

**opentext™**

# Dimensions RM

Software version: 24.4 (12.12.1)

## RM Browser User's Guide



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Product version: 24.4 (12.12.1)

Last updated: October 17, 2024

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# Preface

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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

Open Text 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 Open Text Support at the following URL and follow the instructions:

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# Chapter 1

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## RM Browser Basics

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## Functionality 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 from stakeholders** collected via word documents or spread sheets
- 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
- Provide facilities for notification via email or targeted browser alerts
- AI Integrations to assist in requirement review and Test Case creation
- A schema definition that is, like the requirements stored within it, open to change.

## Common Terms

The following section describe the most important terms in detail. These and other RM related terms are included in the ["Glossary" on page 529](#).

### Requirement

Dimensions RM is a requirements management solution. Be they Customer Requirements, Software Requirements, Design Statements, Test Cases, or Defects, organizations use RM to define the classes that will store the data relevant to each type, as well as the relationships that connect them. Throughout this documentation, we often refer to the objects stored within RM as requirements, because each object expresses a need within the requirements management process.

### **Attribute**

An attribute is a property used to manage each of the characteristics associated with the various object types managed using RM Classes. Attributes are stored as text, in lists, or in any one of the available formats (see chapters "[The Basics of Finding, Filtering, and Formatting](#)" on page 39 and "[Attribute Types](#)" on page 31).

### **Collection**

A labeled set of associated objects gathered from one or more types (classes). Collections provide methods for organizing requirements for use in integrations, standard reporting, in building graphical reports, for release tracking or for a user to keep track of the items they are currently working on. See "[Managing Requirements in a Collection](#)" on page 324.

### **Parent Collection**

Parent Collections are labeled sets of objects, created and populated from one or more containers (collections, baselines, documents and snapshots). A parent collection, identified by the term "(parent)" in its description, will reflect any changes made to the containers from which it was populated. See "[Working with Parent Collections](#)" on page 331.

### **Baseline**

A baseline is a labeled 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 "[Managing Baselines](#)" on page 329.

### **Documents**

Documents provide the capability to import requirements and 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 versioned system or software requirement specifications. For further information see "[About Documents](#)" on page 108.

### **Parent Document**

Documents created with the intention of managing a common structure and content can be created as Parent Documents, their structure and content is inherited by each child created based on the parent. For further information see "[About Documents](#)" on page 108.

### **Snapshot**

A snapshot is a frozen version of a document. Document snapshots are typically created prior to distribution. The compare facility provides the ability to include a cover sheet detailing the changes between snapshots, enabling reviewers to focus on the changes. See "[Document Snapshots](#)" on page 160.

### **Container**

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

## Reports

The input to reports consists of a list of objects, filtered according to needs, the output can take many forms: detailed listings, requirement traceability from request to test, progress reports displayed graphically, or complex trend reports. Dimensions RM report wizards have been developed to help users to track, understand and disseminate status. For more information see chapters "[Working with Reports](#)" on page 289.

Database information may also be queried using a SQL like script language, for more information see "[Script Syntax](#)" on page 509.

## 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 of 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 categories. For further details about categories, see chapter "[Managing Categories](#)" on page 413.

## Edit Attributes Dialog

Each object managed in RM, whether a requirement, test case, glossary or information object can be selected and opened using the **Open** action from the **Actions** Pane (see chapter "[Editing a Requirement](#)" on page 194).

The RM objects are opened in forms segmented, by default, by attribute group, some typical sections include:

**State History** - If using Workflow, displays transition history and Category.

**Standard** - Displays Title, description, requirement ID, and current workflow state.

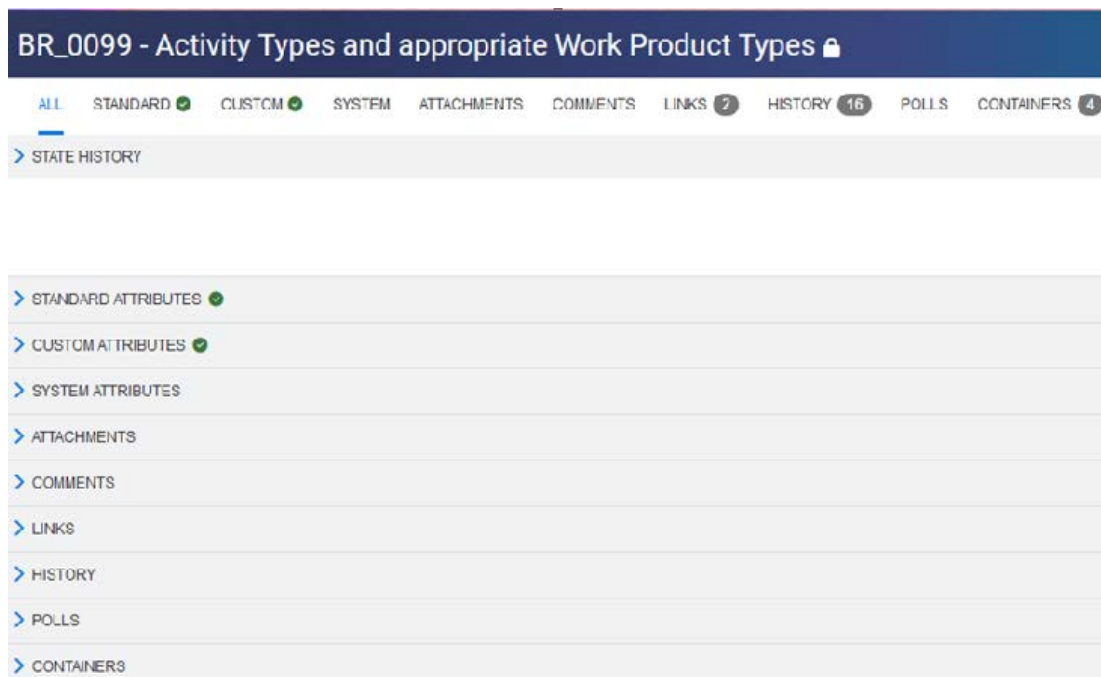
**Custom or User Attributes** - Properties determined by the organization to be relevant to the class, e.g., priority, target release, estimated effort, design status, or reviewer.

**System Attributes** - Implicit attributes defined and maintained within RM maintaining, for example, who created or modified a requirement, what was added or modified, and when.

The remaining segments include: **attachments, comments, links, history and containers**; these segments show counts when populated.

Each segment name is listed across the top of the form for easy selection and expansion.

The form header, defined by the Instance Administrator, can contain the Class Name, the Requirement ID, and/or the Title. The following header shows Requirement ID (BR\_0099), and the Title. The lock indicates that the version displayed cannot be changed, whether through process rules or baselining.



**Figure 1-1. Sample Open Business Requirement Form**

### System Attributes

System or Implicit attributes are those defined and managed by Dimensions RM, for example, System attributes are shown in section **System Attributes** of the **Edit Attributes** dialog

The following are examples of system attributes managed within 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.
Notification	RTM_NOTIFICATION	Indicates the configuration status of e-mail or browser notification. Possible values: <b>Yes:</b> Enabled <b>No:</b> Disabled If no value has been specified, notification has not been configured.

Display Name	Internal Name	Description
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 " <a href="#">Suspect Links</a> " on page 219 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 in this document see [About the Home View](#).

**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 as Kanban reports.

**Risks:** An optional report evaluating identified risks that could impact the product outcome.

**Glossary:** Lists objects contained in the Glossary class.

**Documents, Collections, Baselines, Reports,** and **Boards** tabs 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, filter, review and modify requirements are listed under **Views** on the Main Page.

**Quick Search:** under the Views tab provides a facility to list all requirements, irrespective of their container.

**Split View:** Lists requirements on both sides of a selected relationship, with access to drag-and-drop linking.

**Document Split View,** listing objects from two selected documents, with access to drag-and-drop linking, and link selection for deletion or removal.

If branching is in use, selections for **Branch View** and **Synchronize View** will also be available from the Views menu.

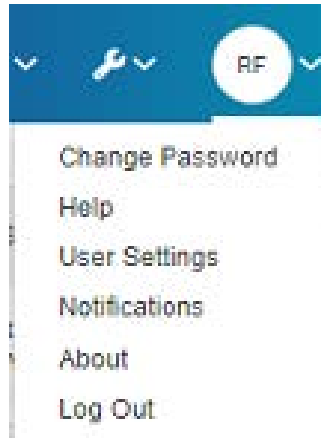
## General Navigation and Controls in RM Browser

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

- ["Welcome Menu" on page 25](#)
- ["Menu Bar" on page 25](#)
- ["RM Instance Bread Crumb" on page 26](#)
- ["Categories Pane" on page 27](#)
- ["Favorites" on page 30](#)
- ["Actions Pane" on page 30](#)
- ["Favorites" on page 30](#)
- ["Attribute Types" on page 31](#)



## Welcome Menu



Clicking on your initials in the upper right of the Menu Bar provides access to the following:

**Change Password:** This opens the **Change Password** page. See ["Changing Your Password" on page 67](#).

**Help:** This opens the RM Browser help. See ["Getting Help" on page 68](#).

**User Settings:** This opens the **User Settings** dialog, where users 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 email and/or browser notifications can be enabled or disabled, see ["User Notifications" on page 68](#). Also listed on this dialog are objects that you are following.

