently logged-in user are displayed.

To create a calendar report do the following:

- 1 Go to the **Home View** and select the **Dashboards** tab.
- 2 Select a dashboard from the Dashboard list or create a dashboard as described in chapter "[Creating a Dashboard](#)" on page 260.
- 3 Click on the **Add Widget** button under the Dashboards tab or click **Add Widget** from the **Dashboard** set of the **Action** pane. This opens the *Add Widget* dialog.
- 4 Ensure that the **Widget Type** box shows **Show a report**.
- 5 From the **Report Type** box, select **My Work**.
- 6 From the report list, select **Calendar**.
- 7 Click **Next**.
- 8 Select the categories in which you want to search for requirements.
- 9 From the **Enter Class** box, select the requirement class to include in the result list.
- 10 From the **Enter User** box, select a user attribute.
- 11 From the **Enter Date** box, select a date attribute.
- 12 From the **Enter View** options, select **Week** or **Month** to specify the display mode.
- 13 Click **Save**.

Adding a Website to the Dashboard

Instead of reports, you can also add websites to the dashboard. The websites must use the http or https protocol. Other protocols, e.g. ftp or gopher are not supported.

To add a website to the dashboard:

- 1 Go to the **Home View** and click on the **Dashboards** tab.
- 2 Select a dashboard from the Dashboard list or create a dashboard as described in chapter "[Creating a Dashboard](#)" on page 260.
- 3 Click on the **Add Widget** button under the Dashboards tab or click **Add Widget** from the **Dashboard** set of the **Action** pane. This opens the *Add Widget* dialog.
- 4 Select **Show a website** from the **Widget Type** box.
- 5 Enter the URL to the website.



IMPORTANT! You must enter the protocol (`http://` or `https://`) as a prefix to the URL, for example `https://www.microfocus.com`.

If you do not enter the protocol, the dashboard will show an error message instead of the website.

- 6 Enter a title for the website into the **Widget Title** text box.
- 7 Click **Save**.

Copying a Dashboard

When copying a dashboard you can set these properties:

- **Title:** The title of the dashboard.
- **Visibility:** If you are an administrator, you can choose between **Public** and **Private**:
 - **Public** means that other users can access the dashboard.
 - **Private** means that only the user who created the dashboard can access it.
- **Show in Subcategories:** If this checkbox is checked it means that you can access the dashboard also in subcategories of the category it was created in.

To copy a dashboard:

- 1 Go to the **Home View** and click on the **Dashboards** tab.
- 2 Select a dashboard from the Dashboard list.
- 3 Click **Save As** from the **Dashboard** set in the **Action** pane.
- 4 Enter a new **Title**.
- 5 Select **Visibility** and **Show in Subcategories** if required.
- 6 Click **Save**.

Editing a Dashboard

Dashboard changes are history controlled, and can be viewed by selecting the **History** tab in the *Edit Dashboard* dialog

To edit a dashboard:

- 1 Go to the **Home View** and click on the **Dashboards** tab.

- 2 Open the Dashboard to be edited.
- 3 Click **Edit** from the **Dashboard** set in the **Action** pane. This opens the *Edit Dashboard* dialog.
- 4 Change the dashboard as desired. For further infos about the options, see chapter "[Creating a Dashboard](#)" on page 260.
- 5 Click **Save**.

Deleting a Dashboard

Please note that deleting a dashboard is irreversible.

To delete a dashboard:

- 1 Go to the **Home View** and click on the **Dashboards** tab.
- 2 Select a dashboard you want to delete from the Dashboard list.
- 3 Click **Delete** from the **Dashboard** set on the **Action** pane.
- 4 Confirm the *Delete Dashboard* dialog.

Exporting a Dashboard

Dashboard export allows you to export all graphical widgets into a PowerPoint presentation or an PDF document. All other widget types are ignored. Note that the export function does not allow to specify any export settings. The export settings are configured on the server as described in the *Administrator's Guide*.

To export a dashboard, do the following:

- 1 Go to the **Home View** and select the **Dashboards** tab.
- 2 Select a dashboard you want to export from the Dashboard list.
- 3 Click **Export** from the **Dashboard** set on the **Action** pane. This opens the **Export Dashboard** dialog.
- 4 Select the desired format from the **Export Dashboard to** list.
- 5 Click **Export**.

Create Direct URL

This action provides a facility for the creation and distribution of a URL that will produce a dashboard identical to that produced by the current user. Assuming permissions are in order, the dashboard content will be identical, including all category settings.

To create a direct URL, do the following:

- 1 Open the Home View, if it is not already open. For further information on the Home View, see chapter "[Working with the Home View](#)" on page 255.
- 2 Select the **Dashboards** tab.

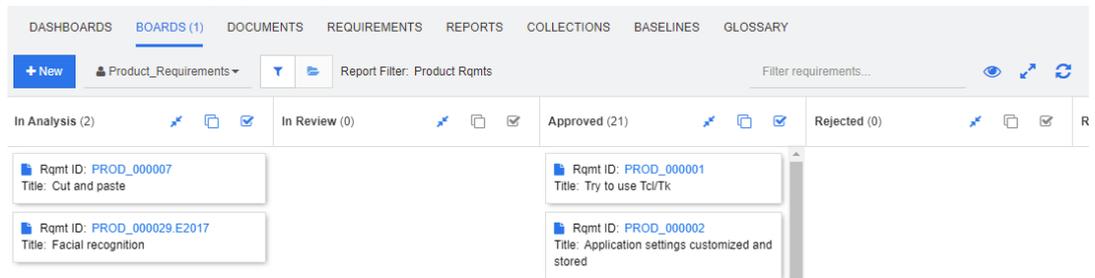
- 3 Select the desired dashboard.
- 4 Click **Create direct URL** in the **Dashboard** set of the Actions pane. This opens the **Direct URL** dialog.
- 5 Right-click the URL and select **Copy link address** to copy the URL to the clipboard.
- 6 Click **Close** to close the dialog.
- 7 Use **Ctrl + V**, or the relevant application-specific menu command, to paste the URL into a file or message.

Default Dashboards

When creating or editing a public dashboard, the editor can define the dashboard to be the default dashboard for the selected category. As a result, the dashboard will be shown if the category is selected by a user for the first time. For further information on creating or editing dashboards, see chapters ["Creating a Dashboard" on page 260](#) and ["Editing a Dashboard" on page 264](#).

Boards Tab

The Boards tab allows you to add Kanban reports. You can add an unlimited number of board, each having one Kanban report. Kanban reports retrieve their data from class reports and are available for any class that has a workflow (for workflows see chapter ["Workflows" on page 109](#)).



Using Boards

To switch to another board, select it from the list next to the **New** button. The  icon identifies private boards.

Kanban reports use the requirements of the category selected in the **Categories** tree on the left hand side of the screen. This also means that if a board was created for a category it is only available within this category or in the subcategories of that category if this was defined on creation of the board.

Kanban reports allow multi-selection of requirements. For further information about multi-selection, see chapter ["Selecting Multiple Requirements" on page 36](#).

Limiting Report Data

To limit report results based on the category in the **Categories** tree, select one of these category filter options:

- : The board shows data from all categories.
- : The board only shows data matching the category in the **Categories** tree.
- : The board shows data from the selected category in the **Categories** tree and its subcategories



NOTE If a report has constraints on one or more categories, it will override the category selected in the **Categories** tree. As a result, the report will show all requirements that match its category constraint.

Creating a Board

To create a Kanban board:

- 1 Go to the **Home View** and select the **Boards** tab.
- 2 Click the **+ New** button under the **Boards** tab or click **New** in the **Board** set of the Action pane. This opens the *New Board* dialog.



NOTE The board will be available in the category selected in the Category tree and optionally also in the subcategories.

- 3 Enter the **Title** of the board.
- 4 Select the class for which you want to create the board. Note that only classes which have a workflow are available for selection.
- 5 Select the states for which you want to create the Kanban board.
- 6 To filter the list of reports, do any of the following:
 - Select a **Graphical** or **Class** from the Report filter list.
 - Select the category from the **Category** list.
 - Click  to show only favorite reports.
 - Click  to show public reports.
 - Click  to show private reports.
 - Type parts of a report name.
- 7 Select a report.
- 8 If your user account has the **Create Public** right, you can select the **Public Board** option. If this option is selected, also other users can access the board. If this option is clear, only the user who created the board can access it. When selecting the **Public Board** option, the **Visible for** and **Editable for** lists are shown. Select the groups you want to be able to see or edit the dashboard.
 - a To give permission (to see or edit the board) to all groups, select **All**.

- b** To give permission (to see or edit the board) to some groups, select the groups to give the permission to. These groups are marked with a check mark.
- 9** If **Show in Subcategories** is checked it means that you can access the board also in subcategories of the category it was created in.
- 10** Click **Save**.

Deleting a Board

Please note that deleting a board is irreversible.

To delete a board:

- 1** Go to the **Home View** and select the **Boards** tab.
- 2** Select a board you want to delete from the board list.
- 3** Click **Delete** from the **Board** set on the **Action** pane.
- 4** Confirm the *Delete Board* dialog.

Documents Tab

Name	Time Created	Time Modified	Modified By
Copy of ePhoto Requirements	29-JUL-2020@02:15:26	29-JUL-2020@02:15:45	Ryan Forbes
ePhoto Requirements 1	18-MAY-2006@00:00:00	24-FEB-2021@05:40:54	Ryan Forbes
ePhoto Requirements 0.1	10-JUL-2018@03:19:08	10-JUL-2018@03:19:08	Ryan Forbes
Photos In the Cloud (Parent) 2	23-MAR-2016@12:08:50	08-OCT-2019@07:32:22	Joseph Wilson
Cloud Family Photos (Child)	23-MAR-2016@12:20:05	28-JUL-2020@06:30:12	Joseph Wilson
Photo Travel (Child)	23-MAR-2016@12:25:10	08-OCT-2019@07:32:22	Joseph Wilson

This is an alphabetical listing of the RM documents in the currently selected category or categories, as filtered by the **Search** field. Documents can be identified by these icons:

- identifies a document, Parent document, or Child document
- identifies a deleted document or snapshot
- identifies a snapshot

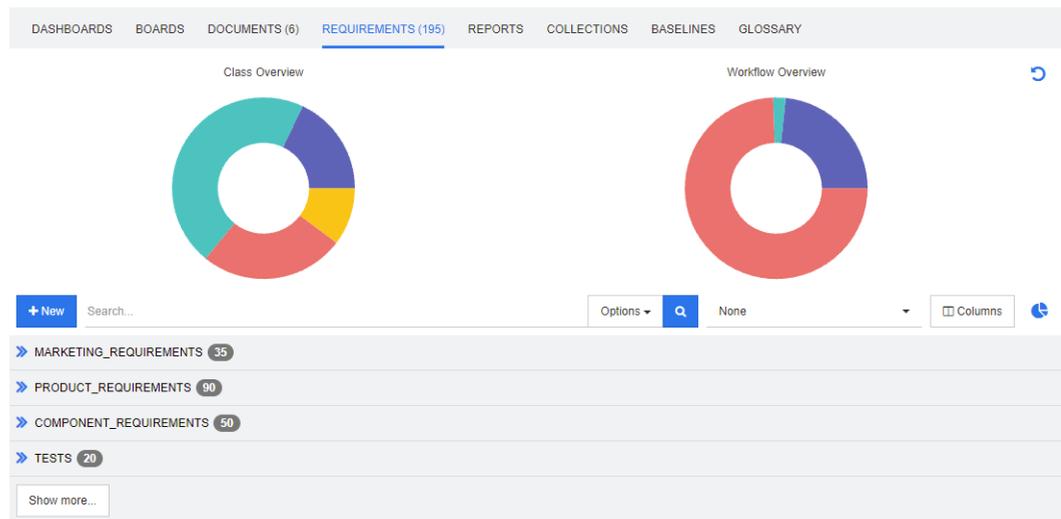
Favorites: When selecting the **Favorites** option, only favorite documents are shown.

Properties: Opens the **Properties** dialog, which allows selection of document related attributes (also custom attributes) for display in the Home View.

» : If a document has snapshot or child documents, you can access these directly by clicking » . If you use many snapshots with a document and only need to see the most recent snapshot in the Home View, change the setting Show only most recent Snapshots as described in chapter "Documents: Show only most recent Snapshots" on page 81.

Double-click an item to open it in the Document work page, or select the item and then click an action in the Actions pane. See Chapter 4, "Working with Documents" on page 187.

Requirements Tab



The **Requirements** tab provides quick access to all requirements of the selected categories. You can filter those requirements by using the **Search** box.

The Requirements tab is similar to Quick Search with these differences:

- Expanding a section hides all other sections. Collapsing the section shows the hidden sections again.
- To include subcategories, select them in the category tree. The option **Include Subcategories** is not available.
- The columns displayed are identical with those used in Quick Search. For details, see chapter "Quick Search Settings" on page 87.

If you want to search by specific attributes, use Quick Search (see chapter "Finding Requirements with Quick Search" on page 98).

Reports Tab

Reports by Type Mode

Class Reports		Relationship Reports		Traceability Reports	
Name ▲	Class	Name ▲		Name ▲	
All Current Comp...	Component_Req...	All Current Discussions		Component Requirement Defects	
All Current Data ...	Component_Req...	Comp Rqmts Changed Since Date - Count		Component Requirement Tests	
All Current Defects	Defects	Component Rqmts History Back		Component Requirements Design	

This is an alphabetical listing of the reports in the currently selected category or categories. It contains separate columns for each type of report: **Class**, **Relationship**, and **Traceability**. The **Class Reports** list includes the **Class** column that shows for which class the report queries data. All columns can be sorted by clicking the column title. To change to **Reports by Type** mode, click .

All Reports Mode

Name ▲	Type	Class	Description	Created By
All Current Component Requir...	Class	Component_Requirements	This script reports all the curre...	 Ryan Forbes
All Current Data Comp Require...	Class	Component_Requirements	All current component require...	 Ryan Forbes
All Current Defects	Class	Defects		 Ryan Forbes
All Current Design Items	Class	Design		 Ryan Forbes
All Current Discussions	Relationship		This script reports all current DI...	 Ryan Forbes
All Current Marketing Rqmts	Class	Marketing_Requirements	This script reports all the curre...	 Ryan Forbes
All Current Product Rqmts	Class	Product_Requirements		 Ryan Forbes

This is an alphabetical listing of the reports in the currently selected category or categories. The different report types (Class, Relationship, and Traceability) can be distinguished by the **Type** column. The **Class** column contains the class for class reports. To change to **All Reports** mode, click .

The All Reports mode allows to select the columns to be shown.

To change the displayed columns, do the following:

- 1 Click . This opens the **Report Properties** dialog.
- 2 Add the columns you wish to show and remove the columns you wish to hide.

3 Click **OK**.



NOTE For reports created before Dimensions RM release 12.8, the following data are not available:

- Modified By
- Time Created
- Time Modified

Opening a Report

Double-click an item to open it in the relevant report work page, or select the item and then click an action in the Actions pane. See [Chapter 6, "Working with Reports" on page 279](#).

Favorite Reports

For ease of access, reports can be marked as a favorite report. This allows quick access to reports which are used frequently. Each user can define their own favorites.

To mark a report as a favorite report, do the following:

- 1 Open the Home View.
- 2 Select the category in which the report is located.
- 3 Select the Reports tab.
- 4 Move the mouse pointer over the report name. Click the star that appears next to the report name.

To remove a report from the favorites, do the following:

- 1 Open the Home View.
- 2 Select the category in which the report is located.
- 3 Select the Reports tab.
- 4 Click the star next to the report name.

Filtering Reports

Reports can be filtered by using one or several of the following filters:

- **Search:** Type a text into the **Search** box. Only reports with the entered text in their name are shown. Search can be combined with all other options.
- **Favorites:** If selected, favorite reports are displayed. **Favorites** can be used in combination with **Public Reports** or **My Reports**.
- **Public Reports:** If selected, public reports are displayed.
- **My Reports:** If selected, reports created by the logged in user are displayed.

The following icons are used with reports:

-  Class Report
-  Class Distribution Report
-  Class Trend Report
-  Relationship Report
-  Relationship Matrix Report
-  Traceability Report
-  Traceability Coverage Report
-  Report created by the current user

Collections Tab

DASHBOARDS BOARDS DOCUMENTS (6) REQUIREMENTS (195) REPORTS (108) COLLECTIONS (11) BASELINES GLOSSARY				
+ New		Search...		☆ Columns
Name ▲		Time Created	Time Modified	Modified By
Engineering Hot List	4	02-MAY-2003@00:15:47	19-FEB-2018@13:58:51	 Carter Benton
ePhoto - Release 1.0	19	25-NOV-2014@08:11:32	23-FEB-2021@06:46:34	 Ryan Forbes
ePhoto - Release 1.1	25	25-NOV-2014@08:24:59	19-FEB-2018@13:59:24	 Ryan Forbes
Ephoto Hot List	9	02-MAY-2003@00:15:21	19-FEB-2018@13:59:33	 Carter Benton
Hot Lists (Parent)	10	23-FEB-2021@06:19:52	23-FEB-2021@06:19:52	 Ryan Forbes
Marketing Hot List	3	02-MAY-2003@00:00:00	19-FEB-2018@13:59:42	 Carter Benton
Marketing Requirements for Build1	9	19-FEB-2018@14:33:05	19-FEB-2018@14:33:05	 Ryan Forbes
Sales Hot List	3	02-MAY-2003@00:00:00	19-FEB-2018@13:59:51	 Carter Benton
Scoping	126	06-JUL-2005@00:00:00	19-FEB-2018@13:59:58	 Ryan Forbes
Support Hot List	3	02-MAY-2003@00:15:53	19-FEB-2018@14:00:06	 Carter Benton
User	68	01-MAY-2003@22:53:39	19-FEB-2018@14:00:20	 Carter Benton

This is an alphabetical listing of the collections in the currently selected category or categories, as filtered by the Search field.

Double-click an item to open it in the Collections work page, or select the item and then click an action in the Actions pane.

After opening a collection, you select multiple requirements. For further information about multi-selection, see chapter ["Selecting Multiple Requirements" on page 36](#).

Parent collections (identified by the "(Parent)" suffix) can contain collections, baselines, documents, or snapshots. For further information about parent collections, see chapter ["About Parent Collections" on page 315](#).

Baselines Tab

Name	Time Created	Time Modified	Modified By
Baseline of Engineering Hot List	17-MAY-2006@00:00:00	17-MAY-2006@00:00:00	Ryan Forbes
Specification Baseline - Release 1.0	26-NOV-2014@04:53:03	26-NOV-2014@04:53:03	Ryan Forbes

This is an alphabetical listing of the baselines in the currently selected category or categories, as filtered by the Search field.

Double-click an item to open it in the Baselines work page, or select the item and then click an action in the Actions pane.

After opening a baseline, you select multiple requirements. For further information about multi-selection, see chapter ["Selecting Multiple Requirements" on page 36](#).

Glossary Tab

The **Glossary** tab is only available if your administrator created the Glossary class as described in the *Administrator's Guide*.

Filter...	ACT
A	
Advantix	
C	
CD-ROM	
T	
Tcl/TK	

CD-ROM Delete Edit

A CD-ROM is a pre-pressed optical compact disc which contains data. The name is an acronym which stands for "Compact Disc Read-Only Memory". Computers can read CD-ROMs, but cannot write to CD-ROMs which are not writable or erasable.

Synonyms
None

Adding a new Glossary Entry

To add a new glossary entry, do the following:

- 1 Click **New** on the top left corner of the Glossary tab or click **New** from the actions listed under **glossary** in the **Actions** pane. This changes the detail section of the **Glossary** tab to an empty input form.
- 2 In the **Term** box, specify the word or phrase for which you want to define the description in the glossary.
- 3 Enter a descriptive text for the glossary entry into the **Description** box.

- 4 If you like, enter alternative words for the term into the **Synonyms** box. Separate entries with a comma.



NOTE When using synonyms which contain part of another synonym, use the shortest synonym last, e.g. use "CD-R, CD" instead of "CD, CD-R". This ensures that both, CD-R and CD are recognized when scanning a text.

- 5 If the **Not Recommended** option is selected, the following occurs in the document:
 - The term is not added to the Glossary chapter.
 - If Glossary highlighting is enabled, the term is marked red.When creating a not recommended Glossary entry, the description should contain the information why this term should not be used.
- 6 If the **Show in subcategories** box is selected, the glossary entry will be available in the specified category and child categories. If this box is clear, the glossary entry will only be available in the selected category.
- 7 Click **Create** at the bottom of the edit form or click **Save** from items listed below **Glossary** on the **Actions** pane.

Editing a Glossary Entry

To edit an existing glossary entry, do the following:

- 1 Select the glossary entry in the list.
- 2 Double-click into the detail section of the glossary entry or click **Edit** in the **Glossary** set of the **Actions** pane. This changes the detail section of the **Glossary** tab to the edit form.
- 3 Make your desired changes to **Term**, **Description** or **Synonym**.
- 4 If the **Not Recommended** option is selected, the following occurs in the document:
 - The term is not added to the Glossary chapter.
 - If Glossary highlighting is enabled, the term is marked red.When creating a not recommended Glossary entry, the description should contain the information why this term should not be used.
- 5 If the **Show in subcategories** box is selected, the glossary entry will be available in the specified category and child categories. If this box is NOT checked, the glossary entry will only be available in the currently selected category.
- 6 Click **Save** at the bottom of the edit form or click **Save** in the **Glossary** set of the **Actions** pane.

Copying Glossary Entries

If parts of a glossary entry are identical, you may choose to copy one or several entries and then edit them rather than manually copying parts over to the new entry.

To copy glossary entries, do the following:

- 1 Select one or several glossary entries in the list.
- 2 Click **Copy** in the **Glossary** set of the **Actions** pane. This opens the **Copy Glossary Term(s)** dialog.
- 3 Select the category you want to copy the glossary entries to.
- 4 If you want to overwrite terms that already exist in the category, select the **Overwrite existing terms in target category** option.
- 5 Click **OK**.

Moving Glossary Entries

To move glossary entries, do the following:

- 1 Select one or several glossary entries in the list.
- 2 Click **Move** in the **Glossary** set of the **Actions** pane. This opens the **Move Glossary Term(s)** dialog.
- 3 Select the category you want to move the glossary entries to.
- 4 If you want to overwrite terms that already exist in the category, select the **Overwrite existing terms in target category** option.
- 5 Click **OK**.

Deleting Glossary Entries

To delete glossary entries, do the following:

- 1 Select one or several glossary entries in the list.
- 2 Click **Delete** in the **Glossary** set of the **Actions** pane. This opens the **Delete Term** dialog.
- 3 Click **OK** to delete the glossary entries.

Viewing Extended Information

If you want to view additional information on a glossary entry, e.g. who edited on what date or what was the content in various revisions, you can open the glossary entry in "Extended Form" mode.

To open the glossary in "Extended Form" mode, do the following:

- 1 Select the glossary entry in the list.
- 2 Click **Show Extended Form** in the **Glossary** set of the **Actions** pane. This opens the **Glossary** dialog.

Working with Products and Projects



When the use of Products and Project has been configured, the following icons show when selecting a product or project:

-  Opens the edit dialog for the selected product.
-  Opens the Product/Project Assignment Matrix.

When selecting the Product or Project category, only the icon to open the Product/Project Assignment Matrix is shown.

Using the Product/Project Assignment Matrix

Depending if you selected a product or a project, the Product/Project Assignment Matrix shows different values.

If a product has been selected, the Product/Project Assignment Matrix shows all projects for the selected product.

If a project has been selected, the Product/Project Assignment Matrix shows all products for the selected project.

If the Product or Project category (the root category for all products or projects) has been selected, the Product/Project Assignment Matrix shows all combinations for products and projects.

Showing Shared Requirements

To show shared requirements for a combination of product and project, click the table cell that intersects product and project. This opens the **Shared Requirements** dialog.

Configuring the View

-  Exchanges columns and rows (products and projects).
- **Show all** (in **Scope** menu): Shows the assignment matrix for all products and all projects.
- **Title** or **Short Name**: Shows either the full (possibly long) name or the short name of products and projects.

Resizing the Available Label Space

Depending on the length of *Product* names or *Project* names the default space may be too small. You can resize the space labels can occupy to match your needs.

To resize the available label space, do the following:

- 1 Move the mouse pointer to the left (for rows) or top (for columns) border of the matrix. The mouse pointer turns into a double-arrow.
- 2 Keep the left mouse button pressed and move the mouse pointer to increase or decrease the available space.
- 3 Release the left mouse button when done.

Copying Category Content

This feature is only available to Administrators (members of the Administrators group).

Copy Category Content copies requirements and documents therein and in child categories into another category. Child categories are created in the target category.



NOTE

- Proposals are not copied.
- Requirements are only copied if they have the status "Current".
- The following attribute values are not preserved:
 - **Initial Created By:** The new creator is the administrator who executed the copy process.
 - **Initial Time Created:** The date and time is the date and time the copy was created.
 - **Created By** and **Modified By:** Same as Initial "Created By".
 - **Time Created** and **Time Modified:** Same as Initial "Time Created".
 - **Workflow State:** The new Workflow state is the first state in the Workflow.
- Copied documents receive a "(copy_#)" suffix in their name with "#" replaced by the copy number.

Chapter 6

Working with Reports

About Reports	280
Creating Reports	284
Editing a Report	299
Renaming Reports	302
Deleting Reports	302
Exporting Reports	302
Moving and Copying Reports to a Different Category	303
Copying the URL of a Report to the Clipboard	303

About Reports

A Report allows users to filter (query) requirements based on category or attribute content (e.g. creations date, status, priority or description). The ability to create, save and/or edit a report is dependent on the permissions assigned by the administrator.

To run an existing report:

- 1 Double-click the desired report in the Reports tab of the Home View. If you are currently displaying a report result, you can also select reports of the same type from the bread crumb which is located above the report results.
- 2 If the report was defined with runtime options, enter the information when requested.
- 3 Click the **Run** button.



TIP

- The description of a report can be displayed as a tool tip when you hover your cursor over the report name.
- For multi-selection of requirements in class reports and relationship reports, see chapter "[Selecting Multiple Requirements](#)" on page 36.

Report Options and Functions

- **Filter by Categories:** If the funnel is selected, the report only shows data matching the category in the **Categories** tree. If unselected, the report shows all data.

Note the following: If a report has constraints on one or more categories, it will override the category selected in the Categories tree. As a result, the report will show all requirements which match its category constraint.

- **Include Subcategories:** If selected, the report shows data from the selected category and its subcategories. Note that the **Include Subcategories** check box is only enabled, if **Filter by Categories** is selected.
- **Execution Date and Time:** Excluding Dashboards, the execution date is displayed at the top of every report, and is included on the report when exported.
-  : Change to editable grid view. For details, see chapter "[Editable Grid View](#)" on page 33.
-  : Change to grid view. For details, see chapter "[Grid View](#)" on page 35.
-  : Change to form view. For details, see chapter "[Form View](#)" on page 36.
-  : Reloads the report result with the selected parameters. Note that this function is only available if the report uses runtime parameters.
-  : Reloads the report result
-  : Expands the report
-  : Returns the report in standard mode
-  : Closes the report

- **Switch to Gap View** and **Switch to Outline View**: For Traceability reports, you can change between Gap view and Outline view by clicking on the **Switch to Gap View** or **Switch to Outline View** in the **Actions** pane.

Relationship Reports

Relationship reports provide two modes to present data, **Table View**, and **Matrix View**. These modes are defined when creating the report. For further information on creating relationship reports, see chapter "Creating a Relationship Report" on page 293.

- **Table View**: The report is shown as a table with the source requirements on the left side of the report and the target requirements on the right side of the report.
- **Matrix View**: The report is shown in a matrix with the source requirements as rows and the target requirements as columns. Related requirements are marked at the intersection of column and row.
The colors of intersections have this meaning:

- **gray**: There is no link between the requirements.
- **blue**: The requirements are linked.
- **red**: The requirements are linked, but suspect.

If the **Show target items as rows** option is selected, the source requirements are shown as columns and the target requirements are shown as rows.

To create a link between two requirements do the following:

- Run the report.
- Click the gray square where both requirements intersect. This opens the **Create Link** dialog.
- Click **OK** to create the link.

To delete the link between two requirements do the following:

- Run the report.
- Click the blue or red square where both requirements intersect. This opens the **Delete Link** dialog.
- Click **OK** to delete the link.

To clear a suspect link between two requirements, do the following:

- Run the report.
- Right-click the red square where both requirements intersect.
- Select **Resolve Suspicion** from the shortcut menu. This opens the **Resolve Suspicion** dialog.
- Click **OK** to resolve the suspicion.

Traceability Reports

Traceability reports support 2 modes, **Matrix** and **Coverage**. These modes are defined when creating the report. For further information on creating relationship reports, see chapter "Creating a Traceability Report" on page 295.

- **Matrix:** In this mode, the requirements are presented as a table. From left to right, you can identify which requirement has linked requirements (along with the data you specify) and which one does not that match the attribute constraints.
- **Coverage:** In this mode, the result table shows the percentage/count of requirements that have linked requirements which do or do not match the constraints.
 - **Percentage:** Shows the percentage of requirements with links and matching constraints. Clicking the percentage value in the result shows all requirements that were checked for coverage.
 - **Covered:** Shows the total number of requirements with links and matching constraints. Clicking **Covered** shows only those requirements.
 - **Not Covered:** Shows the total number of requirements that either have no links or not matching the constraints. Clicking **Not Covered** shows only those requirements.

Running a Report with Runtime Parameters

Runtime parameters are attribute values which are not selected at report creation, but at the time the report is run. This allows users to reuse the same report for all values of, for example, a release or user group.

To run a report with runtime parameters, do the following:

- 1 Run, for example, a relationship report as described in Section "[Relationship Reports](#)" on page 281.
- 2 Select all required or desired attribute values except for the Release attribute, and for that choose 'Enter at Runtime' from the drop down to the right of the entry.
- 3 Click **Run Report**.
- 4 Enter the 'Release' when prompted.

Selecting from a Group Attribute Runtime Parameter

Group attributes behave like a table, with multiple values available. It is possible for the user to provide multiple values separated by:

- AND
- OR

AND

A requirement is added to the result list if all values of the group attribute match all queried values.

Example:

- 1 Run a class report of class **Tests** that specifies the attribute **Operating System** as a runtime parameter.
- 2 In the group attribute boxes, select **Desktop, Windows, XP**.
- 3 Click  .

- 4 In the group attribute boxes, select **Desktop, Windows, Vista**.
- 5 Click  .
- 6 In the group attribute boxes, select **Desktop, Windows-7**.

The result list contains requirements with the **Operating System** attribute having the combination of the following values: **Desktop-Windows-XP**, **Desktop-Windows-Vista** or **Desktop-Windows-7**.



NOTE The report also finds requirements that have extra values in the **Operating System** attribute.

OR

A requirement is added to the result list if any of the values of the group attribute matches at least one of the queried values.

Example:

- 1 Run a class report of class **Tests** that specifies the attribute **Operating System** as a runtime parameter.
- 2 In the group attribute boxes, select **Desktop, Windows, XP**.
- 3 Click  .
- 4 In the group attribute boxes, select **Desktop, Windows, Vista**.
- 5 Click  .
- 6 In the group attribute boxes, select **Desktop, Windows-7**.

The result list contains requirements that contain either **Desktop-Windows-XP**, **Desktop-Windows-Vista** or **Desktop-Windows-7** (among other values) in its **Operating System** attribute.

Selecting a Category Runtime Parameter

In many cases, users create reports intended for use by many team or project leads with input coming from selected categories. Search can be used to find and check specific categories or the star may be highlighted to include all user favorites. The Checked Box icon will select all available categories and clicking into the empty box will deselect all.

The following parameters must be provided to run this report. Please provide a value for each of the parameters below.

Enter Category
for FUNCTIONAL_REQUIREMENT:

Choose Categories ▾

Search...

- ALM_DEMO
 - Change & Defect Management
 - Release Management
 - Security
 - Software Configuration Management
 - Task Management

Shift-click: Select all subcategories

Creating Reports

The following chapters describe how to create the different report types:

- "Creating a Class Report" on page 284
- "Creating a Graphical Report" on page 285
- "Creating a Relationship Report" on page 293
- "Creating a Traceability Report" on page 295

Creating a Class Report

Complete these steps to create a class report.



CAUTION! If you do not have "read" permission in a category, the requirements in that category are not returned in the query results, even if they satisfy the query requirements.

To create a class report:

- 1 Select **Class Report** from the **New** menu. The *Query By Class* dialog opens.
- 2 **Class:** Select the desired class from the list.



NOTE If a requirement of a class was selected when you invoked the dialog, then a class is already selected.

- 3 If you want to save the query:
 - a Enter a name in the **Name** box. The **Run** button changes to **Run and Save**.
 - b Type a description of the query in the **Description** box. The maximum number of characters is 1024.
 - c In the **Category** list, select the category in which the query will be saved.

- 4 **Constraints:** As needed, specify criteria to locate the desired requirements. See ["Attribute Constraints Tab" on page 47](#) and ["Relationship Constraints Tab" on page 53](#).
- 5 **Display Options:** As needed, specify how to display the results. See ["Display Options Tab" on page 56](#).
- 6 **View Script / View Wizard:** Click to toggle between the Wizard and Script views of the dialog.



NOTE The tabs are visible only in the Wizard view.

- 7 Do any of the following:
 - **Public Report:** Select this box to make the report public, otherwise the report is private.
 - **Visible for:** This option is only available if **Public Report** is selected. Typically defaults to **All**, which means all those groups with access to the category in which the report resides. Specific groups may be selected from the list.
 - **Editable for:** This option is only available if **Public Report** is selected. Defaults to all groups with access to the category specified; edit permission may be limited to specific groups.
 - **Show in Subcategories:** Select this box to make the report accessible for subcategories of the category in which it was saved. Reports useful for all users should be created in or moved to the root category.
 - **Preview:** Click this button to run the report without saving the report or closing the dialog.
 - **Save:** Click this button to save and run the report. The dialog will close.

Creating a Graphical Report

Graphical Reports can use two report types:

- [Distribution Reports](#)
- [Trend Reports](#)
- [GANTT Reports](#)

A Distribution Report presents the data at that moment the report was run.

A Trend Report presents the data over a time period.

A GANTT Report presents data as a schedule bar chart.

Distribution Reports

Complete these steps to create a distribution report:

- 1 Select **Graphical Report** from the **New** menu. The *Graphical Report* dialog opens.

- 2 **Class:** Select the desired class from the list.



NOTE If a requirement of a class was selected when you invoked the dialog, then a class is already selected.

- 3 In the **required to save** group, select **Distribution Report** from the **Type** box.
- 4 If you want to save the report:
 - a Enter a name in the **Name** box.
 - b Type a description of the report in the **Description** box. The maximum number of characters is 1024.
- 5 In the **Category** list, select the category in which the report will be saved.
- 6 **Constraints:** As needed, specify criteria to locate the desired requirements. See ["Attribute Constraints Tab" on page 47](#) and ["Relationship Constraints Tab" on page 53](#).
- 7 **Display Options:**
 - a Select a style from the list of the **Chart Style** set. For more information on chart style and chart options, see chapter ["Display Options" on page 291](#).
 - b In the **Chart Content** set, select the attributes to be displayed in **Row** and **Column** boxes. Depending on the selected attribute, the following options are available:
 - **Include Zero Value Data:** Selecting it will include values with count 0.
 - **Level:** Available for group attributes. Selecting an entry defines which sub-attribute you wish to use in your report.
 - **Filter by Constraint:** Available if the **Row** box or **Column** box contains **<Collections>**, **<Baselines>**, **<Documents>**, or **<Snapshots>**. This will ensure that the report is limited by those constraints, irrespective of the number of containers that include selected objects.
 - c In the **Chart Content** set, an attribute may also be selected to be used to calculate totals displayed in **Sum Totals By**.



NOTE For Pie reports only the **Row** box is available.

Note that the **Row** and **Column** boxes do not include these attributes:

- Multi Line attributes
- HTML enabled attributes
- Date attributes

If desired, set the color for the report values. For more information on defining value colors for graphical reports, see section ["Defining Colors for Report Data" on page 292](#).

- 8 Do any of the following:
 - **Public Report:** Select this box to make the report public, otherwise the report is private.

- **Visible for:** This option is only available if **Public Report** is selected. Typically defaults to **All**, which means all those with access to the category in which the report resides. Specific groups may be selected from the list.
- **Editable for:** This option is only available if **Public Report** is selected. Defaults to all groups with access to the category specified; edit permission may be limited to specific groups.
- **Show in Subcategories:** Select this box to make the report accessible for subcategories of the category in which it was saved. Reports useful for all users should be created in or moved to the root category.
- **Preview:** Click this button to run the report without saving the report or closing the dialog.
- **Save:** Click this button to save and run the report. The dialog will close.



TIP Drill down is available in graphical reports. If, for example, your report is a bar chart, clicking on a bar in the report lists the objects supporting the bar.

Trend Reports

Complete these steps to create a trend report:

- 1 Select **Graphical Report** from the **New** menu. The *Graphical Report* dialog opens.
- 2 **Class:** Select the desired class from the list.



NOTE If a requirement of a class was selected when you invoked the dialog, then a class is already selected.

- 3 In the **required to save** group, select **Trend Report** from the **Type** box.
- 4 If you want to save the report:
 - a Enter a name in the **Name** box. The **Save** button will save and run the report.
 - b Type a description of the report in the **Description** box. The maximum number of characters is 1024.
- 5 In the **Category** list, select the category in which the report will be saved.
- 6 **Constraints:** As needed, specify criteria to locate the desired requirements. See ["Attribute Constraints Tab" on page 47](#) and ["Relationship Constraints Tab" on page 53](#).
- 7 **Display Options:** Select a style from the list of the **Chart Style** set. For more information on chart style and chart options, see chapter ["Display Options" on page 291](#).
- 8 Select attributes in the **1st Field** and **2nd Field** boxes in the *Chart Content* set.



NOTE Note that the **1st Field** and **2nd Field** boxes do not include these attributes:

- Multi Line attributes
- HTML enabled attributes
- Date attributes
- Attributes which are surrounded with <> (e.g. <Collections>)

When working with list attributes, you may optionally select the **Include Zero Value Data** option. Selecting it will include values with count 0.

When working with group attributes, you may define which sub-attribute you wish to use by selecting it from the **Level** box. In addition, you may optionally select the **Include Zero Value Data** option. Selecting it will include values with count 0.

If desired, set the color for the report values. For more information on defining value colors for graphical reports, see section "[Defining Colors for Report Data](#)" on page 292.

- 9 Select the start date for your report from the **Start Date** box. The list contains a number of entries which define the start date in relation to the current date. The allows the user to select, for example, a date one week or one month prior to execution with results always down for that period. To define a fixed start date, follow these steps:
 - a Select **Since** from the **Start Date** box. This shows a date box next to the **Start Date** box.
 - b Click the calendar symbol in the date box.
 - c Select the desired date.
- 10 Select the end date for your report from the **End Date** box. You can select **Today** or **Until**. To define a fixed end date, follow these steps:
 - a Select **Until** from the **End Date** box. This shows a date box next to the **End Date** box.
 - b Click the calendar symbol in the date box.
 - c Select the desired date. Note that the date must not be in the future.
- 11 Do any of the following:
 - **Public Report:** Select this box to make the report public, otherwise the report is private.
 - **Visible for:** This option is only available if **Public Report** is selected. Typically defaults to **All**, which means all those with access to the category in which the report resides. Specific groups may be selected from the list.
 - **Editable for:** This option is only available if **Public Report** is selected. Defaults to all groups with access to the category specified; edit permission may be limited to specific groups.
 - **Show in Subcategories:** Select this box to make the report accessible for subcategories of the category in which it was saved. Reports useful for all users should be created in or moved to the root category.
 - **Preview:** Click this button to run the report without saving the report or closing the dialog.
 - **Save:** Click this button to save and run the report. The dialog will close.



NOTE To allow the Trend report to perform its calculations, it is essential that you **always use Save** when editing a requirement. For further information about Save, Update and delete functions see chapter "[Explaining Update and Delete Functions](#)" on page 105.



TIP You can show the drill down of the data used in the report. If your report is a bar report, clicking on a bar in the report opens a list with the requirements which provided the data for that bar. This functionality is also available in all other graphical reports.

GANTT Reports

Complete these steps to create a GANTT report:

- 1 Select **Graphical Report** from the **New** menu. The *Graphical Report* dialog opens.
- 2 **Class:** Select the desired class from the list.



NOTE If a requirement of a class was selected when you invoked the dialog, then a class is already selected.

- 3 Select **GANTT** from the **Type** box.
- 4 If you want to save the report:
 - a Enter a name in the **Name** box.
 - b Type a description of the report in the **Description** box. The maximum number of characters is 1024.
- 5 In the **Category** list, select the category in which the report will be saved.
- 6 **Constraints:** As needed, specify criteria to locate the desired requirements. See ["Attribute Constraints Tab" on page 47](#) and ["Relationship Constraints Tab" on page 53](#).
- 7 **Display Options:** Select attributes in the **Start Date**, **End Date**, **Item Label** and **Additional Columns** boxes in the *Chart Content* set.
- 8 Review the following:
 - **Public Report:** Select this box to make the report public, otherwise the report is private.
 - **Visible for:** This option is only available if **Public Report** is selected. Typically defaults to **All**, which means all those with access to the category in which the report resides. Specific groups may be selected from the list.
 - **Editable for:** This option is only available if **Public Report** is selected. Defaults to all groups with access to the category specified; edit permission may be limited to specific groups.
 - **Show in Subcategories:** Select this box to make the report accessible for subcategories of the category in which it was saved. Reports useful for all users should be created in or moved to the root category.
 - **Preview:** Click this button to run the report without saving the report or closing the dialog.
 - **Save:** Click this button to save and run the report. The dialog will close.

Traceability Options

You can filter results of a graphical report by linked requirements. This would allow you to show only requirements that are linked to at least one of the specified classes. If desired, you could filter even further by only including requirements where the linked requirement(s) have one or several attribute values.

To limit results to requirements which have links to one or several classes:

- 1 Edit the desired graphical report.
- 2 Select the **Attribute Constraints** tab.
- 3 Click **Restrict by Related Class**. This opens the **Select Restricted Classes** dialog.
- 4 Expand and select the classes which a requirement must link to in order to be included into the result list.
- 5 Click **Save**. This closes the **Select Restricted Classes** dialog and shows the **Class** selector on the **Attribute Constraints** tab.

To define attribute constraints for a related class, do the following:

- 1 Select the **Attribute Constraints** tab.
- 2 From the **Class** selector, select the class for which you want to define attribute constraints.
- 3 Define the attribute constraints as desired.
- 4 Repeat steps 2 and 3 for any other class you want to define attribute constraints for.

Defining identical relationship constraints for related classes

If you define identical relationship constraints for the related classes, this means that all requirements (result and linked requirements) must fulfill the same relationship constraints, e.g. be part of the same document.

To define identical relationship constraints:

- 1 Select the **Relationship Constraints** tab.
- 2 Ensure that the **Apply for all classes** option is selected.
- 3 Edit the relationship constraints.

To define individual relationship constraints for related classes

If you define individual relationship constraints for the related classes, this means that there may or may not be relationship constraints for the result and linked requirements. For example, the result requirement may be required to be in one document, while a linked requirement may be required to be in a collection.

To define individual relationship constraints:

- 1 Select the **Relationship Constraints** tab.
- 2 Clear the **Apply for all classes** option.

- 3 From the **Class** selector, select the class for which you want to define relationship constraints.
- 4 Define the relationship constraints as desired.
- 5 Repeat steps 3 and 4 for any other class you want to define relationship constraints for.

Display Options

Chart Style

To change the chart style, do the following:

- 1 Edit the desired graphical report.
- 2 Select the **Display Options** tab.
- 3 Expand the **Chart Style** section.
- 4 Select the desired style from the drop-down list.

Chart Content

The chart content differs for distribution reports and trend reports. Please refer to the following chapters for chart content: ["Distribution Reports" on page 285](#) and ["Trend Reports" on page 287](#).

To edit the chart content settings, do the following:

- 1 Edit the desired graphical report.
- 2 Select the **Display Options** tab.
- 3 Expand the **Chart Content** section.
- 4 Change the desired settings.

Chart Options

The chart options specify how to visualize the report data. The chart options depend on the selected chart style. For "Tabular" style see ["Tabular Options" on page 292](#), for all other styles see ["Common Options" on page 291](#).

Common Options

■ **Tooltip Options**

- **Show tooltips:** If selected, a tooltip is displayed when hovering report data.
- **Tooltip value type:**
 - **Absolute values:** The tooltip shows the count for the related data.
 - **Percentage values:** The tooltip shows the count for the related data in percent. This setting is only available for Pie charts.

■ **Label Options**

- **Show label values:** If enabled, the values for x-axis and y-axis are displayed.
- **Label value type:**
 - **Absolute values:** Shows the count for each data (e.g. bar on a 2D bar report).
 - **Percentage values:** Shows the count for each data in percent. This setting is only available for Pie charts.
 - **No values:** Shows only the attribute values for each data.
- **Legend Options**
 - **Show legend:** If selected, shows the legend underneath the x-axis.
- **Axis Options**
 - **Show x-axis name:** If selected, shows the label for the x-axis (e.g. attribute name).
 - **Show y-axis name:** If selected, shows the label for the y-axis (e.g. count).

Tabular Options

- **Sorting Options**
 - **Row Sorting**
 - **Alphabetical:** Sorts row values by alphabet (e.g. 1, 11, 111, 2, 3, a, b, c)
 - **Numerical:** Sorts row values by number (e.g. 1, 2, 3)
 - **Column Sorting**
 - **Alphabetical:** Sorts column values by alphabet (e.g. 1, 11, 111, 2, 3, a, b, c)
 - **Numerical:** Sorts column values by number (e.g. 1, 2, 3)

Defining Colors for Report Data

You can change the color used in the graph for the displayed values.



NOTE

- **For Distribution Reports:** When only the **Row** setting is defined, you can specify the color for values of the attribute specified in the **Row** box. If the **Column** setting is defined, you can only specify the color for values of the attribute specified in the **Column** box.
- **For Trend Reports:** When only the **1st Field** setting is defined, you can specify the color for values of the attribute specified in the **1st Field** box. If the **2nd Field** setting is defined, you can only specify the color for values of the attribute specified in the **2nd Field** box.

To define the color for a value in the graph, do the following:

- a Select the **Display Options** tab.
- b Expand the **Chart Options** set.

- c Click **Add Color**. This creates a new row.
- d **For list attributes:** In the **Value** box of the new row, select the desired value or keep the value **(None)** for empty attribute values.
For text attributes: Type the desired text into the **Value** box of the new row or leave it empty for empty attribute values.
- e Select one of the predefined colors or define one color in the color picker.

Creating a Relationship Report

Complete these steps to create a relationship report.



NOTES You can create a report if you do not have Create permission for scripts, but you cannot save it.



CAUTION! If you do not have the "read" permission in a category, the requirements in that category are not returned in the report results, even though they satisfy the report requirements.

To create a relationship report:

- 1 Select **Relationship Report** from the **New** menu. The *Query By Relationship* dialog opens.
- 2 **Relationship:** Select the relationship you want to report on.
- 3 If you want to save the report:
 - a Enter a name in the **Name** box.
 - b Type a description of the query in the **Description** box. The maximum number of characters is 1024.
 - c In the **Category** list, select the category in which the query will be saved.
- 4 **Report Type tab:**
 - a Select a **report view**:
 - **Table View:** The report is shown as a table with the source requirements on the left side of the report and the target requirements on the right side of the report.
 - **Matrix View:** The report is shown in a matrix with the source requirements as rows and the target requirements as columns. Related requirements are marked at the intersection of column and row.
If the **Show target items as rows** option is selected, the source requirements are shown as columns and the target requirements are shown as rows.
 - b Select a **report type**:
 - **Full (compliance and non-compliance):** The report lists all requirements in the primary and secondary class, whether or not they are linked to each other.
 - **Compliance only:** The report lists either:

- All matching requirements in the primary class that have links to matching requirements in the secondary class
- All matching requirements in the secondary class that have links to matching requirements in the primary class
- **Non-Compliance only:** The reports lists either:
 - All matching requirements in the primary class that have no links to matching requirements in the secondary class
 - All matching requirements in the secondary class that have no links to matching requirements in the primary class



NOTE The **Non-Compliance only** option is only available if the **Table View** option is selected.

A sample of the selected report type is displayed on the right hand side of the dialog.

- 5 Constraints:** As needed, specify criteria to locate the desired requirements. There are these constraint tabs:
- **Constraints - Source** and **Constraints - Target** (see ["Attribute Constraints Tab" on page 47](#))
 - **Container - Source** and **Container - Target** (see ["Relationship Constraints Tab" on page 53](#))
- 6 Display Options:** As needed, specify how to display the results. See ["Display Options Tab" on page 56](#).
- 7 View Script / View Wizard:** Click to toggle between the Wizard and Script views of the dialog.



NOTE The tabs are visible only in the Wizard view.

- 8** Do any of the following:
- **Public Report:** Select this box to make the report public, otherwise the report is private.
 - **Visible for:** This option is only available if **Public Report** is selected. Typically defaults to **All**, which means all those with access to the category in which the report resides. Specific groups may be selected from the list.
 - **Editable for:** This option is only available if **Public Report** is selected. Defaults to all groups with access to the category specified; edit permission may be limited to specific groups.
 - **Show in Subcategories:** Select this box to make the report accessible for subcategories of the category in which it was saved. Reports useful for all users should be created in or moved to the root category.
 - **Preview:** Click this button to run the report without saving the report or closing the dialog.
 - **Save:** Click this button to save and run the report. The dialog will close.

Creating a Traceability Report

Complete these steps to create a Traceability Report.



NOTE Permissions for traceability reports are treated the same way as permissions for scripts. If you do not have permission to create a script on the instance level, then you will be unable to create a traceability report. If you do not have permission to read a script on a instance level, then you will be unable to open a traceability report, unless you created the report.

- 1 Select **Traceability Report** from the **New** menu. The *New Traceability Report* dialog opens.
- 2 **Top-level class:** Select the root class for the report.
- 3 **Type:** Select one of the following:
 - a **Matrix:** The report shows the values for the related classes.
 - b **Coverage:** The report shows in percent how many requirements of a class are linked to the selected child class.
- 4 If you want to save the report:
 - a Enter a name in the **Name** box.
 - b Type a description of the query in the **Description** box. The maximum number of characters is 1024.
 - c In the **Category** list, select the category in which the query will be saved.
- 5 **Related Classes to Display tab:**
 - Select the check boxes next to the classes to specify the relationships that should be displayed in the traceability report.