**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. When submitting a support case, including the information from this display will help to expedite your question or issue. See ["Viewing Version and System Information" on page 76](#).

**Log Out:** This ends your RM Browser session and displays the **Log In** page. See ["Logging Out" on page 67](#).

## Menu Bar



The Menu Bar appears at the top of all RM Browser pages. It includes the following menus and buttons:

**Home:** Opens the Home View. For more information on the Home View, see chapter ["Working with the Home View" on page 267](#).


**New:** This menu opens the dialogs used to create new items, such as requirements, reports, documents, collections, and baselines.


**Views:** This menu provides access to **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 174 and ["Linking Existing Requirements through Split View"](#) on page 212.


**Agile (optional):** This button, only available if Agile functionality has been enabled, opens the Agile View. For further information about Agile, see chapter ["Agile Basics"](#) on page 376.

**Test (optional):** This button, only available Test functionality has been enabled by your administrator, opens the view into Test Management.

 **Global Search:** This icon opens a dialog used to search the Instance for the term input. The global search will examine requirements or the title of any container or report; filters can be applied. See ["Global Search"](#) on page 180.

 **Notification Flag:** This icon appears if Browser notifications have been enabled. It indicates the number of notifications available to be read (see ["User Notifications"](#) on page 68).

 **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 339.

 **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 ["About Administration"](#) on page 400.

**Welcome Menu:** The small circle contains the user initials as well as access to some regularly used actions (see ["Welcome Menu"](#) on page 25).

## RM Instance Bread Crumb

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

Standard Bread Crumb:

RMDEMO ▾ >  RMDEMO\Quality\Safety

**Database Name:** The left element displays the RM instance name. Clicking the down-arrow opens a list of RM instances. Selecting another switches to that instance. For details see ["Switching to Another RM Instance"](#) on page 67. Each instance is managed within a database, to view the database name for the current RM instance hover over the instance name. This opens a tooltip displaying database and instance name.

**Category Path:** The element to the right of **the folder icon** displays the full category path. RM Categories are like folders on the file system, allowing teams to manage all RM Objects in defined structures.

In this example, the path displayed shows the root category (the instance name), the folder managing objects, Quality, and within that folder Safety specific objects.

**Database Name:** The name of the database may be included as part of the standard Bread Crumb, it will appear to the left of the Instance name. This is an instance setting and generally only applied when users are working in multiple database.

### The Bread Crumb Extended for open Containers or Reports:

RMDEMO > > RMDEMO\Quality\Safety > TDR Quality Review

When a user opens a container (document, snapshot, collection, baseline) or a report the Bread Crumb is extended to include its name. In the image above, the document, TDR Quality Review, was opened from the RMDEMO\Quality\Safety.

As with the Standard Bread Crumb:

**The RM instance name:** e.g., RMDEMO

**Category path:** RMDEMO\Quality\Safety

**Open Container or Report:** name of the open item TDR Quality Review in this example.

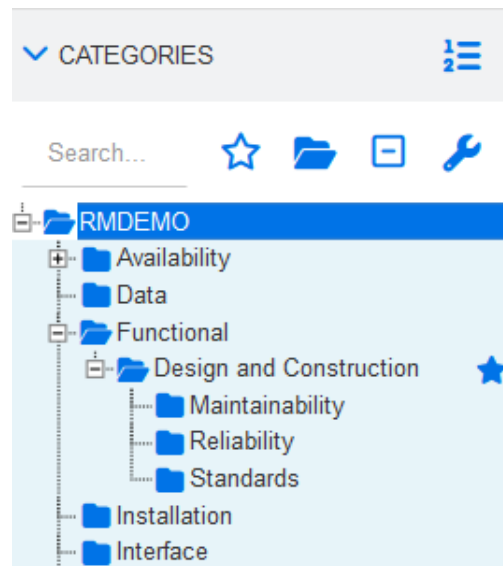
▼ The caret or down-arrow is available after each element to provide expansion and selection within the element type.