NOTE

- The check box next to the top-level class is always selected and disabled.
- To avoid cyclic dependencies, the check boxes next to relationships that are already used are also selected and disabled.
- You do not have to select consecutive classes.

- 6 **Constraints:** As needed, specify criteria to locate the desired requirements. See ["Attribute Constraints Tab" on page 47](#) and ["Relationship Constraints Tab" on page 53](#).
- 7 **Display Options:** As needed, specify how to display the results. See ["Display Options Tab" on page 56](#).



NOTE The **Display Options** tab is only visible if the selected **Type** is **Matrix**.

- 8 Group By:** Contains these sections: **Collections**, **Baselines**, **Documents** and **Snapshots**. By selecting one or several entries from the lists, the result will be calculated in separate columns, one column for each selection.



NOTE The **Group By** tab is only visible if the selected **Type** is **Coverage**.

- 9 View Script / View Wizard:** Click to toggle between the Wizard and Script views of the dialog.



NOTE The tabs are visible only in the Wizard view.

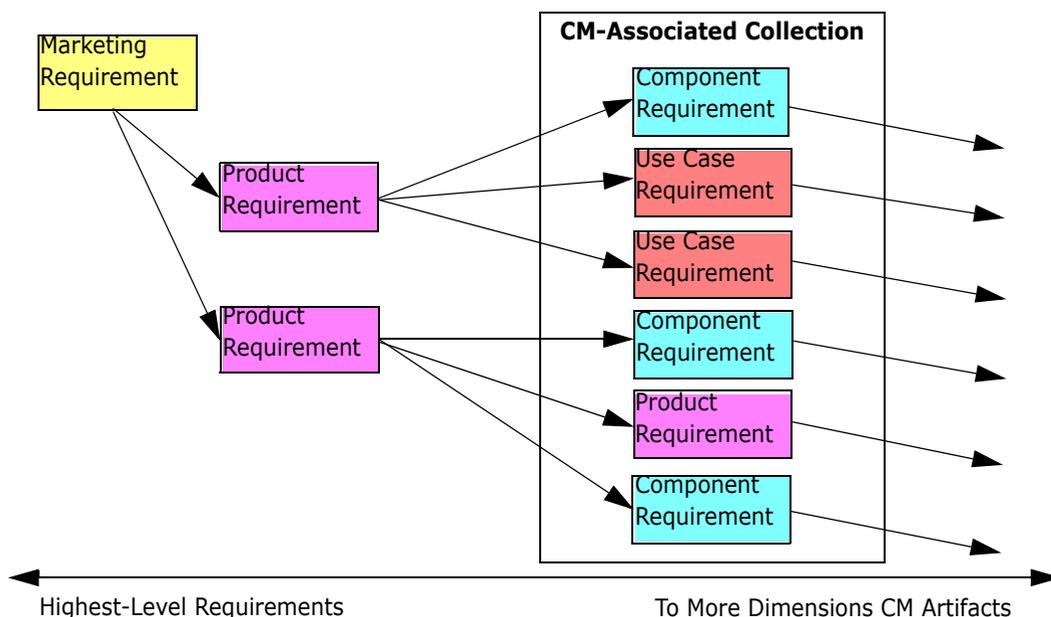
- 10** Do any of the following:

- **Public Report:** Select this box to make the report public, otherwise the report is private.
- **Visible for:** This option is only available if **Public Report** is selected. Typically defaults to **All**, which means all those with access to the category in which the report resides. Specific groups may be selected from the list.
- **Editable for:** This option is only available if **Public Report** is selected. Defaults to all groups with access to the category specified; edit permission may be limited to specific groups.
- **Show in Subcategories:** Select this box to make the report accessible for subcategories of the category in which it was saved. Reports useful for all users should be created in or moved to the root category.
- **Preview:** Click this button to run the report without saving the report or closing the dialog.
- **Save:** Click this button to save and run the report. The dialog will close.

Working in the Traceability Work Page

Traceability is a way to analyze the linkages between requirements. It provides a way to select the relationships you want to trace, browse through the requirements that are part of the relationships, and then print traceability reports that display the information in a visual format that is easy to analyze.

Requirements in collections that are associated with Dimensions CM projects can be included in traceability reports. The following diagram illustrates such traceability.



The Traceability work page consists of a two panes: the left pane is the traceability tree with a top-level class from which related classes and requirements flow in a hierarchical format. The right pane displays information based on what you selected in the traceability tree.



NOTE Permissions for traceability reports are treated the same way as permissions for scripts. If you do not have permission to create a script on the instance level, then you will be unable to create a traceability report. If you do not have permission to read a script on a instance level, then you will be unable to open a traceability report, unless you created the report.

The Traceability work page includes the components described in the following table.

Component	Description
Traceability Tree	Contains a hierarchical presentation of requirements that belong to classes you selected when creating the traceability report. For more information about the traceability tree, see "Understanding the Traceability Tree" on page 297 .
Detail Pane	Shows the List view of the selected requirement, or the name and description of the selected report.

Understanding the Traceability Tree

Note the following points about the traceability tree:

- If you hover over a class that is not the top-level class, a tool tip displays the name of the relationship between that class and its parent class.
- Class labels show the relationship in parentheses if there is more than one label with the same class name but a different relationship.

- If you hover over a requirement, by default, a tool tip displays class and requirement ID of the requirement. You can add attributes that are displayed in the tool tip. For more information, see "[Customizing the Traceability Tree](#)" on page 298.
- You can configure which attributes that you want to see in the traceability tree for each requirement. By default, the PUID and title of the requirement are displayed. For more information, see "[Customizing the Traceability Tree](#)" on page 298.
- If you double-click a requirement, the **Edit Attributes** dialog box opens. However, if you double-click in an attribute in the requirements details in the right pane, you can edit the requirement content directly in place.
- A Dimensions CM indicator  is displayed next to each requirement in a collection that is associated with a Dimensions CM project. If a parent requirement is collapsed, and it has child requirements that are related to Dimensions CM, this indicator is shown on the parent requirement, even if the parent requirement itself is not related to Dimensions CM. When you expand the parent requirement, the indicator is shown on the child requirement, but is removed from the parent requirement.
- A suspect link indicator  is displayed next to each requirement that has suspect links. This indicator is informational only; clicking it does not remove the suspect status from the links.
- You can use the drag-and-drop operation to change parents within the tree. You can only change to a parent that has the same class and same path as the original parent. Be sure to drop the requirement on the new parent, not on a child requirement of the new parent.
- You can press the CTRL key and use the drag-and-drop operation to copy a requirement to another parent.
- To reload the tree, click the refresh icon at the top right of the tree.
- If the report was created in release 10.1.2.0 or earlier, a warning is displayed at the top of the tree informing you that changes you made in the **Traceability Properties** dialog box do not take effect until you save the report again.

Customizing the Traceability Tree

By default, the only attributes that are displayed in the traceability tree are the requirement PUID and title. You can configure the attributes that are displayed in the traceability tree for each class and for each instance. For example, it might be useful to see the associated SBM issue number, owner, and status. You can also configure tooltips to display attributes such as the requirement title instead of using space in the traceability tree to display this information.

To customize the traceability tree:

- 1 The traceability report must be shown in Outline View. If the traceability report is shown in Gap View, click **Switch to Outline View** in the **Actions** pane.

- 2 Click **Edit Attributes** in the **Reports** section of the **Actions** pane. This opens the **Properties for traceability reports** dialog.



NOTE If the report was created in release 10.1.2.0 or earlier, a warning is displayed at the top of the dialog box that tells you that you need to save the report again before changes take effect.

- 3 Initially, the **Choose a class** list is the only field that is displayed. Select a class in the **Choose a class** list.
- 4 **Attributes to Display in the Tree:** To specify which attributes to display in the report, see chapter ["Attributes to Display List" on page 37](#).
- 5 **Attributes to Display in the Tooltip:** To specify which attributes to show in the tooltip, see chapter ["Attributes to Display List" on page 37](#).
- 6 In the **Separator** box, type the character you want to separate the attributes in the traceability tree and in the tooltips. The default character is a colon (:).

Editing a Report

To edit a report:

- 1 Select the desired report in the Reports tab of the Home View.
- 2 Click **Edit** in the **Reports** set of the **Actions** pane. Depending on your report either the edit dialog for the report type or the **Query By Script** dialog opens. The former is the wizard version of the dialog and is the default; the latter allows direct editing of the SQL-like script, and opens if the script has been modified such that it can no longer be processed by the wizard.

- 3 To save the report with a new name:
 - a Enter the name in the **Name** box.
 - b Type a description of the query in the **Description** box. The maximum number of characters is 1024.
 - c In the **Category** list, select the category in which the query will be saved.
- 4 As needed, modify the fields specific to the type of report you are editing:
 - **Public Report:** Select this box to make the report public, otherwise the report is private.
 - **Visible for:** This option is only available if **Public Report** is selected. Typically defaults to **All**, which means all those with access to the category in which the report resides. Specific groups may be selected from the list.
 - **Editable for:** This option is only available if **Public Report** is selected. Defaults to all groups with access to the category specified; edit permission may be limited to specific groups.
 - **Show in Subcategories:** Select this box to make the report accessible for subcategories of the category in which it was saved. Reports useful for all users should be created in or moved to the root category.
 - **Preview:** Click this button to run the report without saving the report or closing the dialog.
 - **Save:** Click this button to save and run the report; if the name was not changed a warning will be raised, select OK to replace.
 - **Class Report - Class:** Select the desired class from the list.



NOTE If a requirement of a class was selected when you invoked the dialog, then a class is already selected.

- **Relationship Report - Relationship:** Select the relationship you want to report on.
- **Relationship Report - Report Type tab:** Select a report type:

Report Type	Description
Full (compliance and non-compliance)	The report lists all requirements in the primary and secondary class, whether or not they are linked to each other.

Report Type	Description
Compliance only	The report lists either: <ul style="list-style-type: none"> All matching requirements in the primary class that have links to matching requirements in the secondary class All matching requirements in the secondary class that have links to matching requirements in the primary class
Non-Compliance only	The reports lists either: <ul style="list-style-type: none"> All matching requirements in the primary class that have no links to matching requirements in the secondary class All matching requirements in the secondary class that have no links to matching requirements in the primary class

A sample of the selected report type is displayed on the right side of the dialog.

- **Traceability Report - Top-level class:** Select the root class for the report.
- **Traceability Report - Related Classes to Display tab:**
 - Select the check boxes next to the classes to specify the relationships that should be displayed in the traceability report.



NOTE

- The check box next to the top-level class is always selected and disabled.
- To avoid cyclic dependencies, the check boxes next to relationships that are already used are also selected and disabled.
- You do not have to select consecutive classes.

- 5 **Constraints:** As needed, specify criteria to locate the desired requirements. See ["Attribute Constraints Tab" on page 47](#) and ["Relationship Constraints Tab" on page 53](#).
- 6 **Display Options:** As needed, specify how to display the results. See ["Display Options Tab" on page 56](#).
- 7 **View Script / View Wizard:** Click to toggle between the Wizard and Script views of the dialog.



NOTE The tabs are visible only in the Wizard view.

- 8 Do any of the following:
 - **Preview:** Click this button to run the report without saving the report or closing the dialog.
 - **Save:** Click this button to save and run the report. The dialog will close.

Renaming Reports

To rename a report without first opening for execution:

- 1 Open the **Reports tab** on the Home View.
- 2 Highlight the report
- 3 Click on **Rename** in the **Actions** pane
- 4 Enter the new name in the **Name** text box
- 5 Click on **Save**



NOTE For renaming relationships and reports you need to have the **Rename permission for scripts** or you must be the owner of the report.

Deleting Reports

To delete a report:

- 1 Highlight the desired report in the **Reports tab** of the Home View.
- 2 Click **Delete** in the Reports group of the Actions pane. A confirmation dialog opens.
- 3 Click the **OK** button.

Exporting Reports

To export a report, do the following:

- 1 Open the Home View by clicking .
- 2 Select the desired report.
- 3 Click **Export** from the **Reports** set of the Actions pane. This opens the **Export** dialog.
- 4 From the **Export as** box, select the target format.
- 5 If desired, select from export options for the formats below. Note that not all formats are available for all report types.
 - **Excel Spreadsheet:**
 - **Include images:** If selected, the Excel file will include images that are part of the HTML enabled text attributes.
 - **Include the script:** If selected, the script to retrieve the report result is added to the Excel file.
 - **Word Document:**
 - **Portrait:** The report result will use portrait orientation.

- **Landscape:** The report result will use landscape orientation.
 - **PDF Document:** (see Word Document)
 - **XML Document:**
 - **Encode text columns to include images and formatting:** If selected, HTML enabled text attributes will be exported in base 64 format, surrounded by a `<![CDATA[` section.
- 6 Click **Export**.

Moving and Copying Reports to a Different Category

You can move, or save a copy of, a report to another category.

To move a report to another category, do the following:

- 1 Open the Home View by clicking .
- 2 Select the desired category.
- 3 Select the **Reports** tab.
- 4 Drag the report and drop it at the desired category in the **Categories** tree.

To copy a report into another category:

- 1 Open the Home View by clicking .
- 2 Select the desired category.
- 3 Select the **Reports** tab.
- 4 Highlight the desired report.
- 5 Click **Edit** in the **Reports** group of the **Actions** pane. This opens the edit dialog for the selected report.
- 6 **Category:** Select the desired category.
- 7 Do one of the following:
 - To **save a copy** of the report to the selected category, modify the **Name** of the report and click the **Save** button.
 - To **move** the existing report to the selected category, click the **Save** button.

Copying the URL of a Report to the Clipboard

You can copy the URL of a report and paste it into a file for future use and reference. When that URL is later invoked, it will open RM Browser to that report.

Copying the URL of a Report to the Clipboard

To copy the URL of a report:

- 1 Open the Home View by clicking .
- 2 Select the **Reports** tab.
- 3 Select a report.
- 4 Click **Create direct URL** in the **Reports** section of the Actions pane. This opens the **Direct URL** dialog.
- 5 Right-click the URL and select **Copy link address**. This copies the URL to the clipboard.
- 6 Click **Close** to close the dialog.
- 7 Press **Ctrl + V**, or the relevant application-specific menu command, to paste the URL into the file or application where you wish to use it.

Modifying the URL of a Report

After pasting the URL into a file or application, you can also add parameters to it, which allows additional features. If you do not supply runtime parameters in the URL, you can specify them when running the report.

Function	Description	Example URL
Hide Title Bar	By default, the report shows a title bar with information about database, instance and path to the report. To hide the title, add &hideTitleBar=true to the URL.	<code>http://myserver:8080/rtmBrowser/cgi-bin/rtmBrowser.exe?goto=report&db=ORCL&proj=RMDemo&reportID=141&hideTitleBar=true</code>
Show Trace Report in Outline View	To view a trace report in Outline View, add &outlineView=1 to the URL.	<code>http://myserver:8080/rtmBrowser/cgi-bin/rtmBrowser.exe?goto=report&db=ORCL&proj=RMDemo&reportID=141&outlineView=1</code>

Function	Description	Example URL
Using Runtime Parameters	You can filter report results by using runtime parameters. These parameters can be used on any report. To add a runtime parameter, add &<Parameter Name>=<value> to the URL. When providing runtime parameters, the value must be URL encoded (e.g. Café translates to Caf%C3%A9).	<code>http://myserver:8080/rtmBrowser/cgi-bin/rtmBrowser.exe?goto=report&db=ORCL&proj=RMDEMO&reportID=3522&RTP_VERIFICATION_LEVEL_1=System</code>
Using Multiple Values for a Runtime Parameter	You can use several values for a runtime parameter by combining the values with a symbol, e.g. &TRP_VERIFICATION_LEVEL_1=System Module .	<code>http://myserver:8080/rtmBrowser/cgi-bin/rtmBrowser.exe?goto=report&db=ORCL&proj=RMDEMO&reportID=3522&RTP_VERIFICATION_LEVEL_1=System Module</code>

Retrieving Runtime Parameter Names

To get the names of the runtime parameters used in a report:

- 1 Paste the URL of the report into a text editor, e.g. Notepad. This URL will be referenced as **Report URL**.
Example URL: `http://myserver:8080/rtmBrowser/cgi-bin/rtmBrowser.exe?goto=report&db=ORCL&proj=RMDEMO&reportID=3522`
- 2 Copy the following URL to into a text editor: `http://host:port/rtmBrowser/RestServices/Report?id=<REPORT_ID>&db=<DATABASE>&proj=<INSTANCE>`
This URL will be referenced as **Rest URL**.
- 3 Adjust protocol (http or https), host and port of the Rest URL to match those of the Report URL.
- 4 Select the value of the **db** parameter of the **Report URL** and press **Ctrl + C**, or right-click on the highlighted value and select **Copy** from the shortcut menu to copy it to the Clipboard. In the example URL this value is *ORCL*.
- 5 Select **<DATABASE>** in the **Rest URL** and press **Ctrl + V**, or the relevant application-specific menu command, to replace it with the value you copied from the Report URL.
- 6 Select the value of the **proj** parameter of the **Report URL** and press **Ctrl + C**, or right-click on the highlighted value and select **Copy** from the shortcut menu to copy it to the Clipboard. In the example URL this value is *RMDEMO*.
- 7 Select **<INSTANCE>** in the **Rest URL** and press **Ctrl + V**, or the relevant application-specific menu command, to replace it with the value you copied from the Report URL.
- 8 Select the value of the **reportID** parameter of the **Report URL** and press **Ctrl + C**, or right-click on the highlighted value and select **Copy** from the shortcut menu to copy it to the Clipboard. In the example URL this value is *3522*.
- 9 Select **<REPORT_ID>** in the **Rest URL** and press **Ctrl + V**, or the relevant application-specific menu command, to replace it with the value you copied from the

Report URL.

If you executed these steps with the example URL, the Rest URL would look like this:
`http://myserver:8080/rtmBrowser/RestServices/
Report?id=3522&db=ORCL&proj=RMDEMO`

- 10** Select the complete **Rest URL** and press **Ctrl + C**, or right-click on the highlighted URL and select **Copy** from the shortcut menu to copy it to the Clipboard.
- 11** Open your preferred web browser and paste the URL into the address bar by pressing **Ctrl + V**. Then press **Enter**.
- 12** If you receive a dialog which requests user name and password, enter your RM user name and the associated password and confirm the dialog. In Internet Explorer, you might have to execute the following steps:
 - a** Click Open in the **Do you want to open or save Report.json** bar.
 - b** In the next dialog select the **Select a program from a list of installed programs** option and click **OK**.
 - c** In the **Open with** dialog, select **Notepad** or another plain text editor.
 - d** Clear the checkbox **Always use the selected program to open this kind of file**.
 - e** Click **OK**.
- 13** Search for **RTP__** (note that there are 2 underscores).
- 14** Select the full parameter (e.g. `RTP__VERIFICATION_LEVEL_1`) and add it to your Report URL.
- 15** Add an equal sign and the URL encoded value (e.g. translates to `Caf%C3%A9`).
If you executed these steps with the example URL, the Report URL would like this:
`http://myserver:8080/rtmBrowser/cgi-bin/
rtmBrowser.exe?goto=report&db=ORCL&proj=RMDEMO&reportID=3522&RTP__VE
RIFICATION_LEVEL_1=System`
- 16** You can now use the Report URL in your file or application.

Chapter 7

Working with Collections and Baselines

About Collections	308
About Baselines	308
Collection Basics	309
Baseline Basics	313
Working with Parent Collections	315
Comparing Collections or Baselines	318
Using Workflows with Collections or Baselines	319
Moving Collections or Baselines to a Different Category	320
Copying the URL of a Collection or Baseline to the Clipboard	320

About Collections

Collections are named groups of requirements from one or more classes. Collections provide a simple way to gather and organize requirements. Each requirement can be linked to many different collections, and each collection to many different requirements. In RM Browser, you can add requirements to a collection, remove requirements from a collection, and add, delete, rename, or baseline a collection.



CAUTION! When you display the content of a collection, you only see the requirements for which you have permissions in the category to which the requirements belong.

About Baselines

In Dimensions RM, baselines are stable, unchangeable groups of requirements. In other words, baselines are collections that have been "frozen".

Note the following:

- Baselines and collections are separate entities. A baseline is a fixed set of requirement versions with special controls that keep the requirements in the baseline from being updated.
- After a baseline is created, you can rename or delete it if you have permission to do so.



NOTE You cannot rename a baseline that was created from Dimensions CM using the ALM integration.

- You can create a baseline based on a collection, or a collection based on a baseline.
- The original collection from which the baseline was created remains unchanged and can be modified later.
- If you try to edit a requirement in a baseline, a message informs you that you cannot change the requirement, and that your changes will create a new version of the requirement outside of the baseline.
- When you create a collection from an existing collection, the latest versions of the requirements are used.
- By default, links between objects in the baseline are also included in the baseline, and cannot be modified once the baseline is created. You may be able to modify links in a baseline depending on how your administrator has configured the instance. (See chapter "[Deleting or Removing Links](#)" on page 140.)
- Requirements with suspect links remain suspect even after they are baselined.
- You can clear suspect links from a requirement even if the requirement is baselined.
- Even if the administrator denied you the Delete Baseline and Rename Baseline permissions, you can delete and rename a baseline if you created it. In other words, in this situation, the permissions that are denied by the administrator are overridden.

- A baselined requirement has a lock icon in its banner in the **Edit Attributes** dialog, and the **Update** button is disabled. If you mouse over the icon a popup will appear that says: Baseline Locked.
- You can base a baseline on a query, that will generate dynamically when you run it.

Collection Basics

Opening a Collection to the Collection Work Page

To open a collection:

- 1 Open the Home View by clicking .
- 2 Select the desired category.
- 3 Select the **Collections** tab.
- 4 Double-click the desired collection to view the content.

Creating a New Collection

To create a collection:

- 1 Select **Collection** from the New menu. The Manage Containers -> New dialog opens.
- 2 **Collection Name:** Enter the name of the new collection.



NOTE

- Do not use Oracle reserved words in collection names.
- A collection name can contain a maximum of 256 characters.

- 3 **Description:** Enter a description of the collection. The maximum length of the description is 512 characters.
- 4 **Category:** Select an owning category from the list.
- 5 **Collection Rules:** Define the collection link rules to determine what happens to object links when you edit objects included in the collection. The options include the following:
 - **Add new version to collection on Edit & Save:** When you edit the primary object and create a new child object, the links from the primary object are transferred to the new child object.
 - **Delete old version from collection on Edit & Save:** When you edit the instance object and create a new child object, the links from the primary (parent) object are deleted.
 - **Revert to previous version on Remove:** If you delete a child object, links are transferred to the parent.
 - **Objects can be added/removed:** Select to allow requirements to be added or removed to the collection.

- **Remove deleted objects from collection:** Select to remove any object from a collection if the object has been deleted. If this option is disabled, the collection will keep objects with Current Status **Deleted**.
 - **Use these rules as the default for new collections:** Select to automatically apply the above collection rules to all new collections in the future.
- 6 Based on:** Select one of the following options to determine how the collection is initially populated:
- **Empty Collection:** Select this if you do not want to base the new collection on an existing container
 - **Based on Selection Container(s):** Selecting this will raise the "Add Containers" dialog. Using check boxes, one or more containers may be selected from Collections, Documents, Snapshots or Baselines. When the new baseline is created, it will contain all requirements from selected container(s).

Add Containers

	Name	Time Created	Time Modified	Modified By
<input type="checkbox"/>	ALM Release 2: FR and UC	11-MAR-2015@15:29:58	19-OCT-2017@10:04:56	Joseph Wilson
<input type="checkbox"/>	Check BL CM	15-APR-2015@16:28:28	24-SEP-2015@19:17:55	Joseph Wilson

- **Query:** Select this if the baseline should be populated from an existing query (report). Use "Find Query" to locate the desired report.



TIPS

- To limit the listed reports to those of a specific category, select a category from the **Query** category list. To quickly locate a category in the list, type the name of the category in the **Find** box of the expanded category list.
- To limit the number of displayed queries, type part of the query name you want to use into the **Find Query** box.

- 7** Click OK.

Deleting a Collection

When you delete a collection, it is marked as deleted, but the data is retained. You can delete collections if you have "Delete" permission for collections.



IMPORTANT! The "Delete" function of releases prior to 12.11.1 removed collections permanently. To permanently remove a collection, use the "Remove" function (see ["Removing a Collection" on page 311](#)).

To delete a collection:

- 1 Open the Home View, if it is not already open. For further information on the Home View, see chapter ["Working with the Home View" on page 255](#).
- 2 Select the **Collections** tab.
- 3 Select one or several collections.
- 4 Click **Delete** in the **Collections** set of the **Actions** pane.
- 5 Click **OK** to confirm deletion.

Undeleting a Collection

When you delete a collection, it is marked as deleted, but the data is retained. When you undelete a collection, the collection is restored.

To undelete a collection:

- 1 Open the Home View, if it is not already open. For further information on the Home View, see chapter ["Working with the Home View" on page 255](#).
- 2 Select the **Collections** tab.
- 3 Click **Show Deleted Collections** in the **Collections** set of the **Actions** pane. Deleted collections appear in the list with grey text color.
- 4 Select one or several deleted collections.
- 5 Click **Undelete** in the **Collections** set of the **Actions** pane. This opens the **Undelete Collection** dialog.
- 6 Click **OK** to undelete the selected collection or collections.

Removing a Collection



CAUTION! Removing a collection removes the collection from the database **permanently**. Removed collections cannot be restored.

Removing a collection, **does not** remove requirements from the database. You can remove collections if you have "Remove" permission for collections.

To remove a collection:

- 1 Open the Home View, if it is not already open. For further information on the Home View, see chapter ["Working with the Home View" on page 255](#).

- 2 Select the **Collections** tab.
- 3 Select one or several collections.
- 4 Click **Remove** in the **Collections** set of the **Actions** pane.
- 5 Click **OK** to remove the collection or collections.

Managing Requirements in a Collection

You search for requirements from the **Organize by Collection** dialog box and then select the ones you want to add to or remove from a collection. You can specify search criteria on any or all of the three tabs on the **Organize by Collection** dialog box if you want to narrow search results or specify how the search results are displayed. You can run the search from any of the tabs.



TIP For a small and/or simple set of requirements, you can simply select them in a work page and click a button to add them to a collection. See ["Adding Requirements to an Existing Collection" on page 154](#).

To add/remove requirements to/from a collection:

- 1 If the collection is not already open, open it to a work page.
- 2 Select **Organize by Collection** from the Collections group of the Actions pane. The **Organize by Collection** dialog opens.
- 3 **Look for Class:** Select the class in which you want to search for requirements.
- 4 **Filters:** If you saved filters in Quick Search, you can use these filters to add to the collection.
- 5 **Constraints:** As needed, specify criteria to locate the desired requirements. See ["Attribute Constraints Tab" on page 47](#) and ["Relationship Constraints Tab" on page 53](#).
- 6 **Display Options:** As needed, specify how to display the results. See ["Display Options Tab" on page 56](#).
- 7 **Find Now:** Click this button to run the search. The results are displayed in the lower pane of the dialog.
- 8 **New Search:** Click this button to clear the current search criteria and results.
- 9 Select the desired requirements in the search results. For multi-selection of requirements, see chapter ["Selecting Multiple Requirements" on page 36](#).
- 10 **Collection:** Select the collection to which you want to add or remove requirements.
- 11 Click one of the following buttons:
 - **Add:** To add the selected requirements to the collection.
 - **Remove:** To remove the selected requirements from the collection.

Refreshing the Contents of a Collection

It is possible for the administrator to set an instance-wide option to automatically refresh all collections based on queries or scripts. This setting defaults to off (unchecked) for both

performance and control. To activate/deactivate this option, see chapter "[Container: Automatic Refresh](#)" on page 79.

If automatic refresh is off, the collection content must be refreshed manually.

To manually refresh the contents of a collection, execute these steps:

- 1 Select a collection on the **Collections** tab of the Home View. For information on the Home View, see chapter "[Working with the Home View](#)" on page 255.
- 2 In the **Requirements** set of the **Actions** pane, click **Refresh Collection**.



NOTE The **Refresh Container** action will be grayed out if the selected collection is not based on a report.

Updating Collection Properties

You can rename and change the description for a collection, and modify the collection rules that define how and whether new child objects should be included in the collection.

To edit the properties of a collection:

- 1 Open the Home View, if it is not already open. For further information on the Home View, see chapter "[Working with the Home View](#)" on page 255.
- 2 Select the **Collections** tab.
- 3 Select the desired collection.
- 4 Click **Edit Properties** from the **Collections** set of the **Actions** pane. This opens the **Manage Containers > Properties** dialog.
- 5 Modify the name, description and collection rules as needed. See "[Creating a New Collection](#)" on page 309 for information on defining collection rules.
- 6 Click **OK** to confirm your changes.

Baseline Basics

Opening a Baseline to the Baseline Work Page

To open a collection:

- 1 Open the Home View by clicking .
- 2 Select the desired category.
- 3 Select the **Baselines** tab.
- 4 Double-click the desired collection to open the Collection work page.

Creating a New Baseline

To create a baseline:

1 Select **Baseline** from the **New** menu. The **Manage Containers** dialog opens.

2 **Baseline Name:** Enter a name for the baseline.



NOTE

- Do not use Oracle reserved words in baseline names.
- A baseline name can contain a maximum of 256 characters.

3 **Description:** Enter a description of the baseline. The maximum length of the description is 512 characters.

4 **Category:** Select the category where you will store the baseline. You can add a baseline to any category to which you have access.



TIP To quickly locate a category in the list, type the name of the category in the **Find** box of the expanded **Category** list.

5 **Workflow:** An optional workflow may be selected; the inclusion of the workflow may require the input of additional data.

6 **Based on:** The baseline content may be input from existing containers or on a query.

- **Based on Selection Container(s):** Select the Plus Sign to raise the Add Containers dialog. Using check boxes, one or more containers may be selected from Collections, Documents, Snapshots or Baselines. When the new baseline is created, it will contain all requirements from selected container(s).
- **Based on Query:** Select this if the baseline should be populated from an existing query (report). Use "Find Query" to locate the desired report.



TIP To limit the listed reports to those of a specific category, select a category from the category list. To quickly locate a category in the list, type the name of the category in the **Search** box of the expanded category list.

7 Click the **Create Baseline** button.

Removing a Baseline



CAUTION! Removing a baseline removes the baseline from the database **permanently**. Removed baselines cannot be restored.

To remove a baseline:

- 1 Open the Home View, if it is not already open. For further information on the Home View, see chapter ["Working with the Home View" on page 255](#).
- 2 Select the **Baselines** tab.
- 3 Select one or several baselines.
- 4 Click **Remove** in the **Baselines** set of the **Actions** pane.
- 5 Click **OK** to remove the selected baseline or baselines.

Updating Baseline Properties

You can rename and change the description for a baseline, or change its workflow assignment.

To edit the properties of a baseline:

- 1 Open the Home View, if it is not already open. For further information on the Home View, see chapter ["Working with the Home View" on page 255](#).
- 2 Select the **Baselines** tab.
- 3 Select the desired baseline.
- 4 Click **Edit Properties** from the **Baselines** set of the **Actions** pane. This opens the **Manage Containers > Properties** dialog.
- 5 Modify the name, description and workflow assignment. See ["Creating a New Baseline" on page 314](#) for information on defining collection rules.
- 6 Click **OK** to confirm your changes.

Working with Parent Collections

About Parent Collections

A parent collection allows to help organize collections, baselines, documents, and snapshots, which in the following sentences are referred to as "child" or "children". Parent collections contains all requirements of their children. If a requirement is added to or removed from a child, this is reflected in the parent collection. Parent collections can be identified by the "(Parent)" suffix in their name.

Use Cases

- Parent collections could form a collection group by including all collections of a department, e.g. all marketing collections. This allows easy access to all these requirements.
- Parent collections can help to structure requirements. The parent collection could for example represent a project, while child collections represent components or functions.
- Parent collections can be used to reference collections from other categories. To do this, you would first create the parent collection in the same category as the child and then move the parent collection to the desired category.

Creating a Parent Collection

To create a parent collection:

- 1 Open the Home View by clicking .
- 2 Select the desired category.
- 3 To create a parent collection for **documents** and/or **snapshots**, do the following:
 - a Select the **Documents** tab.
 - b Select one or several documents, or snapshots.
 - c Select **Create Parent Collection** from the **Documents** set of the **Actions** pane. This opens the **New Parent Collection** dialog.
 - d Continue with step 6.
- 4 To create a parent collection for **collections**, do the following:
 - a Select the **Collections** tab.
 - b Select one or several collections.
 - c Select **Create Parent Collection** from the **Collections** set of the **Actions** pane. This opens the **New Parent Collection** dialog.
 - d Continue with step 6.
- 5 To create a parent collection for **baselines**, do the following:
 - a Select the **Baselines** tab.
 - b Select one or several baselines.
 - c Select **Create Parent Collection** from the **Baselines** set of the **Actions** pane. This opens the **New Parent Collection** dialog.
- 6 **Name:** Enter a name for the parent collection.



NOTE

- Do not use Oracle reserved words in parent collection names.
- A parent collection name can contain a maximum of 256 characters.

- 7 **Description:** Enter a description of the baseline. The maximum length of the description is 512 characters.

- 8 Category:** Select the category where you will store the parent collection. You can add a parent collection to any category to which you have access.



TIP To quickly locate a category in the list, type the name of the category in the **Find** box of the expanded **Category** list.

- 9** To add further children (collections, baselines, documents, or snapshots), do the following:
- a** Expand the **Child Containers** section.
 - b** Click **+**. This opens the **Add Child Containers** dialog.
 - c** From the **Type** box, select **Collection**, **Baseline**, **Document**, or **Snapshot**.
 - d** Select the check box next to the intended child name.
 - e** Repeat steps c and d for any other children you want to add.
 - f** Click **OK** to add all children to the parent collection.
- 10** Click **OK** to create the parent collection.



NOTE The parent collection can always be found on the **Collections** tab, even if you executed the **Create Parent Collection** command on the **Documents** or **Baselines** tab.

Adding a Child to a Parent Collection

To add a child to a parent collection:

- 1** Open the Home View by clicking **🏠**.
- 2** Select the desired category.
- 3** Select the **Collections** tab.
- 4** Select **Edit Properties** from the **Collections** set of the **Actions** pane. This opens the **Properties** dialog.
- 5** Expand the **Child Containers** section.
- 6** Click **+**. This opens the **Add Child Containers** dialog.
- 7** From the **Type** box, select **Collection**, **Baseline**, **Document**, or **Snapshot**.
- 8** Select the check box next to the intended child name.
- 9** Repeat steps c and d for any other children you want to add.
- 10** Click **OK** to add all children to the parent collection.
- 11** Click **OK** to update the parent collection.

Removing a Child from a Parent Collection

To remove a child from a parent collection:

- 1 Open the Home View by clicking .
- 2 Select the desired category.
- 3 Select the **Collections** tab.
- 4 Select **Edit Properties** from the **Collections** set of the **Actions** pane. This opens the **Properties** dialog.
- 5 Expand the **Child Containers** section.
- 6 Select the child or the children you wish to remove.
- 7 Click . This removes the selected children.
- 8 Click **OK** to update the parent collection.

Comparing Collections or Baselines

To compare the contents of two collections or baselines:

- 1 Open the Home View, if it is not already open. For further information on the Home View, see chapter ["Working with the Home View" on page 255](#).
- 2 Select the **Collections** or **Baselines** tab.
- 3 Select the desired collection or baseline.
- 4 Click **Compare** from the **Collections** or **Baselines** set of the **Actions** pane. This opens the **Compare Containers** dialog.
- 5 **Select Container:** Click ... to select the collection or baseline to compare.
- 6 **Description:** Select this option to display each container's description in the results.
- 7 Click the **Compare** button. The Requirement Difference Summary dialog opens. The summary lists the Requirement ID, Title, Description (if the **Description** check box is selected in the Find Container dialog box), and the class for the following results:
 - **Requirements only in container:** This is a list of the requirements that are in the first container, but not in the second container.
 - **Requirements only in container:** This is a list of the requirements that are in the second container, but not in the first container.
 - **Changed requirements:** This is a list of the changed requirements in both containers. This list includes items for which the Object Version ID is different, even if the Requirement ID is the same.
 - **Unchanged Requirements:** This is a list of the unchanged requirements in both containers.
- 8 To open a details view of a requirement, double-click the requirement.

- 9 **Print:** Click this button to print the **Requirement Difference Summary**.

Using Workflows with Collections or Baselines

If configured by your administrator, you can use Workflows with collections and baselines.

Assigning a Collection or Baseline to a Workflow

To assign a collection or baseline to a workflow, do the following:

- 1 Open the collection (see chapter ["Opening a Collection to the Collection Work Page" on page 309](#)) or baseline (see chapter ["Opening a Baseline to the Baseline Work Page" on page 313](#)).
- 2 Click **Edit Properties** in the **Collections** or **Baselines** group of the **Actions** pane. This opens the **Manage Containers > Properties** dialog.
- 3 From the **Workflow** box, select the desired workflow.



CAUTION! Once you confirm the dialog, the Workflow setting for the collection or baseline cannot be changed. Thus, verify that you selected the correct workflow.

- 4 Click **OK**.

Executing a Transition on a Collection or Baseline

In order to use a workflow with a collection or baseline, a Workflow must be assigned to that container (see chapter ["Assigning a Collection or Baseline to a Workflow" on page 319](#)).

To execute a transition, do the following:

- 1 Open the collection (see chapter ["Opening a Collection to the Collection Work Page" on page 309](#)) or baseline (see chapter ["Opening a Baseline to the Baseline Work Page" on page 313](#)).
- 2 Click the button for the desired transition, which is located underneath the **Welcome** menu in the top right corner of the screen. Executing the transition may open a form for input which must be filled out to complete the transition.

Next to the transition button(s), you find a progress bar, which shows the current state. If configured by your administrator, the value of the progress bar may change according to the workflow state.

Viewing Information about a Collection or Baseline

If a collection or baseline is assigned to a workflow, you can use the same functions as for requirements, e.g. view/modify attributes or see the state change history, or execute a transition.

To open the container information, do the following:

- 1 Open the collection (see chapter "Opening a Collection to the Collection Work Page" on page 309) or baseline (see chapter "Opening a Baseline to the Baseline Work Page" on page 313).
- 2 Click the progress bar showing the current state. This opens the **Edit Attributes** dialog for the container.

For further information about the **Edit Attributes** dialog, see "Editing a Requirement" on page 118 (start with point 2 of the list) and "Workflows" on page 109.

Moving Collections or Baselines to a Different Category

When you create a collection or baseline, you can assign it to a category. The following procedure describes how to change the category assignment of an existing collection or baseline.

- 1 Open the Home View by clicking .
- 2 Select the desired tab: **Collections**, or **Baselines**.
- 3 Drag the object and drop it at the desired category in the **Categories** tree.

Copying the URL of a Collection or Baseline to the Clipboard

You can copy the URL of a collection or baseline and paste it into a file for future use and reference. When that URL is later invoked, it will open RM Browser to that collection or baseline.

To copy the URL of a collection or baseline:

- 1 Go to the **Home View**.
- 2 Select either the **Collections** tab or the **Baselines** tab.
- 3 Select the desired collection or baseline.
- 4 Click **Create direct URL** in the associated group of the Actions pane. This opens the **Direct URL** dialog.
- 5 Right-click the URL and select **Copy link address**. This copies the URL to the clipboard.
- 6 Click **Close** to close the dialog.
- 7 Use **Ctrl + V**, or the relevant application-specific menu command, to paste the URL into the file or application where you wish to use it.

Modifying the URL of a Collection or Baseline

After pasting the URL into a file or application, you can also add parameters to it, which allows additional features. If you do not supply runtime parameters in the URL, you can specify them when running the report.

Function	Description	Example URL
Editable Grid	By default, the requirements of collection or baseline are shown in a normal table. To use an editable grid instead, add &editableGrid=true to the URL.	<code>http://myserver:8080/rtmBrowser/cgi-bin/rtmBrowser.exe?goto=collection&db=ORCL&proj=RMDEMO&collectionId=5&editableGrid=true</code>
Hide Title Bar	By default, the collection or baseline shows a title bar with information about database, instance and path to the report. To hide the title, add &hideTitleBar=true to the URL.	<code>http://myserver:8080/rtmBrowser/cgi-bin/rtmBrowser.exe?goto=collection&db=ORCL&proj=RMDEMO&collectionId=5&hideTitleBar=true</code>

Chapter 8

Importing Requirements

Importing Requirements from Microsoft Word Documents	324
Importing a Roundtrip Document	331
Importing Requirements from an XML File	332
Importing Requirements from a CSV or Excel File	334
Importing Test Case and Test Run Requirements	339
Importing Requirements from a ReqIF File	341
Importing Previously Exported Requirements	345
The Import Result Dialog	346

Importing Requirements from Microsoft Word Documents

RM Browser can import content from a Microsoft Word document and use it to:

- Create new requirements
- Create new requirements and an RM document
- Update or replace existing requirement versions

When importing a Word document, you can choose to import:

- The entire document (creating an RM document)
- Only the requirements (that are in the proper table format)
- Only the selected text (into attributes you specify at run time)



NOTE

- The Dimensions RM document or the requirements that were created or updated during import will not have the exact layout and/or style as the original MS Word document.
- PDF document should only be imported with **Entire Document (Chapters only)** mode as PDF documents are optimized for printer output. When importing PDF files, attributes may not be recognized properly and thus imported requirements may have unexpected attribute values or import contains errors for requirements.

Should I Use RM Browser or RM Import?

Layout/Format: The import feature of RM Browser requires that the Word document be of the expected layout and format (as described in the following sections). Whereas RM Import requires that you create an import template that defines the layout and format that is to be expected. The latter is more flexible, but also more time consuming to setup.

Subrequirements: Only RM Import can import subrequirements or tables within tables.



NOTE

- Importing Microsoft Word documents through RM Browser is only possible if Microsoft Word is installed on the server. For further information on installing Microsoft Office on the server see chapter "Support for Export / Import" in *Dimensions RM Installation Guide*.
- Importing Microsoft Excel files through RM Browser is only possible if Microsoft Excel is installed on the server. For further information on installing Microsoft Office on the server see chapter "Support for Export / Import" in *Dimensions RM Installation Guide*.
- RM Import requires Microsoft Word and Microsoft Excel to be installed on the client.
- For checking which versions of Microsoft Office are supported, please refer to the Platform Matrix at <https://www.microfocus.com/documentation/dimensions-rm/>.

Formatting Requirements for Import

The requirements in your document must be in tables that use the correct layout and formatting in order to be recognized as requirements.

There are two main layout options when creating tables for requirements:

- Each row is a requirement:

Title	Text	Category	Delivery Phase
EPhoto will be an online photo album	This ePhoto system shall enable the user to browse an on-line photo album.	RMDEMO/Functional/Design	Build1 Build4
Displaying stored photo info	The ePhoto system shall allow users to display any of the information stored with the photo.	RMDEMO/Availability/Cost	TBD Build3

- Each table is a requirement:

TITLE	Runs on "standard" home PC		
Priority	Paragraph Title	Document ID	
1	Feature 3	Marketing Rqmts	
Category	RMDEMO/Power	Delivery Phase	Build1 TBD
Text			
The ePhoto system shall be accessible to the user from a regular home PC environment running standard Windows software. It is envisaged that this is a software-only application from the user's perspective.			

And there are two ways to organize the requirements by class:

- Specify the class for the entire table in the first row:

Class Name	Marketing_Requirements	
Rqmt ID	Title	Text
MRKT_000001	EPhoto will be an online photo album	This ePhoto system shall enable the user to browse an on-line photo album.
MRKT_000023	Displaying stored photo info	The ePhoto system shall allow users to display any of the information stored with the photo.

- Specify the class of each requirement:

Class Name	Rqmt ID	Title	Text
Marketing_Requirements	MRKT_000001	EPhoto will be an online photo album	This ePhoto system shall enable the user to browse an on-line photo album.
Product_Requirements	PROD_000023	Load time less than 5 seconds	The load time for an individual photo load shall be less than 5 seconds.



NOTE The following rules apply when formatting requirement tables:

- Pay attention to **bold/regular** formatting:
 - **Attribute names** (*table headings not values*) **must use bold** formatting.
 - **All values** (requirement content) **must not use bold** formatting. Even a single bold formatted blank space in the midst of properly formatted text will cause the text to be treated as an attribute name rather than as an attribute value.
 - When adding the class name above the attribute names (as in the example above), both, **Class Identifier** and **attribute name** ("Class Name" in the above example) **must not use bold** formatting.
- General text formatting (color, underline, italic, etc.) is imported for text attributes and ignored for others. (As noted above, bold must not be used in attribute values.)
- **Class Name** is the attribute name for class used in the above examples; however, you can specify a different attribute name in the **Class Identifier** field when importing the document.
- **Category** must match the supported formats (see chapter "[Category Import Formats](#)" on page 331).
- The document may contain any number of tables.
- Tables may contain any number of rows (requirements) and any number of columns (attributes).
- To specify multiple values for a list attribute, separate the values with the pipe (|) character. For example: Build1|Build4
- To Update/replace an existing RM requirement, include its **Rqmt ID** attribute (PUID).
- The Group attribute type is not supported for import.
- During import, you will be prompted for any mandatory attribute values that are not included in the tables.
- Images can be imported into the body of an RM document, but not into requirements.

Formatting an Entire Word Document for Import

If you choose to import an entire Word document:

- Requirement data will be imported from properly formatted tables (as described in "[Formatting Requirements for Import](#)" on page 325).

- Chapters and sub chapters will be created based upon the heading hierarchy of the Word document.

Word Document	RM Document
Heading 1	Chapter
Heading 2	Sub-chapter
Heading 3	Sub-sub-chapter
etc.	

- Images will be imported into body content (not into requirements).
- General text formatting will be imported.



IMPORTANT! It is strongly recommended that the document should have a Table of Contents.

Importing a Word File

The MS Word import of RM Browser has several import modes from which you can choose. The following sections describe these import methods individually.

Importing a Word Document in Entire Document (Chapters only) Mode

The **Entire Document (Chapters only)** mode will import the document "as is". Tables are **not** parsed as requirements. If you wish to import a document that contains tables with data other than requirements, you might choose this mode and then convert chapters to requirements using the **Change Class** function as described in chapter "[Converting Chapters into Requirements](#)" on page 233.

To import a Word document:

- In RM Browser, select **Word document** from the **Import** menu. This opens the **Import Word Document** dialog.
- Import File:** Click **Browse...** to open a dialog to select the Word file.
- Select the Word file, and then click **Open**.
- Import Mode:** Select **Entire Document (Chapters only)** from the drop-down list.
- Choose whether to **Create**, or **Replace** content from the Word document.
 - Create** will create a new document in Dimensions RM.
 - Replace** will replace an existing document using the new content from the Word document. Select the document you wish to replace in the list of documents.



TIP To easily find a document, enter part of the name into the **Find Document** box.

- Category:** Select the category into which you wish to import the document.
- Document Name:** Specify a name for the RM document that is to be created or revised.

- 8 Document has chapter numbers:** Defines how numbers at the beginning of a chapter title (e.g. "1 Preface", "1.1 Objective") are handled.

Selected: Numbers are removed from the beginning of a chapter title (e.g. "1.1 Objective" becomes "Objective").

Cleared: Chapter titles are not modified.

- 9** Click **Import**. After the import has been completed, the **Import Results** dialog opens. This dialog includes information about the requirements that were created and a summary. For further details, see chapter ["The Import Result Dialog" on page 346](#).
- 10** Click **Close** to dismiss the results.
- 11** Click **Close** on the remaining MS Word Import dialog.

Importing a Word Document in Entire Document Mode

The **Entire Document** mode imports the document with chapters and expects tables to contain requirements only. To import documents with tables that do not contain requirements, either use the **Entire Document (Chapters only)** mode (see chapter ["Importing a Word Document in Entire Document \(Chapters only\) Mode" on page 328](#)) or use RM Import.

To import a Word document:

- 1** In RM Browser, select **Word document** from the **Import** menu. This opens the **Import Word Document** dialog.
- 2 Import File:** Click **Browse...** to open a dialog to select the Word file.
- 3** Select the Word file, and then click **Open**.
- 4 Import Mode:** Select **Entire Document** from the drop-down list.
- 5** Choose whether to **Create**, or **Replace** content from the Word document.
 - **Create** will create the document and new requirements in Dimensions RM.
 - **Replace** will replace an existing document and create new versions of existing requirements using the new content from the Word document. Only existing requirements that have new values in the Word document will be replaced. Select the document you wish to replace in the list of documents. If you specify a document name that does not exist in Dimensions RM, a new document with the specified name will be created.



TIP To easily find a document, enter part of the name into the **Find Document** box.

- 6 Class Identifier:** Specify the attribute name you used to identify the class. For example, Class Name.
- 7 Category:** Select the category into which you wish to import the document.
- 8 Document Name:** Specify a name for the RM document that is to be created or revised.
- 9 Document has chapter numbers:** Defines how numbers at the beginning of a chapter title (e.g. "1 Preface", "1.1 Objective") are handled.

Selected: Numbers are removed from the beginning of a chapter title (e.g. "1.1 Objective" becomes "Objective").

Cleared: Chapter titles are not modified.

- 10** Click **Import**. After the import has been completed, the **Import Results** dialog opens. This dialog includes information about the requirements that were created and a summary. For further details, see chapter "[The Import Result Dialog](#)" on page 346.
- 11** Click **Close** to dismiss the results.
- 12** Click **Close** on the remaining MS Word Import dialog.

Importing a Word Document in Roundtrip Import Mode

The Roundtrip Import mode is required for importing a Roundtrip document. For further information on importing roundtrip documents, see chapter "[Importing a Roundtrip Document](#)" on page 331.

Importing a Word Document in Tables only Mode

The **Tables only** mode will only import requirements by retrieving them from tables. The surrounding document is not imported.

To import a Word document:

- 1** In RM Browser, select **Word document** from the **Import** menu. This opens the **Import Word Document** dialog.
- 2** **Import File:** Click **Browse...** to open a dialog to select the Word file.
- 3** Select the Word file, and then click **Open**.
- 4** **Import Mode:** Select **Entire Document (Chapters only)** from the drop-down list.
- 5** Choose whether to **Create**, or **Replace** content from the Word document.
 - **Create** will create new requirements in Dimensions RM.
 - **Replace** will create new versions of existing requirements using the new content from the Word document. Only existing requirements that have new values in the Word document will be replaced.
- 6** Select **Tables only** from the drop-down list.
- 7** **Class Identifier:** Specify the attribute name you used to identify the class. For example, Class Name.
- 8** Click **Import**. After the import has been completed, the **Import Results** dialog opens. This dialog includes information about the requirements that were created and a summary. For further details, see chapter "[The Import Result Dialog](#)" on page 346.
- 9** Click **Close** to dismiss the results.
- 10** Click **Close** on the remaining MS Word Import dialog.

Category Import Formats

For Word import, categories can be specified in these formats:

- Full path with forward slash, e.g. RMDemo/Data
- Full path with backslash, e.g. RMDemo\Data
- Unique category name, e.g. Data
Note that there must be no other category or subcategory "Data".

Date Import Formats

Word import requires that the date specified in a Word document matches the format for the attribute of the requirement class you wish to import.

Importing a Roundtrip Document

If you exported a document as a Roundtrip document (see chapter ["Export as a Roundtrip Document" on page 250](#)), you can also import this Roundtrip document on the system that export it.



NOTE You can only import the document on a system where the IDs in the document match those of the system.

The Roundtrip import function recognizes the following changes in the document:

- Chapter additions, modifications, deletions, or moves;
- Requirement modifications, deletions, or moves.

To import of a Roundtrip document, do the following:

- 1 In RM Browser, select **Word document** from the **Import** menu. This opens the **Import Word Document** dialog.
- 2 **Import File:** Click **Browse...** to open a dialog to select the Word file.
- 3 Select the Word file, and then click **Open**.
- 4 **Import Mode:** Select **Entire Document (Chapters only)** from the drop-down list.
- 5 Ensure that **Replace** has been selected from the list.

Replace will create new versions of existing requirements using the new content from the Word document. Only existing requirements that have new values in the Word document will be replaced.



NOTE Roundtrip import cannot be used with the **Create** function.

- 6 From the **Import Mode** box, select **Roundtrip**.

- 7 Document has chapter numbers:** Defines how numbers at the beginning of a chapter title (e.g. "1 Preface", "1.1 Objective") are handled.

Selected: Numbers are removed from the beginning of a chapter title (e.g. "1.1 Objective" becomes "Objective").

Cleared: Chapter titles are not modified.
- 8** Click **Import**. After the import has been completed, the **Import Results** dialog opens. This dialog includes information about the requirements that were created and a summary. For further details, see chapter ["The Import Result Dialog" on page 346](#).
- 9** Click the **Close** button to dismiss the results.
- 10** Click the **Close** button on the remaining MS Word Import dialog.

Importing Requirements from an XML File

You can easily add, update, or replace large batches of requirements. Save your query results as an XML file, make changes to the requirements with an editor such as Microsoft Word or Notepad, and then import your changes using the XML import feature.

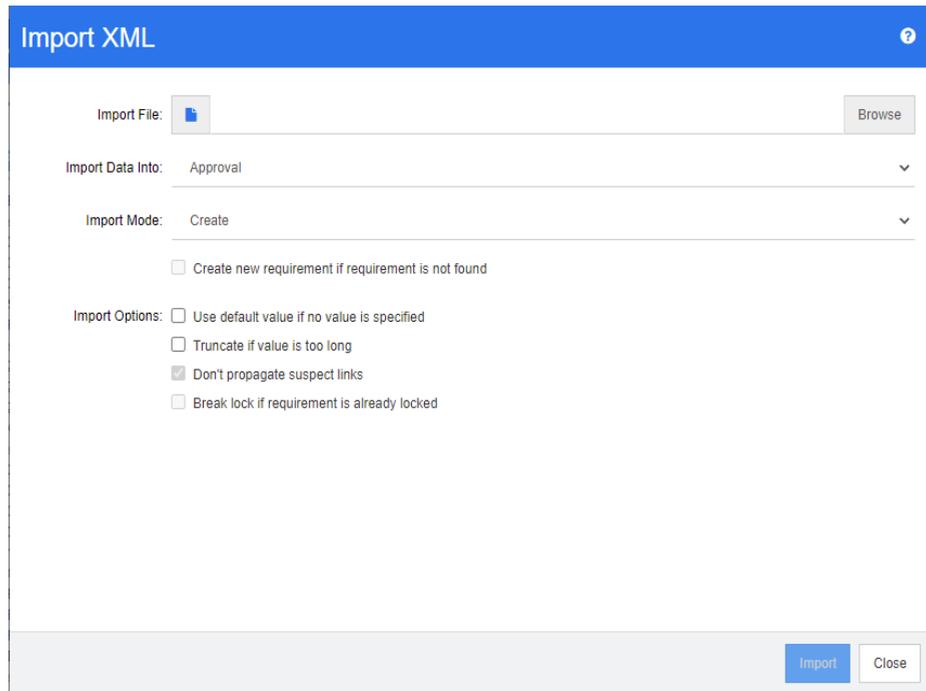
For example:

A requirements manager wants to change the "priority" attribute of 100 requirements from "Must" to "Hope." She opens RM Browser and runs the desired script. She saves the query results as an XML file. In the XML file, she changes the "priority" attribute and saves the updated XML file.

The requirements manager now imports the XML file by completing the **Import XML** dialog box. After the import process completes, an import results page opens that displays the class name, PUID, status, and error details for each requirement.

To import an XML file:

- 1 Select **XML file** from the **Import** menu. The **Import XML** dialog opens.



- 2 In the **Import File** field, type the path and file name of the XML file you want to import or click **Browse** to navigate to the file.
- 3 In the **Import Data Into** list, select the class into which you are importing the file.
- 4 In the **Import Mode** list, select one of the following options:

Mode	Description
Create	Creates a new requirement if the object node in the XML file does not exist.
Update	Updates the attributes that have changed for each object node in the XML file.
Replace	Creates a new current revision for each object node in the XML file with the changes to the attributes specified in the XML file.

- 5 If you want to create a new requirement when a requirement in the XML file has an object ID that does not match the object ID of a requirement in the database, select the **Create new requirement if requirement is not found** check box. This option is only available for the **Update** and **Replace** modes.

- 6 Under **Import Options**, select one or more options as described in the following table:

Option	Description
Use default value if no value is specified	If no value is specified for a mandatory attribute, its default value is used. If the attribute has no default value, an error message is displayed in the import results output page.
Truncate if value is too long	If the value is longer than the maximum value for the attribute, the value is truncated before the requirement is saved.
Don't propagate suspect links	Links are not marked as suspect when the requirement is updated or replaced. NOTE: This option is not available for the Create mode.
Break lock if requirement is already locked	User locks are removed before attempting to update or replace the requirement. Otherwise, a message is displayed in the import results output page. NOTE 1: This option does not remove CM locks. NOTE 2: This option is not available for the Create mode.

Category Import Formats

For XML import, categories can be specified in these formats:

- Full path with forward slash, e.g. RMDemo/Data
- Full path with backslash, e.g. RMDemo\Data
- Unique category name, e.g. Data
Note that there must be no other category or subcategory "Data".

Date Import Formats

XML import requires that the date specified in a XML file matches the format for the attribute of the requirement class you wish to import.

Importing Requirements from a CSV or Excel File

Requirement text can be imported from CSV or Excel files. Using this facility column data are mapped to attributes allowing new requirements to be created en mass. Assuming a unique attribute (typically requirement ID) is used, changes can be easily applied to

existing requirements. The robustness of this functionality allows users to create, replace, update, delete, undelete, remove, link or unlink requirements.



NOTE For Excel file import, the following restrictions apply:

- Excel file import is only functional if Microsoft Excel has been installed on the Dimensions RM server. If no Excel on the server, save the Excel file as CSV.
- The Excel file import only imports the first Worksheet of an Excel file.
- When using Excel, only one cell per attribute may be used.
- During import, Excel files are converted to CSV format. This means:
 - Text will be imported as plain text.
 - Images will not be imported.



IMPORTANT! DO NOT modify the CSV file in any non-text editor! Doing so may alter the data in the file and cause CSV import to fail.

For CSV import multiple values for a list attribute may be imported. the values must be separated using the pipe (|) character. For example: Windows|Linux

To import requirements and requirement data from a CSV or Excel file:

- 1 To open the **Excel / CSV** Import dialog, select **Excel / CSV File** from the **Import** menu.



CAUTION! When importing *Test Case* or *Test Run* requirements (as defined for "[Test Case Management](#)" on page 347), you **must** have an ID column in your CSV data which matches the attribute name for that class. If your CSV file does not have an ID column, all requirements will be merged into a single object. For further information about importing *Test Case* or *Test Run* requirements, see chapter "[Importing Test Case and Test Run Requirements](#)" on page 339.

- 2 Click **Browse...** and select the CSV or Excel file you want to import.
- 3 From the **Import Mode** list, choose one of the following import options:
 - **Create:** Create new requirements from the rows in the CSV file. For successful creation, all mandatory attributes must be included in the input file.
 - **Update:** Update attributes in existing requirements with new data from the CSV file. The attributes are updated in requirements that match the specified criteria. Note that **Update** is not generally available to all users, as there is no versioning applied - the attributes are modified in place. However, it is useful when correcting one or more attributes entered erroneously in large numbers of requirements.
 - **Replace:** Replace attributes in existing requirements that match the specified criteria (for example Rqmt. ID) with new data from the input file. Changes captured will cause the creation of a new current version of the requirement.
 - **Delete:** Mark requirements that match the specified criteria as deleted.
 - **Undelete:** Undelete requirements that are marked as deleted and match the specified criteria; this means that the current status will be changed from 'Deleted' to 'Current'.

- **Remove:** Remove from the database requirements that match the specified criteria. Note that Remove only removes the latest version of the requirement. Although **remove** is not recommended for daily use, as it does not maintain history, it is very useful when a large number of requirements have been added or modified with incorrect data.
- **Link:** Create relationships between requirements that match the specified primary class criteria to requirements that match the specified secondary class criteria (Rqmt ID 1 to Rqmt ID 2). There are many ways with RM to create links, this method is useful when importing requirements maintained, over time, in spread sheets containing links.



NOTE TEXT type attributes are not valid for Link mode so they will not be included in the attribute list when in Link mode.

- **Delete Link:** Deletes the selected link. Delete Link is available if the user has the *Link* permission for classes and the *Delete* permission for relationships.
- **Remove Link:** Permanently removes a link. Remove Link is available if the user has the *Link* permission for classes and the *Remove* permission for relationships.



CAUTION! You cannot restore a removed link.

- 4 From the **File Encoding** list, select the encoding used for the file. If the desired encoding is not available in the list, convert it to a supported format.
- 5 From the **Field Separator** list choose **Comma**, **Semicolon**, **Space**, or **Tab**, depending on what separator is used in the CSV or Excel file.



TIP If you are not sure you have the data defined correctly select a range of just 2 or 3 rows to run a quick test.

- 6 To limit the range of rows to import, deselect **All** select **From** and **To** in order to select a range. Otherwise, leave **All** selected to import data from all rows in the file. If the file has a header row, you can omit this by selecting the **File has header row** option.
- 7 If the **File has header row** option is selected, the first row of the import file will be used as column names in the **File Column List**.
- 8 To add all imported requirements to a document or a collection include the following steps.

To import all requirements into an existing document or collection, do the following:

- a Select **Add to Document** or **Add to Collection**
- b An additional selection box appears providing access to a list of available documents or collections
- c Make the selection
- d Click **OK**.

To create a new document or collection on import, do the following:

- a Select **Add to Document** or **Add to Collection**
- b Ignore the list of available containers presented

- c Enter a new document or collection name into the box provided on the dialog
- d Click **OK**.

Select a collection... ? x

Name ▲
Filter by Name...
ALM Release 2: FR and UC
Check BL CM
testlinking

New Collection:

To import all requirements into a document or collection specified by data in the import file do the following:

- a Select **Add to Document** or **Add to Collection**
- b Select the Class which will be used to create the requirements.
- c From the **File Column List**, select the column that includes the container name.
- d From the **RM Attributes** list, select the relevant container **<Document>** or **<Collection>** entry.
- e Click  as is done for any mapped attribute.

Under the **RM Mapping** heading, you are pairing columns in the input file with attributes in the target class. The mapping configuration differs depending on the import mode selected. Review the following to understand how to use the RM Mapping options.



TIPS

- If the titles in the header row match attribute names in the selected class, you can map attribute names automatically by clicking  - the "magic wand".
- Mappings can be stored for quick access. This is helpful when you repeatedly import files with the same mapping. Mappings are stored by import mode and class. To apply a stored mapping, select it from the **Store Mappings** list.

To store a mapping, do the following:

- a Click . This opens the **Save Mapping** dialog.
- b Enter a name for a mapping, e.g. *ImportStakeholderRequirements*
- c Click **OK**.

Import Mode	Mapping Guidelines
Create	<ul style="list-style-type: none"> ■ You must map columns from the CSV or Excel file to requirements attributes in RM. Data from the columns you select will be imported to the attributes you map the columns to, in the new requirements. ■ First select the requirements class from the RM Class field. Then, select the column from the File Column List field and the corresponding attribute from the RM Attribute list. Click the right arrow button to add the mapped pair to the list of Mapped Attributes.
Update	<ul style="list-style-type: none"> ■ Update presents two mapping sections. The first defines the criteria necessary to locate the requirements to be modified. The attribute used to locate the requirement to be modified must be a unique identifier, the Requirement ID (PUID) is generally used. ■ The second section provides the facility to Select the column from the File Column List field and the corresponding attribute from the RM Attribute List field, before clicking the right arrow button to add the mapped pair to the Mapped List field. ■ You can optionally choose to include only rows from the input file that do uniquely match only one object in Dimensions RM. This is accomplished by checking the Ignore rows matching multiple objects option. For example, if using an internal requirement identifier or or a title, if the identifier appears multiple times it might be best to reconsider those changes. ■ It is also possible to create new requirements if no requirement matching the criteria specified is found.
Replace	Refer to the information above on Update.
Delete	<ul style="list-style-type: none"> ■ Only the unique identifier is required to mark one or more requirements as deleted using this import facility. ■ You can optionally choose to include only rows from the input file that uniquely match only one object in Dimensions RM. This is accomplished by checking the Ignore rows matching multiple objects option.
Undelete	<ul style="list-style-type: none"> ■ In situations where a group of requirements has been, perhaps mistakenly, marked as deleted, they can be 'Undeleted' using this import mode.
Remove	<ul style="list-style-type: none"> ■ Only the unique identifier is required to remove (as in erase) one or more requirements versions from the database. ■ Only the Current version is removed; the previous Replaced version becomes current.

Import Mode	Mapping Guidelines
Link	<p>The import file must contain unique criteria, typically Rqmt ID, to locate both the primary and secondary requirements in order to create the relationship.</p> <ul style="list-style-type: none"> ■ Choose the relationship from the Relationship list. This relationship is used to identify relevant attributes in the primary and secondary objects identified. ■ Select the value(s) from the import file that will be used to identify the primary requirement, select the value from the primary class and then click the right arrow button to add the mapped pair to the Mapped List field. For example, Rqmt. Id to Rqmt. ID. ■ Select the value(s) from the import file that will be used to identify the secondary requirement, select the value from the secondary class and then click the right arrow button to add the mapped pair to the Mapped List field. For example, Rqmt. Id to Rqmt. ID. ■ Select the Ignore rows matching multiple objects option to include only those rows in the import file that uniquely match one object in Dimensions RM.
Unlink	<ul style="list-style-type: none"> ■ Refer to the instructions above for Link.

Category Import Formats

For CSV or Excel import, categories can be specified in these formats:

- Full path with forward slash, e.g. RMDemo/Data
- Full path with backslash, e.g. RMDemo\Data
- Unique category name, e.g. Data
Note that there must be no other category or subcategory "Data".
- Category ID, e.g. 21

Date Import Formats

CSV or Excel import requires that the date specified in a import file matches the format for the attribute specified for mapping in the requirement class.

Importing Test Case and Test Run Requirements

Test Case or *Test Run* requirements (as defined for "[Test Case Management](#)" on page 347) are imported through CSV import (see chapter "[Importing Requirements from a CSV or Excel File](#)" on page 334). However, note the following:

- 1 Import expects that for Create, Update or Replace, there is always an ID (*PUID* or *OBJECT_ID*) present.

PUID: Must match the display name of the PUID attribute of the class.

OBJECT_ID: Must have the name OBJECT_ID.

- 2 For **Create**, the ID may be an existing ID or an imaginary ID.
- 3 The ID (*PUID* or OBJECT_ID) must be only on the line the requirement starts.
- 4 The first line of the CSV file must have field names.
- 5 The "Test Steps" attribute is split into columns with these names:
 - Test Steps - Description
 - Test Steps - Expected Result
 - Test Steps - Actual Result



CAUTION! Only specify this column for *Test Run* requirements.

- 6 The step number (e.g. "Step 3") is generated from the position within the CSV file.

Examples

The examples below represent 2 *Test Case* requirements, TC_0001 and TC_0002. Note that the "Test Steps" attribute has been split and Step 2 (Description and Expected Result) is on a separate line without any other field values.

Example without Original ID

This following sample allows import of test cases without storing the original ID.

```
Test ID,Test Name,Test Steps - Description,Test Steps - Expected Result
TC_0001,Login RM,Click Login,Opens the Home View
,,Click Requirements,Opens Requirements View
TC_0002,Open Test Requirement,Enter 'Test' and click 'Search',Shows 10 requirements
,,Double-click requirement from search result,Opens 'Edit Attributes' dialog for the requirement
```

Example with Original ID

The following sample allows to import test cases and storing the original ID of the test case in another separate attribute. Note that the **Original ID** column contains the same value as the **Test ID** column. This allows to assign the **Original ID** column to an RM attribute, which will store the original ID.

```
Test ID,Original ID,Test Name,Test Steps - Description,Test Steps - Expected Result
TC_0001,TC_0001,Login RM,Click Login,Opens the Home View
,,,Click Requirements,Opens Requirements View
TC_0002,TC_0002,Open Test Requirement,Enter 'Test' and click 'Search',Shows 10 requirements
,,,Double-click requirement from search result,Opens 'Edit Attributes' dialog for the requirement
```

Importing Requirements from a ReqIF File

A ReqIF file allows exchanging requirements between applications of different vendors. The following chapters describe how to import requirements and documents from a ReqIF file to Dimensions RM.

Prerequisites

- 1 Export your module or modules into a single ReqIF file. For more information about ReqIF export see the manual of the application providing the data.
- 2 If your ReqIF module contains pictures or other attachments, they must be present in the same directory as the ReqIF file (DOORS will export images and attachments in

this manner). Put these files together with the ReqIF file into a single ZIP file. This ZIP file can then be imported by RM Browser.



IMPORTANT! The import class in Dimensions RM must have the following attributes defined:

- **External ID** (Type: Alphanumeric)
- **ReqIF ID** (Type: Alphanumeric)
- **Owner** (Type: Alphanumeric)
- **File attachment** (Type: File Attachment)

Depending on the attribute names, the attributes are mapped automatically. For further information on attribute names for ReqIF import, see chapter "Instance Schema for ReqIF" in the *Dimensions RM Administrator's Guide*.

Starting the Import

To start the import:

- 1 Select **ReqIF** from the **Import** menu. The **Import ReqIF** wizard opens.
- 2 Click **Browse** and select the ZIP file that contains your ReqIF file.
- 3 If your ZIP file contains more than one ReqIF file, the **Choose ReqIF File** dialog opens. Select the ReqIF file you wish to import and click **OK**.
- 4 **RM Document:** If you select the **Import Baseline** option, this enables the list of RM documents. If you select a document, it will be imported as a snapshot for that document.
- 5 **Table As:** If your module contains DOORS tables, they can be imported either as HTML table or as single requirements.
 - **HTML:** Creates an HTML table and saves in a text attribute. The conversion to HTML will drop any attributes which are not visible. To keep these attributes choose **Requirement**.
 - **Requirement:** Saves every cell of your table as single requirement.
- 6 **Module Structure:** You can import a document (module) with or without chapters.
 - **Chapters:** The resulting RM document will contain chapters which contain either sub-chapters or requirements.
 - **Requirements Only:** The resulting RM document will contain only requirements. That means that the document structure is built with requirements instead of chapters.
- 7 **Import Mode:** Specifies how import should operate on requirements that exist in Dimensions RM.
 - **Create Requirements:** Always creates the requirement during import.
 - **Replace Requirements:** Replaces existing requirements during import.
 - **Create new requirement if requirement is not found:** This option is only available if **Replace Requirements** has been selected.
 - **Enabled:** A requirement it is created if it cannot be found.

- **Disabled:** A requirement which cannot be found is not imported.

8 ReqIF Documents / Selected Documents: Here, you can define which documents (modules) you want to import.

Adding a document (module) for Import:

- a** Select the documents (modules) you want to import in the list **ReqIF Documents**.



TIP To quickly find a document, enter part of its name into the box above the first document name.



NOTE If a document has one or several baselines, you find these baselines in the list as separate document entries. Adding these entries to the list **Selected Documents** adds these baselines as snapshots of the parent document.

- b** Click  . This adds the document to the list **Selected Documents**.

Renaming a Selected Document:

- a** Select the documents (modules) you want to import in the list **Selected Documents**.
- b** Click on the **Rename** link. This adds the document to the list **Selected Documents**. This opens the *Rename document* dialog.
- c** Enter the new name into the textbox.
- d** Click on the **OK** button.

Removing a document (module) from Import:

- a** Select the documents (modules) you want to remove in the list **Selected Documents**.
- b** Click  .

9 Click **Next**. This opens the RM attribute mapping page. Here, you can map ReqIF attributes to RM attributes.

10 RM Class: Defines the class(es) used when importing.

Single Class Mode:

On import, the single class mode converts every requirement object in your ReqIF file into the same RM class type. To use the single class mode, select the class from the RM Class list.

Multi Class Mode:

On import, the multi class mode converts each requirement object in your ReqIF file for which a class mapping has been defined into the corresponding RM class type.

To use the multi class mode, execute these steps:

- a** Select the **Multi Class** option.
- b** Click **Class Mapping**.

- c Select a class from the Spec Types list and its corresponding class from the **RM Classes** list.
- d Click  .
- e Repeat steps c and d for all other classes you wish to use for import.
- f Click **OK**.

- 11 ReqIF ID:** Select an attribute that will hold the ReqIF ID of your requirements. This is necessary to transfer your module correctly to Dimensions RM and create the links between your requirements.
- 12 External ID:** Select the attribute which holds the internal ID of your requirements from the originating tool. For DOORS, this would be DOORS ID.
- 13 Owner Field:** Select an attribute that will hold the name of the owner module of your requirements. This is necessary to build your module correctly in Dimensions RM.
- 14 Attachment Field:** Select an attribute that will hold the attachments of your requirements such as images or other files.
- 15 Attribute Mapping:** An attribute mapping defines which Dimensions RM attribute receives the value of a ReqIF attribute. If you previously stored a mapping for this class, you can select it from the **Stored Mappings** list.

Mapping an Attribute:

- a Select a ReqIF attribute in the list **ReqIF Attributes**.
- b Select an RM attribute in the list **RM Attributes**.
- c Click  . The mapping appears in the list **Mapped Attributes**. Repeat these steps for further attributes you want to map.

Removing an Attribute Mapping:

- a Select the attribute you want to remove in the **Mapped Attributes** list.
- b Click  .



IMPORTANT! Requirements in Dimensions RM have mandatory attributes (e.g. *Title* and *Text*). Depending on the class, other attributes might be mandatory as well. If no mapping is defined for a mandatory attribute, it will receive the default value *not defined*.

- 16 RM Attribute Value Mapping:** A value mapping defines how to convert a value of multi value attribute (e.g. list attribute).

Mapping a Value:

- a Select a ReqIF value in the **ReqIF Values** list.
- b Select an RM value in the **RM Values** list.
- c Click  . The mapping appears in the **Mapped Values** list. Repeat these steps for further values you want to map.

Removing a Value Mapping:

- a Select the value you want to remove in the **Mapped Values** list.

- b Click 



NOTE

- If a value for a mandatory attribute is not mapped, it will receive the default value *not defined*.
- If a value for an optional attribute is not mapped, it will remain empty.

- 17** You can save your mapping of attributes and list attribute values for this class by executing these steps:
- a Click  next to the **Store Mappings** list.
 - b Enter a name into the **Name** box.
 - c Click **OK**.
- 18** In Multi Class mode, repeat step steps 11 - 17 for each class.
- 19** Select the ReqIF attribute that identifies chapters from the **Chapter Identification** list.
- 20** Type the text that identifies a chapter in the **Attribute Value** box.
- 21** Click **Import** to start the import.

Importing Previously Exported Requirements

For importing previously exported requirements, there are two options:

- 1 Importing a document created by the **Export** function of Quick Search
- 2 Importing a Word document created by **Export** function of a RM document



IMPORTANT! You can import any of these file formats:

- Word documents
- XML files
- CSV files



CAUTION! When importing user attributes, the setting must be **Show User ID**. For further information see chapter "[Display Settings for User Attributes](#)" on page 82.

In general, importing requirements which have been previously exported works as described in the chapters above. However, when using Word documents, the requirements need to be imported from tables. For each format, the document needs to be prepared for import by executing the following steps:

- 1 For Word documents: Ensure that all mandatory fields are included and contain values. If not, add a column with the missing attribute name and fill each cell with values.
- 2 For Word documents:

- a Ensure that the attribute names of the class match the column headers of the document
 - b Remove all fields which cannot be filled (e.g. creation date). Remove the ID column only when creating new requirements.
 - c Remove the **Row Count** row.
- 3 For XML files:
 - a Remove all fields which cannot be filled (e.g. creation date). Remove the ID column only when creating new requirements.
 - b Remove requirement attributes **id**, **version** and **puid** and the **attribute** element with the **id** value **PUID**.
- 4 For CSV files: Remove the **Row Count** row.
- 5 Save the document under a new name.
- 6 Start the import as described in:
 - ["Importing Requirements from Microsoft Word Documents" on page 324](#)
 - ["Importing Requirements from an XML File" on page 332](#)
 - ["Importing Requirements from a CSV or Excel File" on page 334](#)

The Import Result Dialog

After importing requirements or a document (which can also contain requirements), the **Import Result** dialog is shown. This dialog shows the import details (e.g. import mode) and the import status for each requirement by providing these sections:

- Success
- No changes
- Warnings
- Errors



CAUTION! A requirement can be imported successfully, but it may also be in the Warnings section. The reason for the warning may be the attempt to set an attribute which cannot be set by the importer (e.g. Suspect, or modified time).

The **Success** section allows you to open imported requirements by clicking their respective links in the **Object** column.

Chapter 9

Test Case Management

About Test Case Management Phase II	348
Test View	348
Test Case	349
Test Step	350
Test Run	350
Test Suite	351

About Test Case Management Phase II

Test Case Management provides a facility for users to create a set of actions performed on a system to ensure that it meets the requirements defined. Maintaining test cases within the Requirements Management solution enables an analyst to consider, and possibly outline, the test case and associated set of actions (test steps) as each requirement is defined.

The QA team may revise the steps, and collect test cases into suites for effective execution but the act of defining test cases while defining requirements allows the analyst to consider one of the critical rules for a requirement statement: *is it testable*.

Test Management functionality has been expanded in Dimensions RM release 12.11.1. The expansion includes, but is not limited to, the ability to define Test Cases with links to Test Steps defined as separate objects, rather than actions included within the Test Case. This functionality requires a Schema Definition different from that included in the initial offering. We invite users to implement and test this new Test Management functionality.

We have not included, with this point release, a migration from the test management offered prior to this release (Phase I) to Phase II, however, we will do so with the 12.12 release of Dimensions RM. As always, for those implementing this functionality for the first time, we invite your feedback.

Before you can begin to use Test case management it must be configured by the Administrator. Instructions can be found in the Chapter "Test Case Management" in the *Administrator's Guide*.

Once configured Test Case Management must be enabled by an Instance Administrator. To do so, select **Instance Settings** from the **Administration** menu, select the **Test Management** tab and check the 'Enable Test Management' box.

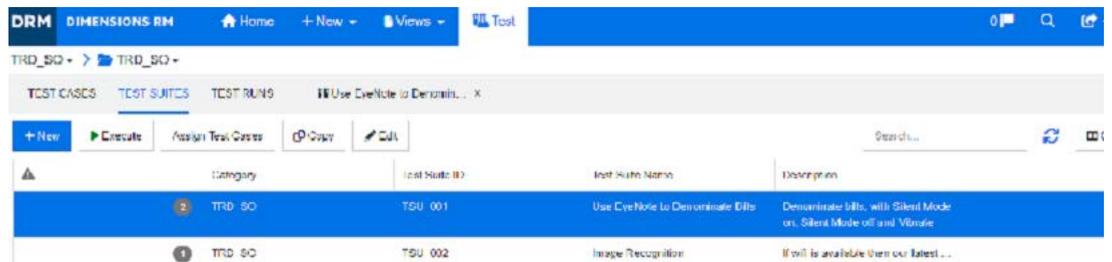
The following classes have been defined in support of Test Case Management, each class is defined together with the set of customer attributes including author, tester, execution date and status:

- **Test View** Provides a facility for viewing, executing, and reporting on the various aspects of Dimensions RM Test Management.
- **Test Case** Defines the goal
- **Test Step** One of a set of actions to be executed together with the result expected from its execution.
- **Test Run** The set of actions designed to reach the goal defined by the test case,
- **Test Run Step** The output from the execution of each of the set of test steps associated with a test case. The test run step (that which is derived from the test step) will hold the actual results together with the execution status.
- **Test Suite** A collection of test cases providing the facility to execute a set of associated test cases. For example, all test cases associated with a component.
- The Test Run Suite holds the results of the executed Test Suite.

Test View

When implemented as discussed in Chapter "Test Case Management" in the *Administrator's Guide*, a new view, *Test*, will be available.

From the Test view, the various objects relating to testing may be created and linked. Test Cases, along with their associated test steps, may be assigned to test suites and executed such that testers may register the actual outcome and status of each step, dates such as last execution date are managed with status selected with each execution.



The tabs available from the Test View include listing of: Test Cases, Test Suites, Test Runs, as well as recently opened or executed Test Suites.

The Actions Pane lists the functions available from highlighted objects within the context of test management.

Although Test Cases and Test Steps may be created and linked as any objects in Dimensions RM, the following sections assume that the user is working from the *Test* view.

Test Case

The **Test Case** allows users to define a goal and to link that goal to the set of steps designed to ensure that the goal is satisfied.

Selecting the test cases tab from the *Test* View lists the cases within the current category, as well as their associated test steps.

To create a test case, follow these steps:

- 1 Select the Test Case tab
- 2 Click on the '+ New' button.
If there are issues opening the form please check with your administrator or review the Chapter "Test Case Management Phase II" in the *Administrator's Guide*.
- 3 In the **Standard Attributes** section, enter the test name and description (the overall goal of the test case).
Expand the **Test Design** section of the form.
- 4 Populate the attributes on this section of the form. The **Last Test Execution** will default to 'No Run'.
- 5 When complete, click **Save**, or **Save & Copy** or **Save & New**.
- 6 Once the Test Case is saved, the Test Steps section of the dialog may be expanded.

Test Step

Each Test_Step is linked to a Test_Case and represents a single action in its execution. Test Steps may be created and then linked to selected test cases or, as described below, created from the Test Step section of a Test Case.

- 1 Open the Test Case dialog.
- 2 Expand the Test Steps section.
- 3 Click on the **+** - the dialog will open with the Step Number noted
- 4 Enter the Step Name
- 5 The description of the Action to be executed
- 6 The expected result of the action.
- 7 When all defined attributes have been populated, click **Save**, **Save & Copy** or **Save & New**.

The Test Step section header offers the following selection:

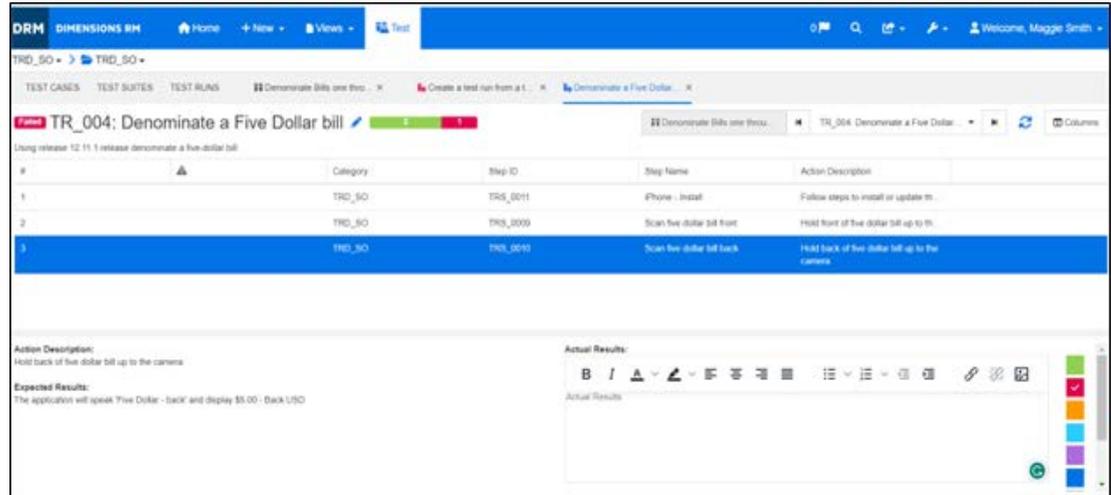
	Add: Adds a new Test Step
	Copy Step: Create a copy of the highlighted Test Step
	Copy to Test Case: Copy the highlighted Test Step to another Test Case for reuse.
	Remove Step: Removes the selected step.
	Move Down: Move the highlighted Test Step down in the execution order
	Move Up: Move the highlighted Test Step up
	Link Existing: In processes that track the association of a Test Step to an Upstream Link, functional for example, this icon can be used. It is not recommended that a single test step be linked to more than one test case - the default process forbids it.
	Select Attributes to Display: Opens User Settings-->Test Steps to allow the addition of attributes to display.

Test Run

An ordered list of test steps, or a test suite, defined for execution, with the results stored for review and reporting.

The tester can review and test each execution step associated with a test case, mark its status, make notes, or record defects.

As each step is tested, an HTML enabled text attribute is provided to the tester to describe the actual result of the test, to add images as well as to color code the result status: Pass, Fail, Passed with Deviations, Executed, Blocked, Not Executed.



Test Run Step

A test run step is generated as a result of the execution of the Test Run and holds the actual results and status of each action executed.

Test Suite

The **Test Suite** consists of a set of related test cases. The test Suite allows testers to group all tests related, for example, to a component or to a new feature.

Selecting the test suites tab from the Test View lists the defined suites, a count of the test cases included within each one, the suite name and description together with the attributes selected by the instance or user for display.

From the Test Suite tab the following buttons are available:

- **New** opens the new test suite dialog
- **Execute** initiates the execution of the Test Suite,
- **Assign** allows additional test cases to be assigned to the suite, the assignment uses the standard search and select mechanisms provided in RM for linking objects.
- **Copy** copies the highlighted Test Suite and creates new Test Runs from the assigned Test Cases.
- **Edit** opens the Edit form for the highlighted Test Suite.

The Test Suite execution can allow the tester to step through all test cases, or just those with a certain status:

Figure 9-1. The Test Suite may be executed for all, or just test cases with a selected status.

The Test Suite execution opens the form that allows the tester to select a test case, execute the steps, track actual results and status.

Figure 9-2. Each Test Case in the Test Suite is selected before each step is processed.

The results from each test suite execution are stored and accessible for all reporting. The results of a test suite run can be baselined and managed as with all requirements in a release.

The Test Run Suite manages the results.

Chapter 10

Agile

Before you start	354
Agile Basics	354
Display Options	359
Showing Additional Story Attributes on Cards	360
Agile Tabs	360
Using Agile	368

Before you start

Before you can start using Agile with Dimensions RM, the following tasks must be executed:

- 1 Create Agile related classes and relationships (see chapter "Agile" in *Dimensions RM Administrator's Guide*).
- 2 Enable Agile for the instance (see section "Agile" on page 80).
- 3 Configure Agile (see section "Configuring Agile" on page 431).

Agile Basics

About Agile

Dimensions RM provides agile capabilities like backlogs, story boards and burndowns. Agile as well as traditional artifacts can be visualized within these views and even linked together to support hybrid approaches at organization and project level. Agile can only be enabled by a user with Administrator rights. To enable Agile, see chapter "Agile" on page 80.

Agile Features

Agile in Dimensions RM allows:

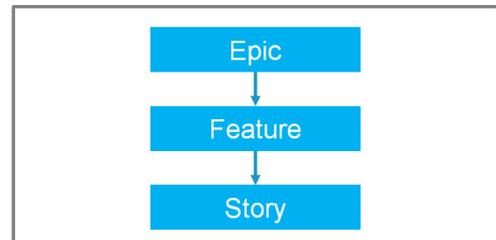
- **Agile artifacts and agile views**
 - Agile artifacts based on RM classes
 - Backlogs and Story Boards
 - Product/Release/Sprint breakdown
 - Calculations and visualizations on priority, effort, and progress
 - Burndown reports on Release and Sprint level
- **Support of hybrid approaches**
 - Requirements and agile artifacts
 - Traceability throughout all artifact types
 - Non-functional requirements
 - Re-use of Backlog and Story Boards for traditional artifacts
- **Integration into development**
 - Story to be provided to (agile) development tool
 - Feedback on development progress back to RM boards

Comparing Requirements Management and Agile Approaches

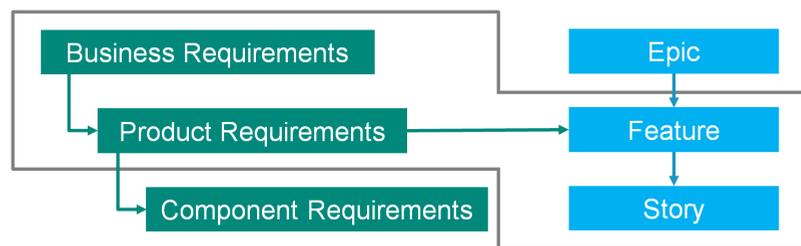
The following images compare the different approaches or requirement management.



Pure RM



Pure Agile



RM/Agile Hybrid

- **Pure RM:** The pure RM approach allows to define the different requirement types, but does not allow the development department to break down requirements into individual tasks.
- **Pure Agile:** The pure Agile approach allows the development to maintain different tasks and changes between different releases, but does not connect these tasks with the requirement.
- **RM/Agile Hybrid:** The RM/Agile hybrid approach combines the best of both worlds. The different requirement types are connected with the tasks and changes of the development department.

Accessing Agile

To access Agile, click the **Agile** icon  in the menu bar. This opens the Agile view. On the right hand side, underneath the menu bar, you find these controls:

- **Product** drop-down list 
- Edit button 
- Display Options menu 
- **New** menu

Then, select a product (to add a product, see chapter ["Adding Products" on page 368](#)). This opens the following tabs for the selected product:

- [Overview Tab](#)
- [Product Backlog Tab](#)
- [Product Storyboard Tab](#)
- [Sprint Planning Tab](#)
- [Sprint Storyboard Tab](#)
- [Taskboard Tab](#)

About Products

A "Product" is an item to which you can assign epics, features or stories. This represents a complete product, a module or a component.

About Releases

A "Release" is linked to one product. Each release contains the epics, features, stories and sprints, which are relevant for the version. As an example, release 1.1 contains only those features, which have changed since release 1.0. A feature of such a release would also just contain those stories, which have changed since release 1.0. A release is marked .

About Stories

A "Story" describes the function to be implemented. However, a story may include several tasks. If a story were "Install database", this would require several settings to be made during the installation process. These settings could be specified within the story's description. However, a story should not be something like "Install operation system and database". This should be split into two stories.

In lists, stories may show the badges described in chapter ["About Badges" on page 357](#). A story is marked .



TIP You can easily change the priority of a story by using drag & drop.

- 1 Drag the story for which you want to change the priority to a story which has the priority you want, e.g. story ST_1 with priority "Low" to story ST_2 with priority "High".
- 2 Release the mouse button to drop story ST_1 on ST_2. This changes the priority of story ST_1 from "Low" to "High".

About Sprints

A "Sprint" defines in which time frame the assigned stories should be completed. A sprint is marked .

About Features

A "Feature" groups several stories logically together and will be assigned to a release. The description describes what the assigned stories should accomplish. In lists, features may show the badges described in chapter ["About Badges" on page 357](#).

A feature is marked .

About Epics

An "Epic" groups several features and stories logically together and will be assigned to a release. In lists, epics may show the badges described in chapter ["About Badges" on page 357](#). An epic is marked .



NOTE If you add the Epics class after products have been created, do the following for each product you want to use Epics with:

- 1 Select the product in the **Product** drop-down list .
- 2 Click the edit button .
- 3 Ensure that **Epic** is enabled in the **Shown mapped classes** area.
- 4 Click **Save**.

About Tasks

Tasks allow you to split stories into different development steps. This gives you a more detailed overview about the progress on feature development. A task is marked .

About Mapped Classes

For epics, features, stories, and tasks, you can use more than one class. This allows to use different attribute sets, for different product types, e.g. a vehicle may need other attributes than a software. When creating or modifying a product, you find these mapped classes in the **Shown mapped classes** section of the dialog to create or modify a product. The **Shown mapped classes** section allows you to choose which classes you want to view on the Agile tabs. Note that you can only choose between several classes, if your administrator created them and configured them as described in chapter ["Configuring Agile" on page 431](#).

About Badges

In lists, epics, features, and stories provide additional information by using these badges:

- User or group, e.g. 
- Priority, e.g. 

In addition, stories have the following badges:

- Effort, e.g.  (format: remaining effort/estimated effort)
- Ranking, e.g. 

About Capacity

For a release or sprint, you can specify the **Capacity**. This numeric value specifies how long the release or sprint needs to be completed.

On the **Overview** tab, you see a progress bar for each release or sprint if the capacity has been specified.

On the **Product Backlog** tab, you see a progress bar next to the selected release. It shows how much of the capacity is used by all assigned features based on their estimated effort.

On the **Sprint Planning** tab, you see a progress bar next to the selected sprint. It shows how much of the capacity is used by all assigned stories based on their estimated effort.

About Story Maps

A Story Map allows you to assign epics, features, and stories to a release. This is especially helpful if features are implemented in phases (e.g. the basic functionality is implemented in release 1.0, while extended functionality is implemented in release 1.1). The following image shows the general setup of a story map:



Tool Tips

For getting a quick info about products, releases, sprints, epics, features, or stories, you can use the tool tip functionality in Agile. This tool tip shows all relevant information for the related class. It is available in lists or drop-down lists which show these icons:

-  Shows the tool tip for a product.
-  Shows the tool tip for a release.
-  Shows the tool tip for a sprint.

- Shows the tool tip for an epic.
- Shows the tool tip for a feature.
- Shows the tool tip for story.

Tool tips are also available for items which are referenced in another item, e.g. an epic or feature referenced in a story.

Display Options

Next to the Product drop-down list, you find the Display Options menu . It provides these settings:

Setting	Description
Filter by Categories	Shows epics, features, and stories only for the selected category.
Show my stories only	Shows only the stories, which are assigned to the current user.
Description	<p>All: Shows the full description of stories, features, epics, and releases underneath their titles. Shows the full Sprint goal of sprints underneath their titles.</p> <p>Stories: Shows the full description of a story underneath its title.</p> <p>Hide: Hides the description of stories, features, epics, sprints, and releases.</p>
Parent Info	Shows the information of parents (epics and features) on the card.
Assigned features/stories	<p>Gray: Shows those features and stories which are assigned to a release, with a gray background.</p> <p>Hide: Hides those features and stories which are assigned to a release.</p>
Release progress	<p>Show: The progress is shown by changing the background of an item into a progress bar.</p> <p>Hide: No progress is shown.</p>
Sprint progress	<p>Show: The progress is shown by changing the background of an item into a progress bar.</p> <p>Hide: No progress is shown.</p>
Story progress	<p>Show: The progress is shown by changing the background of an item into a progress bar.</p> <p>Hide: No progress is shown.</p>
Show Empty Artifacts	Shows features and stories which have not been assigned to an epic.
Show Release Backlog	Shows stories that have not assigned to releases and sprints on the Story Map .
Truncate Story descriptions	Collapses story descriptions to a single line and removes images and tables. This setting is only used with the Story Map .

Setting	Description
Show "Assigned To" badge	Shows the badge of the user or group to which a story is assigned.
Show "Effort" badge	Shows the effort badge of a story.
Show "Priority" badge	Shows the priority badge of a story.
Show "Ranking" badge	Shows the ranking badge of a story.
Show on Card	Shows the selected story attribute on its card.

Showing or Hiding Attributes in Dialogs

For any dialog used to create, show, or edit a product, release, sprint, epic, feature, or story, you can show or hide any of the default Agile attributes. To show or hide an attribute, select it from the **Customize Fields** drop-down list. Displayed attributes show a check mark. An asterisk following the attribute name shows that the attribute is mandatory.

Showing Additional Story Attributes on Cards

For allowing a better overview on important data, you can show additional attributes on Story cards. Recognizing the needs of the different stages, each Agile tab is configured independently.

To show additional Story attributes:

- 1 Open the **Show on Card** drop-down.
- 2 Select the attributes you want to show on Story cards.



NOTE You can also show tool tips for the epics and features if they are shown in the story cards. For further information about tool tips, see chapter "[Tool Tips](#)" on page 358.

Agile Tabs

Overview Tab

The Overview tab displays relevant items in hierarchical lists and allows easy filtering. By using the Overview, you can easily find out which sprints are related to which feature and product.

The Overview tab is divided into these sections:

- [Burndown Diagram](#)

- [Release List](#)
- [Sprint List](#)
- [Stories List](#)

Burndown Diagram

The Burndown diagram is shown if you select a release or sprint.

Release Burndown Diagram: Shows the remaining effort and estimated effort for the related sprints.

Sprint Burndown Diagram: Shows the remaining effort and estimated effort for the related stories.

Both diagrams allow you to easily recognize if the deadline can be met.

Based on the previous values, the burndown diagram forecasts the future development. For easy recognition, the forecasted values are shown in a different color.

You can choose between these different diagram types:

- Line chart
- Area chart
- Bar chart
- Column chart

Release List

The release list shows all releases for the selected product. If the capacity has been specified, a progress bar is shown for each release. Selecting a release loads the burndown diagram and the sprint list.

Sprint List

The sprint list shows all sprints for the selected release. If the capacity has been specified, a progress bar is shown for each sprint. Selecting a sprint loads the assigned stories and the Burndown diagram.

Stories List

The stories list shows all stories for the selected sprint or release. If no sprint is selected, click **Load Stories** to load the stories for the selected release.

Product Backlog Tab

On the **Product Backlog** tab, you can do the following:

- Define features, stories or other artefacts for one product
- Group stories

- Prioritize
- Define acceptance criteria
- Scope items to one or more product releases

The **Product Backlog** tab is divided into these sections:

- **Product Backlog:** Shows features and stories, which are not assigned to any release.
- **Release:** Shows epics, features and stories, which are assigned to the selected release.

Depending on the **Assigned features/stories** setting in the Display Options menu (see ["Display Options" on page 359](#)), you may also see assigned features or stories in the **Product Backlog** list.

Assigning and Un-Assigning Features or Epics

To assign a feature or epic to a release, drag it from the **Product Backlog** list to the **Release** list and drop it there. After assigning a feature or epic to a release, the related stories are assigned to the selected release and become available in the **Product Storyboard**.

Alternatively, you can assign a feature or epic to a release by executing these steps:

- 1 Double-click the feature or epic you want to assign. This opens the edit dialog for that feature or epic.
- 2 In the **Release** box, select the desired release.
- 3 Click **Save**.

To un-assign a feature or epic, drag it from the **Release** list to the **Product Backlog list** and drop it there. This un-assigns the stories from the selected release.

Alternatively, you can un-assign a feature or epic from release by executing these steps:

- 1 Double-click the feature or epic you want to un-assign. This opens the edit dialog for that feature or epic.
- 2 Click  next to the **Release** box.
- 3 Click **Save**.

Assigning Stories

To assign a story to a release, drag it from the **Product Backlog** list or from a feature in the **Product Backlog** list and drop it on the **Release** list or on a feature in the **Release** list.

Alternatively, you can assign a story to a release by executing these steps:

- 1 Double-click the story you want to assign. This opens the edit dialog for that story.
- 2 In the **Release** box, select the desired release.
- 3 If desired, select the feature in the **Feature** box.

- 4 Click **Save**.

Un-Assigning Stories

To un-assign a story from a release, drag it from the **Release** list or from a feature in the **Release** list and drop it on the **Product Backlog** list or on a feature in the **Product Backlog** list.

Alternatively, you can un-assign a story from release by executing these steps:

- 1 Double-click the story you want to un-assign. This opens the edit dialog for that story.
- 2 Click  next to the **Release** box.
- 3 If desired, select a feature from the Feature box or click  next to the Feature box to un-assign the feature.
- 4 Click **Save**.

Story Map Tab

On the **Story Map** tab, you can do the following:

- Show progress for Epics, Features, Sprints, and Releases
- Show the total planned effort for Epics and Features
- Show capacity and dates for Sprints and Releases



NOTE The Story Map is best used with a small number of items. Thus, these are the maximum number of items allowed:

- **Epics:** 20
- **Sprints:** 20
- **Stories:** 200

If the number of epics, sprints, or stories exceeds above limits, use filters to limit their numbers (see chapter "[Filters](#)" on page 375). Alternatively, you might could display the items on other tabs or move the items (e.g. into a new release).

Product Backlog

The **Product Backlog** can be shown by clicking , which is located at the right side window border. The Product Backlog provides the following functions:

- | | |
|---|---|
|  Select multiple items | Shows or hides check boxes, which allow you to select multiple items. |
|  Select/un-select all items | Selects all items. |
|  Create new item | Creates a new Story. |

Product Storyboard Tab

On the **Product Storyboard** tab, you can do the following:

- Elaborate Stories
- Move stories through analysis stages
- Estimate effort
- Review
- Approve for sprint readiness

The **Product Storyboard** tab is divided into these sections:

- **Elaborated:** Contains stories which have been assigned to a release, but have not been planned for sprint assignment or assigned to a sprint.
- **Pre-Planning:** An optional intermediate step which contains all stories you want to assign to a sprint (in the future).
- **Sprint-Ready:** Contains stories which can be assigned to a sprint.

To change the planning status of a story, you can drag it to the desired state and drop it there.

Alternatively, you can change the planning status by executing these steps:

- 1 Double-click the story for which you want to change the Planning Status. This opens the edit dialog for that story.
- 2 In the **Planning Status** box, select the desired state.
- 3 Click **Save**.

Sprint Planning Tab

On the **Sprint Planning** tab, you can do the following:

- Scope stories into sprints
- Prioritize
- Assign stories

The **Sprint Planning** tab is divided into these section:

Release Backlog: Contains stories which have not been assigned to a sprint.

Sprint: Contains stories which have been assigned to the selected sprint.

By default, the Sprint Planning tab shows all sprints. To show the stories assigned to a sprint, click  next to the sprint name.

To show only one sprint, select a sprint from the **Sprint** box. If you want to show all sprints again, click **Show all**.

Sprint Capacity

If one sprint is selected in the **Sprint** box, the **Capacity** progress bar is located next to it. If all sprints are shown, the capacity progress bar is shown for each sprint individually.

For more information about the capacity progress bar see chapter "[About Capacity](#)" on page 358.

Assigning Stories to Sprints

To assign a story to the selected sprint, drag it from the **Release Backlog** list to the **Sprint** list and drop it there. If you show all sprints, drop it onto the desired sprint in the **Sprint** list.

Alternatively, you can assign a story to a sprint by executing these steps:

- 1 Double-click the story you want to assign or un-assign. This opens the edit dialog for that story.
- 2 In the **Sprint** box, select the desired sprint.
- 3 Click **Save**.

To **un-assign a story**, drag it from the **Sprint** list to the **Release Backlog** list and drop it there.

Alternatively, you can un-assign a story from sprint by executing these steps:

- 1 Double-click the story you want to un-assign. This opens the edit dialog for that story.
- 2 Click  next to the **Sprint** box.
- 3 Click **Save**.

Sprint Storyboard Tab

On the **Sprint Storyboard** tab, you can do the following:

- Move stories through lifecycle stages
- Re-assign stories
- Can also be used for requirements analysis sprints

The **Sprint Storyboard** tab is divided into these sections:

- **Not Started:** Contains stories on which implementation has not yet started.
- **In Development:** Contains stories which are currently in development.
- **In Test:** Contains stories which have been developed and are now being tested.

- **In Review:** Contains stories which have been developed and are now under review.
- **Accepted:** Contains stories which have passed the review phase successfully.

To change the Sprint status of a story, you can drag it to the desired state and drop it there.

Alternatively, you can change the Sprint Status by executing these steps:

- 1 Double-click the story for which you want to change the Sprint Status. This opens the edit dialog for that story.
- 2 In the **Sprint Status** box, select the desired state.
- 3 Click **Save**.

Taskboard Tab

On the **Taskboard** tab, you can manage tasks. To manage tasks, you must select a sprint first.

Creating a Task without Options



NOTE If you choose this method to create a task, the task will have the following data:

- **Task Name** as entered
- **Task Status** as selected by the column the task is created in
- **Priority** as specified by its the default value
- **Assigned To** with own user account if possible
- **Description** remains empty
- **Log** remains empty

To create a task, do following:

- 1 Hover your mouse pointer over a story.
- 2 Click **+** in the column with the desired sprint status.
- 3 Type the name of the task.
- 4 Click  to save the task.

Creating a Task with Options



NOTE If you choose this method to create a task, you can specify the values for each attribute of the task.

To create a task, do following:

- 1 Select a story.
- 2 From the **New** menu, select **Task**. This opens the **Tasks** dialog.
- 3 Specify the **Name**.
- 4 Specify the value for each other attribute as required or desired.
- 5 Click **Save**.

Editing a Task

To edit a task, do the following:

- 1 Double-click the desired task.
- 2 Modify attributes as desired.
- 3 Click **Save**.

Changing the Task Status

To change the task status, you can either edit the task and modify the attribute there (see chapter ["Editing a Task" on page 367](#)), or move the task to the column showing the desired task status using drag and drop.



NOTE When using drag and drop to move the task and all other tasks for that story are in the final task status, you will be prompted to update the related stories. If you wish to modify those stories, change **Estimated Effort**, **Remaining Effort** and **Sprint Status** and click **Save**.

Deleting a Task

To delete a task, do the following:

- 1 Move the mouse pointer towards the middle of the desired task.
- 2 Move the mouse pointer straight down, stopping just under the task.
- 3 Click .
- 4 Confirm to delete the task.

Changing a Task Marker

- 1 Move the mouse pointer towards the middle of the desired task.
- 2 Move the mouse pointer straight down, stopping just under the task.
- 3 Click .
- 4 Select one of the pre-defined colors or click **Clear** to remove the marker.

Using Agile

Using Products

When adding or modifying a product the **Shown mapped classes** section allows you to do the following:

- Show or hide releases for a product on all Agile tabs.
- Show or hide sprints for a product on all Agile tabs.
- Select which classes you want to show or hide for epics, features, stories, and tasks for a product on all Agile tabs.

Adding Products

To add a product, execute these steps:

- 1 In Agile's **New** menu, select **Product**. This opens the *New Products* dialog.
- 2 Complete the fields of the dialog as needed.
- 3 If desired, specify which classes shall be visible on the Agile tabs by modifying the settings in the **Shown mapped classes** section. For more information about mapped classes, see chapter ["About Mapped Classes" on page 357](#).
- 4 To specify the visible views, you can enable or disable and specify the tab headers on the following options:
 - **Overview**
 - **Product Backlog**
 - **Story Map**
 - **Product Storyboard**
 - **Sprint Planning**
 - **Sprint Storyboard**
 - **Taskboard**

By default, all above options are selected.

- 5 Click one of the following buttons:
 - **Save:** Saves the new product and closes the dialog.
 - **Save & New:** Saves the new product and opens a new empty *New Products* dialog to create a new product.

Editing Products

To edit a product, execute these steps:

- 1 In the **Product** drop-down , select the product you want to edit.
- 2 Click the Edit button  next to the Product drop-down. This opens the Products dialog.

- 3 Edit the product as desired.
- 4 If desired, specify which classes shall be visible on the Agile tabs by modifying the settings in the **Shown mapped classes** section. For more information about mapped classes, see chapter ["About Mapped Classes" on page 357](#).
- 5 Click **Save**.

Deleting Products

To delete a product, execute these steps:

- 1 In the **Product** drop-down , select the product you want to delete.
- 2 Click the Edit button  next to the **Product** drop-down. This opens the Products dialog.
- 3 Click **Delete**.
- 4 Confirm the deletion dialog by clicking **OK**.

Manual Product Assignment

If you created a product through by selecting **Products** in the **New** menu of the menu bar, import or web service, several assignments are not made.

To use the product with Agile, do the following:

- 1 Identify the category, the product resides in, e.g. by searching the product with Quick Search (see chapter ["Finding Requirements with Quick Search" on page 98](#)).
- 2 Click the **Agile** icon  in the menu bar. This opens the Agile view.
- 3 Select the category you identified in step 1 from the list underneath the menu bar.
- 4 Select the product in the **Product** drop-down list .
- 5 Click the edit button .
- 6 If desired, specify which classes shall be visible on the Agile tabs by modifying the settings in the **Shown mapped classes** section. For more information about mapped classes, see chapter ["About Mapped Classes" on page 357](#). When using releases, tick the **Releases** box.
- 7 Select the tabs you want to display. To display a tab, tick the associated box. There are these tabs:
 - **Overview**
 - **Product Backlog**
 - **Story Map**
 - **Product Storyboard**
 - **Sprint Planning**
 - **Sprint Storyboard**
 - **Taskboard**
- 8 Click **Save**.

Using Releases

Adding Releases

To add a release, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to add a release.
- 2 In Agile's **New** menu, select **Release**. This opens the *New Releases* dialog.
- 3 Complete the fields of the dialog as needed.
- 4 In the **Capacity** box, specify the maximum duration (e.g. days) in which the release must be completed.
- 5 Click one of the following buttons:
 - **Save:** Saves the new release and closes the dialog.
 - **Save & New:** Saves the new release and opens a new empty *New Releases* dialog to create a new release.

Editing Releases

Releases are available on several tabs and can be edited on any of those tabs. For simplification, the following steps describe the process only for the **Overview** tab.

To edit a release, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to edit a release.
- 2 Select the **Overview** tab.
- 3 Double-click the release you want to edit. This opens the Releases dialog.
- 4 Edit the release as desired.
- 5 Click **Save**.

Deleting Releases

Releases are available on several tabs and can be deleted on any of those tabs. For simplification, the following steps describe the process only for the **Overview** tab.

To delete a release, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to delete a release.
- 2 Select the **Overview** tab.
- 3 Double-click the release you want to delete. This opens the Releases dialog.
- 4 Click **Delete**.
- 5 Confirm the deletion dialog by clicking **OK**.

Using Epics

Adding Epics

To add an epic, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to add an epic.
- 2 In Agile's **New** menu, select **Epic**. This opens the *New Epics* dialog.
- 3 Complete the fields of the dialog as needed.
- 4 Click one of the following buttons:
 - **Save:** Saves the new feature and closes the dialog.
 - **Save & New:** Saves the new feature and opens a new empty *New Epics* dialog to create a new epic.

Editing Epics

To edit an epic, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to edit an epic.
- 2 Select the **Product Backlog** tab.
- 3 If the epic is assigned to a release, select the release in the **Release** drop-down .
- 4 Double-click the epic you want to edit. This opens the Epics dialog.
- 5 Edit the epic as desired.
- 6 Click **Save**.

Deleting Epics

To delete an epic, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to edit an epic.
- 2 Select the **Product Backlog** tab.
- 3 If the epic is assigned to a release, select the release in the **Release** drop-down .
- 4 Double-click the epic you want to delete. This opens the Epics dialog.
- 5 Click **Delete**.
- 6 Confirm the deletion dialog by clicking **OK**.

Using Features

Adding Features

To add a feature, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to add a feature.

- 2 In Agile's **New** menu, select **Feature**. This opens the *New Features* dialog.
- 3 Complete the fields of the dialog as needed.
- 4 Click one of the following buttons:
 - **Save:** Saves the new feature and closes the dialog.
 - **Save & New:** Saves the new feature and opens a new empty *New Features* dialog to create a new feature.

Editing Features

To edit a feature, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to edit a feature.
- 2 Select the **Product Backlog** tab.
- 3 Double-click the feature you want to edit. This opens the Features dialog.
- 4 Edit the feature as desired.
- 5 Click **Save**.

Deleting Features

To delete a feature, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to delete a feature.
- 2 Select the **Product Backlog** tab.
- 3 Double-click the feature you want to delete. This opens the Features dialog.
- 4 Click **Delete**.
- 5 Confirm the deletion dialog by clicking **OK**.

Using Stories

Adding Stories

To add a story, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to add a story.
- 2 In Agile's **New** menu, select **Story**. This opens the *New Stories* dialog.
- 3 Complete the fields of the dialog as needed.
- 4 Click one of the following buttons:
 - **Save:** Saves the new story and closes the dialog.
 - **Save & New:** Saves the new story and opens a new empty *New Stories* dialog to create a new story.

Editing Stories

Stories are available on several tabs and can be edited on any of those tabs. For simplification, the following steps describe the process only for the **Overview** tab.

To edit a story, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to edit a story.
- 2 Select the **Overview** tab.
- 3 Select a release and a sprint.
- 4 Double-click the story you want to edit. This opens the Stories dialog.
- 5 Edit the story as desired.
- 6 Click **Save**.

Deleting Stories

Stories are available on several tabs and can be deleted on any of those tabs. For simplification, the following steps describe the process only for the **Overview** tab.

To delete a story, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to delete a story.
- 2 Select the **Overview** tab.
- 3 Select a release and a sprint.
- 4 Double-click the story you want to delete. This opens the Stories dialog.
- 5 Click **Delete**.
- 6 Confirm the deletion dialog by clicking **OK**.

Using Sprints

Adding Sprints

To add a sprint, execute these steps:

- 1 In the **Product** drop-down , select the product for which you want to add a sprint.
- 2 In Agile's **New** menu, select **Sprint**. This opens the *New Sprints* dialog.
- 3 Complete the fields of the dialog as needed.
- 4 In the **Capacity** box, specify the maximum duration (e.g. days) in which the sprint must be completed.
- 5 Click one of the following buttons:
 - **Save:** Saves the new sprint and closes the dialog.
 - **Save & New:** Saves the new sprint and opens a new empty *New Sprints* dialog to create a new sprint.

Editing Sprints

Sprints are available on the **Overview** tab, **Sprint Planning** tab, and **Sprint Storyboard** tab. You can edit sprints on any of those tabs. For simplification, the following steps describe the process only for the **Overview** tab.

To edit a sprint, execute these steps:

- 1** In the **Product** drop-down , select the product for which you want to edit a sprint.
- 2** Select the **Overview** tab.
- 3** Select a release.
- 4** Double-click the sprint you want to edit. This opens the Sprints dialog.
- 5** Edit the story as desired.
- 6** Click **Save**.

Deleting Sprints

Sprints are available on several tabs and can be deleted on any of those tabs. For simplification, the following steps describe the process only for the **Overview** tab.

To delete a sprint, execute these steps:

- 1** In the **Product** drop-down , select the product for which you want to edit a sprint.
- 2** Select the **Overview** tab.
- 3** Select a release.
- 4** Double-click the sprint you want to delete. This opens the Sprints dialog.
- 5** Click **Delete**.
- 6** Confirm the deletion dialog by clicking **OK**.

Using Teams with Agile

Teams in Agile allow you to assign releases, or sprints to a team. The team can then filter for releases, or sprints assigned to them. To use teams, the function must be enabled. For more details about teams, see chapter "[Managing Teams](#)" on page 388).

For all Agile classes supporting teams (releases, sprints, and stories), the assignment of teams is optional. This is the suggested workflow:

- 1** Assign one or several teams to a release.
- 2** Assign one or several teams to a sprint which is assigned to a release.
No teams assigned to the release: You can select from all teams.
Teams assigned to the release: You can select from those teams assigned to the release.

Viewing Linking History of an Item

For epics, features, releases, and sprints, you can view the linking history. To open the linking history, do the following:

- 1 Open an item that is linked with the history entry you want to check (e.g. a story).
- 2 Click the icon next to the drop-down box for which you wish to view the linking history.
 - Epic or feature shows the linking history for both, epics and feature.
 - Release or sprint shows the linking history for both, release and sprint.
- 3 Hover a link of an entry to show a tooltip with additional information of the linked item.

Filters

The Agile tabs allow several options for filtering. Please note that not all options are available on all tabs.

To filter the Story Map, select one or several of these drop-downs:

- Options  list:
 - **Filter by Categories:** Shows epics, features, and stories only for the selected category.
 - **Show my stories only:** Shows only the stories, which are assigned to the current user.
- Items  list: Filters stories according to the following options:
 - **Priority:** Select the priority or priorities to you wish to filter.
 - **Assigned To:** Select the owners you wish to filter. Clicking **Me** sets the filter to your user account. Clicking  opens the **Find & Select User** dialog, which allows you to find a user. For further details, see chapter "[Find & Select Dialog](#)" on page 46.
 - **Color:** Select one or several colors you wish to filter.
 - **Epic:** Select one or several epics for which you want to display the related stories.
 - **Feature:** Select one or several features for which you want to display the related stories.
- **Filter items...** input box: Filters all displayed items for the text entered into the box.
- Product  list: Select the product for which you want to display related items.
- Release  list: Select one or several releases for which you want to display related items.
- Sprint  list: Select one or several sprints for which you want to display related items.
- Feature  list: Select one or several features for which you want to display related items.

- Column : Select a column filter to only display the column with its stories. This filter is only available on the **Product Storyboard** tab.

Sorting

You can sort items for the following properties:

- Assigned To
- Name
- Priority
- Ranking

You can toggle the sorting order by clicking the icon next to the Sort box.

-  Sorts entries ascending
-  Sorts entries descending

Chapter 11

Administration

About Administration	378
Managing Users	378
Managing Groups	382
Managing Teams	388
Managing Categories	390
Moving Requirements Between Categories	397
Managing Document Locks	398
Managing Requirement Locks	398
Managing List Attribute Values	399
Managing User Attribute Values	404
Configuring Calculated Attributes	404
Defining Attributes	409
Configuring Instance Settings	431
Configuring Agile	431
Editing the Instance Schema	434
Editing Workflows	452
Updating Tomcat Server Certificate	465
Updating SSO Certificates	466
Accessing Log Files	468
Schema Related Naming Conventions	469

About Administration

Please note that as of release 12.11 there are two types of Dimensions RM Administrators: those with access to a single instance and those with access to the system.

Administrator (Instance Administrator) – Users with this role may perform all administrator functions within the boundary of the assigned instance. For example, from RM Browser, the Administrator may:

- create users and groups, but have no visibility of users or groups beyond their own instance
- modify the instance schema, attribute settings,
- Define and/or modify categories
- set default instance settings

The Instance Administrator group is, by definition, assigned permissions to Actions necessary to the management of the instance; for example, creating and modifying the Schema Definition, adding users to the instance, defining and managing categories. However, it is also possible to assign these permissions to members of other groups.

System Administrator - This role is able to perform all Administrator functions as well as to administer all configuration settings valid for the RM installation, for example:

- Instance creation, modification, and deletion,
- User and Group management across all Instances,
- Access to RM Browser administrative tools.

Users and Groups, along with Categories, may be managed from the Administration menu as well as from the Administrator's Wrench (spanner) icon under the Categories panel on the Home View.

Managing Users

Users are added, edited and deleted from the **Users** tab in **Manage Users/Groups** under the Administration menu. This menu may also be accessed from **Manage Category Assignment** on the Home View.

The **Manage Users/Groups-->Users** dialog consists of:

- The list of users
- The detail for a selected user

Creating a New User

To create a new user:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Users**.
- 2 Select **New** from below the list of users. This opens the **New user name** dialog.

- 3 Enter the name (ID) for the new user in the box provided.
 - 4 Selecting OK creates the user and closes the **New user name** dialog.
 - 5 In the user details section, do the following:
 - a Specify a password in the **Password** box.
 - b Enter the same password in the **Confirm Password** box.
 - c If desired, populate the other boxes.
 - d Select one or more of the following password options:
 - **User Must Change Password at Next Logon**
 - **User Cannot Change Password**
 - **Password Never Expires**
 - **Account Disabled**
-  **NOTE** If you do not select a password option, users must change their passwords every 60 days. Users get a warning that gives them the opportunity to change their password 14 days before their current password is due to expire. The warning is displayed every time users log in using any Dimensions RM tool.
- e If you are using LDAP or SSO for login, select the Login Source.
- 6 Click **Save**.

Copying an Existing User

To copy an existing user:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Users**.
- 2 Select the user you want to copy in the user list.
- 3 Click **Copy**. This opens the **New user name** dialog.
- 4 Enter the user name for the new user into the provided box.
- 5 Click **OK**. This creates the user with all data of the user you copied from and closes the **New user name** dialog.
- 6 In the user details section, do the following:
 - a Specify a password in the **Password** box.
 - b Enter the same password in the **Confirm Password** box.
 - c If desired, fill out the other boxes.
 - d Select one or more of the following password options:
 - **User Must Change Password at Next Logon**
 - **User Cannot Change Password**
 - **Password Never Expires**

- **Account Disabled**



NOTE If you do not select a password option, users must change their passwords every 60 days. Users get a warning that gives them the opportunity to change their password 14 days before their current password is due to expire. The warning is displayed every time the user logs in Dimensions RM.



NOTE Copying a user copies permissions, the groups to which the users is assigned, as well as the instance assignments.

Editing a User

To edit a user:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Users**.
- 2 Select a user in the user list.
- 3 In the user details section, do any the following:
 - a To change the password, specify a password in the **Password** box and enter the same password in the **Confirm Password** box.
 - b Edit the content of the other boxes.
 - c Select one or more of the following password options:
 - **User Must Change Password at Next Logon**
 - **User Cannot Change Password**
 - **Password Never Expires**
 - **Account Disabled**



NOTE If you do not select a password option, users must change their passwords every 60 days. Users get a warning that gives them the opportunity to change their password 14 days before their current password is due to expire. The warning is displayed every time users log in using any Dimensions RM tool.

- 4 Click **Save**.

Changing the Login of a User

To change a user's login:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Users**.
- 2 Select a user in the user list.
- 3 Enter the new login name into the **User ID** box.
- 4 Click **Save**.

Assigning a User to one or several Groups

To assign a user to a group:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Groups**.
- 2 Select the target group from the drop-down list, for example Business Analysts. This will populate the list of current group members on the right.
- 3 Highlight the name(s) of the user(s) to be added to the target group.



NOTE The **Group Assignment** dialog only shows groups belonging to the current Dimensions RM instance.

- 4 Click the directional arrow to move the name(s) from the left (Not assigned) to (Assigned) on the right → .
- 5 Click **Save**.

Un-Assigning a User from one or several Groups

To un-assign a user from one or several groups:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Groups**.
- 2 Select the relevant group from the drop-down list, which will populate, on the right, the list of users currently in the group.
- 3 Select a user(s) from the list.
- 4 Click the directional arrow to remove the user names by moving the name(s) from right to left ← .
- 5 Click **Save**.

Deleting a User

To delete a user:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Users**.
- 2 Select the user you want to delete in the user list.
- 3 Click **Delete**. This opens the **Confirm user delete** dialog.
- 4 Click **OK** to delete the user.



NOTE It is common to rename a user and/or to check the 'Account Disabled' box in the user detail pane. This will maintain the users change history, while removing future access.

Managing Groups

Group Security

In Dimensions RM users are defined and assigned to groups. Membership in a group determines which actions are available to each user (permissions). Groups are also used to provide access rights to sets of requirements (categories).

Creating a New Group

To create a new group:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Groups**.
- 2 Click  next to the groups drop-down. This opens the **Create Group** dialog.
- 3 Enter a group name into the **Name** box.
- 4 If desired, specify the purpose of the group into the **Description** box.
- 5 Click **OK** to create the group. The group will be automatically selected in the groups box to make it available for group assignment. For further information about user assignment, see chapter ["Assigning Users to a Group" on page 383](#).

Editing a Group

To edit an existing group:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Groups**.
- 2 Select the group you want to edit from the groups box.
- 3 Click  next to the groups box. This opens the **Edit Group** dialog.
- 4 Change group name or description as desired.
- 5 Click **OK** to commit your changes.

Copying a Group

To copy an existing group:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Groups**.
- 2 Select the group you want to copy from the groups box.
- 3 Click  next to the groups box. This opens the **Copy Group** dialog.
- 4 Specify a new group name in the **Name** box.
- 5 Edit the text of the **Description** box as desired.
- 6 Click **OK** to copy the group. The group will be automatically selected in the groups box to allow assigning users to the group. For further information about user assignment, see chapter ["Assigning Users to a Group" on page 383](#).

Deleting a Group

To delete a group:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Groups**.
- 2 Select the group you want to delete from the groups drop-down.
- 3 Click  next to the groups box. This opens the **Remove Group** dialog.
- 4 Click **OK** to delete the group.



CAUTION! You can't restore a group that has been deleted.

Assigning Users to a Group

To assign users to a group:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Groups**.
- 2 Select the group to which you want to assign users from the group drop-down. Note that groups used by the current Dimensions RM instance are marked with a check mark.
- 3 From the list on the left (**Not assigned**) select the user(s) to be assigned.
- 4 Select the category assignment method:
 - **Automatically assign user(s) to group categories:** Adds the user(s) to all categories to which the group has access and **grants** access.
 - **Assign user(s) to categories selectively:** Adds the user to all categories the group has access and **denies** access. Access must be granted individually.
- 5 Click  .
- 6 Click **Save**.
- 7 If you have selected **Assign user(s) to categories selectively**, select **Category Assignment** in the left column and follow the instructions in chapter "[Manage Category Assignment](#)" on page 394.

Un-Assigning Users from a Group

To un-assign users from a group:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Groups**.
- 2 Select the relevant group from in the Group drop-down.
- 3 In the list on the right (**Assigned** list), select the user(s) to be un-assigned.
- 4 Click  .
- 5 Click **Save**.

Setting Default Group Permissions



NOTES As a good general practice, Micro Focus recommends that no Dimensions RM group or user (including Administrators) ever be granted permission for the actions: REMOVE, UPDATE, and UPDATE_NON_CURRENT.

These actions might be assigned to an administrator in special (perhaps even emergency) situations, or, as in the case of UPDATE, assigned to a the requirement creator during the initial workflow phase, but they should not remain available as a matter of course.

These can be useful command when, for example, removing records resulting from erroneous bulk imports.

Remove - permanently removes a requirement revision, rather than marking it for deletion and maintaining the change as part of the requirement history.

Update modifies a requirement - in place - rather than maintaining the change its revision history. This is useful during the requirement creation phase, but if used throughout the process there would be no history and no ability to track trends.

Update non-current allows a modification to a non-current item. This should be used only in case of emergency. If, as an administrator, you need it - turn it on - use it and then turn it off.

For details concerning available Actions, see chapter "[Valid Transactions](#)" on page 385.

To set the general permissions for a group, do the following:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **permissions**.
- 2 To simplify group display, you can limit the view to those groups you wish to modify by doing the following:
 - a Select the group drop-down.
 - b Select **Deselect All**. This temporarily hides all groups.
 - c Select the groups to be modified.
- 3 The Actions listed are separated into functional areas. For example, permissions associated with Actions relating to **Classes** (requirement types), **Documents**, **Reports**, **Collections** or **Categories** may be expanded by clicking on the ">". Once expanded, permissions for each group may be modified.
- 4 Select the option box to assign or to unassign permissions . For details about the available actions and their associated permissions see chapter "[Valid Transactions](#)" on page 385.
- 5 Click **Save**.

Granting or Revoking All Permissions

To grant or remove all permissions, do the following:

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Permissions**.

- 2 Select the option box directly below the group name to grant all group access rights or to revoke all group access rights . For details about the available actions and their associated permissions, see chapter "[Valid Transactions](#)" on page 385.



NOTE Unlike RM Manage, grant all activates all access rights. As some access rights are not recommended to be granted, expand the sections to review those access rights. Not recommended rights are marked .

- 3 Click **Save**.

Valid Transactions

The valid transactions / Actions are listed below.

Transaction	Definition
Attribute Transactions	
Update	The user can change the attribute value without creating a new revision; this action creates no history and leaves no audit trail. Update mode is sometimes allowed during the initial workflow state prior to any review.
Board Transactions	
Create Public	The user can create public boards and dashboards.
Category Transactions	
Category Assignment	The user can grant or revoke access to the category for groups and users for the category the group or user with this right is assigned to.
Define List Values	The user can add, or delete list entries for the category the group or user with this right is assigned to.
FullAccess	For users, for internal use only. For groups, the users in the group have instance level permission to move or copy scripts, and traceability reports into other categories, and move requirements between categories, even if they are not in a group that has permissions to the individual categories. For information about assigning groups permissions to individual categories, see " Manage Category Assignment " on page 394. NOTE: To add, delete, rename, or move categories, users must be in the Administrator's group. The FullAccess transaction has no effect on the ability to perform these actions.
Maintain Sub-Categories	The user can create, rename, activate, inactivate, or move (by drag and drop) categories under the category the group or user with this right is assigned to.
Class Transactions	
CMLock	The user can lock class objects for configuration management purposes.
Create	The user can create new class objects.
CreateCR	The user can create new change requests for class objects.

Transaction	Definition
Delete	The user can mark class objects as deleted.
Execute Transition	The user can execute any transition of any class.
Execute Transition if Owner	The user can execute any transition if he or she owns the requirement.
Execute Transition if Submitter	The user can execute any transition if he or she submitted the requirement.
ExecuteCR	The user can accept or reject change requests.
Expand	The user can expand class objects.
Focus	The user can focus class objects.
Link	The user can create generic links to class objects.
Provide To	The user can branch requirements.
Read	The user can read class objects.
Remove	The user can remove class objects.
Save	The user can save class objects.
Save If Owner	The user can save class objects if he or she owns them.
Synchronize To	The user can merge branched requirements.
Undelete	The user can undelete class objects.
Unlock	The user can unlock class objects.
Update	The user can update objects with a status of "Current."
Update If Owner	The user can update objects with a status of "Current" if he or she owns them.
UpdateCR	The user can update an object with a status of "Proposed."
UpdateNonCurrent	The user can update objects where the status is not "Current."
Collection Transactions	
Associate to a Dimensions CM Project	The user can associate a collection with a Dimensions CM project.
Create	The user can create a new collection.
Create Based on Existing Collection	The user can create a collection based on an existing collection.
Create Baseline	The user can create a baseline from a collection.
Delete	The user can delete collections.
Link	The user can add requirements to collections or remove requirements from collections.
Link Requirement to Dimensions CM Project	The user can add a requirement to a collection that is associated with a Dimensions CM project.
Remove	The user can remove a collection.
Remove Baseline	The user can remove baselines.
Rename Baseline	The user can rename a baseline.

Transaction	Definition
Undelete	The user can undelete collections.
Update	The user can create/edit alias's and modify parent/child links for a collection.
Document Transactions	
Create	The user can create a new document.
Create Based on Existing Document	The user can create a new document which uses an existing document as a template.
Create Snapshot	The user can create snapshots.
Delete	The user can delete documents.
Delete Snapshot	The user can delete snapshots.
Full Snapshot Access	The user can read requirements and chapters and add comments, even if they do not have access to the category where the requirements exist. The user does not have access to the snapshot if he or she cannot access the category the snapshot resides in.
Link	The user can add chapters and requirements to a document and edit sub-chapters.
Manage Parent Document	The user can create and manage parent documents.
Remove	The user can remove documents.
Remove Snapshot	The user can remove snapshots.
Rename Snapshot	The user can rename snapshots.
Undelete	The user can undelete documents.
Unlock	The user can unlock documents.
Update	The user can edit the root chapter of a document.
Update Properties	The user can modify document properties.
Import Transactions	
Import	The user can import documents and requirements.
Relationship Transactions	
Clear Suspect Links	The user can clear suspect links of one requirement at a time.
Create	The user can create new links for relationships.
Delete	The user can delete links for relationships.
Mass Clear Suspect Links	The user can delete suspect links of one or several requirements at a time.
Modify	The user can change relationship attribute values.
Raise Suspect Links	The user can make a linked requirement suspect.
Read	The user can look at relationship links.
Remove	The user can remove relationship links.
Undelete	The user can undelete relationship links.

Transaction	Definition
Report Transactions	
Create	The user can create new reports. NOTE: If you do not have Create permission, you can create a new report; however, you cannot save it.
Create Public	The user can create new public reports.
Read	The user can see and execute reports.
Remove	The user can remove reports.
Rename	The user can rename reports.
Update	The user can change reports.
User Transactions	
Team Maintenance	The user can create, edit, and delete Agile teams.
User Group Assignment	The user can assign users to groups.

Managing Teams

About Teams

Teams in Dimensions RM are a great way to organize people in the same way as they are in the real world. If a user attribute is configured to Team mode, you can assign a team instead of a group or individual users. A team can have users of different groups (e.g. supervisor and executive staff). As with any other attribute, you can search for requirements where that attribute matches (or not matches) a certain team. However, the following scenarios teams are a helpful addition:

- **Agile:** Teams can be assigned to releases and sprints.
- **Workflow:** As a user attribute can be used to define the owner of a requirement, in Team mode this means that all members of the team own that requirement, and that any team member can process the requirement.

Before you start

Before you can use teams, you must do the following:

- 1 Enable the Teams functionality; for details see chapter ["Team Settings" on page 79](#).
- 2 On the desired classes, ensure that a user attribute with selection mode "Teams" is available. For details chapter "User Attribute" on page 428.

Creating a New Team

To create a new team:

- 1 Select **Manage Users** from the **Administration** menu. This opens the **User Management** dialog.
- 2 In the left column, select **Teams**.
- 3 Click **New**. This opens the **New Team** dialog.
- 4 Enter the name for the new team into the provided box.
- 5 Click **OK**. This creates the team and closes the **New Team** dialog.

Editing a Team

To rename a team:

- 1 Select **Manage Users** from the **Administration** menu. This opens the **User Management** dialog.
- 2 In the left column, select **Teams**.
- 3 From the **Teams** box, select the team you wish to rename.
- 4 Click **Edit**. This opens the **Edit Team** dialog.
- 5 Enter the new name for the team into the provided box.
- 6 Click **OK**. This renames the team and closes the **Edit Team** dialog.

Copying an Existing Team

To copy a team:

- 1 Select **Manage Users** from the **Administration** menu. This opens the **User Management** dialog.
- 2 In the left column, select **Teams**.
- 3 From the **Teams** box, select the team you wish to copy.
- 4 Click **Copy**. This opens the **Copy Team** dialog.
- 5 Enter the name for the new team into the provided box.
- 6 Click **OK**. This creates the team with the users from the original team and closes the **Copy Team** dialog.

Deleting a Team

To delete a team:

- 1 Select **Manage Users** from the **Administration** menu. This opens the **User Management** dialog.
- 2 In the left column, select **Teams**.
- 3 Select the team you wish to delete.
- 4 Click **Delete**. This opens the **Delete Team** dialog.

- 5 Click **OK**. This deletes the team and closes the **Delete Team** dialog.

Assigning Users to a Team

To assign users to a team:

- 1 Select **Manage Users** from the **Administration** menu. This opens the **User Management** dialog.
- 2 In the left column, select **Teams**.
- 3 From the **Teams** box, select the team you wish to assign users to.
- 4 In the **Not assigned** list, select the user or users you want to assign.
- 5 Click  .
- 6 Click **Save**.

Un-Assigning Users from a Team

To un-assign users from a team:

- 1 Select **Manage Users** from the **Administration** menu. This opens the **User Management** dialog.
- 2 In the left column, select **Teams**.
- 3 From the **Teams** box, select the team you want to un-assign users from.
- 4 In the **Assigned** list, select the user or users you want to un-assign.
- 5 Click  .
- 6 Click **Save**.

Managing Categories

The following sections describe the ways in which categories can be managed from within the user interface. Typically the management of categories is performed by administrators.

About Categories

Categories are represented by a hierarchical structure within each Dimensions RM instance, with sub-categories supported. Categories work like folders on a file system, holding objects (requirements, reports, test cases, etc.) associated with projects or components in order to provide a familiar look and feel. Movement within the category structure can be simplified by designating category "favorites".

All RM objects, including reports, can be managed within categories, and, like folders on the file system, an object can be contained in only one category. Each node of the

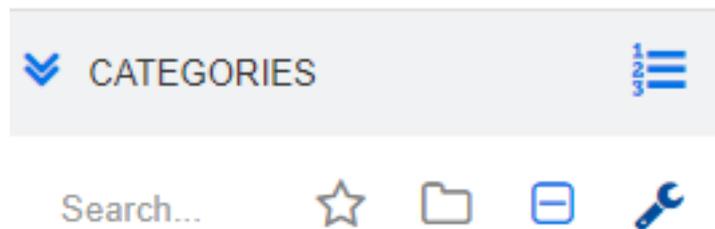
category hierarchy can have different permissions settings for user groups. All nodes in the hierarchy share the same schema.

The topmost category is the name of the Dimensions RM instance. The category structure is displayed in the leftmost pane on the home page. The current category path (as with folders on the file system) is displayed just under the menu on the browser. The path from the requirements tab, as well as from all relevant dialogs, can be expanded for selection or modification.

Permissions to specific actions (create, edit, copy, read, etc.) are granted to the group. For example, read access may be assigned to all groups while the permission to edit can be restricted to (for example) members of the Analysts group.

Category access is managed by group. Analysts may have access to create, edit, and copy to a category containing Business Requirements, while they may have only Read access to a category containing Functional requirements.

Categories are managed using the wrench (spanner) icon on the Home View Categories panel.



Once the wrench is selected, icons are raised indicating functions available.

	Category / Wrench Icons	Action
	Plus	Add a New Category (page 392)
	Edit	Edit Category includes renaming an existing Category or modifying the description (page 392). Adding a more interesting icon in color or black and white (page 393).
	Deactivate/ Activate	Select this icon to Deactivate or to Activate a Category (page 393)
	Delete	Permanently remove a Category (page 392)
	Manage Category Assignment	These silent heads provide access to the complete list of User and Group management, including Category Assignment (page 394).

Category Naming Conventions

- **Characters Allowed:** All characters and Unicode characters except
 - Backslash (\)
 - Forward slash (/)
- **Maximum length:** Up to 64 characters

- **Maximum length for full path:** Up to 1024 characters
The full path contains all category names from the root category to category you wish to create. For each category level, a backslash is added (e.g. RMDEMO\Data).

Adding a Category

To add a category:

- 1 Select the wrench (spanner) icon on the Home View Categories panel. Please note that the wrench should be selected once again to discontinue category management.
- 2 In the **Category** tree, highlight the parent for the new category. Drag and Drop may be used to re-locate the new category after creation.
- 3 Select the add icon +
- 4 In the **Category Name** field, type the name of the new category; a maximum of 64 characters is allowed.
- 5 In the **Description** field, type an optional category description. This description appears as a tool tip when you hover over the category in the category tree.
- 6 It is typical to "Inherit access rights from parent category"; you may leave that box checked. For changes in User or Group access see Manage Users/Groups under Administration.
- 7 Click the **Add** button.

Deleting a Category

To delete a category:

- 1 Select the wrench (spanner) icon on the Home View Categories panel. Please note that the wrench should be selected once again to discontinue category management.
- 2 Highlight the category to be deleted.
- 3 **Click the Delete icon** 
- 4 When prompted to confirm the deletion, click **OK**.



NOTES You cannot ever delete the root category.

To delete a category with subcategories, delete the subcategories first. You cannot delete a subcategory if it contains objects.

Renaming a Category

To rename a category or modify its description

- 1 Select the wrench (spanner) icon on the Home View Categories panel. Please note that the wrench should be selected once again to discontinue category management.
- 2 Highlight the category to be renamed.

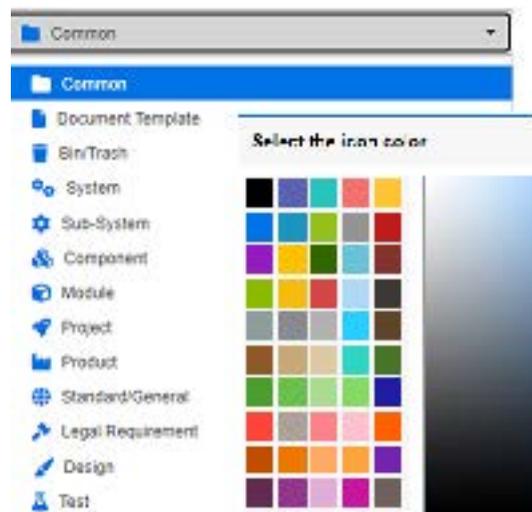
- 3 Select the Edit icon.
- 4 In the **Category Name** field, type the new name.
- 5 In the **Description** field, modify or enter an optional category description. This description appears as a tool tip when a user hovers over the category in the category tree.
- 6 Click the **Rename** button.

Adding a Category Icon

Distinguish one category from another using symbols and color. Category icons allow the team to differentiate systems from subsystems, projects from products, sets of test cases from design specifications making category folders easier to find.

To add a Icon in Color or Black and White:

- 1 Select the wrench (spanner) icon on the Home View Categories panel. Please note that the wrench should be selected once again to discontinue category management.
- 2 Highlight the category to which the icon will be added
- 3 Select the Edit icon.
- 4 Replace 'Common' or the currently assigned icon with one of your choice from the drop down list provided.
- 5 Select the world's smallest paint brush to change the color.



Activating or Deactivating a Category

When a category is set to inactive the category content is set to 'Read Only'. Using the default setting, the category itself will no longer be displayed for selection. It is possible to modify user settings to display deactivated categories. For further information, see chapter "[Categories: Show Inactive Categories](#)" on page 79.

A deactivated category is represented by a name in gray italic text.

To activate a category:

- 1 Select the wrench (spanner) icon on the Home View Categories panel. Please note that the wrench should be selected once again to discontinue category management.
- 2 Select an inactive category you want to activate.
- 3 Click **Activate/Deactivate Category**. This opens the **Activate Category** dialog.
- 4 Confirm the **Activate Category** dialog by clicking **Yes**.

To deactivate a category:

- 1 Select the wrench (spanner) icon on the Home View Categories panel. Please note that the wrench should be selected once again to discontinue category management.
- 2 Select an active category you want to deactivate.
- 3 Click **Activate/Deactivate Category**. This opens the **Deactivate Category** dialog.
- 4 Confirm the **Deactivate Category** dialog by clicking **Yes**.

Moving a Category

To move a category:

- 1 Select the wrench (spanner) icon on the Home View Categories panel. Please note that the wrench should be selected once again to discontinue category management.
- 2 Drag and drop the category to the desired location in the tree.

Manage Category Assignment

Access Rights control the assignment of groups to categories, as well as the permissions assigned within them.

Select the wrench (spanner) icon on the Home View Categories panel, click on the Group icon and then **Category Assignment**; this dialog provides the following functions:

- **Show All:** Shows access for all groups and users within groups.
- **Show access for User:** Use the Search icon to select a single user for whom all group and category access will be shown.
- **Filter categories:** Filters the category tree for the text string entered.
- **Filter groups/users:** Filters the category access tree based on selections.
- **Inherit access rights from parent category:** If enabled, the rights of a category are identical with the rights of the parent category. If disabled, access rights can be set independently from the parent.
- **Copy User Access:** Displayed at the bottom of the dialog, this tab opens a dialog which allows all category access to be copied from from the user selected to another.
- **Remove All Assignments:** Removes access to all categories for the selected user. A useful setting for users who leave the team, as their history is maintained while removing their access.

- **Export:** Exports the group assignment for the selected category. For details, see chapter ["Exporting the User Group Assignment for a Category" on page 396](#).

Changing Access Rights for a Category

To change the access rights for a category:

- 1 Select the wrench (spanner) icon on the Home View Categories panel and then select the Group icon.
- 2 Select **Category Assignment**
- 3 Ensure that the **Show All** option is selected.
- 4 Select the category for which you want to change the access rights.



TIP To quickly locate a category in the tree, type enough of its name to make it unique and then select **Filter categories** box.

- 5 Ensure that the **Inherit access rights from parent category** box is clear.
- 6 Select the groups to which access should be permitted or deselect (uncheck) the groups to which access should be removed. Individual users may be disallowed access to a category to which their group has access.



TIP To quickly locate a user or group in the tree, type its name or part of it into the **Filter groups/users** box.

- 7 If required, modify access rights for other categories.
- 8 Click **OK**.

Copying Access Rights to Another User Account

When you create a user account, the new user has access to all categories for which the assigned groups allow access. If you want to limit (or grant for existing users) the access rights, you may just copy from an existing user.



TIP If you have several different access right setups, you may want to create a user account which acts as a template. This account should be named such that it identifies the purpose and - for security reasons - be disabled. For further information on how to create user accounts, see chapter ["Creating a New User" on page 378](#).

To copy access rights to another user account:

- 1 Select the wrench (spanner) icon on the Home View Categories panel and then select the Group icon.
- 2 Select **Category Assignment**.
- 3 Select the **Show access for User** option.
- 4 Select a user from the drop-down list or find a user by clicking , which opens the **Find & Select User** dialog (see chapter ["Find & Select Dialog" on page 46](#)).

- 5 Click **Copy User Access...** to open the **Copy Category Group Assignment to** dialog. This dialog contains only users which are in the same group(s) as the selected user.
- 6 Select one or several users.
- 7 Click **OK** to close the **Copy Category Group Assignment to** dialog.
- 8 Click **OK** to close the **Category Assignment** dialog.

Removing Access Rights for a User Account

If you want to remove all access rights for a user account, this means that the user can still log on to RM Browser, but is unable to view or edit any object (e.g. requirements).

To remove access rights for a user account:

- 1 Select the wrench (spanner) icon on the Home View Categories panel and then select the Group icon.
- 2 Select **Category Assignment**.
- 3 Select the **Show access for User** option.
- 4 Select a user from the drop-down list or find a user by clicking  , which opens the **Find & Select User** dialog (see chapter ["Find & Select Dialog" on page 46](#)).
- 5 Click **Remove All Assignments...**
- 6 Confirm the dialog to remove all category/group assignments.
- 7 Click **OK** to close the **Category Assignment** dialog.

Exporting the User Group Assignment for a Category

The export creates an Excel file that contains all category/user assignments along with the group through which the user is granted access to that category. This file may be modified, and then imported to simplify mass changes.

- 1 Select the wrench (spanner) icon on the Home View Categories panel and then select the Group icon.
- 2 Select **Category Assignment**.
- 3 Select the desired category.
- 4 Click **Export...** This opens the **Export user group assignment for selected groups** dialog.
- 5 De-select the groups for which you do not want to export the category/user group assignments.
- 6 If you do not wish to export the category/user group assignment for subcategories, clear the **Include subcategories** option.
- 7 Click **OK**.

Importing the User Group Assignment for a Category

An exported Excel or CSV file may be modified and then imported in order to more easily apply mass role changes.

- 1 Select the wrench (spanner) icon on the Home View Categories panel and then select the Group icon.
- 2 Select **Category Assignment**.
- 3 Select the desired category.
- 4 Click Import This opens the **Import User Assignments** dialog.
- 5 From the groups drop-down uncheck the groups for which you do not want to import the category/user group assignments.
- 6 Click **OK**.

Moving Requirements Between Categories

A requirement can exist in only one category at a time, so moving a requirement to a different category also removes it from the category it was in before. The Organize by Category dialog allows you to specify search criteria to locate the requirements that you wish to move.



NOTE For information on the administrative functions you can perform with categories, see the *Dimensions RM Administrator's Guide*.

To move requirements between categories:

- 1 Select **Organize by Category** from the Administration menu. The **Organize by Category** dialog opens.
- 2 **Look for class:** Select a class in which to search for requirements. If an object was selected when you invoked the dialog, this field will be pre-populated; change it as needed.
- 3 **Filters:** If you saved filters in Quick Search, you can use these filters to search the requirement you wish to move.
- 4 **Manage Categories:** Click this link if you want to create, rename, or delete any categories before proceeding with the move procedure. The Manage Categories dialog opens. See "[Managing Users](#)" on page 378.
- 5 **Remember these options:** Select this checkbox to retain the current settings as the default for future invocations of the dialog.
- 6 **Constraints:** As needed, specify criteria to locate the desired requirements. See "[Attribute Constraints Tab](#)" on page 47 and "[Relationship Constraints Tab](#)" on page 53.
- 7 **Display Options:** As needed, specify how to display the results. See "[Display Options Tab](#)" on page 56.
- 8 **Find Now:** Click this button to run the search. The results are displayed in the lower pane of the dialog.

- 9 **New Search:** Click this button to clear the current search criteria and results.
- 10 Select the desired requirements in the search results. For multi-selection of requirements, see chapter "[Selecting Multiple Requirements](#)" on page 36.
- 11 **Category:** Select the category to which you want to move the selected requirements.
- 12 Click the **Move** button.

Managing Document Locks

Users can break a document lock under if they have the **Unlock** permission for documents or locked the document himself.

To break locks on documents:

- 1 From the **Administration** menu, select **Document Locks**. This opens the **Document Locks** dialog.
- 2 **Unlock All:** Click this button to unlock all locked documents.
- 3 **Unlock Selected:** Click this button to unlock only the selected documents. Ctrl-click to select multiple documents.
- 4 **Refresh:** Click this button to update the display of locked documents.

Managing Requirement Locks

To break locks on requirements:

- 1 Select **Requirement Locks** from the Administration menu. The Requirement Locks dialog opens.

Requirement Locks							
Class	PUID	Title	User	Host	Timestamp	Object ID	Session
Component_Requirements	COMP_000006	Multiline text annotations	Ryan Forbes	192.168.6.16	30-SEP-2021@15:51:08	150	163300971547

Refresh Unlock Selected Unlock All Close

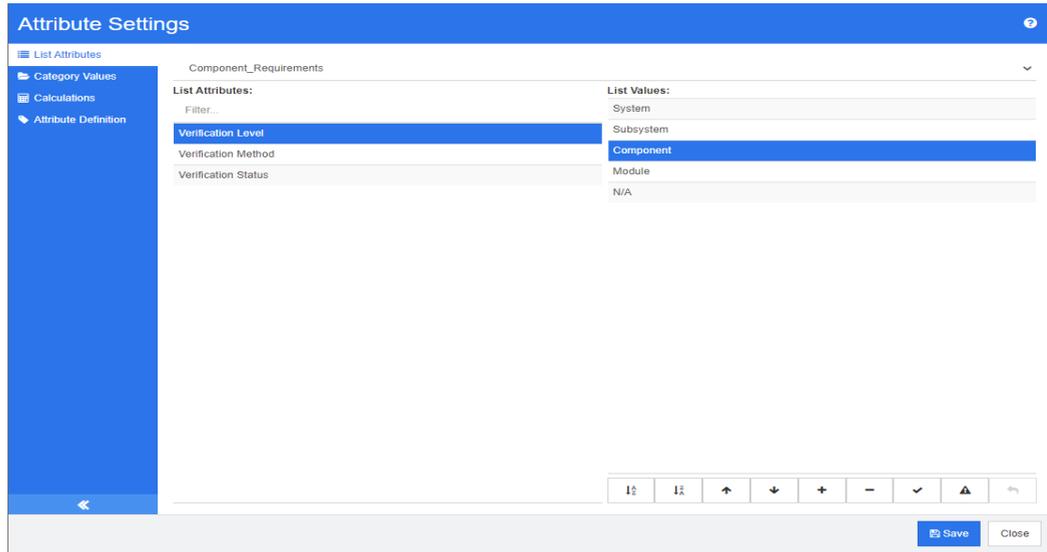
- 2 **Unlock All:** Click this button to unlock all locked requirements.
- 3 **Unlock Selected:** Click this button to unlock only the selected requirements. Ctrl-click to select multiple requirements.
- 4 **Refresh:** Click this button to update the display of locked requirements.

Managing Attribute Settings

Managing List Attribute Values

With the **Attribute Settings** dialog you can add or remove list entries and make list values available to certain categories only.

To open the **Attribute Settings** dialog, select **Attribute Settings** from the **Administration** menu.



Adding List Values

To add a list value, do the following:

- 1 In the left pane, click **List Attributes**.
- 2 Select the class you want to modify from the box on the top.
- 3 From the **Lists** box, select the list attribute you want to add the value to.
- 4 Click **+**. This opens the **New Value Name** dialog.
- 5 Enter the new value and click **OK**.
- 6 If desired or required, do any of the following:
 - Click **✓** to make the value the default value.
 - Click **⚠** to disable the raise suspect calculation. This means that as long as this value is selected, the requirement can not become "suspect" due to attribute change.
- 7 Click **Save**.

Deleting List Values

To delete a list value, do the following:

- 1 In the left pane, click **List Attributes**.
- 2 Select the class you want to modify from the box on the top.
- 3 From the **Lists** box, select the list attribute from which you want to remove a value.
- 4 Click **-**.



NOTE

- If the selected value is not used in any requirement, it will be **removed**.
- If the selected value is used in any requirement, this opens a dialog which allows you to **Delete** or **Remove** the attribute value.

Deleting a value means:

- The value is visible in requirements having this value, but cannot be selected.
- The value is available in all dialogs which allow filtering or searching (e.g. Quick Search).

Removing a value will delete it from RM's database. This means:

- The attribute in a requirement which previously used this value is empty.
- Any result list (e.g. Quick Search, reports) or a document showing a requirement which previously used this value will show the value for this attribute (if displayed).
- The value is no longer available in any dialog.

If you want to replace an old/obsolete value in requirement versions, see ["Changing a List Value on Existing Data" on page 401](#).

- 5 Click **Save**.

Ordering List Values

The end user will see the values in the same order shown in this dialog.

To reorder the list of values, do any of the following:

- 1 In the left pane, click **List Attributes**.
- 2 Select the class you want to modify from the box on the top.
- 3 From the **Lists** box, select the list attribute you want to order. Then, do one of the following:
 - To manually order the values, select a value and click the **Move Up**  or **Move Down**  button to move the value to the desired position.
 - To alphanumerically sort the entire list of values, click the **Sort Ascending**  or **Sort Descending**  button.
- 4 Enter the new value and click **OK**.
- 5 Click **Save**.

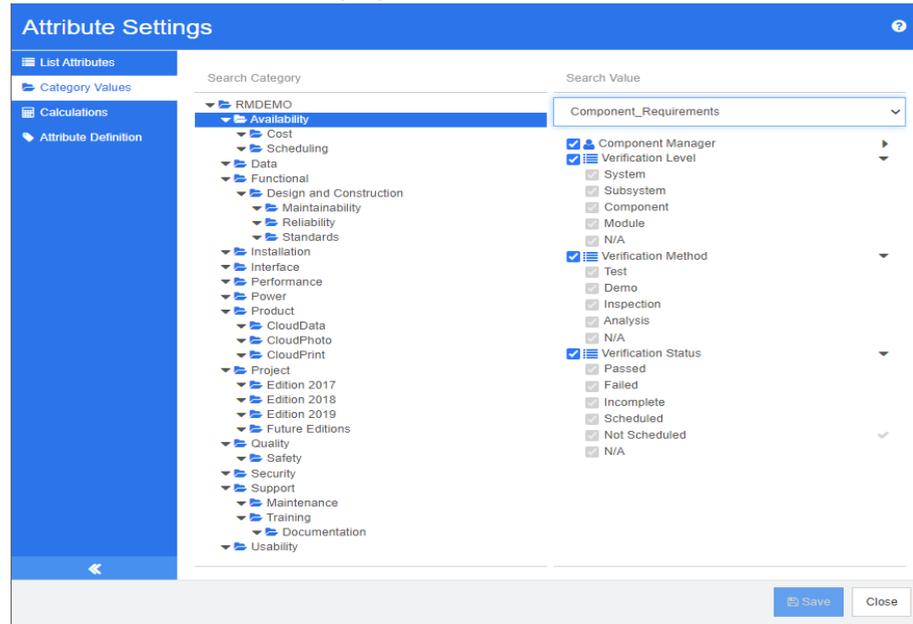
Changing a List Value on Existing Data

This section describes a suggested best practice for changing a list value that has been in use and thus exists in non-current requirement versions. It presupposes that you need to replace an obsolete list value in non-current versions and that an audit trail must be maintained.

- 1** Create a backup of the instance, including security. For further information on creating a backup, see chapter "Backing Up an Instance Account" in *Dimensions RM Administrator's Guide*.
- 2** Add the new list value to the instance schema. (Do not remove the old value.)
- 3** Ensure that you have both Update and Update Non-Current access to the class that includes the modified list.
- 4** Create a report that lists:
 - PUID
 - Object_ID
 - The relevant list field with the obsolete value
- 5** Save the report as CSV.
- 6** Edit the CSV to change the obsolete value to the new value.
- 7** Add a **Reason for change** column and populate it with whatever statement satisfies your audit requirements. (This will overwrite existing **Reason for Change** entries.)
- 8** Use CSV Import in **Update** mode to match on Object_ID and map the list and reason for change attributes.
- 9** Verify that the data was correctly imported.
- 10** Remove your Update and Update Non-Current access to the class (assuming you added these just for this procedure).
- 11** Remove the old list value from the instance schema.

Limiting List Values to Categories

When using the categories in Dimensions RM for sub-projects, it can be useful to allow only certain values when the category is selected.



To limit list values to categories, do the following:

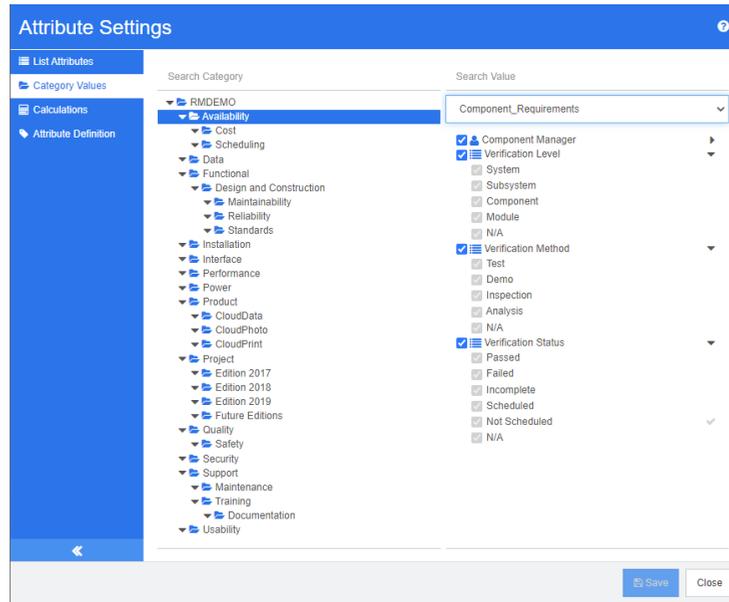
- 1 In the left pane, click **Category Values**.
- 2 In the category tree, select the category for which you want to limit list values.
- 3 Select the class for which you want to modify list values access.
- 4 Clear the box next to the attribute name.
- 5 Expand the attribute.
- 6 Clear the box for the value you want the hide.
- 7 Click **Save**.

To restore inheritance of the parent category, do the following:

- 1 In the left pane, click **Category Values**.
- 2 In the category tree, select the category for which you want to restore inheritance for list values.
- 3 Tick the box next to the attribute name.
- 4 Click **Save**.

Defining Default List Values for Categories

When using the categories in Dimensions RM for sub-projects, it can be useful to have a different default value.



To define a default list values for a category, do the following:

- 1 In the left pane, click **Category Values**.
- 2 In the category tree, select the category for which you want to define a different default values.
- 3 Select the class for which you want to modify list values access.
- 4 Clear the box next to the attribute name.
- 5 Expand the attribute.
- 6 Move the mouse point over the value which you want to use as a default value. A grey tick appears.
- 7 Click the grey tick. The tick turns blue, which indicates that this value is used as the default value.
- 8 Click **Save**.

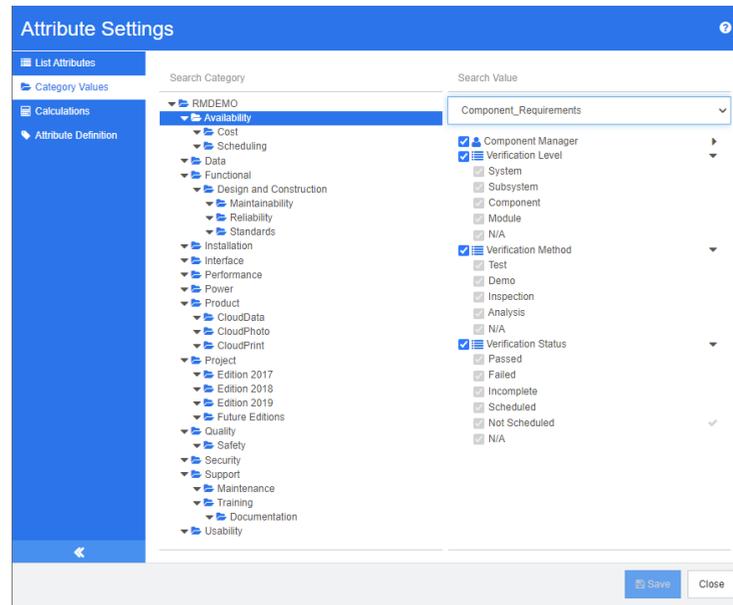
To restore inheritance of the parent category, do the following:

- 1 In the left pane, click **Category Values**.
- 2 In the category tree, select the category for which you want to restore inheritance for list values.
- 3 Tick the box next to the attribute name.
- 4 Click **Save**.

Managing User Attribute Values

Defining Default Users for Categories

When using the categories in Dimensions RM for sub-projects, it can be useful to have a different default user.



To define a default user for a category, do the following:

- 1 In the left pane, click **Category Values**.
- 2 In the category tree, select the category for which you want to define a different default values.
- 3 Select the class for which you want to modify list values access.
- 4 Clear the box next to the attribute name.
- 5 Move the mouse point over the value which you want to use as a default value. A grey tick appears.
- 6 Click the grey tick. The tick turns blue, which indicates that this value is used as the default value.
- 7 Click **Save**.

Configuring Calculated Attributes

Calculated attributes can be used with numeric, alphanumeric, text, and list attributes.

Given, for example, a numeric attribute containing an estimate for Development Effort, and a second numeric attribute containing Spent Effort, a calculated attribute may be defined to contain the Development Effort minus the Spent Effort.

It is also possible to create a calculated attribute in a Business requirement that displays the total of the Development Effort contained in all linked Functional requirements. This is shown in the following example.

Edit Calculation
✕

Class:

Business_Requirement

▼

Related Class:

Functional_Requirement

▼

Calculated Attribute:

Estimated Effort

▼

Formula:

Sum(\$[Functional_Requirement.Dev Effort])

Clear

Insert Attribute:

CalcTest2

▼

Insert

Insert Function:

Sum

▼

Insert

The formula is “constructed” either from a selected function applied to an attribute contained in one or more related requirements or a calculation based on multiple attributes from a single requirements.

In order to define an attribute to be the target of a calculation, the **Attribute Editable** setting must not be checked. For further information on creating attributes, see chapter ["Defining Attributes" on page 409](#).

Adding a Calculated Attribute

Once the calculated attribute has been defined, do the following:

- 1 Select **Attribute Settings** from the **Administration** menu. This opens the **Attribute Settings** dialog.
- 2 In the left pane, click **Calculation**.
- 3 Click **New**, which will open the **Create Calculation** dialog.
- 4 From the **Class** box, select the class containing the calculated attribute.
- 5 From the **Calculated Attribute** box, select an attribute to receive the result. Note that the list will only contains attributes which are read-only.
- 6 In the **Formula** box, specify the formula. For further information on formulas, see chapter ["About Formulas" on page 406](#).
- 7 Click **Save**.



NOTE For existing requirements, the value will not be calculated automatically. To calculate the value for existing requirements, from the Calculations tab, highlight the saved calculation and click the **Calculate** button. A warning will be displayed as the calculation may take some time.

Editing a Calculated Attribute

To edit a calculated attribute, do the following:

- 1 Select **Attribute Settings** from the **Administration** menu. This opens the **Attribute Settings** dialog.
- 2 In the left pane, click **Calculation**.
- 3 From the list of calculated attributes, select the attribute configuration you want to modify and click **Edit**. This opens the **Edit Calculation** dialog.
- 4 In the **Formula** box, modify the formula. For further information on formulas, see chapter ["About Formulas" on page 406](#).
- 5 Click **Save**.

Deleting a Calculated Attribute

To delete a calculated attribute, do the following:

- 1 Select **Attribute Settings** from the **Administration** menu. This opens the **Attribute Settings** dialog.
- 2 In the left pane, click **Calculation**.
- 3 From the list of calculated attributes, select the calculated attribute you want to delete.
- 4 Click **Delete**. This opens the **Delete Calculation** dialog.
- 5 Confirm that you want to delete the calculated attribute. This removes the calculated attribute configuration.
- 6 The attribute will still be available on dialogs. To remove the attribute, hide it, or enable it for editing see chapter ["Defining Attributes" on page 409](#).

About Formulas

About Formulas for Numeric Attributes

Formulas can contain numbers, or reference numeric attributes, even if these attributes are in a different class. Formulas can use parentheses to allow changing the priority of calculations.

About Formulas for Alphanumeric or Text Attributes

Formulas can contain texts, or reference alphanumeric or text attributes of the same class. Alphanumeric or text attributes can be concatenated with other alphanumeric or text attributes, or static text.

Alphanumeric and text attributes only support the **+** operator (concatenate texts).

Referencing Numeric Attributes from the same Class

To use numeric attributes from the same class, the **Related Class** option must be clear.

To insert a numeric attribute from the same class:

- 1 From the **Insert Attribute** box, select the desired attribute.
- 2 Click **Insert**.

To insert a static number, do the following:

- 1 At the desired position, click into the **Formula** box.
- 2 Type the desired number.

To insert an operator, do the following:

- 1 From the **Insert Operator** box, select the desired operator.
- 2 Click **Insert**.

Referencing Numeric Attributes from Other Classes

To use numeric attributes from other classes, these two classes must have a relationship (see chapter "Relationships" in the *Administrator's Guide*). Note that when using Numeric attributes from other classes, you can use aggregate functions Sum, Average, Min, and Max only.

To reference a numeric attribute from another class:

- 1 Ensure that the **Related Class** option is selected and select the related class.
- 2 From the **Insert Attribute** box, select the desired attribute.
- 3 Click **Insert**.

To insert a function:

- 1 Ensure that the **Related Class** option is selected and select the related class.
- 2 From the **Insert Function** box, select the desired function.
- 3 Click **Insert**.

Referencing Alphanumeric or Text Attributes

To use alphanumeric or Text attributes, the **Related Class** option must be clear.

To insert an alphanumeric or text attribute:

- 1 From the **Insert Attribute** box, select the desired attribute.
- 2 Click **Insert**.

To insert static text, do the following:

- 1 At the desired position, click into the **Formula** box.
- 2 Type your text surrounded by single quotes, e.g. 'Your text'.

To concatenate texts, do the following:

- 1 From the **Insert Operator** box, select **+**.
- 2 Click **Insert**.

Referencing List Attributes from another Class

Referencing list attributes from another class may be helpful if you need to match certain conditions based on the linked requirements.

Example Use Case:

You have the classes `Product_Requirement` and `Function_Requirement`. With the relationship (link) between the two classes, `Product_Requirement` is the parent and `Function_Requirement` is the child. Both classes have a list attribute "Security" with the values: Low, Medium and High. By using calculated list attributes you can define that if one linked `Function_Requirement` has Low selected with its Security attribute, also the `Product_Requirement` shows Low for its Security attribute.

To reference a list attribute, do the following:

- 1 Ensure that the **Related Class** option is selected and select the related class.
- 2 From the **Calculated Attribute** box, select the attribute to receive the calculated value.
- 3 From the **Insert Attribute** box, select the desired attribute.



IMPORTANT! The calculated attribute must have the same values as the attribute in the insert attribute.

- 4 From the **Insert Function** box, select **Max** or **Min**.



NOTE

The Insert function defines which value is propagated into the attribute of the parent class.

- **Min:** The lowest value is propagated.
- **Max:** The highest value is propagated.

Example:

The attribute has values Val1, Val2, Val3 and Val4. Requirements only use Val2 and Val3 of the attribute.

- **Min:** Value Val2 is propagated.
- **Max:** Value Val3 is propagated.

- 5 Click **Insert**.
- 6 Click **Order Values**. This opens the **Order Values** dialog.
- 7 Change the order of items in the **Order from Maximum to Minimum** list either by drag and drop or by selecting it and clicking  or .
- 8 Click **OK** to close the **Order Values** dialog.

Defining Attributes

Attributes specify the exact nature of the information within a class or relationship. You can define any number of attributes for each class. In addition to these user-defined attributes, there are implicit predefined attributes.



NOTE

- There are two implicit attributes that represent the user responsible for creating a requirement, or its latest version. The "Initial Created by" attribute contains the name of the user responsible for creating the initial version; this attribute is retained when the requirement is modified (replaced) by other users. The name of the user who replaced a specific requirement version is stored in the "Created by" attribute.

Attributes are defined using Administration menu in RM Browser.

To open the Attribute Definition dialog, do the following:

- 1 From the **Administration** menu, select **Attribute Settings**.
- 2 In the left pane, select **Attribute Definition**. Opening the attribute definition creates a lock if no other administrator is modifying the attribute definition or modifying the instance schema. If either attribute definition or instance schema are edited by a different user, the **Break Lock** dialog box is displayed, identifying the user currently holding the lock.

Break Lock ×

Attribute Definition is currently locked by user 'JOE' on '192.168.6.30'. Do you want to break the lock?

If you are sure the user identified is not currently modifying the instance schema, click **Yes** to reset the lock and open **Attribute Definition** in read/write mode. Alternatively, you can click **No** to open **Attribute Definition** in read-only mode.

Attribute Types

The following sections describe each of the available attribute types:

	Attribute Type	Description	Page
	Alphanumeric	A single line of text up to 1000 characters.	413
	Date	A date, the format of which (including length, default, minimum, and maximum values) can be defined by the administrator.	414
	File Attachment	Can hold one or several files available for download or reporting.	415
	Group	Like a list attribute, but composed of a series of sub attributes. The choices available to the user <i>depend</i> upon the selections they made in the higher level, or parent, attributes within the group attribute.	416
	List	A list of values configured for user selection. A list attribute can be configured to display as check box(es) or radio buttons.	422
	Lookup	A lookup attribute allows the use of an attribute to relate one object to another in order to access its values.	423
	Numeric	Accepts only numeric values.	425
	Text	A block of text up to 64Kb in size.	426
	URL	Supports the input of one or several URLs.	427
	User	A list of user names, which can be configured to hold groups or named users.	428

Adding an Attribute

To add a new attribute to a class:

- 1 From the **Administration** menu, select **Attribute Settings**.
- 2 In the left pane, select **Attribute Definition**.
- 3 From the **Class** box, select the class to which you want to add the new attribute.
- 4 Click **New** and select the desired attribute type from the list. For further information about attribute types, see ["Attribute Types" on page 410](#).

Defining an Attribute

To define an attribute:

- 1 From the **Administration** menu, select **Attribute Settings**.
- 2 In the left pane, select **Attribute Definition**.

- 3 From the **Class** box, select the class in which you want to include the new attribute.
- 4 Change the attribute properties as desired or required for the selected attribute type. For a list of attribute types, see chapter ["Attribute Types"](#) on page 410.

Common Attribute Properties

The common attribute properties are displayed for all attribute types. The following table describes their function.

Property	Description
Display Name	The name of the attribute that will be displayed in Dimensions RM dialogs. Please consider the naming restrictions when specifying the display name. For details about naming restrictions, "Naming Conventions for Attribute Display Names" on page 470.
Attribute Name	The internal name of the attribute, which is populated automatically for a new attribute based on the display name if no value is provided. Please consider the naming restrictions when specifying the attribute name. For details about naming restrictions, see chapter "Naming Conventions for Attribute Names" on page 470.
Description	Enter a description which explains the purpose of this attribute.
Attribute Mandatory	Whether you are required to specify values for the attribute during the information storage or capture process.
Attribute Editable	Whether you can edit the attribute values. Conversely, making an attribute non-editable is useful when no further changes to the attribute are allowed.
Force Unique Value	Whether you must enter a unique value for each instance of this attribute (no duplicate values are allowed). For many attribute types, this will be grayed out.
Display For Entry	Whether the attribute will be displayed in forms and list views of object content. If unchecked, the attribute will not be presented in these views. This is generally used for security.
Populate on Copy	Whether the attribute will be pre-populated when you copy a requirement. To prevent the situation where duplicate requirements are created by mistake, it is a good practice <i>not</i> to copy the Title and Description attributes. When using Populate on Copy with a container workflow assigned to a document, the attribute value will be copied to the new document when enabled.

Property	Description
Populate on Create and Link	This option is only available for class attributes. The attribute will be pre-populated when you create a requirement and link to it. This only applies to relationships where the "populate attributes on create and link" setting is enabled (see "Defining or Modifying Relationship Properties" on page 445).
Change raises Suspicion	The option to raise suspicion on change may be set for any custom attribute as well as for many system attributes, including: <ul style="list-style-type: none"> ■ Workflow State ■ Owner ■ Category Once enabled, any replace action on this attribute will mark linked objects as Suspect (see "Transfer Rules" on page 446)

Hiding an Attribute

There are times when you realize that there were attributes defined and used during a phase of a project that are no longer of value. Perhaps, even worse, individuals spend minutes trying to decide what should be entered, as the mouse-over help text no longer applies. It could be deleted, but if there is useful information stored with those earlier requirement versions. The answer: Hide it! A hidden attribute can be exposed.

To hide an attribute from display or change, clear the settings:

- 1 From the **Administration** menu, select **Attribute Settings**.
- 2 In the left pane, select **Attribute Definition**.
- 3 From the **Class** box at the top of the dialog, select the class holding the attribute to be hidden.
- 4 Select the attribute you want to hide.
- 5 Clear the check boxes controlling all aspects of display, copy and populate, as shown below.
- 6 Click **OK**.

 Attribute Mandatory
 Force Unique Value
 Populate on Copy
 Change raises Suspicion
 Attribute Editable
 Display for Entry
 Populate on Create And Link

Deleting an Attribute

There are times when you realize that there were too many attributes defined when the process was initiated, and some were never used. These attributes can be deleted, but, before taking that step, you might want to consider hiding the attribute from future use (see "Hiding an Attribute" on page 412) should there be anything worth saving.

To delete an attribute from a class or relationship definition:

- 1 From the **Administration** menu, select **Attribute Settings**.
- 2 In the left pane, select **Attribute Definition**.
- 3 From the **Class** box, select the class to which you want to delete the attribute.
- 4 Select the attribute you want to delete from the definition.
- 5 Click the **Remove**.
- 6 Click **OK**.



NOTE Implicit attributes cannot be deleted from the class or relationship definition.

Alphanumeric Attribute

An alphanumeric attribute represents one line of alphanumeric text, such as the title of an acceptance test. It can be up to 1000 characters in length.

The screenshot shows the 'Attribute Settings' dialog box for a class named 'Product_Requirements'. The 'Attribute Definition' section is active, showing a list of attributes. The 'Title' attribute is selected. The 'Attributes' section shows 'implicit' is unchecked. The 'Display Name' is 'Title' and the 'Attribute Name' is 'TITLE'. The 'Description' field is empty. The 'Maximum Length' is set to 1000 and the 'Display Length' is 80. The 'Attribute Mandatory' checkbox is checked, and 'Force Unique Value', 'Populate on Copy', and 'Change raises Suspicion' are also checked. 'Attribute Editable' is checked, and 'Display for Entry' is checked. 'Populate on Create And Link' is unchecked. There are 'New' and 'Remove' buttons at the bottom left, and 'Save' and 'Close' buttons at the bottom right. An 'Advanced...' button is also present.

Figure 11-1. Alphanumeric Attribute Definition

The alphanumeric attribute properties are described in the following table.

Property	Description
Maximum Length	The maximum length of the value allowed for the attribute. The valid range is 1 to 1000 characters.
Display Length	The default number of characters to display for this attribute. The valid range is 1 to 1000 characters.
Advanced Settings	
Minimum Value	A minimum value that can be associated with the attribute, if any. Dimensions RM performs a string comparison on the minimum and maximum values. For example, if you enter a minimum value of A and a maximum value of C, Dimensions RM will inform you that a value of D is out of range.
Maximum Value	A maximum value that can be associated with the attribute, if any. Dimensions RM performs a string comparison on the minimum and maximum values. For example, if you enter a minimum value of A and a maximum value of C, Dimensions RM will inform you that a value of D is out of range.
Default Value	A default value for initial instances of the attribute, if required.
Case	Whether the attribute value should be upper case, lower case, or sentence (mixed) case.

Date Attribute

A date attribute can have values that are based on user-defined formats. A date attribute, for example, could be used for test dates.

The screenshot shows the 'Attribute Settings' window for an attribute named 'End Date'. The interface is divided into several sections:

- Left Sidebar:** Contains navigation options: 'List Attributes', 'Category Values', 'Calculations', and 'Attribute Definition'. Under 'Attribute Definition', a list of attributes is shown, with 'End Date' selected and highlighted in blue.
- Approval:** A dropdown menu set to 'Approval'.
- Attributes:** A section with an 'implicit' checkbox and a 'Filter...' input field.
- Attribute Name:** A text field containing 'END_DATE'.
- Display Name:** A text field containing 'End Date'.
- Description:** A large text area for entering a description.
- Options:** A group of checkboxes including:
 - Attribute Mandatory
 - Force Unique Value
 - Populate on Copy
 - Change raises Suspicion
 - Attribute Editable
 - Display for Entry
 - Populate on Create And Link
- Display Format:** A text field containing 'DD-MON-RRRR' and a 'Presets' dropdown menu.
- Default Value:** A section with a 'Current Date' checkbox.
- Buttons:** At the bottom right, there are 'Save' and 'Close' buttons. At the bottom left, there are '+ New' and 'Remove' buttons.

Figure 11-2. Date Attribute Definition

The date attribute properties are described in the following table.

Property	Description
Display Format	The date format. NOTE: The default date formats use the string "RRRR" to represent a four-digit year. This is preferable to using "YYYY" because when the year is entered as two digits, this format will correctly populate the century based on the rules described in chapter "RRRR Date Format Elements" in the <i>Administrator's Guide</i> .
Default Value	A default value for initial instances of the attribute, if required.
Current Date	If enabled, uses the current server date (and time if defined for the attribute) as a default value.
Advanced Settings	
Maximum Length	The maximum length of the value allowed for the attribute. The valid range is 1 to 1000 characters.
Display Length	The default number of characters to display for this attribute. The valid range is 1 to 1000 characters.
Minimum Value	A minimum value that can be associated with the attribute, if any.
Maximum Value	A maximum value that can be associated with the attribute, if any.

File Attachment Attribute

A file attachment attribute can hold a single file or multiple files that can be accessed through RM Browser. Add one or more file attachment attributes to the class to which the file or files will be attached. For example, you could add the file attachment attributes *Use Cases*, *Customer Letter*, and *Business Justification* to the Marketing Requirements class. Users then use RM Browser to add, view, or download the file(s).



NOTE The file attachment attribute can only be added to a class.

For more information about using RM Browser to view and manage file attachments, see chapter "[Working with File Attachments](#)" on page 155.

The file attachment attribute properties are described in the following table.

Property	Description
Allow multiple selections	Whether the attribute can hold one or multiple files. <ul style="list-style-type: none"> ■ Enabled: The attribute can hold multiple files. ■ Disabled: The attribute can hold a single file.

Group Attribute

A group attribute allows to select values like a list attribute. But unlike a simple list attribute, a group attribute is composed of a series of sub-attributes. These sub-attributes are called **group members**. Each group member contains its own list of values which may be different depending on the selected value of the previous group member.

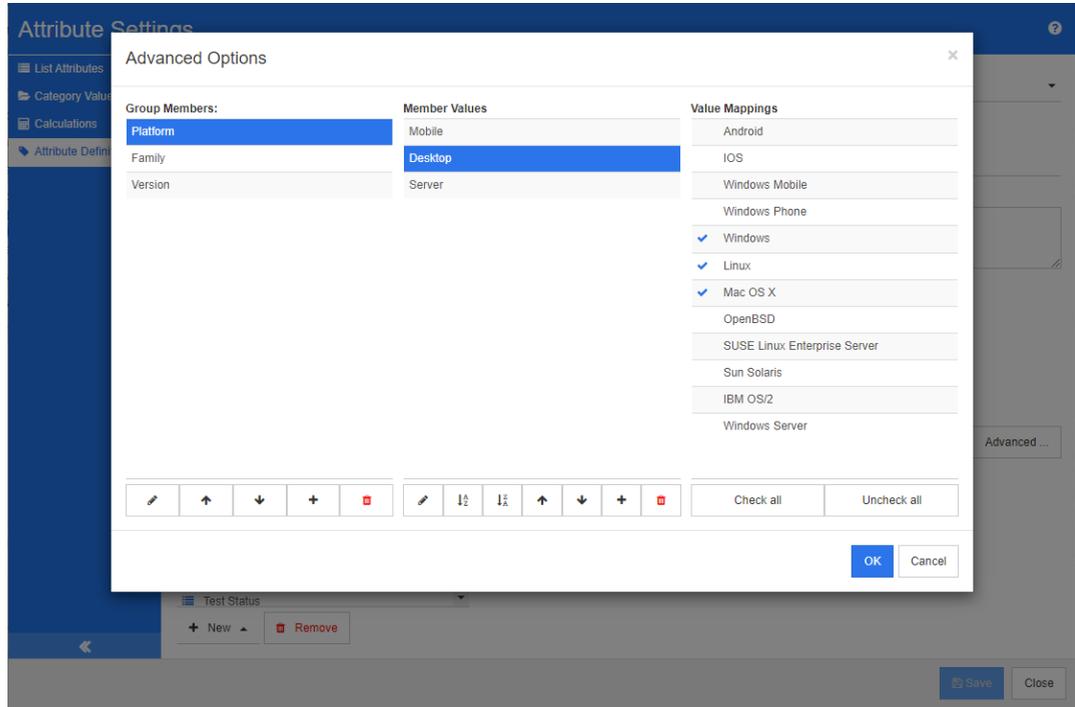


Figure 11-3. Group Attribute Definition

For more details on how the group attribute works, see ["Explaining the Group Attribute" on page 418](#).

Defining a group attribute:

Property	Description
Allow multiple selections	To allow users adding multiple rows, select this option. The default is cleared (Group attribute supports only one row).

Adding Managing Members (Sub-Attributes)

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 Click **+**. This opens the **Properties for NEW member** dialog.
- 3 Type the member name into the **Display Name** box. If desired, specify a text describing the member into the **Description** box.
- 4 Click **OK**.

Deleting Members (Sub-Attributes)

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 Select the member you want to delete.
- 3 Click .

Ordering Members (Sub-Attributes)

The first attribute in the group is the parent of the second, and the second is the parent of the third, etc. To reorder the attribute members to reflect the dependency logic that you want to enforce do the following:

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 Select the member you want to move.
- 3 Click  or .

Adding Member Values

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 From the **Group Members** list, select the member for which you want to add a value.
- 3 Click . This opens the **Add Value** dialog.
- 4 Enter the new value into the **New value name** box. The value must be unique within the group member.
- 5 Click **OK**.
- 6 If you wish to change the position of a value, select it and click  or  until the value is at the desired position.

Renaming Member Values

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 From the **Group Members** list, select the member for which you want to rename a value.
- 3 Select the value you wish to rename.
- 4 Click . This opens the **Rename Value** dialog.
- 5 Enter the new value into the **New value name** box. The value must be unique within the group member.
- 6 Click **OK**.

Defining Dependencies

By defining dependencies you specify which values are available in a sub-attribute when a user selects a value in a parent attribute.

To define the dependencies do the following:

- 1 Click **Advanced...** to open the **Advanced Options** dialog.

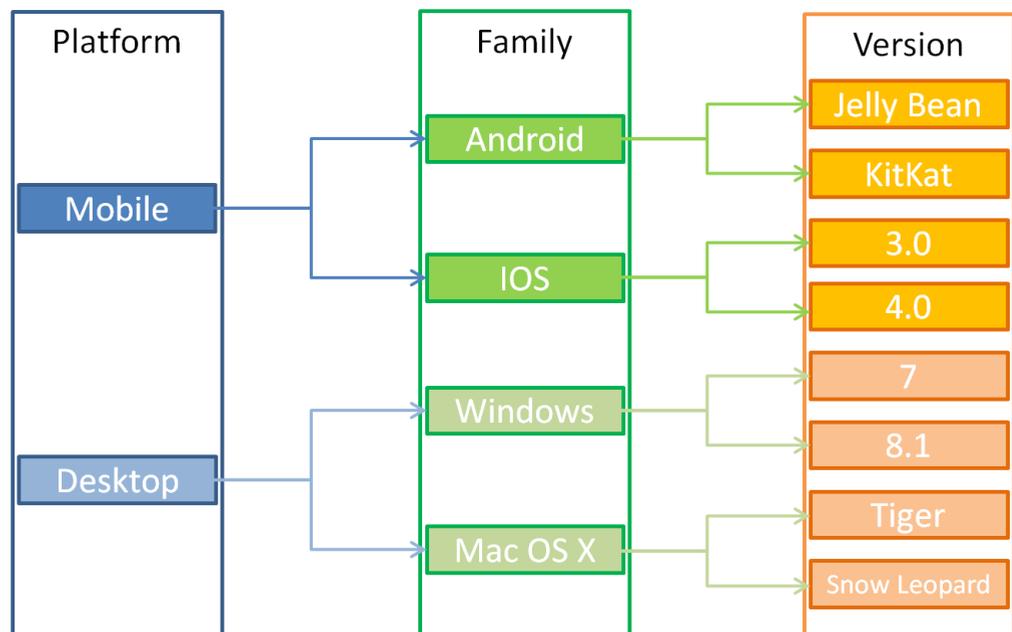
- 2 From the **Group Members** list, select the parent attribute (e.g. Platform).
- 3 From the **Member Values** list, select a member value (e.g. Server).
- 4 Click the **Value Mappings** list.

Saving your Changes

- 1 Click **OK** to close the **Advanced Options** dialog.
- 2 Click **Save** to save all your attribute definition changes.

Explaining the Group Attribute

The following image shows a simplified representation of the group attribute **Operating System** of RMDEMO's **Tests** class.



The group attribute contains the group members **Platform**, **Family**, and **Version**. By restriction, you can define which values the user will see when selecting a value. The selection of the **Platform** group member defines the values of the **Family** group member. The selection of the **Family** defines the values of the **Version** group member.

List Attribute

A list attribute is a configurable attribute that provides a list of values for user selection. For example, you could define Passed, Failed, and Incomplete as the valid values for a

list attribute `Verification_Status`, and require that the user choose one or more of these values.

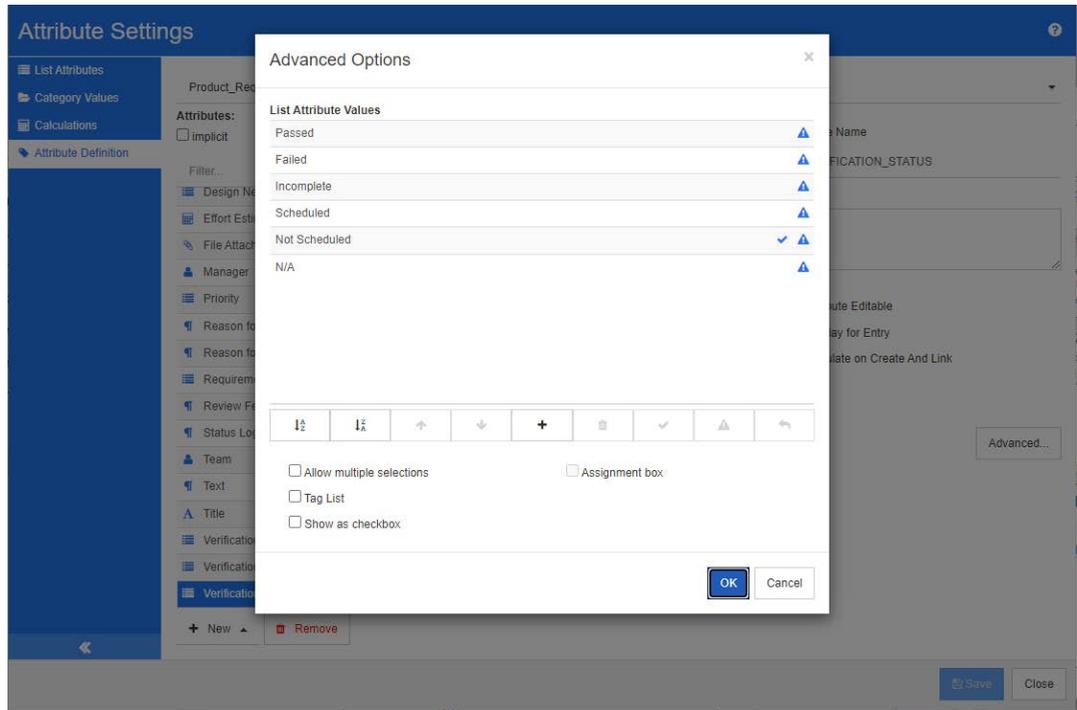


Figure 11-4. List Attribute Definition

A list attribute can also be configured to display as a checkbox or radio buttons.

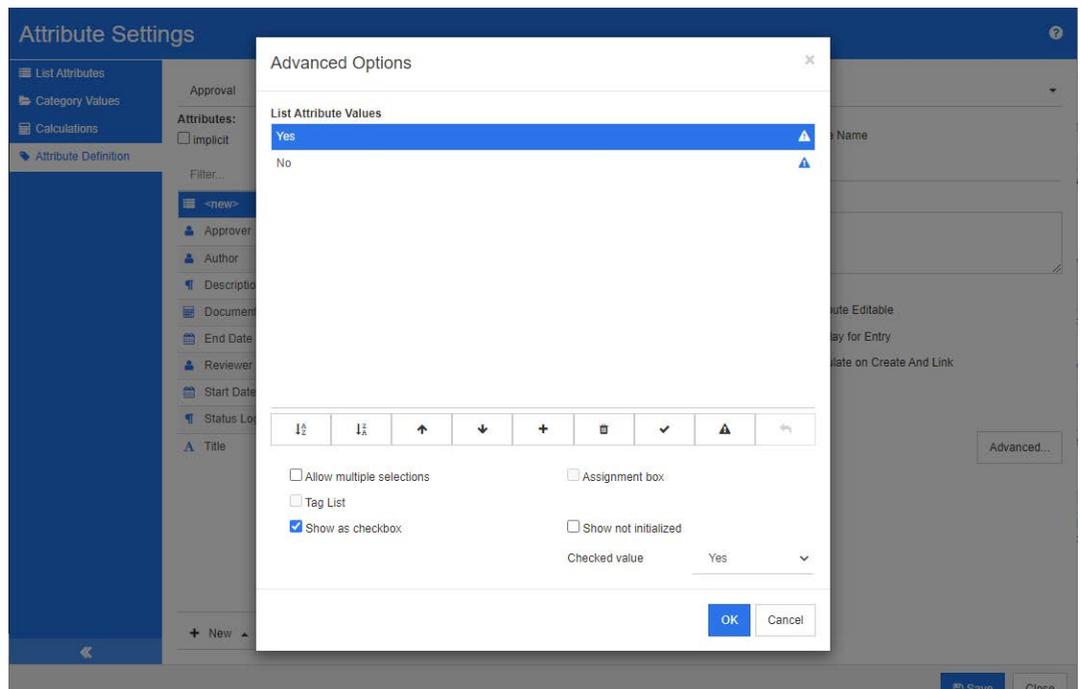


Figure 11-5. List Attribute Definition as Checkbox

Defining a List Attribute

The list attribute properties are described in the following table.

Property	Description
List Values	A list of possible alphanumeric values, spaces permitted, that have been defined for the list attribute. A check in the box to the right of the value indicates this is a default value or values for multiple selection lists.
Allow multiple selections	Allows the selection of more than one value from the list; if this box is not checked selection is limited to one.
Assignment Box	Only available when Allow multiple selections is selected and Tag list is not selected. Enabling this option replaces a single list with two lists which allow adding/removing entries by using  and  .
Tag List	Attribute values are displayed as "tags". Enabling this option means that each user with write access can add alphanumeric values, spaces permitted, to the attribute list CAUTION! When saving modifications to the instance schema, all data initially loaded with that schema will be written. If a user added tags while the schema was open, those changes will not be saved. Such changes will appear to have been removed by the user. It is strongly recommended that changes to the Instance Schema be made outside business hours or with notification.
 Show as checkbox	The list attribute is displayed as checkbox or radio button. For further details, see chapter "Configuring a List Attribute as Check Box or Radio Button" on page 422.
Show not Initialized	Show the option Not Initialized for a radio button or the text Not Initialized for a checkbox. For further details, see chapter "Configuring a List Attribute as Check Box or Radio Button" on page 422.
Checked value	Specifies which list value will be used for the selected state of the checkbox.

Adding List Attribute Values

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 Click . This opens the **New Value Name** dialog.
- 3 Type the value into the box.
- 4 Click **OK**.

Deleting List Attribute Values

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 Select the value you want to delete

- 3 Click the minus sign **–** .



NOTE

- If the selected value is not used in any requirement, it will be **removed**.
- If the selected value is used in any requirement, this opens a dialog which allows you to **Delete** or **Remove** the attribute value.

Deleting a value means:

- The value is visible in requirements having this value, but cannot be selected.
- The value is available in all dialogs which allow filtering or searching (e.g. Quick Search).

Removing a value will delete it from RM's database. This means:

- The attribute in a requirement which previously used this value is empty in the Edit Attributes dialog.
- The attribute value is available in result lists (e.g. reports) and in the Document View if requirements with the removed value are included in a document.
- The value is no longer available in any dialog.

If you want to replace an old/obsolete value in requirement versions, see "[Changing a List Value on Existing Data](#)" on page 421.

Ordering List Attribute Values Alphabetically

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 To sort ascending, click  .
- 3 To sort descending, click  .

Ordering Values manually

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 Select the value you want to move.
- 3 Click  or  .

Saving your Changes

- 4 Click **OK** to close the **Advanced Options** dialog.
- 5 Click **Save** to save all your attribute definition changes.

Changing a List Value on Existing Data

This section describes a suggested best practice for changing a list value that has been in use and thus exists in non-current requirement versions. It presupposes that you need to replace an obsolete list value in non-current versions and that an audit trail must be maintained.

- 1 Do a backup of the instance, including security.
- 2 Add the new list value to the instance schema. (Do not remove the old value.)
- 3 Ensure that you have both Update and Update Non-Current access to the class that includes the modified list.
- 4 Create a report that lists:
 - PUID
 - Object_ID
 - The relevant list field with the obsolete value
- 5 Save the report as CSV.
- 6 Edit the CSV to change the obsolete value to the new value.
- 7 Add a **Reason for change** column and populate it with whatever statement satisfies your audit requirements. (This will overwrite existing **Reason for Change** entries.)
- 8 Use CSV Import in **Update** mode to match on Object_DF and map the list and reason for change attributes.
- 9 Verify that the data was correctly imported.
- 10 Remove your Update and Update Non-Current access to the class (assuming you added these just for this procedure).
- 11 Remove the old list value from the instance schema.

Configuring a List Attribute as Check Box or Radio Button

Check boxes or radio buttons are configuration options for the list attribute. See chapter ["List Attribute" on page 418](#) for more information on creating list attributes.

The configuration of a list attribute as check box(es) or radio buttons depends on the overall configuration of the list attribute and the options **Show as checkbox** and **Show not Initialized**. Note that **Show not Initialized** is not always available.

Configuring a Yes-No Checkbox

A Yes-No checkbox has two values and does not show any additional text apart from its attribute name.

To create a Yes-No checkbox:

- 1 Create a list attribute and specify two values in the list, e.g. *Yes* and *No*.
- 2 Select the **Show as checkbox** option.
- 3 From the **Checked value** box, select the value you want to use with the selected state of the checkbox, e.g. *Yes*. The second list value (e.g. *No*) will automatically be used for the clear state of the checkbox.
- 4 Select the *Yes* or *No* value and click .
- 5 Click **OK**.

Configuring a Three-State Yes-No Checkbox

A Yes-No checkbox has two values and does not show any additional text apart from its attribute name. A three-state checkbox provides an additional state, which is **Not Initialized**.

To create a Yes-No checkbox:

- 1 Create a list attribute and specify two values in the list, e.g. *Yes* and *No*.
- 2 Select the **Show as checkbox** option.
- 3 Select the **Show not initialized** option.
- 4 From the **Checked value** box, select the value you want to use with the selected state of the checkbox, e.g. *Yes*. The second list value (e.g. *No*) will automatically be used for the clear state of the checkbox.
- 5 Click **OK**.

Configuring Multiple Checkboxes or Radio Buttons

When a list has more than 2 values, the list will show either radio buttons or several checkboxes. If the list supports only single value selection, the list will show as radio buttons. For multiple selection, the list will show checkboxes.

- 1 Create a list attribute and specify three or more values in the list.
- 2 To allow selection of more than one value, select the **Allow multiple selections** option.
- 3 Select the **Show as checkbox** option.
- 4 If desired, select the **Show not initialized** option.
- 5 Click **OK**.

Lookup Attribute

A lookup attribute allows users to relate an attribute to another object in order to access its information. The relationship may be created using one or multiple values depending on the configuration, and may reference a PUID (requirement ID) or title.

For example, using a lookup attribute named "release" to connect requirements of any class to a specific object in the release class ensures access to the complete definition of the release, as well as its status and schedule.

Stakeholder or customer information may also be related and accessed in the same way.

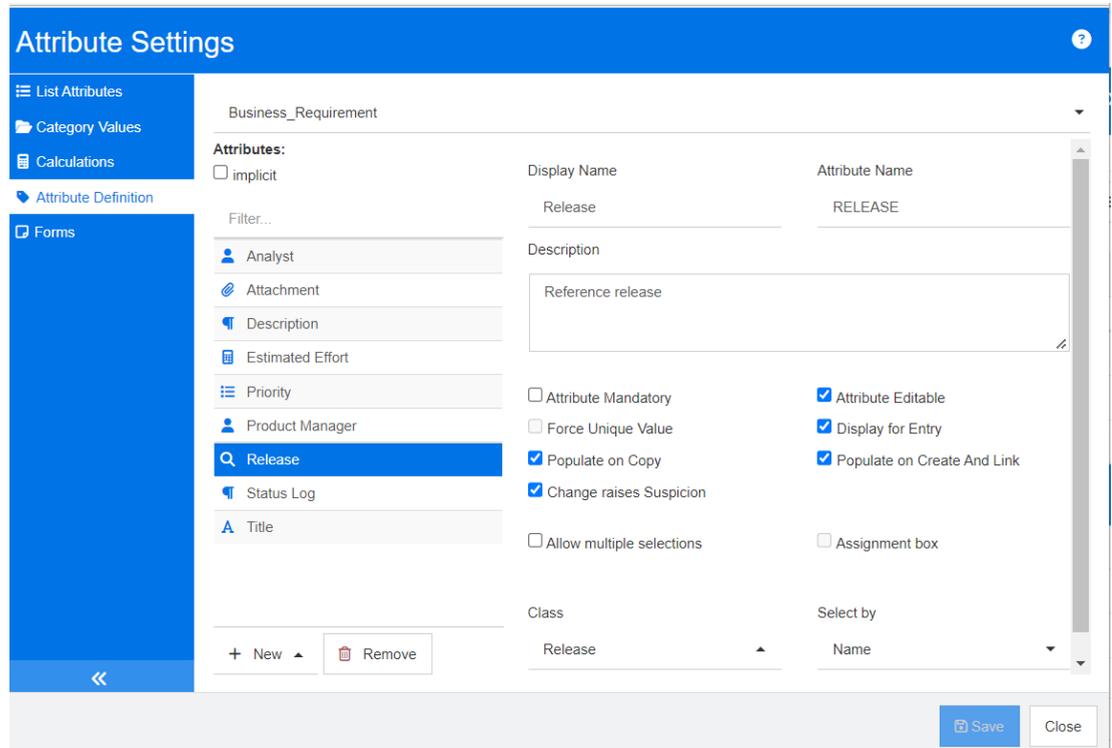


Figure 11-6. Lookup Attribute Definition

The properties are described in the following table:

Property	Description
Class	The class that relates to the current class.
Select by	The attribute that provides the values for the list.
Allow multiple selections	The drop-down lists objects from the Release class by Name (the title attribute). If this box is not checked, only one object may be selected from the list.
Assignment box	Only available when Allow multiple selections is selected. Enabling this option replaces a single list with two lists which allow adding/removing entries by using  and  .

Numeric Attribute

A numeric attribute accepts only numeric values, such as a reference number. The value can include a decimal point.

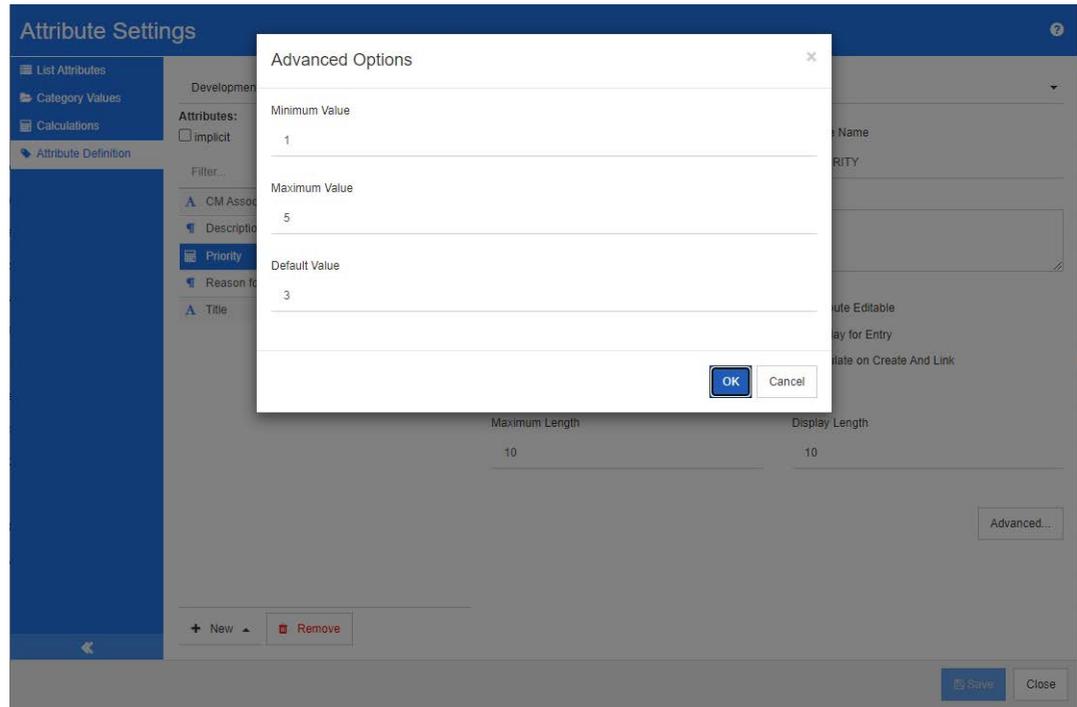


Figure 11-7. Numeric Attribute Definition

The numeric attribute properties are described in the following table.

Property	Description
Maximum Length	The maximum length of the value allowed for the attribute. The valid range is 1 to 1000 characters.
Display Length	The default number of characters to display for this attribute. The valid range is 1 to 1000 characters.
Advanced Options	
Minimum Value	A minimum value that can be associated with the attribute, if any.
Maximum Value	A maximum value that can be associated with the attribute, if any.
Default Value	A default value for initial instances of the attribute, if required.

Text Attribute

A text attribute is a text block (up to 64 Kb) that can span more than one line. It is suitable for long descriptions, such as the description of an acceptance test.

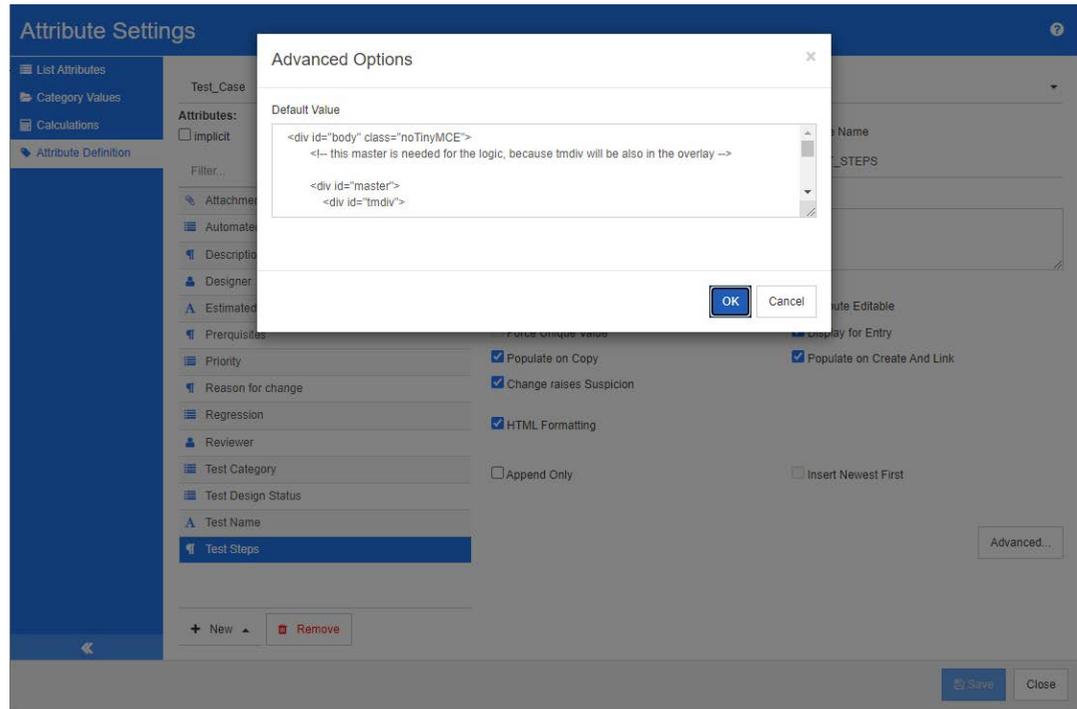


Figure 11-8. Text Attribute Definition

The text attribute properties are described in the following table.

Property	Description
HTML Formatting	A check box that allows you to specify whether this text attribute is enabled for HTML formatting. When you edit an HTML-enabled text attribute in RM Browser, a special HTML edit control is displayed in place of the normal text area. NOTE: The HTML Formatting property cannot be disabled in the Chapter class.
Append Only	If enabled, the text the user enters into the text box does not replace the current text, but added to the current text. The history is shown above the associated text box.
Insert Newest First	If enabled, new text is placed before any existing text. If disabled, new text is placed after any existing text.
Advanced Options	
Default Value	A default value for initial instances of the attribute, if required.

URL Attribute

A URL attribute can hold one or multiple URLs. Clicking the URL opens it in a new tab or window of your web browser.

The URL attribute supports the following settings:

Property	Description
Mode	<ul style="list-style-type: none"> ■ Single: The URL attribute can only hold one URL. ■ Multiple: The URL attribute can hold several URLs.
Validation pattern	<p>Specifying a validation pattern allows to ensure that URLs match a certain format. The validation pattern must be a regular expression for the JavaScript programming language. The following samples are provided in the Presets drop-down list:</p> <ul style="list-style-type: none"> ■ <code>^(http[s]? ftp):\\/(.*)</code> The URL must use either the HTTP, HTTPS or FTP protocol. ■ <code>^https:\\/\\/www\\.microfocus\\.com\\/(.*)</code> The URL must use the HTTPS protocol and the server must be <code>www.microfocus.com</code>.
Limit count to	<p>This option is only available if Mode is set to Multiple. Select this option and specify any value higher than 0 to define the maximum number of URLs the attribute can hold.</p>
Placeholder	<p>Specify a text to inform users about the expected format.</p>

User Attribute

A user attribute is a configurable attribute that provides a list of user names for user selection. It can store one single value and can be configured to list all users, all members of one or several groups or individual users.

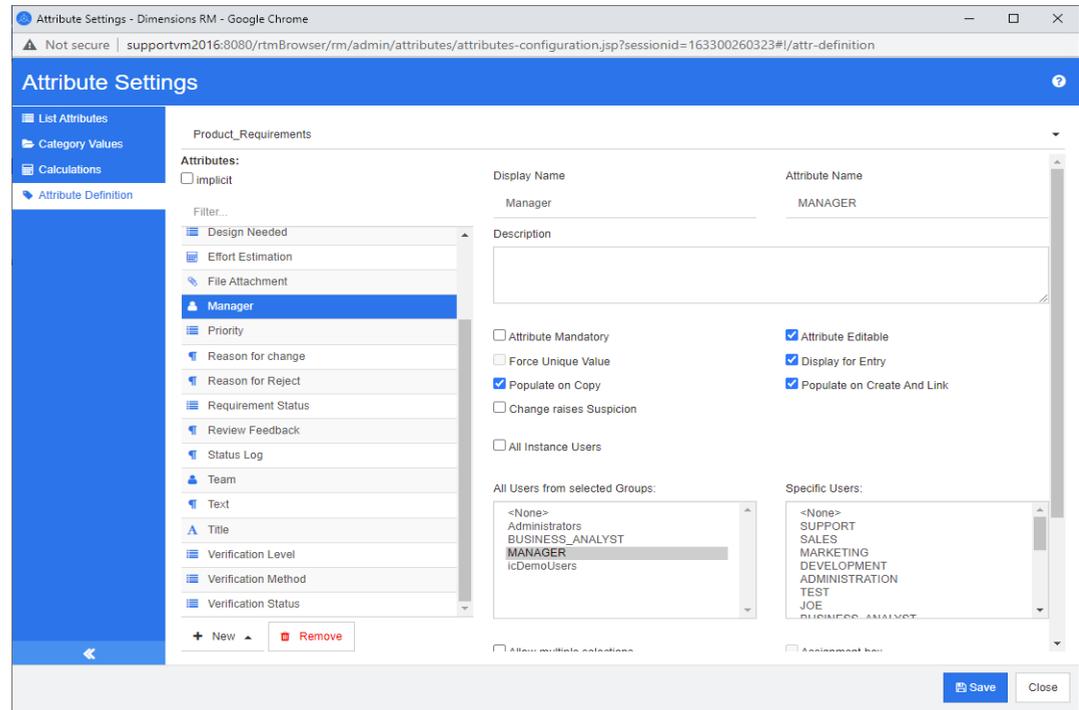


Figure 11-9. User Attribute Definition

To list all users, follow these steps:

- 1 Select option **All instance users**.
- 2 Click **OK**.

To list users of one or several groups, follow these steps:

- 1 Select option **All Users from selected Groups**.
- 2 Select the groups you want to be included in the list.
- 3 Click **OK**.

To list individual users, follow these steps:

- 1 Select option **Specific Users**.
- 2 Select the users you want to be included in the list.
- 3 Click **OK**.

Selection Mode

Property	Description
Allow multiple selections	If selected, allows multi-selection. If cleared, allows single selection.
Individual users	Only users can be selected.
Groups and specific users	Groups selected in the All users from selected groups list and users specified in the Specific users list can be selected.
Groups, group members and specific users	Groups selected in the All users from selected groups list , users who are members of the selected groups and users specified in the Specific users list can be selected.
Teams	Only teams can be selected.

Specifying Default Values

To specify a group or user as a default value, do the following:

- 1** Click the **Set Default**. This opens the **Find & Select User** dialog.
- 2** Select the user or group you want to use as a default value. The **<Current User>** entry uses the name of the user who edits the requirement as a default value.
- 3** Click **OK**. Note that the default value is not used until you save the schema definition.

PUID Attribute

The PUID implicit attribute represents the PUID of a requirement. The PUID is a unique identifier that does not change. *There is no button associated with this attribute, because it is automatically included in every class.*

The screenshot shows the 'Attribute Settings' window for the 'PUID' attribute. The left sidebar lists various attributes, with 'PUID' highlighted. The main panel shows the configuration for 'PUID' with the following details:

- Attributes:** implicit
- Display Name:** PUID
- Attribute Name:** PUID
- Description:** This holds a unique identifier for the object which will not change
- Options:**
 - Attribute Mandatory
 - Force Unique Value
 - Populate on Copy
 - Change raises Suspicion
 - Attribute Editable
 - Display for Entry
 - Populate on Create And Link
- PUID Format:** DEV_<#>
- Next:** 1
- Number style:** 1, 2, 3 ...
- PUID Length:** 10
- Pad with leading zeroes

Figure 11-10. PUID Attribute Definition

The PUID attribute properties are described in the following table.

Property	Description
PUID format	Any string of characters and then <#>. The <#> variable is replaced by the PUID number. NOTE: If you want # to appear in the PUID as a character, type it in the string of characters without the brackets.
Number style	The style of numbering to use for the PUID.
Next	The next PUID number to be assigned.
PUID Length	The number of numbers that can replace the <#> variable.
Pad with leading zeros	Whether zeros precede the PUID to make the PUID number the number specified in the PUID Length list.



NOTE The PUID attribute properties are displayed only if the class is empty (no objects/requirements exist in the class).

Configuring Instance Settings

To open the Instance Settings dialog:

Select **Instance Settings** from the **Administration** menu. You can select **Instance Settings** only if your user account is in the Administrator group.

For information on configuring instance settings, refer to chapter "[Configuring User Settings and Instance Settings](#)" on page 78.

Configuring Agile

To allow the configuration of Agile, classes and relationships must be created by the administrator and Agile must be enabled for the instance. For further information on creating classes and relationships see chapter "[Agile](#)" in *Dimensions RM Administrator's Guide*. To enable Agile, see chapter "[Agile](#)" on page 80.



NOTE For epics, features, stories, and tasks, you can use more than one class. This allows to use different attribute sets with a product. For example, if your product is a vehicle, you might need other attributes than for a software. To use several classes with epics, features, stories, or tasks, you have to first create the classes and relationships in the schema definition tool, and then configure them as described below.

To open the Agile Settings dialog:

Select **Agile Settings** from the Administration menu. You can select **Agile Settings** only if your user account is in the Administrator group.

Products

The Products mapping is a required setting.

To edit the Products mapping do the following:

- 1 Select **Agile Settings** from the Administration menu. This opens the Agile Settings dialog.
- 2 Select **Products**.
- 3 In the **Products Mapping** section, select the class you wish to use with assign to Agile's Products functionality from the **Products class** box.
- 4 In the **Choose field equivalents** section, select the attributes which should be used on Agile's Product attributes.
- 5 Click **Save**.
- 6 Click **Close**.

Releases

The Releases mapping is an optional setting. If this setting is not configured, you cannot use releases with Agile.

To edit the Releases mapping do the following:

- 1 Select **Agile Settings** from the Administration menu. This opens the Agile Settings dialog.
- 2 Select **Releases**.
- 3 In the **Releases Mapping** section, select the class you wish to use with assign to Agile's Releases functionality from the **Releases** box.
- 4 In the **Choose field equivalents** section, select the attributes which should be used on Agile's Releases attributes.
- 5 Click **Save**.
- 6 Click **Close**.

Sprints

The Sprints mapping is an optional setting. If this setting is not configured, you cannot use sprints with Agile.

To edit the Sprints mapping do the following:

- 1 Select **Agile Settings** from the Administration menu. This opens the Agile Settings dialog.
- 2 Select **Sprints**.
- 3 In the **Sprints Mapping** section, select the class you wish to use with assign to Agile's Sprints functionality from the **Sprints** box.
- 4 In the **Choose field equivalents** section, select the attributes which should be used on Agile's Sprints attributes.
- 5 Click **Save**.
- 6 Click **Close**.

Epics

The Epics mapping is an optional setting. If this setting is not configured, you cannot use epics with Agile.

To edit the Epics mapping do the following:

- 1 Select **Agile Settings** from the Administration menu. This opens the Agile Settings dialog.
- 2 Select **Epics**.
- 3 In the **Epics Mapping** section, select the class you wish to use with assign to Agile's Epics functionality from the **Epics** box.

- 4 In the **Choose field equivalents** section, select the attributes which should be used on Agile's Epics attributes.
- 5 Click **Save**.
- 6 Click **Close**.

Features

The Features mapping is an optional setting. If this setting is not configured, you cannot use features with Agile.

To edit the Features mapping do the following:

- 1 Select **Agile Settings** from the Administration menu. This opens the Agile Settings dialog.
- 2 Select **Features**.
- 3 In the **Features Mapping** section, select the class you wish to use with assign to Agile's Features functionality from the **Features** box.
- 4 In the **Choose field equivalents** section, select the attributes which should be used on Agile's Features attributes.
- 5 Click **Save**.
- 6 Click **Close**.

Stories

The Stories mapping is an optional setting. If this setting is not configured, you cannot use features with Agile.

To edit the Stories mapping do the following:

- 1 Select **Agile Settings** from the Administration menu. This opens the Agile Settings dialog.
- 2 Select **Stories**.
- 3 In the **Stories Mapping** section, select the class you wish to use with assign to Agile's Stories functionality from the **Stories** box.
- 4 In the **Choose field equivalents** section, select the attributes which should be used on Agile's Stories attributes.
- 5 Click **Save**.
- 6 Click **Close**.

Clearing Agile Mappings

To clear one Agile mapping, do the following:

- 1 Select **Agile Settings** from the Administration menu. This opens the Agile Settings dialog.

- 2 Click .
- 3 Confirm the following message by clicking **Reset**.

To clear all Agile mappings, do the following:

- 1 Select **Agile Settings** from the Administration menu. This opens the Agile Settings dialog.
- 2 Click **Reset**.
- 3 Confirm the following message by clicking **Reset**.

Editing the Instance Schema

This section describes the functions found in the RM Browser Schema Definition.



NOTE

- We continue to move administrator functionality from the Class Definition tool into RM Browser, but it is not all there yet. For more information, see chapter "[Missing Features in the Instance Schema Editor](#)" on page 435.
- Editing functions are not available when using Internet Explorer. For editing, please use Edge, Chrome, or Firefox.

The Schema Definition process (formerly Class Definition), is a major step in Dimensions RM instance management, a process that begins with the System Administrator creating the Instance. The definition process considers each requirement class (type) (e.g., Business, Functional, Software, System), their associated attributes, relationships to one another, as well as the process associated with the workflow. Managing this information is the responsibility of the instance administrator.

Please note that it is possible to extend the process, as the team becomes more familiar with Dimensions RM, its philosophy and features. Attributes can be added or hidden, relationships can be added, workflow states modified. Dimensions RM was developed with process improvement in mind.

Defining classes for an instance allows users to:

- Organize information according to meaningful requirement types.
- Qualify the information within each class according to attributes defined This enables user to search the instance based on specific criteria (e.g., priority, creation date, component, stakeholder).
- Maintain relationships between the classes for traceability.

Dimensions RM users have the ability to create the logical information model for each instance. This model is created and illustrated in the Schema Definition diagram, a graphic representation of the classes and relationships defined.

Missing Features in the Instance Schema Editor

Historically, most schema administration has been accomplished using the Class Definition function in RM Manage, the tool used for RM Administration. Each new release of RM has included the migration of additional Administrator functions into the browser. Only the following features have not yet been migrated.

- Copying workflows from one class to another
- Schema deployment to other servers
- Definition of custom class types

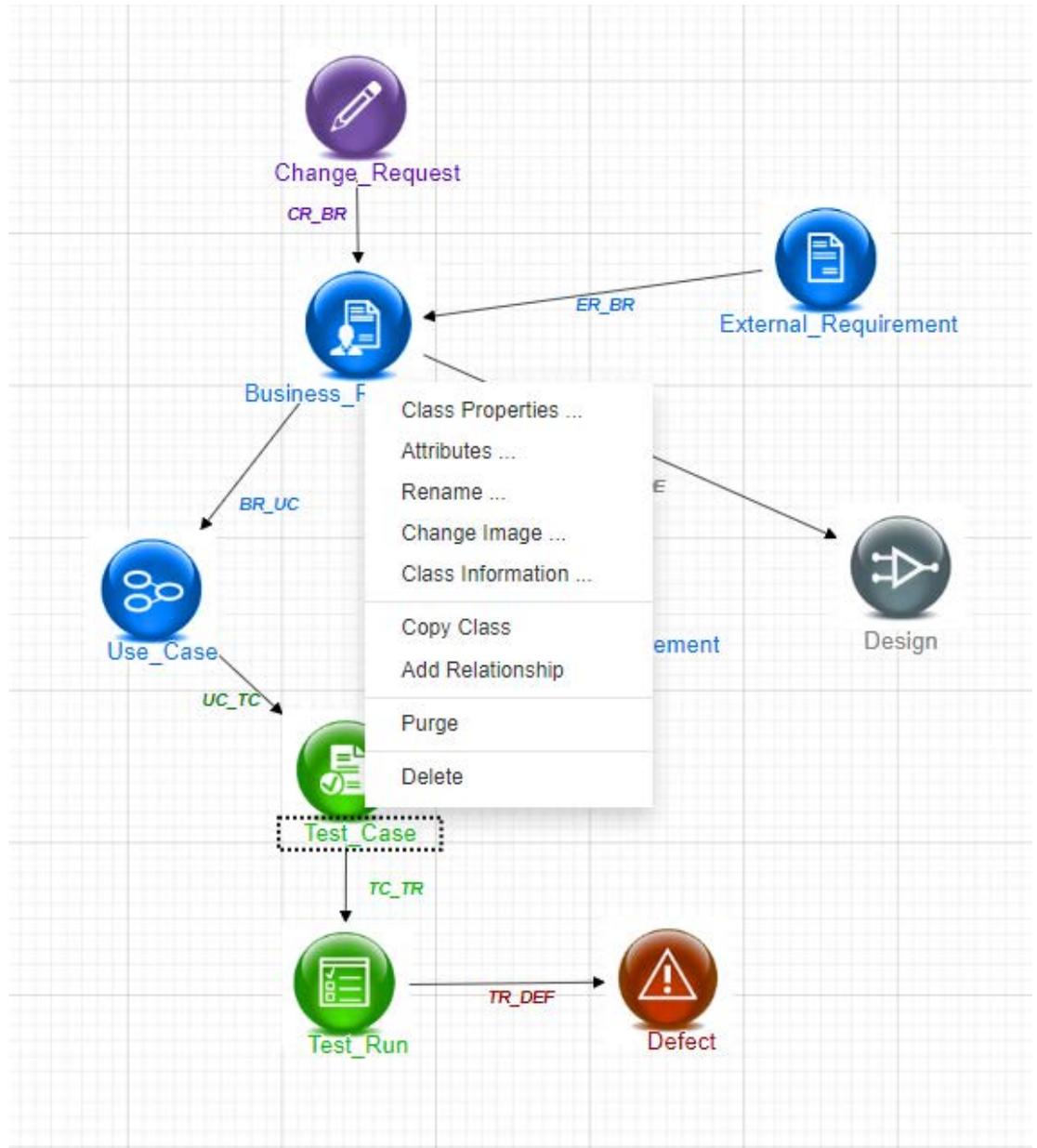
Access to these features is available in the RM Manage Class Definition tool. For details refer to the chapter "*Class Definition*" in the *Administrator's Guide*.

Modeling the Instance Schema

An instance administrator uses the **Schema Definition** function in the RM Browser **Administration** menu to:

- Create new classes,
- Rename, modify or delete existing classes
- Create relationships between classes
- Manipulate the Schema Definition diagram

The following is the Schema Definition from the ALM_Demo sample database (see "[Sample Instances](#)" on page 21). These samples should not be used as a basis for your own schema, but are certainly available for testing new ideas.



The Schema Grid



NOTE Editing functions are not available in Internet Explorer. For editing, please use Edge, Chrome, or Firefox.

Canvas Grid

The grid is a set of evenly spaced points on the canvas that are used to align components when they are moved. When the snap-to-grid option is enabled, the top left corner of a component is aligned to a grid point when the component is moved. The snap-to-grid feature can be enabled and disabled using by selecting **Snap** from the **Grid** menu. Grid visibility can be turned on and off by selecting **Show** from the **Grid** menu.

To change the distance between the points of the grid, select **Spacing** from the **Grid** menu.

Panning the Diagram

To pan the diagram, click the diagram background and move it into the desired direction.

Selecting Objects

You can select a single component by left-clicking it in selection mode. If you want to select multiple components, hold the Ctrl key and then left-click each of the components you want to include in the selection, or click and drag to draw a selection rectangle.

Zooming the Diagram

For quickly changing the zoom, you can use the mouse wheel. Alternatively, you can use the following options from the **Zoom** menu:

- **Factor:** Move the slider to the right to zoom in, or to the left to zoom out.
- **100%:** Scales the diagram to 100% (original size).
- **Zoom to fit:** Scales the diagram such that all components on the diagram are visible in the window.
- **Zoom to selection:** Scales the diagram such that all selected components are visible in the window. To select multiple components, hold down the Ctrl key while clicking the left mouse button on the class or relationship you want to add to the selection.

Gathering Application Information

Before defining classes, it is important to evaluate the type and scope of information to be modeled. The following will help users to understand the instance so that the most effective model can be developed.

- Identify the type of applications or components that exist in your organization. Are there feasibility studies, prototypes, or full-scale development projects? This will help you determine the phasing for the projects and decide how much information needs to be modeled, where the emphasis should be placed and what kinds of reports will be needed.
- Assess the documentation and reporting requirements. They vary with the type of project and are also influenced by reports that your organization may have produced in the past. For example, for a feasibility study, risk assessment is a major issue, and you will probably want to report on high-risk components or modifications.
- Identify the customer and proprietary information that should be modeled and tracked through the successive phases of the projects.
- Assess which subsets of the information will be the most significant and/or useful.
- Consider how previous experience can assist in identifying what information needs to be modeled. You may be able to use a modified version of an existing Dimensions RM information model.
- Identify the development phases for your projects.
- Identify the information classes needed for the beginning phase, such as functional specifications.
- Identify the information classes needed for the final phase, such as test results (unit, integration and acceptance).

- Determine the required information flow between phases. This helps to identify the relationships between classes.
 - Determine if some of the projects will be subcontracted to off-site development teams and requires partitioning of the information.
 - Assess the detail level of the information available, and capture some basic assumptions about the structure of the information. Information assessment helps you to determine the structure of your information model as laid out in the following list:
 - **Very General:** General or summarized information, such as operational scenarios or marketing plans.
 - **High-level:** High-level information, such as system specification narratives that cover design constraints, desired features and elements that should not be included in the solution.
 - **Detailed:** Detailed information, such as subsystem specifications that provide implementation level details.
 - **Low-level:** Low-level details, such as a requirement for a certain version of software or hardware.
 - Assess and define the operational parameters, such as:
 - The required level of tracking among requirements, other project information, and information generated by CASE tools.
 - The members of the project teams, their responsibilities, and the access rights each will require for various types of project information during specific phases. Group, user and Category permissions assist in determining which classes need to be created, which documents will be associated with each class as well as the logical breakdown of the data.
- Identifying the reports that are generated helps to determine the attributes that will be needed later for searching, sorting, and printing.

Defining a New Instance Schema

A new schema must be created by the **System Administrator** using RM Manage, please see the chapter Managing Instances in the Administrator's Guide or submit a request to your System Administrator.

The schema definition consists of the following components:

- A description of the requirement types (classes).
- The definition of attributes for each class.
- The specification of permissions for the data assigned to the class.
- The identification of the relationship between classes.
- The creation of an optional workflow.

The first steps in class development are: adding classes to the schema definition diagram, specifying the types, and assigning names to each class.

There is a large and growing list of requirement classes available under the **New** drop-down in the Schema Definition dialog. There is a Requirement class that can be used as the basis for any requirement type. There are classes for test cases, use cases, releases,

sprints and stories. Each of these include a set of attributes considered useful to get you started, but all are available for consideration and adoption.

Opening the Instance Schema

To open the instance schema, select **Schema Definition** from the **Administration** menu. If you are the instance administrator, the Schema Definition dialog will open in read/write mode. Once the administrator opens the instance schema it will be locked, and will remain locked until the schema is saved and closed.

When attempting to open a locked schema, the **schema is locked** dialog box is displayed, identifying the user currently holding the lock.



Figure 11-11. Instance Schema Locked

If you are sure the user identified is **not** currently modifying the instance schema, click **Unlock** to reset the lock and load the schema in read/write mode. Alternatively, you can click **Continue** to load the schema in read-only mode.

Schema Class Creation

Class names (requirement types) should reflect the conventions familiar to users when implementing or expanding the Dimensions RM schema. If a team has been maintaining requirements in spread sheets, word files or a different solution, it is recommended that they create classes in Dimensions RM using those same names. This will make the transition to the solution easier.

Moving forward, Dimensions RM will automatically store the information necessary to determine "who did what and when," however you might want to include that information, if available, with the initial import. The team might also consider defining additional attributes that will help in searching for or reporting on sets of requirements.

It is always possible to add, hide or even to remove, attributes as use of the tool expands.

There are a few classes that have been predefined and should not be changed. Those are listed below.



CAUTION!

- The Poll class is for internal use only and must not be modified. The attributes in this class are used to support the polling function, any change to that class could result in the failure of the function.

- The Chapter class is used to support document preparation.

Do not modify or rename any of the following attributes:

- Chapter Description
- Chapter Type
- CM Associations short
- Doc Description
- Hide Chapter Number
- Reason for Change
- Title

You may

- add attributes;
- show or hide the **Hide Chapter Number** attribute.

- The Comment class, used for discussion concerning database objects, is for internal use only.

You **must not** modify or rename any of the following attributes:

- Comment
- Subject

You may add attributes.

Defining a New Class

A list of classes has been prepared for new class selection. The content is not cast in stone, it is there to get you started. If you are not sure which will best suit your needs, you may add, review, consider and delete. The generic *Requirement* class is always a good place to start.

To add the class:

- 1 Select a class type from the **New** menu, or move the cursor to the desired location on the grid, right-click, choose 'Add Class' and select a relevant type from the list
- 2 Move the cursor to where you want to place the class and click the left mouse button. This opens the **Add Class** dialog.

- 3 Enter a unique name for the class, preferably one that describes the data to be held within it..



CAUTION! The class name must follow the conventions specified in chapter ["Naming Conventions for Classes" on page 470](#)

- 4 Click **OK** to add the class with the specified name to the instance schema.
- 5 Click  to save the instance schema.

The complete definition of a class consists of these steps:

- 1 Create the class ;
- 2 Define relationships if required (see chapter ["Adding a New Relationship" on page 445](#)).
- 3 Define the related attributes (see chapter ["Defining an Attribute" on page 410](#));

Adding a class symbol to the instance schema creates an information class.

Specifying Attributes

For managing attributes, save your changes and use the **Attribute Settings** function from the **Administration** menu. For further details, see chapter ["Defining Attributes" on page 409](#).

Class Properties Dialog:

When a class is added to the instance schema, it is added with a default set of properties.

To change these properties, which include Default Settings, Style and Security, right-click on the class and choose **Class Properties** from the shortcut menu.

Properties Tab: Specify a Description, Default Settings

A **Class Description** can and should be associated with all items defined in the instance schema. A class description can help to clarify the contents, and even the team responsible for content definition. For example, the Business Requirement class might be assigned the description. "Requirements defined and reviewed by business analysts and product management".

Default Title Attribute: the attribute from among those defined within the class that shall be used as the title when the class objects are displayed. This may be the attribute defined as the Name or Title but any Alphanumeric attribute may be used.

Default Description Attribute: The Text attribute that shall be used as the description. The requirement statement (description) is typically used.

Enable Workflow: Checkbox to enable workflow for a class. See chapter ["Creating or Editing a Workflow" on page 453](#)

Auto-size Attributes on Form: Checking this option supports a cleaner form layout, by providing a facility to assign attributes to a form equally, such that attributes with varying display lengths line up on the form.

There are additional mechanisms for controlling the placement of attributes on forms, see "Customizing Web Forms and Templates" chapter in the *Dimensions RM Administrator's Guide*.

Style Tab: Changing Color and Font on the Display

The Schema Definition is used in documentation, and to that end, it is possible to modify font size and color as indicators when a schema contains many classes that may have different relevance to different teams.

To change the display used for a class in the schema, right-click on the class, choose **Class Properties**, and select the **Style tab**.

Setting Group Permissions on the Class

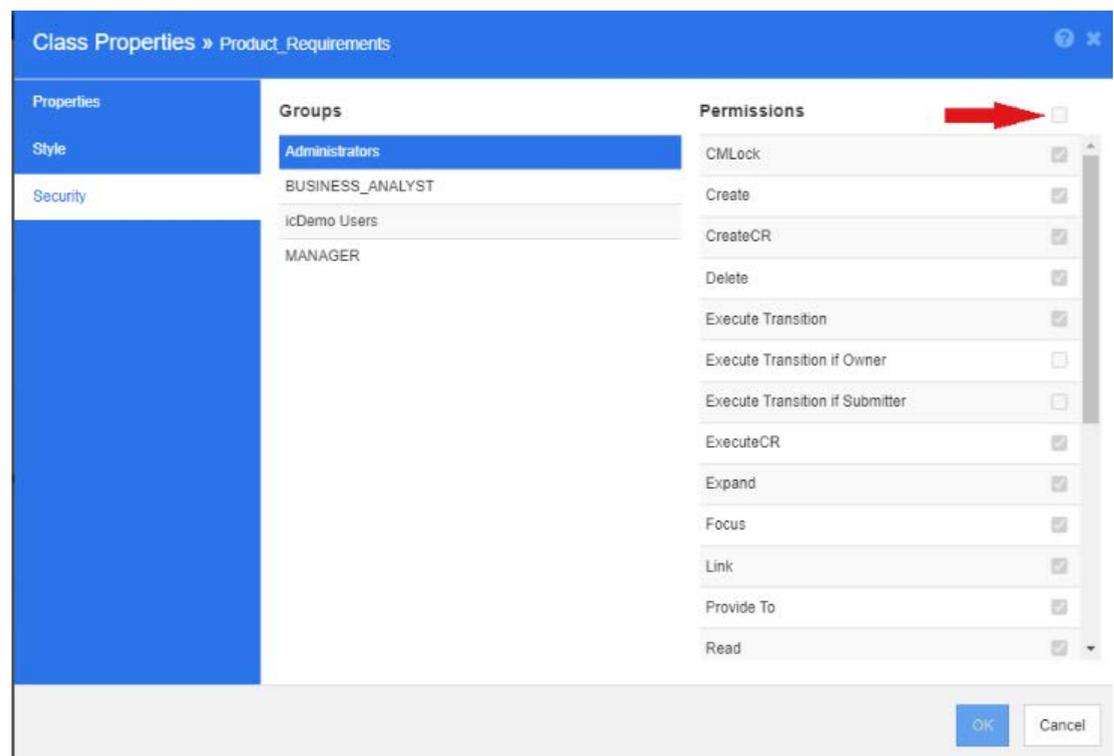
In Dimensions RM users are defined and assigned to groups. The assignment of group permissions can be specified for each group within each class, or more generally by group with permissions applied across classes. The choice, once again, depends on process.

If, for example, all team members have read access to both Business and Functional requirements, but only Business Analysts may modify Business requirements, then it is reasonable to assign permissions within each individual class.

To change the class security settings, right-click on the class, choose **Class Properties**, and select the **Security tab**.

Select a group from the left column and set permissions on the right. It is possible to check the permission box to set all as shown below..

For a complete list of Valid Transactions/Actions see "[Valid Transactions](#)" on page 385.



Attributes

Attribute Settings may be accessed directly from the Class, right click on a class and select **Attributes**, or by selecting **Attribute Settings** from the Administration menu. For complete documentation concerning **Attribute Settings** See chapter "[Managing Attribute Settings](#)" on page 399.

Renaming a Class

Right-click the class and select **Rename** from the shortcut menu. This opens the **Rename** dialog. Enter a unique name for the class that describes the data held in the class.



CAUTION! The class name must follow the conventions specified in chapter "[Naming Conventions for Classes](#)" on page 470

Changing a Class Image

When creating a class, the generic class image  is used. You can change the image to reflect the purpose of the class. There are folders listed containing the full set of images in various colors, which makes differentiating between class groupings simpler. It is also possible for the team to create and store their own images.

To change the image, execute these steps:

- 1 Right-click the class and select **Change Image...** from the shortcut menu. This opens the **Change Image** dialog.
- 2 The list contains images with a turquoise background. If you wish to use a different background color, select a sub-folder.
- 3 Select an image and click **OK**.
- 4 Click  to save the instance schema.

Class Information

This function creates a printable form containing a description of Workflow, if created, and detail concerning all attributes, both custom and system, for the selected class. The output, very helpful to users new and old, includes:

- Class description
- Workflow diagram, State and transition detail
- Custom attributes, with descriptions
- System attributes, with description

Copying a Class

When creating requirement types of similar attribute structure, you may right click on the existing class and select **Copy Class** from the menu. Select **Rename** from the menu to assign a unique name. The duplicated class will initially contain the same attributes as the original class.

Please note that if you have modified the PUID format to assign each requirement class a unique prefix, you should make this same modification to the copied class, please see "[PUID Attribute](#)" on page 430.

To Duplicate (copy) a class:

- 1 Right-click the class and select **Copy Class**.
- 2 Right-click the canvas where the class is to be displayed. This opens the Class dialog.
- 3 Enter a unique name for the class that describes the data held in the class.



CAUTION! The class name must follow the conventions specified in chapter "[Naming Conventions for Classes](#)" on page 470

- 4 Click **Save** to add the class with the specified name to the instance schema. The schema is saved in the process.



NOTE Duplicating a class does not copy the associated data.

Add Relationship

A relationship represents a logical association between two classes. The two classes are referred to as the primary class (the class from which the relationship flows), and the secondary class (the class to which the relationship flows).

Relationships can be added from the **New** menu in schema definition, as well as with the right-click on the class. The benefit of using the latter method is that the source is clear and you need only draw the line to the target.

For a complete discussion of Relationships and their properties, please see chapter "Relationships" on page 445.

Purging Class Data

Purging, i.e., erasing data, is not something often done - although it can be useful, especially at startup. It is often the case, once the attributes are created, and data is imported that there is much not to like about the result. Certainly attribute display names can be changed, and forms can be modified but sometimes it's useful to purge the data and start all over again. You are back to a clean slate with the numbering back to 1 - or whatever starting point was selected.

To purge the data from a class:

- 1 Right-click the class and select **Purge** from the shortcut menu. This opens the **Purge Data** dialog.
- 2 Click **Purge** to delete all objects in the class and their related links.



CAUTION! Purging data permanently removes the objects from the instance.

- 3 When purging for a class or relationship has been completed successfully, a check mark shows the success. Should purging fail, an "x" shows the failure. Hover over the "x" to get further information about the failure.
- 4 Click **OK** to close the **Purge Data** dialog.

Deleting a Class

Deleting a class erases the class from the schema, as well as all data associated with it. Deleting the class, much like purging the contents, is forever. If a class contains useful information, but the team prefers to stop maintaining it, permissions can be removed, as can its relationship to other classes and, in instance settings, it can be removed from class lists.

To delete a class from the instance schema, do one of the following:

- Right-click the class you want to delete and select **Delete** from the shortcut menu.
- Select the class and then press the **Delete** key.



CAUTION! This will not only delete the specific class from the instance schema, but will also erase all data associated with the class.

Relationships

A relationship represents a logical association between two classes. The two classes are referred to as the primary class (the class from which the relationship flows), and the secondary class (the class to which the relationship flows).

Adding a New Relationship

Adding a relationship to the Schema Definition diagram creates a link between two classes allowing the traceability or flow of information to be created between objects of the classes.

To create a relationship, execute these steps:

- 1 From the **New** menu, select **Relationship**.
- 2 Select the class intended as the relationship source (primary class), then select the target class. This opens the **New Relationship** dialog.



NOTE Do not create a relationship from any class to a Chapter class.

- 3 Enter a unique name for the relationship that describes the connection between primary and secondary classes.
- 4 Click **OK** to add the relationship to your instance schema.



CAUTION! The relationship name must follow the conventions specified in chapter "[Naming Conventions for Relationships](#)" on page 471

- 5 The Instance Schema must be saved before defining the **Relationship** properties .

Defining or Modifying Relationship Properties

The **Relationship Properties** dialog consists of three tabs: Properties, Style, and Security. The following steps relate to the Properties:

- 1 Select and double-click the relationship, or right-click the relationship and select **Relationship Properties** from the shortcut menu.
- 2 Change the settings to match your requirements.
 - Edit the text in the **Description** box.
 - **Cardinality**: see section "[Cardinality](#)" on page 446
 - **Transfer rules**: see section "[Transfer Rules](#)" on page 446
 - **Permissions**: The dialog for setting permissions by group on a relationship uses the identical dialog as that used to set permissions on class. For details see section "[Setting Group Permissions on the Class](#)" on page 442
- 3 Click **OK** to change the settings.
- 4 If you have finished your changes, click  to save the instance schema.

Cardinality

Cardinality rules control the number of links that you can make between objects of the classes in a relationship. For example, a cardinality of 2:3 (2 for the primary cardinality and 3 for the secondary cardinality) means that no more than two links can be made from an object of the primary class to objects of the secondary class. Also, no more than three links can be made from an object of the secondary class to objects of the primary class. To indicate that links cannot be made to objects of either the primary or secondary class, enter a value of 0 in the appropriate field. To indicate that the number of links created to objects of either the primary or secondary class should be unconstrained, enter a value of **n** in the appropriate field.

See also option "apply only for current version" in section "[Transfer Rules](#)" on page 446.

Transfer Rules

Transfer rules govern what happens to an object link if you edit an object participating in the relationship. Toggling the desired values on or off sets the link transfer rules.

The following table describes the types of link transfer rules.

Primary:

Rule Type	Description
Transfer to Child	When the primary object in the relationship is edited and replaced, the links from the primary object are copied to the new version.
Delete from Parent	When the primary object in the relationship is edited and replaced, the links from the previous version of the primary object are deleted.
Transfer to Parent on deletion of Child	If the primary object is removed, the links are transferred to the previous version of that object.
Mark Secondary as Suspect on change	When the primary object is modified, the secondary object is marked as suspect. To define the attributes that trigger a change see attribute setting Change Raises Suspicion in chapter " Common Attribute Properties " on page 411.
Mark Secondary as Suspect on Link deletion or undeletion	When the link between the primary object and the secondary object is either deleted or undeleted the secondary object is marked as a suspect.

Rule Type	Description
Populate Attributes on Create and Link	When the secondary object creates a new primary object and links to it, attribute values are copied from the secondary object to the primary object if the attribute names (not the display names) match. This setting only applies for those attributes which have the "Populate on Create and Link" setting enabled (see chapter "Common Attribute Properties" on page 411).
Apply only for current Version	This option is related to Cardinality and just comes into effect if the primary Cardinality has a numeric value. If it is enabled, only primary objects with status Current are considered. If it is disabled, all versions of the primary object are considered.

Secondary:

Rule Type	Description
Transfer to Child	When the secondary object in the relationship is edited and replaced, the links from the secondary object are copied to the new version.
Delete from Parent	When the secondary object in the relationship is edited and replaced, the links from the previous version of the secondary object are deleted.
Transfer to Parent on deletion of Child	If the primary object is removed, the links are transferred to the previous version of that object.
Mark Primary as Suspect on change	When the secondary object is modified, the primary object is marked as suspect. To define the attributes that trigger a change see attribute setting Change Raises Suspicion in chapter "Common Attribute Properties" on page 411 .
Mark Primary as Suspect on Link deletion	When the link between the primary object and the secondary object is deleted, the primary object is marked as a suspect.
Populate Attributes on Create and Link	When the primary object creates a new secondary object and links to it, attribute values are copied from the primary object to the secondary object if the attribute names (not the display names) match. This setting only applies for those attributes which have the "Populate on Create and Link" setting enabled (see chapter "Common Attribute Properties" on page 411).
Apply only for current Version	This option is related to Cardinality and just comes into effect if the secondary Cardinality has a numeric value. If it is enabled, only secondary objects with status Current are considered. If it is disabled, all versions of the secondary object are considered.

Changing the Style Properties for a Relationship

When a relationship is added to the instance schema, it is added with a default set of properties that relate to the graphic representation used for the relationship.

To configure the style properties for a relationship:

- 1 Right-click the class and select **Style Properties...** from the shortcut menu. This opens the **Style Properties** dialog.
- 2 Change the style as desired.
- 3 Click **OK** to accept the new style.
- 4 If you finished your changes, click  to save the instance schema.

Deleting a Relationship

To delete a Relationship from the instance schema:

- 1 Right-click the Relationship (line) to be deleted.
- 2 Select **Delete**; this opens the **Confirm delete** dialog.
- 3 Click **OK** to delete the relationship.



CAUTION! This will not only delete the relationship definition from the instance schema, but will also delete all links associated with the relationship.

Editing Vertices

When a relationship is selected, you will see control handles on every vertex that defines the relationships shape. These vertices can be manipulated to change the path of a relationship

To move a vertex:

- 1 Select the relationship.
- 2 Hover your cursor over a control handle.
- 3 Click the control handle and then drag it to a new position.
- 4 Release the mouse button to place the vertex at its new coordinates.
- 5 If you finished your changes, click  to save the instance schema.

Purging Relationship Data



CAUTION! Purging data permanently removes links from the instance.

To purge the links from a relationship:

- 1 Right-click the relationship and select **Purge** from the shortcut menu. This opens the **Purge Data** dialog.
- 2 Click **Purge** to delete all links for this relationship.
- 3 When purging for the relationship has been completed successfully, a check mark shows the success. Should purging fail, an "x" shows the failure. Hover over the "x" to get further information about the failure.
- 4 Click **OK** to close the **Purge Data** dialog.

Renaming a Relationship

The relationship name should describe the data you intend to associate with the relationship. Each relationship name must be unique to the instance schema.

To rename a relationship, execute these steps:

- 1 Right-click the relationship and select **Rename** from the shortcut menu. This opens the **Rename** dialog.
- 2 Enter a unique name for the relationship that should describe the data you intend to associate with the relationship.



CAUTION! The relationship name must follow the conventions specified in chapter "Naming Conventions for Relationships" on page 471

- 3 Click **OK** to change the relationship name.
- 4 If you finished your changes, click  to save the instance schema.

Reversing a Relationship

If the information does not seem to flow in the direction that the relationship was initially created, you can reverse it.

To reverse a relationship, execute these steps:

- 1 Right-click the relationship and select **Reverse** from the shortcut menu.
- 2 Select one of the following options. The selected option is applied to all existing links when the relationship is reversed.
 - **Retain Links:** Reverses the direction of the relationship while leaving all existing links in place.
 - **Remove Links:** Reverses the direction of the relationship, and removes all existing links for the relationship.

Specifying Attributes on a Relationship

It is possible to associate attributes with relationships. For managing attributes, save any unsaved relationship changes and use the **Attribute Settings** function from the **Administration** menu, and choose **Show Relationships**. For additional details see chapter "Defining Attributes" on page 409.

Saving the Instance Schema

To save the instance schema, click  in the toolbar.

Reloading the Instance Schema

To reload the instance schema, click  in the toolbar.

Showing Class Information

The **Class Information** dialog provides detail concerning class attributes and the associated Workflow (if present).

To show the class information, right-click the class and select **Class Information...** from the shortcut menu. This opens the **Class Information** dialog.

Creating Product and Project Classes

The **Product** and **Project** classes allow easy assignment of a requirement to a product (e.g. *CloudPhoto*) and a project (e.g. *Edition 2019*). Depending on your needs, you may want to create one or both classes.

- **Agile:** Requires the **Product** class
- **Branching:** Requires **Product** and **Project** classes
- **Requirement to Product Assignment:** Requires the **Product** class (without branching)
- **Requirement to Project Assignment:** Requires the **Project** class (without branching)

Creating Product and Project Classes for Branching

- 1 Open the instance schema (see chapter ["Opening the Instance Schema" on page 439](#)).
- 2 Add a class based on the **Product** type (see chapter ["Defining a New Class" on page 440](#)) and give it a name that matches your needs (e.g. *Products*).
- 3 Add a class based on the **Project** type (see chapter ["Defining a New Class" on page 440](#)) and give it a name that matches your needs (e.g. *Projects*).
- 4 Click  to save the instance schema.

Creating Product or Project Classes without Branching

- 1 Open the instance schema (see chapter ["Opening the Instance Schema" on page 439](#)).
- 2 **To create the Product class:**
 - a Add a class based on the **Product** type (see chapter ["Defining a New Class" on page 440](#)) and give it a name that matches your needs (e.g. *Products*).
 - b Continue with point 4.
- 3 **To create the Project class:** Add a class based on the **Project** type (see chapter ["Defining a New Class" on page 440](#)) and give it a name that matches your needs (e.g. *Projects*).
- 4 If you do not plan to use branching at a later time, you can do the following modifications, so the short name is not required when creating a product or project:
 - a In the **Attributes Definition** dialog (see chapter ["Defining an Attribute" on page 410](#)), select the class you just created (*Products* or *Projects*).

- b Select the **Short Name** attribute.
- c Clear the following options:
 - **Attribute Mandatory**
 - **Display For Entry**
- d Click **Save** to save your changes.

Supporting Comments

Overview

Comments can be added to chapters or requirements. Comments allow to discuss topics regarding a requirement or chapter. Rather than just discussing the topics by e-mail or personally, this allows to review all comments at any time, e.g. during an approval process.



NOTE To add a comment or reply to a comment, users must have the following permissions:

- **Create** permission on the Comment class
- **Read** permission on the requirement class
- **Create** permission on the relationship between the Comment class and the requirement class.

Adding the Comment Class and Relationships

The following steps describe how to add the Comment class and to create the relationships with the classes for which you want to support comments. You are free to change the name the Comment class in your schema.

Execute the following steps:

- 1 Select **Comment** from the **New** menu.
- 2 Move the cursor to where you want to place the class and click the left mouse button. This opens the **Add Class** dialog.
- 3 Enter a unique name for the class that describes the data held in the class.



CAUTION! The class name must follow the conventions specified in chapter "[Naming Conventions for Classes](#)" on page 470

- 4 Click **OK** to add the class with the specified name to the instance schema.
- 5 Do the following for each class you want to use comments with:
 - a From the **New** menu, select **Relationship**

- b Select the class you want to use comments with, then select the *Comment* class. This opens the **New Relationship** dialog.



NOTE Do not create a relationship from any class to a Chapter class.

- c Enter a unique name for the relationship that should describe the data you intend to associate with the relationship.



CAUTION! The relationship name must follow the conventions specified in chapter "[Naming Conventions for Relationships](#)" on page 471

- d Click **OK** to add the relationship to your instance schema.
 - e Double-click the relationship (the arrow pointing from your class to the *Comment* class) or select the relationship and select **Relationship Properties...** from the shortcut menu. This opens the **Define Relationship** dialog.
 - f Ensure, that for **Primary** and **Secondary** , the option **Transfer to Child** is selected.
 - g Click **OK**.
- 6 Click  to save the instance schema.

Editing Workflows

In Dimensions RM workflows are defined to ensure that requirement types or containers (documents, collections, etc.) meet a defined set of criteria before they reach an approved state. Constraints may be placed on specific attributes, relationships as well as the user or group responsible for review.

For example, before a newly defined requirement can be transitioned to review it may be required to contain a title, description, a verification method or a manager.

Workflows are typically defined by the requirements team, and implemented by the tool administrator using the Schema Definition tool.

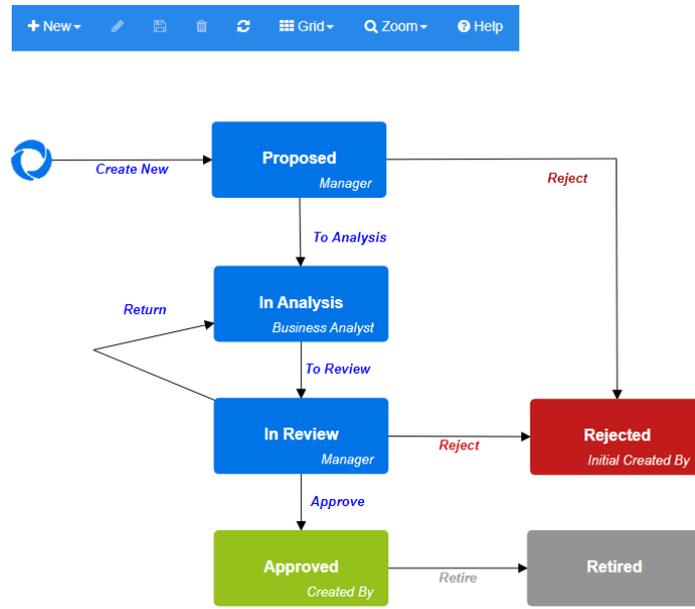


Figure 11-12. Workflow for class `Product_Requirements`

Workflow Elements

A workflow consists of two elements: states and transitions.

State: A state is a position in a workflow where a requirement resides. While a requirement resides in a given state, it has an owner who is responsible for performing a specific task with the requirement.

Transition: A transition activates the movement of a requirement from one state to another in the workflow.

Creating or Editing a Workflow

You can create workflow only for a class. It is not possible to create one workflow which handles several classes.

To create a workflow, follow these steps:

- 1 Select **Schema Definition** from the **Administration** menu. This opens the **Schema Definition** dialog.
- 2 Right-click the desired class and select **Class Properties**
- 3 Ensure that the **Enable Workflow** option is selected.
- 4 Click the **Workflow Definition** button. This opens the **Workflow Definition** dialog.
- 5 Design your workflow by adding, modifying or deleting states and transitions.
- 6 Click  to save your changes.
- 7 Close the **Workflow Definition** dialog.
- 8 **Do the one of the following:**

- If you enabled the Workflow by selecting the Enable Workflow option:
 - a Click **OK** to close the **Class Properties** dialog.
 - b Click  to save the Schema Definition.
 - c Close the **Schema Definition** dialog.
- If you edited an existing workflow:
 - a Click **Cancel** to close the **Class Properties** dialog.
 - b Close the **Schema Definition** dialog.

Workflow States

Adding a Workflow State

To add a state, follow these steps:

- 1 From the **New** menu, select  and click at the desired location on the canvas. This opens the **Add State** dialog.
- 2 Replace the default name **New_State** with the desired state name and click **OK**.



NOTE State names must be unique.

Changing a Workflow State Name

To rename a state, follow these steps:

- 1 Double-click the state you want to rename or right-click and select **Rename**
- 2 Enter the new state Name
- 3 Click **OK**

Changing a Workflow State Definition

To change a state definition you can either double click the state or right-click the state and select **Properties...** from the shortcut menu. This opens the *State Properties* » 'State Name' dialog which allows you to change the following:

Workflow State Property Settings

The **Properties** tab is shown when you open the *State Properties* » 'State Name' dialog. To change properties after you changed other settings, select the **Properties** tab. The **Properties** tab allows you to change the following settings:

- **Name:** Changing the value in the **Name** box renames the workflow state.
- **Description:** Enter or change the description to describe the purpose of the state. The description is used as a tool tip displayed when hovering the state in the State History of a form.
- **Owner:** Changing the owner can prevent that other users cannot execute any transaction on this state. This depends on the configuration of the attribute (i.e. single user, group or team), user/group permissions, and security settings for the transition.

Workflow State Style Settings

The **Style** tab allows you to change the following settings:

- **Label:** Defines the font used for the label. The label font is only used with the state diagram.
- **Owner:** Defines the font used for the owner. The owner font is only used with the state diagram.
- **Icon:** Defines the color used for the state icon. The icon color is used for the state diagram and for the workflow state tag in lists.

Workflow State Transitions Settings

The **Transitions** tab allows you to change the order transitions are shown on the form. To change the order, select a transition and click  or .

Workflow State Form Settings

The **Form** tab allows access to the following settings:

Sections: Defines the Sections shown when a requirement, in this state, is opened.

Attributes: Defines the attribute processing, as described below.

Setting	Description
Display	<p>Display the attribute if its parent section is also displayed.</p> <p>NOTE If you choose to hide (not display) attributes on selected workflow forms, please test the display.</p> <p>Whether working with modified forms or not, the format of the display will change when attributes are hidden; a change in display can be confusing to the users. If there are attributes that should be hidden at various states in the process, consider placing those attributes into a single section. This will allow suppression of the section without affecting the display of individual attributes on the form.</p>
Editable	The attribute can be modified on the transition form.
Mandatory	The attribute must have a value in order to complete the transition.
Clear Value	<p>The attribute will be cleared during the transition.</p> <p>For example, a status attribute maintained during a review process may be cleared prior to final review.</p>

Workflow State Security Settings

The settings on the **Security** tab allow the administrator to define which group can read, save or modify a requirement of the selected state.

Transaction	Definition
Read	The user can see the data of the requirement.
Save	The user can replace attribute values of the requirement.

Transaction	Definition
Save if Owner	The user can replace attribute values of the requirement if he or she owns it.
Update	The user can update attribute values of the requirement.
Update if Owner	The user can update attribute values of the requirement if he or she owns it.

The dialog provides a facility to select each group and then add or remove all permissions for that group.

For additional information see ["Managing Groups" on page 382](#).

Deleting a Workflow State

To delete a state, follow these steps:

- 1 Select the state you want to delete.
- 2 Press the **Delete** key or right-click the state and select **Delete** from the shortcut menu.
- 3 Confirm the following dialog.



NOTE A state can only be deleted if no requirement is within that state.

Workflow Transitions

Adding a Workflow Transition

In order to add a transition you need at least 2 states in your workflow diagram.

To add a transition, follow these steps:

- 1 From the **New** menu, select Transition .
- 2 Click the state you want the transition to start from.
- 3 Click the state you want the transition to end.



TIP You can create a "angled" transition arrow (e.g. a 90° angle) by clicking at several points in the work area before clicking the end state.

- 4 Enter a transition name and click **OK**.

Changing a Workflow Transition Name

To change a transition name, do the following:

- 1 Double-click the transition arrow or right-click the transition arrow and select **Transition Properties...** from the shortcut menu. This opens the *Transition Properties* dialog.
- 2 Enter the new name into the **Name** box.
- 3 Click **OK**.

Changing a Workflow Transition Definition

To change the transition definition you can either double click the transition arrow or right-click the transition arrow and select **Transition Properties...** This opens the *Transition Properties » 'Transition Name'* dialog which allows changes to the following:

Workflow Transition Property Settings

The **Properties** tab is shown when you open the *Transition Properties » 'Transition Name'* dialog. To change properties after you changed other settings, select the **Properties** tab. The **Properties** tab allows you to change the following settings:

- **Name:** Changing the value in the **Name** box renames the workflow transition.
- **Description:** Enter or change the description to describe the purpose of the transition. The description is used as a tooltip users can show when hovering the transition in the State History of a form.

Workflow Transition Style Settings

The **Style** tab allows you to change the following settings:

- **Line:** Defines the style of the arrow line visualizing the transition. The line style is only used with the state diagram.
- **Label:** Defines the font used for the label. The label font is only used with the state diagram.

Workflow Transition Form Settings

The check boxes at the top of the Form tab allow the administrator to choose a **Quick Transition** or to require an **Electronic Signature**.

A Quick transition causes the requirement to be automatically transitioned as soon as all attributes listed as mandatory as **State Properties** have been addressed. For example, if the process requires that the team lead review a requirement and assign a value to the attribute *Manager*, then the Manager attribute will be set as mandatory in the state form and, once populated, the requirement will be transitioned.

A regular transition is manual, and causes a transition form containing the following elements to be raised:

Sections: Defines which sections are shown when the user opens the requirement.

User Defined Attributes: Defines how to process user defined attributes.

Setting	Description
Display	Display the attribute if its parent section is also displayed. NOTE If you hide attribute controls, the attribute controls following the hidden attribute controls may be re-arranged. This may be confusing to some users.
Editable	The attribute can be changed
Mandatory	The attribute must have a value.
Clear Value	Clears the value of the attribute.

When checking the box to require an **Electronic Signature** the user must confirm their identity by entering user name and password. The following data will be stored with the transition:

- User name and user ID
- Timestamp of transition was executed
- Executed transition

Workflow Transition User Field Settings

The settings on the **User Fields** provide a facility for assigning or moving users between attributes during transitions, thus allowing the team to maintain critical information as well as to enforce process.

User Fields allow the team to remove or to assign users to various roles during transitions. For example, the author, the person responsible for writing a requirement and submitting it for review is removed from the set of people available as Reviewer or Approver.

The Reviewer, at the next transition will be removed from the Approver list - ensuring that each role is fulfilled by a different user.

In situations where a different individual is assigned a role during each release process, the person fulfilling that role, in the example Product Manager, may be automatically assigned to other roles, in this example, the role of approver.

Hopefully, we have given you the tools to create a process that works in your environment.

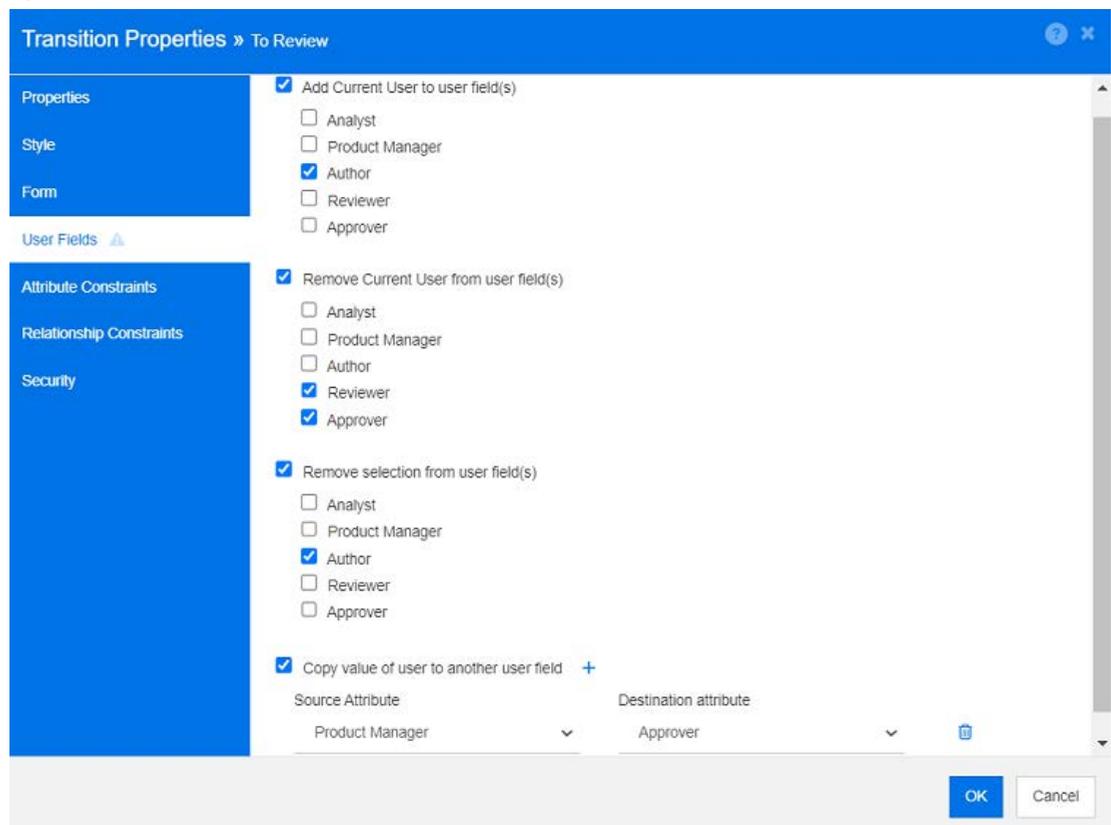


Figure 11-13. Sample Settings: transition To Review

The following options are available:

- **Add current user to user field(s):**
 - **Single value list:** The selected user attributes will show the user executing the transition. In the example above, the user responsible for creating the requirement and transitioning it for review, will be assigned the role of Author, a list that does not allow multiple entries.
 - **Multiple values list:** Adds the current user to the selected lists.
- **Remove current user from user field(s):**
 - **Single value list:** If any of the selected user attributes holds the user executing the transition, the user attribute will be cleared.
 - **Multiple values list:** The user executing the transition is removed from selected lists. In the example above, the user executing the transition, now the Reviewer, is removed from the Approver list.
- **Remove selection from user field(s):**
 - **Single value list:** The selected user attributes will be cleared.
 - **Multiple values list:** All users will be deselected on the selected user attributes.

Workflow Transition Attribute Constraint Settings

To change the attribute constraint settings, select the **Attribute Constraints** tab. By creating or modifying attribute constraints you define under which conditions the transition can be executed.



NOTE Attribute constraints are checked when clicking the associated button.

- 1 Click **OR** or **AND** in the **Attribute Constraints** area to specify the type of logical relationship you are about to specify.
- 2 Specify the constraints as described in the following sections.
- 3 Click **OK**.

To add a new attribute constraint:

- 1 Click **+** in the **Attribute Constraints** area.

A new row is added to the table and the **Attribute** cell is populated. If needed, click on the **Attribute** cell to select a different attribute from a drop-down menu.

- 2 Click in the **Constraint** cell and select the desired constraint type from the drop-down menu. The following constraint types are available:
 - **=** The attribute *exactly* equals the value.
 - **!=** The attribute does NOT equal the value.

- **Like** The attribute includes the value as part of a larger string. When using Like, you would include one or more asterisks (*) as wild cards to indicate where the value fits into the larger attribute string. For example, taken in order, these values: *UNIX, *UNIX*, or UNIX* would match with these attributes: HP-UNIX, HP-UNIX-11, or UNIX-11.
 - **Null** The attribute does not contain a value.
 - **Not Null** The attribute contains a value.
- 3 Click in the **Value** cell. If the selected attribute is a list, select the value from the list of values displayed; otherwise, type the value into the cell.



NOTE If using a **Like** constraint, use asterisks as wild cards.

- 4 The **Auto** cell is a Yes-No check-box:
 - **No:** The transition is executed by selecting the transition button
 - **Yes:** The transition is executed automatically for requirements in the "Current" state, once all constraints have been met. For automatic transitions, the user interface will show no button for the transition.



CAUTION! It is not recommended to use automatic execution on several transitions originating from the same Workflow state. If the constraints of several transitions are true, it cannot be predicted, which of these transitions Dimensions RM will execute.

- 5 Click **OK**.

To delete an attribute constraint:

- 1 Click  in the row of the constraint you want to delete.
- 2 Click **OK**.

To change an existing attribute constraint rule:

- 1 Click the cell to be changed and modify the value.
- 2 Click **OK**.

Workflow Transition Relationship Constraint Settings

To change the relationship constraint settings, select the **Relationship Constraints** tab. By creating or modifying constraints you define under which conditions the transition can be executed.

To add relationship constraints:

- 1 Click **OR** or **AND** in the **Relationship Constraints** area to specify the type of logical relationship you are about to specify.
- 2 Specify the constraints as described in the following sections.

- 3 Click **OK**.

To add a new relationship constraint:

- 1 Click **+** in the **Relationship Constraints** area to add a new row to the table.
- 2 Click into the **Triggering Class** cell and select the class from the drop-down menu for which you want to define the constraint.
- 3 Click into the **Triggering Attribute** cell and select the attribute from the drop-down menu for which you want to define the constraint.
- 4 Click in the **Constraint** cell and select the desired constraint type from the drop-down menu. The following constraint types are available:
 - **=** The attribute *exactly* equals the value.
 - **!=** The attribute does NOT equal the value.
 - **Like** The attribute includes the value as part of a larger string. When using Like, you would include one or more asterisks (*) as wild cards to indicate where the value fits into the larger attribute string. For example, taken in order, these values: *UNIX, *UNIX*, or UNIX* would match with these attributes: HP-UNIX, HP-UNIX-11, or UNIX-11.
- 5 Click in the **Value** cell. If the selected attribute is a list, select the value from the list of values displayed; otherwise, type the value into the cell.



NOTE If using a **Like** constraint, use asterisks as wild cards.

- 6 If desired, click into the **Execute When** cell and select a different value from the drop-down menu. The following selections are available:
 - **At least one:** Executes the transition if one linked requirement fulfills the constraint.
 - **All:** Executes the transition if all linked requirements fulfill the constraint.
 - **All or Not Linked:** Executes the transition if all linked requirements fulfill the constraint or no requirements of the class (specified in the **Triggering Class** cell) are linked.
- 7 If desired, click into the **Auto** cell and select a different value from the drop-down menu. The following selections are available:
 - **No:** The transition is executed by clicking the transition button.
 - **Yes:** The transition is executed automatically if the requirement is in state "Current". The user interface shows no button for the transition.



CAUTION! It is not recommended to use automatic execution on several transitions originating from the same Workflow state. If the constraints of several transitions are true, it cannot be predicted, which of these transitions Dimensions RM will execute.

- 8 Click **OK**.

To delete an relationship constraint:

- 1 Click  in the row of the constraint you want to delete.
- 2 Click **OK**.

To change an existing relationship constraint rule:

- 1 Click the cell to be changed and modify the value.
- 2 Click **OK**.

Use Case: Automatic Transitioning Requirements with a Container Workflow

This use case describes how to transition requirements that are in a container (document, snapshot, collection, or baseline) to a new Workflow state. For the steps below, the RMDemo instance is used. When transitioning the container, the requirements will also be transitioned.

To configure automatic transitioning of requirements:

- 1 Select **Schema Definition** from the **Administration** menu. This opens the **Schema Definition** dialog.
- 2 Open the class (e.g. *Product_Requirements*) containing the workflow you want to modify by using one of these methods:
 - Double-click the class
 - Right-click the class and select **Class Properties...** from the shortcut menu
- 3 Open the workflow by clicking the **Workflow Definition** button.
- 4 Open the transition you want to execute (e.g. *Approve*) by using one of these methods:
 - Double-click the transition
 - Right-click the transition and select **Transition Properties...** from the shortcut menu
- 5 Select the **Relationship Constraints** tab.
- 6 Click  in the **Relationship Constraints** area to add a new row to the table.
- 7 Click into the **Triggering Class** cell and select the container workflow class (e.g. *Approval*) from the drop-down menu for which you want to define the constraint.
- 8 Click into the **Triggering Attribute** cell and select the **Workflow State** attribute from the drop-down menu.
- 9 Ensure that the **Constraint** cell shows =.
- 10 Click into the **Value** cell. Select the workflow state to which you transition the requirement (e.g. *Approved*).
- 11 Ensure that the **Execute When** cell shows **At least one**.

- 12 Scroll to the right, click into the **Auto** cell and select it (you see a check mark).



CAUTION! It is not recommended to use automatic execution on several transitions originating from the same Workflow state. If the constraints of several transitions are true, it cannot be predicted, which of these transitions Dimensions RM will execute.

- 13 Click **OK**.
- 14 Click  to save your changes.
- 15 Close the **Workflow Definition** dialog.
- 16 Click **Cancel** to close the *Class Properties* dialog.
- 17 Close the **Schema Definition** dialog.

Workflow Transition Security Settings

To change the security settings, select the **Security** tab. The security settings define which group can execute a transition of the selected state.

Transaction	Definition
Execute Transition	The user can execute this transition.
Execute Transition if Owner	The user can execute this transition if he or she owns the requirement.
Execute Transition if Submitter	The user can execute this transition if he or she submitted the requirement.

Deleting a Workflow Transition

To delete a transition, follow these steps:

- 1 Right-click the transition and select **Delete** from the shortcut menu.
- 2 Confirm the following dialog.

Deleting a Workflow

A workflow can only be deleted if there are no requirements within any state of that workflow. If this is not the case, the workflow can only be disabled.

To delete a workflow, follow these steps:

- 1 Select **Schema Definition** from the **Administration** menu. This opens the **Schema Definition** dialog.
- 2 Right-click the desired class and select **Class Properties...** from the shortcut menu. This opens the **Class Properties** dialog.
- 3 Click the **Workflow Definition** button. This opens the **Workflow Definition** dialog.
- 4 Delete all states and transitions except the **New** state.

- 5 Click  to save your changes.
- 6 Close the **Workflow Definition** dialog.
- 7 In *Class Properties* » *'Class Name'* dialog, clear the **Enable Workflow** box.
- 8 Click **OK** to close the *Class Properties* » *'Class Name'* dialog.
- 9 Click  to save the schema definition.

To disable a workflow, follow these steps:

- 1 Select **Schema Definition** from the **Administration** menu. This opens the **Schema Definition** dialog.
- 2 Right-click the desired class and select **Class Properties...** from the shortcut menu. This opens the **Class Properties** dialog.
- 3 Clear the **Enable Workflow** box.
- 4 Click **OK**.
- 5 Click  to save the schema definition.

Using Containers with Workflows

If you want to use containers (documents, collections, and baselines) with Workflows, you must create a class of type **WorkFlow_Container**. By using containers with workflows you could define an approval process for that container.

Creating the WorkFlow_Container Class

To create the WorkFlow_Container class, do the following:

- 1 Select **Schema Definition** from the **Administration** menu. This opens the **Schema Definition** dialog.
- 2 In the **Schema Definition** dialog, right-click on a free space and select **Add Class | WorkFlow Container** from the shortcut menu.
- 3 Click on a free space to place the new class.
- 4 Change the name to your liking, e.g. *WorkFlow_Container*.
- 5 Click  to save the schema definition.
- 6 You can extend the definition of the *WorkFlow_Container* class by adding custom attributes. For further information on adding attributes, see chapter ["Adding an Attribute" on page 410](#).
- 7 Add a workflow to the *WorkFlow_Container* class as described in chapter ["Creating or Editing a Workflow" on page 453](#).

Updating Tomcat Server Certificate

The following chapter describes how to update the certificates for Micro Focus Common Tomcat used for HTTPS connections. As Micro Focus Common Tomcat always has certificates installed, you can use this function also for the initial certificate setup of your server.

Prerequisites

All of the following prerequisites must be met for successfully import the certificates:

- Your Dimensions RM server uses an unmodified Micro Focus Common Tomcat setup.
- The certificate file is in PFX format.
- You know the password of the PFX file.
- The certificate is from a well-known Certification Authority, that is accepted by the Windows server running Dimensions RM. For self-signed certificates, you must import the certificate into the **Trusted Root Certification Authority** store before you can update the Tomcat server certificate.
- Users of all web applications running on Micro Focus Common Tomcat are informed that the server is down for some minutes and they cannot work on that server for that time.

Updating the Certificate



IMPORTANT! Before you begin, ensure that all prerequisites are met (see ["Prerequisites" on page 465](#)).

To update the Micro Focus Common Tomcat server certificate:

- 1 From the **Administration** menu, select **Administrative Tools**. This opens the **Administrative Tools** dialog with **Certificate Update** pre-selected.
- 2 Click **Browse...** to open the file upload dialog.
- 3 Select the PFX file with the certificate and click **Open**.
- 4 Enter the password for the PFX file into the Certificate Password box.
- 5 Click **Retrieve Alias** to read the certificate alias from the PFX file.
- 6 The **RM Server Name** box shows the server name you used to log in to Dimensions RM. You **must** ensure that this server name is the full server name.

Example:

You logged in with *myserver*, but the server name **in the certificate** is *myserver.mycompany.com*. In this case, you would have to fill *myserver.mycompany.com* into the **RM Server Name** box.

- 7 Click **Update Certificate** to start the certificate update.



NOTE

- Tomcat will be restarted in the process. Users are unable to work with Dimensions RM and any other web application running on Micro Focus Common Tomcat.
- The update process will take a while as Tomcat will be restarted in the process.
- Should the certificate update fail, the previous certificate is restored.

- 8 Click **OK** to confirm the warning message.
- 9 Wait until the **Certificate Update** dialog reports completion of the update process.

Updating SSO Certificates

The following chapter describes how to update the SSO certificates that for use with Solution Business Manager (SBM) and Dimensions CM.



CAUTION! Do not use this updater when using Windows SSO. For updates of certificates for Windows SSO, refer to the *Administrator's Guide*.

Prerequisites

All of the following prerequisites must be met for successfully import the certificates:

- SSO has been enabled.
- Your Dimensions RM server uses an unmodified Micro Focus Common Tomcat setup.
- The certificate files for Gatekeeper and Federation Server are in CER format.
- The certificate for STS is in PEM format.
- The certificates are from a well-known Certification Authority, that is accepted by the Windows server running Dimensions RM. For self-signed certificates, you must import the certificates into the **Trusted Root Certification Authority** store before you can update the SSO certificates.
- Users of all web applications running on Micro Focus Common Tomcat are informed that the server is down for some minutes and they cannot work on that server for that time.

Updating the SSO Certificates



IMPORTANT! Before you begin, ensure that all prerequisites are met (see ["Prerequisites" on page 466](#)).

To update the Micro Focus Common Tomcat server certificate:

- 1 From the **Administration** menu, select **Administrative Tools**. Select **SSO Certificate Update** from the navigation pane.
- 2 For **Gatekeeper Certificate**, click **Browse...** to open the file upload dialog.
- 3 Select the gatekeeper certificate file in CER format and click **Open**.
- 4 For **STS Certificate**, click **Browse...** to open the file upload dialog.
- 5 Select the STS certificate file in PEM format and click **Open**.
- 6 For **Federation Server Certificate**, click **Browse...** to open the file upload dialog.
- 7 Select the federation server certificate file in CER format and click **Open**.
- 8 Click **Update SSO Certificates** to start the certificate update.



NOTE

- Tomcat will be restarted in the process. Users are unable to work with Dimensions RM and any other web application running on Micro Focus Common Tomcat.
- The update process will take a while as Tomcat will be restarted in the process.

- 9 Click **OK** to confirm the warning message.
- 10 Wait until the **SSO Certificate Update** dialog reports completion of the update process.

Managing RM Services

The **Manage Services** function allows you to manage all Dimensions RM related services, provided that Tomcat and Dimensions RM server are installed on the same machine.

You can start, stop, and restart any service, except for **Micro Focus Common Tomcat** and **Micro Focus RM Pool Manager**. Those two services can only be restarted as they are required for operation by Dimensions RM.

To manage RM services, do the following:

- 1 From the **Administration** menu, select **Administrative Tools**.
- 2 Select **Manage Services** from the navigation pane.

RM Process Log

The **Process Log** shows the start time of Dimensions RM services. It shows the start time of the RM Pool Manager service as well as the Micro Focus Common Tomcat, statistics and current state for the RM Pool Manager and RM Webservice services.

To access the process log, do the following:

- 1 From the **Administration** menu, select **Administrative Tools**.
- 2 Select **Process Log** from the navigation pane.

The service statistics provides this data:

- **Number of application servers:** The number RM Application server instances.
- **Number of WS workers:** The number of workers processing RM Web service request.
- **Processed requests:** The number of requests all instances handled.
- **Unprocessed requests:** The number of requests that were not handled, because all processes were busy. Increasing the number of processes that can be run usually solves this issue.
- **Killed processes:** The number of processes, Dimensions RM killed due lack of free memory. If this happens often, you should consider increasing RAM on your Dimensions RM server.
- **Crashed processes:** The number of processes, that were terminated unexpectedly.

The **RM Pool Manager processes** table contains a list of all child process of RM Pool Manager (RM Application server and RM Webservice) and provides these data:

- **PIPE:** The internal ID for inter process communication
- **PID:** The process ID
- **Status:** The current process status
- **Memory:** The current amount of memory used.
- **Processed Requests:** The number of requests the process handled.

Accessing Log Files

Accessing Dimensions RM Log Files

To access Dimensions RM log files, do the following:

- 1 From the **Administration** menu, select **Administrative Tools**. This opens the **Administrative Tools** dialog with **Certificate Update** pre-selected.
- 2 In the left pane, select **Log Files**.
- 3 From the **Choose a log file...** box, select the desired log file.
- 4 To download the log file, click .

Downloading Dimensions RM and Tomcat Log Files

To download Dimensions RM and Tomcat log files, do the following:

- 1 From the **Administration** menu, select **Administrative Tools**. This opens the **Administrative Tools** dialog with **Certificate Update** pre-selected.
- 2 In the left pane, select **Log Files**.
- 3 Click **Download all server log files**. The log files will be provided for download or downloaded automatically (depending on your web browser) in a ZIP archive.

Schema Related Naming Conventions

- Instances - ["Naming Conventions for Instances" on page 469](#)
- Classes - ["Naming Conventions for Classes" on page 470](#)
- Attribute Display Names - ["Naming Conventions for Attribute Display Names" on page 470](#)
- Attribute Names - ["Naming Conventions for Attribute Names" on page 470](#)
- Relationships - ["Naming Conventions for Relationships" on page 471](#)
- Workflow States - ["Naming Conventions for Workflow States" on page 471](#)
- Workflow Transitions - ["Naming Conventions for Workflow Transitions" on page 471](#).



NOTE When defining objects that allow the use of characters outside the regular ASCII charset (e.g. German Umlauts, or Chinese or Japanese characters), up to 4 bytes will be required to store one character. As the supported databases use UTF-8 encoding, this means that the number of actual characters allowed depends on **which** characters are used.

Naming Conventions for Instances

For instance names, the following naming conventions apply:

- **Allowed characters:**
 - Letters A-Z, a-z
 - Numbers
 - Underscore (_)
 - Hyphen (-)
- **Maximum length:** Up to 30 characters
- Instance name must not be one of the reserved words (see ["Dimensions RM Reserved Words" on page 471](#)).
- Restrictions as specified for user names of your database.

Naming Conventions for Classes

For class names, the following naming conventions apply:

- **Allowed characters:**
 - Letters A-Z, a-z
 - Unicode characters
 - Numbers
 - Underscore (_)
 - Hyphen (-)
 - Ampersand (&)
 - Colon (:)
- **Maximum length:** Up to 1024 characters
- Class name must not be one of the reserved words (see ["Dimensions RM Reserved Words" on page 471](#)).

Naming Conventions for Attribute Display Names

- **Allowed characters:**
 - Letters A-Z, a-z
 - Unicode characters
 - Numbers
 - Underscore (_)
 - Hyphen (-)
 - Ampersand (&)
 - Colon (:)
 - Space
- **Maximum length:** Up to 1024 characters
- Attribute display name must not be one of the reserved words (see ["Dimensions RM Reserved Words" on page 471](#)).

Naming Conventions for Attribute Names

- **Allowed characters:**
 - Letters A-Z, a-z
 - Numbers
 - Underscore (_)
 - Hyphen (-)
 - Ampersand (&)
 - Colon (:)

- **Maximum length:** Up to 1024 characters
- Attribute name must not start with **RTM_**.
- Attribute name must not be one of the reserved words (see ["Dimensions RM Reserved Words" on page 471](#)).

Naming Conventions for Relationships

- **Allowed characters:**
 - Letters A-Z, a-z
 - Unicode characters
 - Numbers
 - Underscore (_)
 - Hyphen (-)
 - Ampersand (&)
 - Colon (:)
- **Maximum length:** Up to 1024 characters
- Relationship name must not be one of the reserved words (see ["Dimensions RM Reserved Words" on page 471](#)).

Naming Conventions for Workflow States

- **Allowed characters:** All ASCII characters and Unicode characters
- **Maximum length:** Up to 1024 characters

Naming Conventions for Workflow Transitions

- **Allowed characters:** All ASCII characters and Unicode characters
- **Maximum length:** Up to 1024 characters

Dimensions RM Reserved Words

A

- ACCESS
- ADD
- ALL
- ALTER
- AND
- ANY

- AS
- ASC
- AUDIT
- AVER
- AVERAGE

B

- BETWEEN
- BY

C

- CALC
- CALCULATE
- CHAR
- CHECK
- CLAR_CONDITION
- CLASS_NAME
- CLUSTER
- COLUMN
- COMPRESS
- CONNECT
- COUNT
- CREATE
- CURRENT

D

- DATALESS_TAG_COLUMN
- DATE
- DATE_CREATED
- DATE_LAST_MODIFIED
- DBA
- DECIMAL
- DEFAULT
- DELETE
- DESC
- DISTINCT
- DROP

- DTP_TEXT

E

- ELSE
- EXCLUSIVE
- EXISTS
- EXPAND

F

- FILE
- FIRST
- FLOAT
- FOCUS
- FOR
- FOURTH
- FROM

G

- GEN_KEY_COLUMN
- GRANT
- GRAPHIC
- GROUP

H

- HAVING
- HAVING_CLARIFICATION_TEXT
- HAVING_NO_CLARIFICATION_TEXT
- HAVING_NO_QUERY_TEXT
- HAVING_QUERY_TEXT

I

- IDENTIFIED
- IF
- IMMEDIATE
- IMMEDIATE_XREF
- IN
- INCREMENT
- INDEX

- INITIAL
- INITIALIZED
- INSERT
- INTEGER
- INTERSECT
- INTO
- IS

K

- KEY
- KEYWORD_COLUMN
- KEY_LIST_CONDITION

L

- LEVEL
- LIKE
- LINKS_IN
- LOCK
- LONG
- LOWEST_LEVEL_REQUIREMENT_CONDITION

M

- MATH_OP
- MATH_TAG
- MAX
- MAXEXTENTS
- MAXIMISE
- MAXIMUM
- MIN
- MINIMISE
- MINIMUM
- MINUS
- MODE
- MODIFY

N

- NOAUDIT

- NOCOMPRESS
- NORM
- NORMALISE
- NORMALIZE
- NOT
- NOT_LOWEST_LEVEL_REQUIREMENT_CONDITION
- NOT_PRIMARY_IN
- NOT_PRIMARY_IN_CONDITION
- NOT_SECONDARY_IN
- NOT_SECONDARY_IN_CONDITION
- NOT_SOURCE_REQUIREMENT_CONDITION
- NOWAIT
- NULL
- NUMBER

O

- OF
- OFFLINE
- ON
- ONLINE
- OPTION
- OR
- ORDER
- ORDER_COLUMN

P

- PCTFREE
- POP
- POPULATED
- PRIMARY
- PRIMARY_HISTORY
- PRIMARY_IN
- PRIMARY_IN_CONDITION
- PRIMARY_IN_RELATIONSHIP
- PRIOR
- PRIVILEGES

- PUBLIC

Q

- QUERY_CONDITION

R

- RAW
- RELATIONSHIP_COLUMN
- RENAME
- REPLACE
- RESOURCE
- REVOKE
- ROW
- ROWID
- ROWNUM
- ROWS

S

- SECOND
- SECONDARY
- SECONDARY_HISTORY
- SECONDARY_IN
- SECONDARY_IN_CONDITION
- SECONDARY_IN_RELATIONSHIP
- SELECT
- SESSION
- SET
- SHARE
- SIZE
- SMALLINT
- SOURCE
- SOURCE_DOC
- SOURCE_DOC_TREE
- SOURCE_REQUIREMENT_CONDITION
- SOURCE_XREF
- START
- SUCCESSFUL

- SYNONYM
- SYSDATE

T

- TABLE
- THEN
- THIRD
- TO
- TOTAL
- TRIGGER
- TypeNameHere

U

- UID
- UNION
- UNIQUE
- UPDATE
- USER
- USING

V

- VALIDATE
- VALUES
- VARCHAR
- VARGRAPHIC
- VIEW

W

- WHENEVER
- WHERE
- WITH
- WITHOUT_CLAR_CONDITION
- WITHOUT_QUERY_CONDITION
- WITH_CLAR_CONDITION
- WITH_QUERY_CONDITION

X

XREF

Chapter 12

Script Syntax

Overview	480
SELECT Statement	480
CALCULATE Statement	491
XREF Statement	492
PLUS Statement	494
COMMENT Statement	494
Adding Rich Format Text to Query Prompts	495

Overview

Scripts contain commands for extracting data from the Dimensions RM database and for formatting the results. This appendix describes the syntax of the Dimensions RM script language. If you are familiar with SQL, you will note the similarity between that standard language and the variant of it that has been tailored specifically for Dimensions RM.



IMPORTANT! The Dimensions RM scripting language is **NOT** SQL. Though *similar* to SQL, it is in fact unique to Dimensions RM. Please read this chapter to understand its usage.

The RM scripting language:

- Is an interpreted language. This helps to prevent SQL injection attacks.
- Uses a database meta model so class names are *not* real database table names.

A Dimensions RM reporting script contains commands that tell Dimensions RM what data to extract from the instance and how to format it. The following types of commands can be included in a script:

- **SELECT** defines the data (object attributes) to be extracted.
- **CALCULATE** performs computations based on the extracted data.
- **XREF** controls cross references that follow links between objects.
- **PLUS** concatenates SELECT statements.
- **COMMENT** provides descriptive information that is not interpreted by Dimensions RM.



NOTE You cannot save a script unless you have the "Create" permission for scripts

SELECT Statement

For those familiar with SQL (Structured Query Language), the **SELECT** statement in a script appears similar in many ways to the SQL **SELECT** statement.

A **SELECT** statement may contain the following elements (mandatory elements are indicated in bold print):

- The reserved word **SELECT**
- A list of display elements (attributes) each preceded by a <DTPtag>. The DTPtag specifies a column heading for tabular displays or, when the script results are saved in a formatted file, a paragraph style or format for desktop publishing tools. At least one attribute must be selected. If you do not want a column header or a paragraph style, you must indicate that with empty delimiters, as in <>.
- The reserved word **FROM**
- The RM class name
- The reserved word **WHERE**
- Conditions under which to make the extraction

- The reserved words ORDER BY
- A list of fields by which to order extraction
- Metrics computations to be performed

Note the format of this statement – SELECT <>'attribute' FROM 'class'. The display attributes must be preceded by the characters '<' and '>'. If these characters are not present, the attribute is not included in the report document.

A SELECT statement may contain as many display elements as required, but each element must be defined as an attribute of the given class.

For example:

```
SELECT <>TEST_ID <>TEST_DESCRIPTION <>TEST_NOTES <>REQUIRED_RESULT
FROM TEST
```

This SELECT statement produces a list of all the objects of class TEST in the Dimensions RM database, in Dimensions RM key order. The test identifier, description, notes, and required result attributes appear in the output in the same order as they appear in the display list.

```
SELECT <Requirement ID>REQ_ID <Status> STATUS <Text>Text FROM
CustomerRequirements WHERE STATUS != 'Deleted' ORDER BY STATUS
```

This select statement produces a list of all objects in class CustomerRequirements that have not been deleted. The list is intended for tabular output on the screen or in a CSV file, so the column headings are included. The result will be ordered by the STATUS attribute value in alphabetical order.

DTPtag

You can specify a DTPtag for each attribute in your report to control output formatting. For tabular output, the DTPtag is used as a column heading. For document format, such as RTF, the DTPtag is used to identify a paragraph style to be associated with the attribute value. The tag name is placed between the < and > characters that precede a display list element. The tag name may be up to 19 characters in length.

The tag name can only include the '#' character if it is preceded by a backslash (\).

When used with a table, the tag name appears as the column heading, with a column width determined by Dimensions RM. You can specify the column width by preceding the tag with '!n', where n is the desired column width in characters. Column widths are not supported in the script generator wizard.

For example (DTPtags are shown in **bold**):

```
SELECT !8<Test ID>TEST_ID !25<Description>TEST_DESCRIPTION
!25<Test Notes>TEST_NOTES !25<Results>REQUIRED_RESULT FROM TEST
```

DTP_TEXT Display Item

Dimensions RM supports a display list element, called DTP_TEXT, which does not correspond to an attribute. For tabular output, DTP_TEXT can be used to insert a blank column into the output. For document output, its purpose is to insert a "blank" component tag (that is, a DTP tag with no text or data attached). This enables the inclusion into documents of headers and footers, and repeated text strings.

As many DTP_TEXT items as desired may be included in the display list, and their position within the display list is significant.

For example, to separate each TEST record in a list with a marker (for example, a separator line):

```
SELECT <Test ID>TEST_ID <Description>TEST_DESCRIPTION <Test
Notes>TEST_NOTES <Result>REQUIRED_RESULT <separator>DTP_TEXT FROM
TEST
```

Within RM Word, the tag separator must be defined to produce a paragraph of the required type, for example, a line of hyphens or asterisks.

RTM_KEYWORD Display Item

Dimensions RM supports another display list item that does not correspond to an attribute. Use RTM_KEYWORD to request Dimensions RM to return a list of linked collections for each object. For example:

```
SELECT <Test ID>TEST_ID <Description>TEST_DESCRIPTION <Test
Notes>TEST_NOTES <Result>REQUIRED_RESULT
<Linked Collections>RTM_KEYWORD FROM TEST
```

WHERE Clause

For many reporting purposes, only a subset of the objects in a class is required. The WHERE reserved word is used in conjunction with a SELECT statement to specify selection constraints in terms of attribute values, collection membership, or relationship linkages. The WHERE clause syntax is of the general form:

WHERE ConditionalExpression

where ConditionalExpression is a logical expression whose elements are of the form:

- AttributeName Operator Valuelist
- Direction Relationship
- Group {in | not in} (collectionList)
- SpecialConstraint

The elements of a conditional expression are combined using the logical operators AND and OR. Any number of conditions may be applied to a SELECT statement which can be combined using the reserved words AND and OR. Both AND and OR have the same precedence and are left associative. Parentheses may be used to change the precedence.

The following table describes attribute types used in Dimensions RM instance schemas and their allowed operators.

Attribute Type	Operators	Notes
Alphanumeric	INITIALIZED, NOT INITIALIZED, IN, NOT IN, =, !=, <, >, <=, >=	For further information, see chapter "Comparing Text" on page 483.

Date	INITIALIZED, NOT INITIALIZED, =, !=, <, >, <=, >=	For further information, see chapter "Comparing Dates" on page 485.
File Attachment		Not supported
Group	INITIALIZED, NOT INITIALIZED, IN, NOT IN, =, !=, <, >, <=, >=	For further information, see chapter "Comparing Text" on page 483.
List	INITIALIZED, NOT INITIALIZED, IN, NOT IN, =, !=, <, >, <=, >=	For further information, see chapter "Comparing Text" on page 483.
Numeric	INITIALIZED, NOT INITIALIZED, IN, NOT IN, =, !=, <, >, <=, >=	For further information, see chapter "Comparing Numbers" on page 483.
Text	INITIALIZED, NOT INITIALIZED, IN, NOT IN, =, !=, <, >, <=, >=	For further information, see chapter "Comparing Text" on page 483.

Comparing Numbers

Operator	Description
INITIALIZED	The attribute contains a value. Example: TEST_ATTRIBUTE INITIALIZED
NOT INITIALIZED	The attribute contains no value. Example: TEST_ATTRIBUTE NOT INITIALIZED
=	The attribute value must be identical with the specified value. Example: TEST_ATTRIBUTE = 5
!=	The attribute value must not be identical with the specified value. Example: TEST_ATTRIBUTE != 5
<	The attribute value must be less than the specified value. Example: TEST_ATTRIBUTE < 5
>	The attribute value must be larger than the specified value. Example: TEST_ATTRIBUTE > 5
<=	The attribute value must be less or identical with the specified value. Example: TEST_ATTRIBUTE <= 5
>=	The attribute value must be larger or identical with the specified value. Example: TEST_ATTRIBUTE >= 5
IN	The attribute value must be identical to one of those provided Example: TEST_ATTRIBUTE IN (3, 4, 5)
NOT IN	The attribute value must not be identical to one of those provided Example: TEST_ATTRIBUTE NOT IN (3, 4, 5)

Comparing Text

When comparing text, the casing of a word is very important. This is because for a computer, a text is represented by numbers. All capital letters have a lower value than

lowercase letters, i.e. "A" has the value of 65, while "a" has the value of 97. For the following table (except for operators INITIALIZED and NOT INITIALIZED), it is assumed that there are two requirements, REQ1 and REQ2. For REQ1, the attribute TEST_ATTRIBUTE has the value "Test". For REQ2, the attribute TEST_ATTRIBUTE has the value "test".

Operator	Description
INITIALIZED	The attribute contains a value. Example: TEST_ATTRIBUTE INITIALIZED
NOT INITIALIZED	The attribute contains no value. Example: TEST_ATTRIBUTE NOT INITIALIZED
=	The attribute value must be identical with the specified value. Example: TEST_ATTRIBUTE = 'Test' The example returns REQ1.
!=	The attribute value must not be identical with the specified value. Example: TEST_ATTRIBUTE != 'Test' The example returns REQ2.
<	The attribute value must be less than the specified value. Example: TEST_ATTRIBUTE < 'test' The example returns REQ1.
>	The attribute value must be larger than the specified value. Example: TEST_ATTRIBUTE > 'Test' The example returns REQ2.
<=	The attribute value must be less or identical with the specified value. Example: TEST_ATTRIBUTE <= 'test' The example returns REQ1 and REQ2.
>=	The attribute value must be larger or identical with the specified value. Example: TEST_ATTRIBUTE >= 'Test' The example returns REQ1 and REQ2.
IN	The attribute value must be identical to one of those provided Example: TEST_ATTRIBUTE IN ('Test', 'test') The example returns REQ1 and REQ2.
NOT IN	The attribute value must not be identical to one of those provided Example: TEST_ATTRIBUTE NOT IN ('Test', 'test') The example returns no requirements

Operator	Description
LIKE	<p>The attribute value must match the specified search pattern. Note that the text casing is relevant.</p> <p>Examples:</p> <ul style="list-style-type: none"> ■ TEST_ATTRIBUTE LIKE 'Business*' <ul style="list-style-type: none"> The value must start with the word "Business". ■ TEST_ATTRIBUTE LIKE '*business.' ■ TEST_ATTRIBUTE LIKE ~'*business*' The value must contain the word "business". <p>* or %: A wildcard for any set of characters. _: A wildcard for a single character.</p>
NOT LIKE	<p>The attribute value must not match the specified search pattern. Note that the text casing is relevant.</p> <p>Examples:</p> <ul style="list-style-type: none"> ■ TEST_ATTRIBUTE NOT LIKE 'Business*' <ul style="list-style-type: none"> The value must not start with the word "Business". ■ TEST_ATTRIBUTE NOT LIKE '* business.' ■ TEST_ATTRIBUTE NOT LIKE ~'*business*' The value must not contain the word "business". <p>* or %: A wildcard character for any set of characters. _: A wildcard character for a single character.</p>

Comparing Dates

The syntax for comparing dates is similar to the syntax of comparing strings. However, important for comparing dates is that the query format matches the format of the attribute. When starting a new script, you might prefer selecting dates through the wizard.

Operator	Description
INITIALIZED	<p>The attribute contains a value.</p> <p>Example: TEST_ATTRIBUTE INITIALIZED</p>
NOT INITIALIZED	<p>The attribute contains no value.</p> <p>Example: TEST_ATTRIBUTE NOT INITIALIZED</p>
=	<p>The attribute value must be identical with the specified value.</p> <p>Examples:</p> <ul style="list-style-type: none"> ■ TEST_ATTRIBUTE = '01-SEP-2015' ■ TEST_ATTRIBUTE = '01-SEP-2015@01:02:03'

Operator	Description
!=	<p>The attribute value must not be identical with the specified value.</p> <p>Examples:</p> <ul style="list-style-type: none"> ■ TEST_ATTRIBUTE != '01-SEP-2015' Any date which is not September 1st, 2015 matches this criterion, e.g. August 30th, 2015; December 31st, 2014 or September 2nd, 2015. ■ TEST_ATTRIBUTE != '01-SEP-2015@01:02:03' Any which is not September 1st, 2015 at 01:02:03 matches this criterion, e.g. August 30th, 2015 at 12:05:45; September 1st, 2015 at 01:02:02 or September 2nd, 2015 at 02:03:04.
<	<p>The attribute value must be less than the specified value.</p> <p>Examples:</p> <ul style="list-style-type: none"> ■ TEST_ATTRIBUTE < '01-SEP-2015' Any date before September 1st, 2015 matches this criterion, e.g. August 30th, 2015 or December 31st, 2014. ■ TEST_ATTRIBUTE < '01-SEP-2015@01:02:03' Any date before September 1st, 2015 at 01:02:03 matches this criterion, e.g. August 30th, 2015 at 12:05:45 or September 1st, 2015 at 01:02:02.
>	<p>The attribute value must be larger than the specified value.</p> <p>Examples:</p> <ul style="list-style-type: none"> ■ TEST_ATTRIBUTE > '01-SEP-2015' Any date after September 1st, 2015 matches this criterion, e.g. September 2nd, 2015 or January 1st, 2016. ■ TEST_ATTRIBUTE > '01-SEP-2015@01:02:03' Any date after September 1st, 2015 at 01:02:03 matches this criterion, e.g. September 2nd, 2015 at 12:05:45 or September 1st, 2015 at 01:02:04.
<=	<p>The attribute value must be less or identical with the specified value.</p> <p>Examples:</p> <ul style="list-style-type: none"> ■ TEST_ATTRIBUTE <= '01-SEP-2015' The date must be September 1st, 2015 or before to match this criterion, e.g. August 30th, 2015 or December 31st, 2014. ■ TEST_ATTRIBUTE <= '01-SEP-2015@01:02:03' The date must be September 1st, 2015 at 01:02:03 or before to match this criterion, e.g. August 30th, 2015 at 12:05:45 or September 1st, 2015 at 01:02:02.

Operator	Description
>=	<p>The attribute value must be larger or identical with the specified value.</p> <p>Examples:</p> <ul style="list-style-type: none"> ■ TEST_ATTRIBUTE > '01-SEP-2015' The date must be September 1st, 2015 or after to match this criterion, e.g. September 2nd, 2015 or January 1st, 2016. ■ TEST_ATTRIBUTE > '01-SEP-2015@01:02:03' The date must be September 1st, 2015 at 01:02:03 or after to match this criterion, e.g. September 2nd, 2015 at 12:05:45 or September 1st, 2015 at 01:02:04.
LIKE	<p>The attribute value must match the specified search pattern.</p> <p>Examples:</p> <ul style="list-style-type: none"> ■ TEST_ATTRIBUTE LIKE ~'17-*-2015' The date must be 17th of any month in 2015. ■ TEST_ATTRIBUTE LIKE ~'*-SEP-2015' The date must be any day in September 2015. ■ TEST_ATTRIBUTE LIKE ~'*-SEP-%' The date must be any day in September of any year. ■ TEST_ATTRIBUTE LIKE '01-SEP-2015@*' The date must be September 1st, 2015; the time is irrelevant. <p>* or %: A wildcard character for any set of characters. _: A wildcard character for a single character.</p>
NOT LIKE	<p>The attribute value must not match the specified search pattern.</p> <p>Examples:</p> <ul style="list-style-type: none"> ■ TEST_ATTRIBUTE NOT LIKE ~'17-*-2015' The date must not be 17th of any month in 2015. ■ TEST_ATTRIBUTE NOT LIKE ~'*-SEP-2015' The date must not be any day in September 2015. ■ TEST_ATTRIBUTE NOT LIKE ~'*-SEP-*' The date must not be any day in September of any year. ■ TEST_ATTRIBUTE NOT LIKE '01-SEP-2015@%' The date must not be September 1st, 2015. <p>* or %: A wildcard character for any set of characters. _: A wildcard character for a single character.</p>

Direction Relationship

This constraint form is used to identify linked objects within a particular relationship. For example, given a relationship between classes SystemRequirement (the primary class) and Test (the secondary class), you could search for system requirement objects that are linked to test objects. Alternatively, finding those that are not linked can help you identify work that is yet to be completed. The following “directions” are defined:

- PRIMARY_IN

- NOT_PRIMARY_IN
- SECONDARY_IN
- NOT_SECONDARY_IN

These operators are used to extract only those objects which have links (or not) in a named relationship, and can therefore be used to create 'compliance' lists (such as a list of tests which have or have not been linked to requirements)

Following are Direction Relationship examples (based on a relationship named Tested_By with SystemRequirements as the primary and Test as the secondary class).

- PRIMARY_IN Tested_By
Finds SystemRequirements that are linked to at least one Test object.
- NOT_SECONDARY_IN Tested_By
Finds Test objects that are not associated with any SystemRequirement objects

For SELECT statements involving requirements, there are two pre-defined relationships that may also be used. These are SOURCE and IMMEDIATE. The effect of using each of the relationship operators with each of the SOURCE and IMMEDIATE relationships is described in the following table.

Operator	IMMEDIATE	SOURCE
PRIMARY_IN	Requirements that have children (not the lowest level requirements)	Requirements that have no parents (the source requirements)
SECONDARY_IN	Requirements that have parents (derived requirements)	Requirements that have no children (the lowest level requirements)
NOT_PRIMARY_IN	Requirements that have no children (the lowest level requirements)	Requirements that have parents (derived requirements)
NOT_SECONDARY_IN	Requirements that have no parents (the source requirements)	Requirements that have children (not the lowest level requirements)

Group {in | not in} (collectionList)

This constraint form is used to identify objects with respect to their linkage to one or more collections. For example, you can define collections to help you manage prioritization. A parent collection, named Priorities could have child collections named Priority 1, Priority 2, and so on. You can use these collections to organize reports focused on specific priorities or to find items that have yet to be prioritized:

Following are collection constraint examples.

- GROUP IN ('Priority 1', 'Priority 2')
Finds objects linked to either Priority 1 or Priority 2 collections.
- GROUP NOT IN ('Priorities')
Finds objects not yet prioritized.

SpecialConstraint

This constraint form supports built-in attributes of classes based on the requirement class type. These classes include built-in text attributes named Query and Clarification, which are intended for use with questions and answers to do with the requirement itself. The SpecialConstraint keywords listed below take no additional operands:

- HAVING_CLARIFICATION_TEXT
- HAVING_NO_CLARIFICATION_TEXT
- HAVING_QUERY_TEXT
- HAVING_NO_QUERY_TEXT

Following is a SpecialConstraint example:

- `SELECT <Requirement ID>REQ_ID <Status> STATUS <Text>Text FROM CustomerRequirements WHERE HAVING_QUERY_TEXT`

Finds identifier, status, and text from objects of class CustomerRequirements with non-empty Query attribute.

Prompting

Scripts can also contain specially formatted prompts that will be displayed when the script is run interactively to prompt users for information. The syntax for prompting in scripts is:

```
<#prompt#> anywhere in the script. For example: select <id>object_id
from ECP where object_id = '<#enter id#>'
```

This prompting syntax also allows for prompted values to be used as variables in multiple places within a script. For example:

- `select <id>object_id from CR where object_id='<#enter id^var1#>'`
xref
- `select <id>object_id from SR where object_id='<#^var1#>'`

The value entered by the user for the object ID of the CR class will also be used in the where clause of the SR class select. The “^” indicates that the value should be stored into the variable following the “^” and that variable name can be used without a prompt elsewhere. If a second prompt ^ variable name is found with the same variable name, the variable’s value will be changed.

ORDER BY Clause

The ORDER BY clause can be added to the SELECT statement to specify the order in which the records should be returned. The ORDER BY clause is added after the WHERE clause or after the class name if no WHERE clause is included. The reserved words ORDER BY must be followed by a comma separated list of attributes. Any number of attributes of a class can be used to qualify the order of extraction.

Sorting in Ascending Order

By default, the ORDER BY clause sorts in ascending order.

Examples:

- `SELECT <>TEST_SETUP FROM TEST
ORDER BY TEST_ID, TEST_DATE`
- `SELECT <>TEST_SETUP FROM TEST
WHERE TEST_ID = '7'
ORDER BY TEST_DATE, REQUIRED_RESULT`



NOTE When the ORDER BY attribute has a NULL value, it is placed at the end of the list (that is, it is considered to have the highest value).

Sorting in Descending Order

To sort in descending order, append **|DESC|** to the attribute name.

Examples:

- `SELECT <>TEST_SETUP FROM TEST
ORDER BY TEST_ID|DESC|, TEST_DATE|DESC|`
- `SELECT <>TEST_SETUP FROM TEST
WHERE TEST_ID = '7'
ORDER BY TEST_DATE|DESC|, REQUIRED_RESULT|DESC|`



NOTE When the ORDER BY attribute has a NULL value, it is placed at the top of the list (that is, it is considered to have the highest value).

Sorting Dewey Decimal Formatted Values

It is common for reports to be ordered by attributes that have a Dewey decimal format (e.g. 1.2.3.12). Often the PARAGRAPH_ID attribute will have this kind of format. A straightforward ASCII sort on these codes will not return a correct order, since it is performed on a character-by-character basis, rather than by the numbering.

A Dewey decimal code needs to have letters (upper or lower case) and numbers separated by a decimal point or a hyphen. The following examples are legal Dewey decimal codes:

- 1.2.5
- a.b
- 3
- d
- d-1-2

There is no restriction on the length of the code.

To perform a Dewey decimal ordering, precede the appropriate attribute with the **@** symbol.

Example:

```
SELECT <PUID>PUID <Title>TITLE <Paragraph ID>PARAGRAPH_ID FROM REQ
ORDER BY @PARAGRAPH_ID
```

Descending sorting can also be used for attributes which contain dewey decimal formatted values by adding **DESC**.

CALCULATE Statement

The available calculations are as follows:

- A **count** of records selected on any field
- The **total** of the values of records selected on numeric fields
- The **average** value of records selected on numeric fields
- The **minimum** value selected on numeric fields
- The **maximum** value selected on numeric fields
- **Normalization** of values selected by a simple arithmetic expression

The results of the count, total, average, minimum and maximum metrics are displayed at the bottom of the report. Normalization causes each record value in the body of the report to be changed according to the arithmetic expression.

NULL fields are handled in two ways:

- If only records with values in them are to be used (POPULATED), the NULL fields are ignored (this is the default)
- If all records are to be used regardless of their content (ALL), NULL fields are treated as having the value 0 (zero).

The format of the CALCULATE statement is as follows:

- The CALCULATE keyword appears first to indicate that metrics will be performed.
- A list of calculation types (COUNT, TOTAL, AVERAGE, MINIMIZE, MAXIMIZE or NORMALIZE) and the fields applicable (the fields should be separated by commas).
- Each calculation type keyword can be prefixed by an ALL or POPULATED flag. If none is supplied, the default of POPULATED is used.

For TOTAL, COUNT, AVERAGE, MINIMUM and MAXIMUM:

- The field name should be prefixed by a mandatory "tag" in the format [string] which defines a string to be used in the report to identify that particular value. Note that [] is valid.
- Each separate [tag] field entry in the list may be prefixed by the ALL or POPULATED flag.

For normalization:

- Each entry has the form "fieldname operator value", where operator is any of '+', '-', '*', '/' and value is a real or integer number. No tags are applicable for normalization.
- Each separate [tag] field entry in the list may be prefixed by the ALL or POPULATED flag.

For example:

```
SELECT <number>PARTS_AVAILABLE FROM REQ
CALCULATE COUNT [count]PARTS_AVAILABLE
TOTAL [total]PARTS_AVAILABLE
AVERAGE [average]PARTS_AVAILABLE
MINIMIZE [min]PARTS_AVAILABLE
MAXIMIZE [max]PARTS_AVAILABLE
```

To modify the values of the attribute PARTS_AVAILABLE in the report, you can use the NORMALIZE metric:

```
SELECT <id>REQUIREMENT_KEY <number>PARTS_AVAILABLE FROM REQ CALCULATE
NORMALIZE ALL PARTS_AVAILABLE + 5
```

XREF Statement

The XREF statement lets you show the linkage or traceability between objects. XREF links the SELECT statement, immediately following it with a previous SELECT statement.

The XREF statement must contain the reserved word XREF and the name of the relationship that defines the traceability. It may also contain the reserved words PRIMARY, SECONDARY, PRIMARY_HISTORY, SECONDARY_HISTORY and either FIRST, SECOND, THIRD, FOURTH, or a number.

If both SELECT statements select from the same class, then the XREF statement must be modified with either the PRIMARY or SECONDARY reserved words. Use PRIMARY if the second SELECT statement refers to the primary side of the relationship. Use SECONDARY if the second SELECT statement refers to the secondary side of the relationship.



NOTE The script generator wizard does not support the reserved words PRIMARY_HISTORY, SECONDARY_HISTORY, FIRST, SECOND, THIRD, and FOURTH, and the use of a number to refer to SELECT statements.

The XREF statement must appear between two SELECT statements, the latter of which must be for a class defined to be a member of the relationship named in the XREF statement. Also required is that at least one of the SELECT statements preceding the XREF statement must concern the other class named in the relationship.

For example, suppose a relationship has been defined called REQ_TEST that links the REQ class of type requirement (as the PRIMARY object in the relationship) to a class called TEST (the SECONDARY object), and traceability links have been created between objects in the classes. A list of requirements showing their related TESTs can be created using:

```
SELECT <ID>REQ_ID <>TEXT FROM REQ WHERE STATUS='CURRENT'
XREF REQ_TEST
SELECT <TEST ID>TEST_ID <>TEST_DESCRIPTION FROM TEST
```

This script produces a list of every requirement from the REQ class where the STATUS attribute has the value "Current", and if a requirement participates in the relationship REQ_TEST, its corresponding TESTs are extracted. Note that this form of the script extracts each of the requirements that match the condition, then the TESTs that are linked to them. If the condition was such that more than one requirement complied, and a TEST is linked to more than one requirement, it may appear more than once in the output.

To list only those requirements that are related to TESTs, append a condition as follows:

```
SELECT <ID>REQ_ID <>TEXT FROM REQ WHERE STATUS='CURRENT'
AND PRIMARY_IN REQ_TEST
XREF REQ_TEST
SELECT <TEST ID>TEST_ID <>TEST_DESCRIPTION FROM TEST
```

The PRIMARY_IN operator has been used since REQ was defined as primary in the REQ_TEST relationship.

Using the NOT_PRIMARY_IN operator:

```
SELECT <ID>REQ_ID <>TEXT FROM REQ WHERE STATUS='CURRENT'
AND NOT PRIMARY_IN REQ_TEST
XREF REQ_TEST
SELECT <TEST ID>TEST_ID <>TEST_DESCRIPTION FROM TEST
```

This produces a list containing only requirements, since any requirement not related to any TESTs, by definition will not cause any TESTs to be extracted.

The following script poses a problem:

```
SELECT <original>REQ_ID FROM REQ XREF REQ_TEST SELECT
<test>TEST_DESCRIPTION FROM TEST XREF SOURCE SECONDARY SELECT <low
child>REQUIREMENT_KEY FROM REQ XREF REQ_EVENT SELECT
<events>EVENT_TEXT FROM EVENT
```

It is valid (providing the objects, attributes, and relationships have been defined), but the third XREF statement (XREF REQ_EVENT) implies the class named in the next SELECT statement (EVENT) must be linked in the relationship REQ_EVENT. Since the relationship links REQs to EVENTS and the next class is EVENT, they must be linked to REQs in a previous SELECT statement.

The script contains two instances of REQ in SELECT statements (SELECT statements 1 and 3). **By default, the first SELECT statement for a matching class is used.** So in the example the EVENTS are those linked to the first set of REQs (the original requirements).

There are four reserved words that allow you to choose where the linkage must exist in the event of duplicity of objects in the script:

- FIRST
- SECOND
- THIRD
- FOURTH



NOTE These reserved words are for compatibility with earlier versions of RM, but they are not supported in the script generator wizard.

The reserved words express the number of the SELECT statement to which the next SELECT statement is linked. One of these reserved words may appear as the final word in an XREF statement. It may be necessary to refer to a SELECT statement later in the script than the fourth one. This can be specified using a positive integer.

To change the previous script so that the EVENTS linked to the source REQUIREMENTS are displayed, append the reserved word THIRD or the number 3 to the final XREF statement.

```
SELECT <original>REQUIREMENT_KEY FROM REQ XREF REQ_TEST SELECT
<test>TEST_DESCRIPTION FROM TEST XREF SOURCE SECONDARY SELECT <low
```

```
child>REQUIREMENT_KEY FROM REQ XREF REQ_EVENT THIRD SELECT
<events>EVENT_TEXT FROM EVENT
```

The final XREF statement now means the class named in the next SELECT statement (EVENT) must be linked in the relationship REQ_EVENT to the objects extracted by the third SELECT statement. Since the relationship REQ_EVENT links REQs to EVENTS and both are represented in the SELECT statements, this is a valid script and produces the desired output.

PLUS Statement

The PLUS statement can be used to join multiple scripts into one script. The outcome of the extraction using the resultant script is multiple reports produced in one data extraction run.

For example:

```
SELECT <4.1_Title>DTP_TEXT <>TEXT FROM REQ WHERE
PRIMARY_IN IS_ALLOCATED TO HARDWARE
PLUS SELECT <4.2_Title>DTP_TEXT <>TEXT FROM REQ WHERE
PRIMARY_IN IS_ALLOCATED_TO SOFTWARE
PLUS SELECT <4.3_Title>DTP_TEXT <>TEXT FROM REQ WHERE
PRIMARY_IN IS_ALLOCATED_TO MANUAL_OPERATION
```

COMMENT Statement

You can use comments to provide documentation within scripts to be used from the command line. The script generator wizard does not support comments. Comments can be inserted into a script in several formats:

- Characters after ##, -- or \$! are ignored until the start of a new line.
- Multiple line comments can be enclosed within pairs of comment delimiters {}, /* */ or (* *).

For example:

```
/* Version 1.0
   Date: 14th May 2006*/
SELECT <key>REQUIREMENT_KEY ## extract RMs no.
FROM REQ-- for the req class
WHERE SOURCE_REQUIREMENTS = 'Y'$! of all original requirements
{Now find all derived requirements}
XREF SOURCE SECONDARY
(* and extract the RM nos *)
SELECT REQUIREMENT_KEY FROM REQ
```

Adding Rich Format Text to Query Prompts

Using Rich Text in a query prompt can provide extra information to the user. For example, the following is a standard query prompting for a Marketing Requirement ID:

The screenshot shows a web interface for 'DRM DIMENSIONS RM'. The breadcrumb trail is 'RMDemo > RMDemo > Marketing_Requirements > Selected Requirements'. The main content area is titled 'Selected Requirements' and contains the text: 'The following parameters must be provided to run this report. Please provide a value for each of the parameters below.' Below this, it says 'Enter Rqmt ID for MARKETING_REQUIREMENTS:' followed by a text input field. At the bottom right, there is a blue 'Run Report' button and a checkbox labeled 'Remember these parameters'.

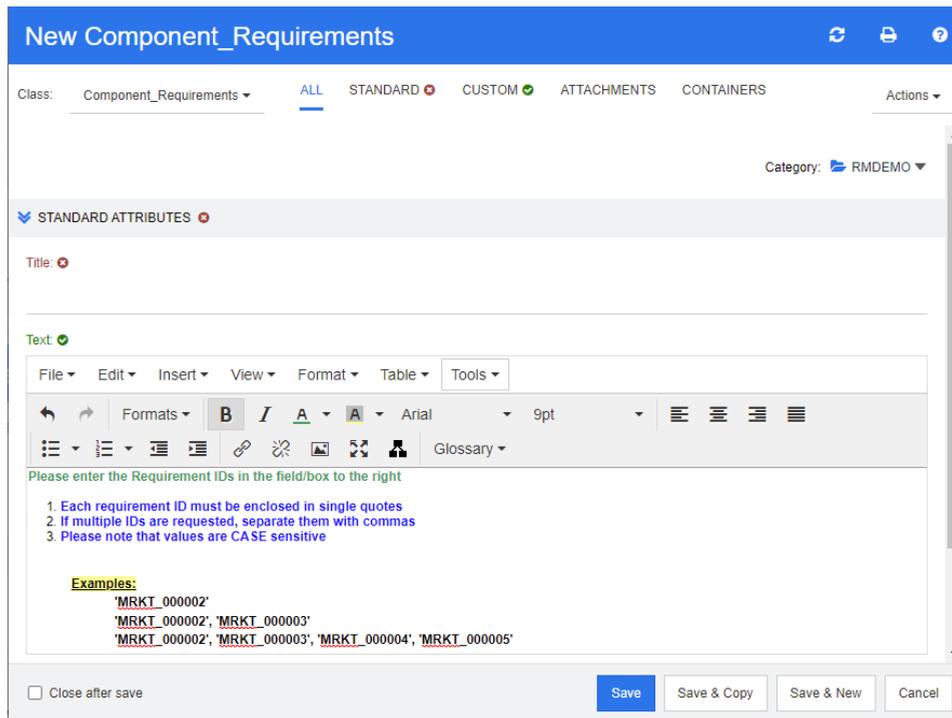
This is the layout we want to achieve:

The screenshot shows the same web interface as above, but with rich text instructions. The text reads: 'Please enter the Requirement IDs in the field/box to the right' followed by a list: '1. Each requirement ID must be enclosed in single quotes', '2. If multiple IDs are requested, separate them with commas', and '3. Please note that values are CASE sensitive'. Below this, there is an 'Examples:' section with three lines of example IDs: ''MRKT_000002'', ''MRKT_000002','MRKT_000003'', and ''MRKT_000002','MRKT_000003','MRKT_000004','MRKT_000005''. The input field and 'Run Report' button are also present.

The following steps describe how to modify a query prompt to provide this extra information:

- 1 Select **Class Report** from the **New** menu.
- 2 Select the desired class ("Marketing Requirements" in this example).
- 3 Specify a query name.
- 4 Select the **Attribute Constraints** tab.
- 5 Click on the arrow for the **Rqmt ID** field and select **Enter at runtime**.
- 6 In the main window, select **Requirement** from the **New** menu.
- 7 Select a class with an HTML enabled attribute and click into such an attribute.

- 8 Enter the text you want to use with the query prompt.
- 9 From the **Tools** menu, select **Source code** to get the raw HTML code. Select all then copy this text/html.



- 10 Close the *HTML Source Editor* window and the *New Marketing_Requirements* window.
- 11 In the *Query By Class: Marketing_Requirements* window, click on the **View Script** button which is located at the left window corner at the bottom. The script looks like this:


```
select <Rqmt ID>PUID <Title>TITLE from Marketing_Requirements where PUID LIKE ~'<#Enter Rqmt ID#>' and STATUS IN ('Current') order by PUID calculate all count[Row Count:]PUID
```
- 12 Locate the prompt '<#Enter Rqmt ID#>' and delete the text between the two "#" characters so that only '<##>' remains.
- 13 Put the cursor between the two "#" characters and press the "Enter" key twice. Your script should look like this:

```
Script: select <Rqmt ID>PUID <Title>TITLE from Marketing_Requirements where PUID LIKE ~'<#
##>' and STATUS IN ('Current') order by PUID calculate all count[Row Count:]PUID
```

14 Paste the HTML code into the blank line, so it looks like this:

```
Script: select <Rgmt_ID>PUIID <Title>TITLE from Marketing_Requirements where PUIID LIKE ~'<#
<p><strong><span style="color: #339966;">Please enter the Requirement IDs in the field/box to the right</span></strong></p>
<ol>
<li><span style="color: #0000ff;"><strong>Each requirement ID must be enclosed in single quotes</strong></span></li>
<li><strong><span style="color: #0000ff;">If multiple IDs are requested, separate them with commas</span></strong></li>
<li><span style="color: #0000ff;"><strong>Please note that values are CASE sensitive</strong></span></li>
</ol>
<p></p>
<p style="margin-left: 40px;"><span style="text-decoration: underline; background-color: #ffff99;"><strong>Examples:</strong>
</span></p>
<p style="margin-left: 80px;"><strong>'MRKT_000002'</strong></p>
<p style="margin-left: 80px;"><strong>'MRKT_000002', 'MRKT_000003'</strong></p>
<p style="margin-left: 80px;"><strong>'MRKT_000002', 'MRKT_000003', 'MRKT_000004', 'MRKT_000005'</strong></p>
#>' and STATUS IN ('Current') order by PUIID calculate all count[Row Count:]PUIID
```

15 Click **Save and Run**.

Glossary

Accept	A command that accepts a proposed change. The current status of the proposed requirement becomes "accepted," and a copy of the requirement is created with the Current Status of "current."
accepted	Current Status of a change request that was accepted.
access rights	The full set of permissions granted a user based on the combination of Category, Group and User.
Administrator	Also referred to as Instance Administrator, users with this role may perform administrator functions within the boundary of the assigned instance. The instance administrator has access to RM Browser Administrator functions. See also System Administrator .
alias	A set of keywords defined as variants or synonyms of a main keyword. For example, aliases of the keyword "calibrate" might be "calibrated," "calibrating," or even the wild card string "cal*". Unlike pseudonyms, which exist only while a particular Dimensions RM tool is active, aliases exist for the duration of the instance or until they are deleted.
alphanumeric attribute	An attribute that represents one line of alphanumeric text, such as the title of an acceptance test. It can be up to 1000 characters in length.
alphabetic sort	A simple alphabetical sort. Contrast with numeric sort . Alphabetical sort ignores character case (e.g. abc is identical to ABC).
attribute	Information that is logically associated with a class of information to further specify the information content. See also class attribute , evaluated attribute , implicit attribute , relationship attribute , user-defined attribute .
attribute constraint	A rule that permits a link to be created only if an attribute of the linked object (primary or secondary) obeys a specific constraint. See also primary object .
attribute type	The nature or data type of an attribute: e.g. alphanumeric string, free text field, or date.
audit trail	An historical trace of the various versions of requirements that lets you reconstruct requirement evolution. The Visual Network tool lets you view the audit trail graphically.
auto link	A utility that lets you create or break links between objects of the primary and secondary class in the selected relationship.
baseline	A stable, unchangeable group of requirements. Baselining a collection ensures that the collection will never change.
baseline lock	A lock on a specific version of an item that indicates that the version is part of a baseline and thus cannot be modified.

category	A method for organizing objects so you can create views of requirements, scripts, and filters for a subset of users. A requirement can belong to only one category.
cardinality rule	A rule that specifies the maximum number of links that can lead to and from primary or secondary objects. For example, a cardinality of 2:3 means that no more than two links can lead to a secondary object, and no more than three to the primary object. This is often used in processes that restrict, for example, the number of use cases linked to a given requirement, or the number of test cases.
change request	A proposal to change one or more requirement attributes.
child collection	Object hierarchies are created from the top down, from parent to child, while collection hierarchies are created in the opposite direction, by grouping child collections to form a parent collection, and so on. A child collection may be directly linked to an object. When a collection is created, it is a child collection by default.
child object	Whenever an object is edited and replaced, a new object is produced. The original object is called the parent object, and the new object is its child object. If this process is repeated, a child can itself be a parent of another child.
class	A structure for holding related types of information (attributes). After classes are defined, requirements are entered into the class.
class attribute	A property of a class, as defined by the instance administrator, that provides additional process and release related detail.
class definition diagram	See Schema Definition diagram
Class Definition	A Dimensions RM tool initiated from RM Manage and used to create and initially populate an Instance. The definition of the schema is accessible from the Administration menu in the browser. See Schema Definition .
CM Lock	Configuration Management Lock. A security feature that makes objects read-only and stops them from being updated. You can lock requirements, collections, and documents.
collection	A way to group requirements of any class. Once a collection is created, it can be associated with a requirement by linking the requirement to the collection. Each requirement can be linked to many different collections, and each collection can be linked to many different requirements. Parent collections contain child collections. Child collections contain requirements. Parent collections are not directly linked to any requirements, only linked indirectly through their child collections. See also baseline .
collection linkability	An occurrence of the association defined by a relationship between collections.
compliance check	A process in which Dimensions RM searches the database and produces a report specifying which objects do not contain links across a defined relationship.

compliance report	A report that lists requirements that are or are not linked to objects in the other class in a relationship. A full compliance report lists all requirements in the primary and secondary class, whether or not they are linked to each other. A compliance-only report lists either all matching requirements in the primary class that have links to matching requirements in the secondary class, or all matching requirements in the secondary class that have links to matching requirements in the primary class. A non-compliance report lists either all matching requirements in the primary class that have no links to matching requirements in the secondary class, or all matching requirements in the secondary class that have no links to matching requirements in the primary class.
Container	Container is the term applied to the various labeled sets of requirements: collection , baseline , Document , or Snapshot . Containers are not restricted by requirement types and may span the entire instance.
CSV import	A utility that lets you import data from a comma separated value file into the Dimensions RM instance database.
current	Current Status of a requirement that is the most recent or current version.
Current Status	A special implicit attribute that identifies the state of a requirement.
cyclic relationship	Relationship in which the relationship points from one class back to the same class.
database	In the Dimensions RM environment, an instance of Oracle. The databases that are displayed in the Dimensions RM tools are determined by the contents of the <code>tnsnames.ora</code> file (an Oracle file).
date attribute	A user-defined attribute type that stores values that are based on user-defined date formats.
Delete	A command that changes the Current Status of a requirement to "deleted," but leaves the requirement in the instance.
deleted	Current Status of a requirement that was deleted. A deleted requirement remains in the instance. The prior version of the requirement, if any, receives a status of "current."
derivation	The analysis process in which an object is changed or translated into a form suitable for lower-level analysis and design.
derived object	A lower-level object that is necessary for the implementation of a higher-level object. When an object changes form, it becomes a derived object. In general, a derived object is directed toward some sub-element and is more specific than the original object.
Dimensions RM	A suite of multi-user, configurable tools that support the capture, management, traceability and documentation of systems engineering information.
Dimensions RM third-party integrator	Person responsible for using the API functions to integrate third-party tools with Dimensions RM.
Doctool	A Dimensions RM tool that interprets a documentation script and generates an on-screen report.

Document	A hierarchical arrangement of chapters and requirements that can contain requirement objects together with free-form text. Documents can be created, and managed from the Document View.
Document View	An RM Browser view that provides a document-like presentation of requirements, with a table of contents, chapters, and sub-chapters. Requirements are contained within the chapters and sub-chapters. Document View allows you to easily add, delete, move, and edit chapters and requirements. Microsoft Word documents that you imported through RM Import are displayed in Document View. You can easily add, delete, move, and edit chapters and requirements from the imported Word document in Document View. See also Requirements .
ECP	Engineering Change Proposal. A class type. As you create a set of related proposed requirements, you can link them to an ECP object so that they are easily accessible for review as a group.
e-mail notification	A feature that lets you register interest in certain types of changes within the instance data and to receive electronic notices of those changes.
evaluated attribute	An attribute that takes its value from the external environment. Such an attribute can be specified as the default value for alphanumeric, numeric or date attributes. At run time, the specified script or command is executed and the resulting value is set for the attribute.
expanding	A process in which a single parent object is edited to produce one or more child objects.
export utility	A utility that can be used to back up an instance or database. The package can be created as a collection of files in a single directory or as a single file, ready for transfer to the destination site.
file attachment attribute	A user-defined attribute type that can hold a single file or multiple files. File attachments can be accessed through RM Browser.
flowdown	A systematic process in which objects are decomposed into allocated and derived objects, and then assigned to low-level model components. This flowdown process generates a hierarchical structure of refined objects derived from the objects captured for the system.
focusing	A process in which two or more parent objects are edited to produce a single child object.
form	A structure that displays requirement information for classes and relationships. A form is created for each class and relationship. You can create new forms by customizing the form that Dimensions RM generates, and can designate any form to be used as the default form.
form view	A view that displays requirements one at a time. From the form view you can edit requirement attributes.
genealogical links	Links between parent objects and child objects, or between parent collections and child collections.
generic links	Links that must span a relationship.
grid view	A view that lets you view multiple requirements in a table-like list. The column headings represent attributes of the requirements.

group	A collection of individual users grouped into a functional category. Access rights can be assigned to a group and all members of the group. If users have been assigned to an instance through a group, they inherit the group access rights, unless they have been explicitly granted or denied access.
group attribute	A group attribute is like a list attribute in that it provides a predefined list of values for user selection. But unlike a simple list attribute, a group attribute is composed of a series of sub attributes. The choices available to the user depend upon the selections they made in the higher level, or parent, attributes within the group attribute.
immediate child	The object that was created when the original object was replaced, focused, or expanded. Immediate children are the next version of objects in the line of descent and may be current objects or objects with another status.
immediate parent	The object that was used to create the currently selected object. Parent objects never have a status of "current."
immediate relationship	A relationship that refers to the immediate predecessor or successor of an object. Contrast with <i>source relationship</i> .
implicit attribute	An attribute that is used to maintain the integrity of instance information. Implicit attributes include intrinsic information such as the persistent unique identifiers (PUIDs), object IDs, and modification times. You cannot modify implicit attributes. Implicit attributes are supplied for each class and relationship. Contrast with <i>user-defined attribute</i> .
import utility	A utility that can be used to restore an instance or database from backup.
instance	A Dimensions RM work area where information is created and maintained.
instance administrator	Users with this role may perform all administrator functions within the boundary of the assigned instance.
lifecycle	The phases of an instance from its initial requirements specification through its implementation.
link	An instance of a relationship. You can link two requirements together if a relationship between their corresponding classes is defined.
list attribute	A user-defined attribute type that provides a list of values from which the Dimensions RM user can make a selection. For example, if you require the Dimensions RM user to choose one of a given set of values for the attribute <i>test_result</i> , specify the attribute as a list attribute, and define <i>pass</i> , <i>fail</i> , and <i>untested</i> as the set of allowed values. See also <i>group attribute</i> , which functions like an interdependent group of list attributes.
lock manager	A Dimensions RM tool used to lock and unlock Dimensions RM database elements such as source documents, tools, objects, and collections.
lowest level child	A current object that is descended from the selected object. The objects contained in the lowest-level children list may skip generations of an object; that is, they need not be immediate children of the selected object.
mandatory attribute	An attribute for which users must specify values. Contrast with <i>optional attribute</i> .

NOT_PRIMARY_IN	A relationship operator that is used to identify requirements that can be at the origin of a link, but do not.
NOT_SECONDARY_IN	A relationship operator that is used to identify requirements that can be at the termination of a link, but do not.
numeric attribute	A user-defined attribute type that holds numeric values, such as reference numbers. The numbers can include decimal points.
numeric sort	A method of sorting that is used for alphanumeric attributes such as paragraph numbers in outlines. For example, with a numeric sort, the numbers (10, 20, 1, and 2) are sorted as (1, 2, 10, 20) instead of (1, 10, 2, 20). Contrast with alphabetic sort .
object	Synonymous with requirement .
Object Editor	A Dimensions RM dialog used to modify attributes and edit, focus, and expand class information.
OLE	Object Linking and Embedding. A technology for transferring and sharing information among applications.
optional attribute	An attribute for which you can use the default values or leave blank. Contrast with mandatory attribute .
ORACLE_HOME	The logical pathname of the file system or network location of your Oracle installation.
parent collection	A collection that links child collections. Parent collections cannot be linked directly to an object.
parent object	An original object that produces a new object when the original object is edited. The original object is called the immediate parent object, and the new object is its immediate child object. If this process is repeated, a child object can itself be a parent object of another child object. In this way, the original parent object can spawn multiple levels of descendants, including both immediate child objects and lowest-level child objects. One or more parent objects can produce one or more child objects.
pending change request	A change request that has not yet been accepted or rejected. A pending change request has a Current Status of "proposed."
Permissions	The rights to execute actions assigned by group.
polling	A feature of RM Browser that lets you solicit feedback about a requirement from selected users. Polls are typically used to decide whether a specific requirement should be accepted, or to reach consensus concerning the content of a requirement.
primary class	The first class in a direct relationship between two classes. For example, in the relationship <i>Is_Testes_By</i> that connects class <i>Code_Module</i> and class <i>Acceptance_Tests</i> , <i>Code_Module</i> is the primary class, <i>Is_Testes_By</i> is the relationship, and <i>Acceptance_Tests</i> is the secondary class. The direction of the relationship arrow is always from the primary to the secondary class in the class definition diagram. This direction and positioning on the diagram defines the direction of the relationship. Contrast with secondary class .

PRIMARY_IN	A relationship operator that is used to identify requirements that are at the origin of a link.
primary object	An instance of a primary class to which objects are linked.
project	In software development, the project refers to the unit of work designed to add value to a new or existing component. In Dimensions RM, projects may be defined using categories or Product and Project classes established to manage multiple or parallel projects within a single product (see " Branching and Merging Requirements " on page 167).
proposed	Current Status of a requirement for which a change request has been made to either change the current requirement or create a new requirement.
pseudonym	Text pattern used to locate objects to be linked to a collection. For example, pseudonyms of the keyword "calibrate" might be "calibrated," "calibrating," or even the wildcarded string "cal*". Unlike aliases, which exist for the duration of the instance or until they are deleted, pseudonyms exist only during the linking process. See also alias .
PUID	Persistent Unique Identifier. An intrinsic attribute.
query	A script, expressed in terms of the instance schema, that you use to retrieve selected requirements.
Quick Search	A feature of the Requirements View in RM Browser that lets you quickly create a query to see the content of any category.
Reject	A command that rejects a proposed change. The Current Status of the proposed requirement becomes "rejected," and a copy of the requirement is created with the Current Status of "current."
rejected	Current Status of a change request that has been rejected.
relationship	An association between two requirement objects. The relationship (i.e., Link) is also an entity in its own right, in terms of having its own attributes and associated user access rights. See also link .
relationship attribute	A property of a relationship, such as its cardinality and its inheritance characteristics. Relationship attributes, defined by the instance administrator, can control how traceability is established across different relationships. Instance administrators can specify that links be created between two objects according to the value of one or more of the class attributes. For example, it can be specified that links can be created from a change request object to a requirement object only if the value of the change request object's attribute APPROVAL_STATUS is APPROVED. See also cardinality rule .
relationship rule	Circumstances under which links between objects will be permitted. See also cardinality rule .
remove	A command that physically removes a requirement from an instance. Only requirements with a status of "current" can be removed.
replaced	Current Status of a requirement that has been replaced by a newer version. See also Save .

resource category	A grouping of resources into a class of items. For example, a unique document name falls into the category of Documents. Resource categories are important when assigning default permissions because defaults are assigned to entire class of resources rather than an individual resource. Resource categories are also important when assigning appropriate transaction for a class of resources. Certain transactions are appropriate only for certain categories of resources.
requirement	An instance of a class. A description of a set of conditions applicable to a product or process; this description must be capable of being validated for success. A requirement object is satisfied by a product or process if a test reveals that the described conditions are met by the product or process. Synonymous with object.
Requirements View	An RM Browser view that lets you view and modify requirements that are organized by category. From this view, you can run an existing script, run a quick search to create a new query, and add queries that you access frequently to a favorites folder. See also Document View .
RM Browser	A Dimensions RM tool that provides Web access to a core set of Dimensions RM functions.
RM Import	A Dimensions RM tool that lets you preview a Microsoft Word document as a draft document, change the description of chapters, reorganize the chapters, change the values of attributes, move attributes between chapters, and so on. When satisfied with the draft document, you can import the document into Dimensions RM as a document that can be viewed and modified in the Document View of RM Browser.
RM Import Designer	A Dimensions RM tool that lets administrators design templates that users select when importing Word documents from RM Import. Templates define how to identify classes, attributes, chapters, requirements, and categories.
RM Manage	A Dimensions RM tool that lets instance administrators define users and groups, administer instance security, configure the instance database, organize data, and control user access and data routing.
RTM_HOME	A logical name for the file system location of Dimensions RM programs and data.
Save	A command that creates a new version of a requirement with the changes you made. The Current Status of the original requirement is changed from "Current" to "Replaced", a parent-child link is created from the original requirement to the new requirement, and the current status of the new requirement is set to "Current".
Schema Definition	<p>The Administrator function that provides the ability to define and/or modify various classes (i.e., requirement types) the attributes supported in those classes, and the relationships between them. The attributes defined within each requirement class, provide the input for reporting on the status of the requirements within each class.</p> <p>By specifying the instance structure in this way, a class definition both constrains and supports the development team in the way instances of classes, attributes and relationships can be created during the lifetime of the instance. All members of the development team use the Schema Definition to view each of the classes, their content and their relationships.</p>
Schema Definition diagram	A graphical representation of the information classes that exist within an instance, along with the relationships between the classes.

script	A query against one or more classes. Scripts can be used to combine the selection criteria capabilities with complex link traversal, parameterization, basic calculations, and output formats.
script generator wizard	A Dimensions RM wizard that provides a graphical interface allowing the user to specify the contents of a given report.
secondary class	An object class that is the destination of the relationship arrow from a primary class in a class definition diagram. The relationship arrow points to the secondary class. Contrast with <i>primary class</i> .
SECONDARY_IN	A relationship operator that is used to identify requirements that are at the termination of a link.
Snapshot	A baselined (frozen) version of a document, typically created prior to distributing a document for review.
source document	A document, typically provided by the customer, which is input to the system being developed. A source document can also be written in Dimensions RM by using an empty document and inserting objects.
source relationship	A relationship that refers to the original object in a chain of versions. Contrast with <i>immediate relationship</i> .
suspect link	A link that becomes questionable after one of the requirements in the link changes. The change could render other requirements questionable, or "suspect."
System Administrator	The role of administrator is assigned to those responsible for configuring and maintaining the RM environment. The system administrator can create, modify and delete instances, users and groups across all instances, and access all associated tools (e.g., RM Manage).
tablespace	A logical storage unit. Your instance data is physically stored in one or more data files associated with a tablespace. Initially, only one file is associated with the tablespace, but you can add more files as you need them. The size of a tablespace is determined by the size of the data file or combined data files that make up the tablespace.
template	A set of rules defined by an administrator in RM Import Designer that determines how a document will be imported into Dimensions RM using the RM Import tool.
text attribute	A user-defined attribute type that holds up to 64 KB of alphanumeric, ASCII text that can span more than one line. It is suitable for long descriptions, such as the description of an acceptance test.
transactions	Actions associated with a category of resources that represent what can be done with that resource. For example, an update transaction is associated with a class definition. A user that has the update transaction for a particular class definition can change characteristics of that class definition and store them in the database.
traceability	The process of making explicit links between requirements and other entities. Traceability lets you trace the evolution of an instance.

Traceability View	An RM Browser view that provides a way to select the relationships you want to trace, with requirements limited to selected baselines, documents, collections, or categories; browse through the requirements that are part of the relationships; and then print traceability reports that display the information in a visual format that is easy to analyze. See also Document View , Requirements
type	A definition of the basic properties of a set of instances of a class, relationship, or attribute.
Undelete	A command that changes a the Current Status of a requirement from "deleted" to "current."
Update	A command that overwrites the content of the requirement. No history of the change is maintained. This is only recommended if previous versions of a requirement must be deleted. All other attributes, including Current Status, remain intact.
user	An individual responsible for performing basic information management tasks, such as capturing objects, creating traceability links among requirements and other data, engineering and categorizing objects, and producing reports. An individual Dimensions RM user.
user attribute	A user-defined attribute type that provides a list of user names from which the Dimensions RM user can make a selection. A user attribute can contain all users, members of one or several groups or individual users.
user-defined attribute	An attribute that you can create for use in a specific class. See also alphanumeric attribute , date attribute , file attachment attribute , group attribute , list attribute , numeric attribute , text attribute , user attribute . Contrast with implicit attribute .

Index

A

- access rights
 - granting 384
 - revoking 384
- accessing RM Browser 60, 61
- Actions pane 29
- Agile 353
 - display options 359
 - features
 - add 371
 - delete 372
 - edit 372
 - Overview tab 360
 - Product Backlog tab 361
 - Product Storyboard tab 364
 - products
 - add 368
 - delete 369
 - edit 368
 - manual assignment 369
 - releases
 - add 370
 - delete 370
 - edit 370
 - Sprint Planning tab 364
 - Sprint Storyboard tab 365
 - sprints
 - add 373
 - delete 374
 - edit 374
 - stories
 - add 372
 - delete 373
 - edit 373
 - Taskboard tab 366
- alphabetic sort 38
- alphanumeric attribute 413
- assigning a user to groups 381
- assigning users to groups 383
- attachments 248
- attributes
 - adding 410
 - alphanumeric 413
 - copying 115, 169, 170, 411
 - Created by 409
 - date 414
 - defining 410
 - deleting 412, 413

- file attachment 415
 - group 100, 416
 - Initial Created by 409
 - list 418
 - lookup 423
 - naming 469
 - numeric 425
 - PUID 430
 - rqmt ID 430
 - text 426
 - types 410
 - URL 427
 - user 428
- attributes, formatting text with HTML 39
- attributes, group 156
- auditability 105
- Auto load document check box 89
- autoloading documents, setting 89

B

- baseline
 - create 314
- Baseline Lock 499
- Baseline Locked 309
- baselines
 - removing 315
- baselining 314
- Branch View settings 93
- branching 167, 171, 172, 173
- bread crumb 26
- browse links 148

C

- cardinality 446
- categories
 - access rights 394
 - adding 392
 - deleting 392
 - managing 390
 - maximum name length 392
 - moving 394
 - naming 469
 - renaming 392, 393
- categories in RM Browser 48
- Categories pane 27

- categories, moving requirements between 397
 - change requests
 - proposing a new requirement 117
 - requesting a new requirement 117
 - reviewing 125
 - submitting 117, 123
 - Chapter Layout
 - Editable Grid 193
 - Grid 193
 - Paragraph 192
 - chapters
 - creating 221
 - deleting 225
 - editing 223
 - formatting 227
 - moving 231
 - class definition diagram
 - canvas grid 436
 - panning 437
 - selecting objects 437
 - zooming 437
 - class image, changing 443
 - Class Information 443
 - class report, create 284
 - classes
 - changing class image 443
 - changing style properties 442
 - copying 443
 - deleting 445
 - naming 469
 - overview 439
 - purging data 444
 - renaming 443
 - specifying a description 441
 - collection 151
 - collection URL, copying to clipboard 320
 - collections
 - baselining 314
 - creating 309
 - deleting 311
 - removing 311
 - undeleting 311
 - comments
 - adding 67, 180
 - comparing a document and its snapshot 244
 - concurrent editing mode 78, 81
 - constraints 460
 - contacting technical support 15
 - container 151, 152
 - inherited 152
 - workflow 319
 - container properties 153
 - copying collection URL to clipboard 320
 - copying document URL to clipboard 201
 - copying report URL to clipboard 303
 - copying requirement URL to clipboard 112
 - copying requirements 115, 120, 169, 170
 - copying URL
 - of collection 320
 - of document 201
 - of report 303
 - of requirement 112
 - copying users 379
 - Created by attribute 409
 - creating a new collection 309
 - creating a new document 203
 - creating users 378
- ## D
- dashboard
 - add graphical report 262
 - add standard report 261
 - add website 263
 - copy 264
 - create 260
 - delete 265
 - runtime parameter 262
 - using reports 259
 - date attribute 414
 - default document view mode 90
 - default group access 384
 - default requirement layout 90
 - deleting collections 311
 - deleting documents 206
 - deleting requirements 106, 121
 - deleting users 381
 - dependent attributes 156
 - Dimensions CM
 - security 386
 - discussions 67, 180
 - distribution report, create 285
 - document settings 88
 - document URL, copying to clipboard 201
 - Documents
 - Create snapshot 243
 - documents
 - adding a requirement 230
 - comparing 244
 - creating 203
 - creating a chapter 221
 - creating a requirement 229
 - creating Excel 251
 - creating PDF 251
 - creating ReqIF 252
 - creating Word 247
 - default requirement layout 90
 - default view mode 90
 - deleting 206
 - deleting a chapter 225
 - deleting a requirement 231

- document differences report 247
- document properties 215
- editing 209
- editing a chapter 223
- editing a document 209
- exporting Adobe PDF documents 251
- exporting Excel spreadsheet 251
- exporting Microsoft Word documents 247
- exporting ReqIF documents 252
- finding and replacing character strings 199
- limited permissions 197
- moving chapters 231
- moving requirements 231
- opening 196
- printing 196
- removing 207
- requirement difference summary 247
- requirement versions 161
- restricting requirement classes 217
- setting autoloading of 89
- undeleting 207
- viewing attachments 248
- workflow 253

documents, formatting 211

E

- Editable Grid view 33
- editing mode 78, 81
- editing users 380
- Export
 - As Excel spreadsheet 251
 - As PDF document 251
 - As ReqIF document 252
 - As Word document 247
- export
 - CSV 125
 - Test Case 131
 - Test Run 131
 - Excel 125
 - HTML 125
 - PDF 125
 - Test Case 131
 - Test Run 131
 - Text 125
 - Word 125
 - XML 125

F

- file attachment attribute 415
- find and replace, Document work page 199
- finding requirements 98
- Form view 33

- formatting chapters 227
- formatting documents 211
- formatting text attributes with HTML 39

G

- general settings 78
- granting access rights 384
- graphical report, create 285
- Grid view 33, 35
- group assignment 381, 382, 383
- group attribute 416
- group attributes 49, 100, 156

H

- Help 63
- history, requirement 157
- home settings 80
- HTML formatting 426
- HTML formatting toolbar 39

I

- Import 323
 - CSV 334
 - Test Case 335, 339
 - Test Run 335, 339
 - previously exported requirements 345
 - ReqIF 341
 - Round Trip 345
 - Test Case 335, 339
 - Test Run 335, 339
 - Word 324, 328
 - XML 332
- Informatio 443
- inherited containers 152
- inherited links 147
- Initial Created by attribute 409
- instance bread crumb 26
- instance schema
 - canvas grid 436
 - defining 435
 - panning 437
 - selecting objects 437
 - zooming 437
- instance settings 78

L

- Like constraint 460, 461
- Link Browser 148

- Link Browser settings 91
- link transfer rules 446
- links
 - inherited 147
 - suspect 143
- list attribute 418
- list values, sorting 400
- lock, baseline 499
- logging in 60
- logging in, Azure 61
- logging in, SmartCard 61
- logging in, SSO 61
- lookup attribute 423

M

- menu bar 25
- merging 167, 174, 175
- merging requirement changes 164
- moving requirements between categories 397
- My Work Dashboard
 - creating 258
 - polls 180

N

- naming classes, attributes, categories 469
- navigation 24
- numeric attribute 425
- numeric sort 38

O

- operators in RM Browser 52

P

- padlock icon 309
- passwords, changing 62
- passwords, sample databases 21
- Pedigree View 162
- polls
 - built-in queries 180
 - closing 179
 - creating 177
 - modifying 178
 - overview 177
 - viewing results 179
 - voting 179
- printing 122, 196
- proposed requirements
 - reviewing 125

- PUID attribute 430

Q

- QLARIUS_RM sample database 21
- Quick Search 98
- Quick Search settings 87

R

- refreshing
 - data 103
- Relationship Constraints tab 53
- relationship constraints, workflow 460
- relationship report, create 293
- relationships
 - adding 445
 - cardinality 446
 - changing style properties 447
 - deleting 448
 - editing vertices 448
 - overview 445
 - purging data 448
 - renaming 449
 - reversing 449
 - transfer rules 446
- removing baselines 315
- removing collections 311
- removing documents 207
- removing requirements 106, 122
- report
 - create class report 284
 - create distribution report 285
 - create graphical report 285
 - create relationship report 293
 - create traceability report 295
 - create trend report 287
 - edit 299
 - run 282
- report settings 91
- report transactions 388
- report URL, copying to clipboard 303
- report-run-time parameters 282
- ReqIF 341
- requirement URL, copying to clipboard 112
- requirements
 - add to container 151
 - branching 167, 171, 172, 173
 - collection 151
 - container 151
 - copying 115, 120, 169, 170, 411
 - creating 117
 - deleting 106, 121, 231
 - editing 118

- exporting Quick Search results 125, 126, 127, 128, 130, 131, 132
 - finding 98
 - history 157, 161
 - history, Pedigree View 162
 - importing from ReqIF files 341
 - importing from XML files 332
 - inherited containers 152
 - inherited links 147
 - merging after branching 167, 174, 175
 - merging changes 164
 - moving between categories 397
 - moving in documents 231
 - multiple selection 36
 - open container 152
 - printing 122
 - Quick Search 98
 - remove from container 152
 - removing 106, 122
 - restricting classes in documents 217
 - saving 105
 - selecting multiple 36
 - undeleting 106, 121
 - updating 105
 - versions 108, 161
 - workflow elements 110
 - requirements settings 81
 - restricting requirement classes in documents 217
 - revoking access rights 384
 - RM Browser 53
 - Attribute Constraints tab 47
 - basics 23
 - categories used in queries 48
 - changing your password 62
 - creating a new object 114
 - deleting requirements 121
 - editing requirements 118
 - getting Help 63
 - logging In 60
 - logging in 60, 61
 - logging out 62
 - operators used in queries 52
 - organizing collections 308
 - overview 18
 - participating in discussions 67, 180
 - polling 177
 - refreshing data 103
 - removing requirements 122
 - reviewing change requests 125
 - submitting change requests 123
 - Traceability View 296
 - undeleting requirements 121
 - viewing contact information 71
 - viewing system information 71
 - viewing version information 71
 - RM Browser interface 23
 - RM Browser, navigating 24
 - RMDEMO sample database 21
 - rqmt ID attribute 430
 - run-time parameters with reports 282
- ## S
- sample databases 21
 - saving requirements 105
 - security
 - attribute transactions 385
 - class transactions 385
 - collection transactions 386
 - Dimensions CM projects 386
 - import transactions 387
 - relationship transactions 387
 - selection
 - multiple requirements 36
 - settings
 - Branch View 93
 - document 88
 - general 78
 - home 80
 - instance settings 78
 - Link Browser 91
 - Quick Search 87
 - report 91
 - requirements 81
 - Split View 92
 - Sync View 93
 - user attribute 82
 - user settings 78
 - Snapshot
 - Create from document 243
 - Delete 244
 - Modify 244
 - Save as new document 244
 - View 244
 - sorting list values 400
 - spell check
 - Chrome 74
 - Edge 72
 - Firefox 73
 - Internet Explorer 72
 - Split View settings 92
 - SQL 480
 - suspect links 143
 - Sync View settings 93
- ## T
- technical support
 - contacting 15
 - Test Case

- CSV export 131
- CSV import 335, 339
- Test Case Management
 - test case 348
 - test run 350
- Test Run
 - CSV export 131
 - CSV import 335, 339
- text attribute 426
- text attributes, formatting 39
- Traceability
 - customizing the tree 298
 - overview 296
 - understanding the traceability tree 297
- transfer rules 446
- traceability report, create 295
- trend report 105
- trend report, create 287

U

- un-assigning a user from groups 381
- un-assigning users from groups 383
- undeleting collections 311
- undeleting documents 207
- undeleting requirements 106, 121
- updating requirements 105
- URL
 - collection, copying to clipboard 320
 - document, copying to clipboard 201
 - report, copying to clipboard 303
 - requirement, copying to clipboard 112
- URL attribute 427
- user attribute 428
- user management 378
 - copying users 379
 - creating users 378
 - deleting users 381
 - editing users 380
 - group assignment 381, 382, 383
- user settings 78

V

- views
 - Editable Grid 33
 - Form 33
 - Grid 33
- voting in a poll 179

W

- Welcome menu 24

- workflow
 - container 319
 - disable 464
 - document 253
 - elements 110, 453
- workflow state
 - add 454
 - change definition 454
 - change name 454
 - delete 456
 - settings
 - form 455
 - properties 454
 - security 455
 - style 455
 - transitions 455
- workflow transition
 - add 456
 - change definition 457
 - change name 456
 - settings
 - relationship constraints 460
 - security 463

X

- XML files, importing 332