To close an open Container or Report:

✕ Note that the x-icon located at the far right of the header line exits the open element.

## Categories Pane

On the left side of the Home View resides the Categories Pane. From this pane, the full instance Category and subcategory structure can be expanded, allowing easy access to any working location.




**Figure 1-2. Category View, the Blue Star marks a favorite**

The Category pane also provides access to the Hierarchy; users may choose to set the default view to either Hierarchy or Category in User Settings (see "Home Settings" on page 84).

Categories Header:


☰ **Switch to Hierarchy View:** The Hierarchy View lists the requirement within a defined structure within the Category tree. If the switch to the hierarchy view is

make from a subcategory, the top of the visible tree will be set to that subcategory.

 **Switch to Category View:** In Hierarchy View, click this button to switch to Category View.


### Search Line Category View:

**Search:** This field limits the display in either category or hierarchy views to those objects 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.



 **Show Favorite Categories:** This button toggles between Standard View and a view showing only categories marked as favorites.


Marking one or more categories as favorites is useful when working in a limited area of a large project. To mark a Favorite, hover over the category and click the star on the right.

Click the "**Show Favorite Categories**" Star, to see only favorites displayed, click it again to return to the Standard View.

 **Include sub categories:** When open, this toggle indicates that subcategories below the selected category will be included. When closed only the selected category will be included.

This means that, if the root category is selected (RMDEMO in our examples), and this folder is closed, choosing, for example, the **Requirements** tab in the Home View will list only Requirements located in the root category.

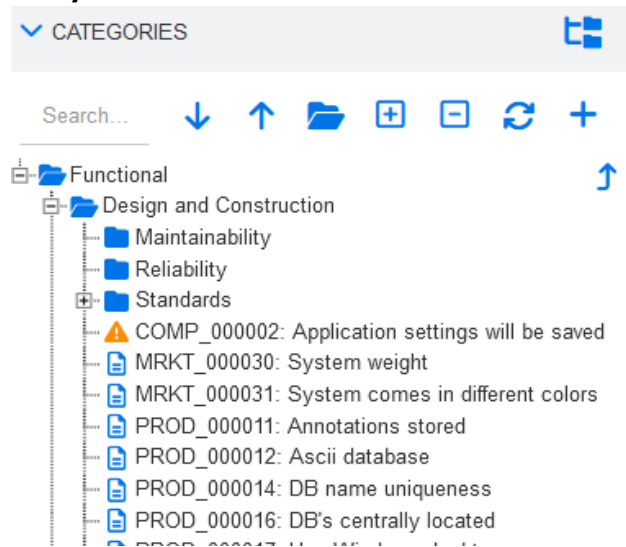
 **Collapse all sub categories:** This button collapses any open branches below the selected category. Categories containing subcategories are expanded using the  icon.

 **Wrench/Spanner:** Only Instance Administrators will see the Wrench icon at the end of this line. This icon opens the dialog to manage categories. For details see "[Managing Categories](#)" on page 413.

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

Select the object from relevant tab in Home View and drag the object onto the target category in the tree. A successful move will show a green check.

A failure to move an object into a different category could mean that you have no permission in the target category, or, there could be process considerations causing the move to fail.

**Search Line Hierarchy View:**

**Figure 1-3. The Hierarchy View, lists categories and content**

**↑ Move Upwards:** This icon is displayed to the right of the top entry in the visible hierarchy, when there are additional categories available above.

**🔍 Search:** To search in Hierarchy View, enter the search string and hit return or click the search button to locate matching objects; matches are shown in bold. When matching a parent, be it category, header or requirement, the child objects will be listed in the display.

**To return to the full hierarchy,** click the X button in the search field or delete the search string.

**↓ 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.

**<Hierarchy Parent> a Special Attribute,** maintains the location of an object in the hierarchy relative to its parent. When an object is moved, a new version is created, please see "[Viewing Requirement History](#)" on page 232. The <Hierarchy Parent>, like all attributes, can be included in listings, reports and documents.

**📁 Include sub categories:** When open, this toggle indicates that subcategories below the selected category will be included. When closed only the selected category will be considered.

This means that, if the Functional category (see [Figure 1-3](#)) is selected and this folder is closed, choosing the **Documents** tab in the Home View will list only Documents contained in the Functional category.

**☒ Collapse all sub categories:** This button collapses any open branches below the selected category. Categories containing subcategories are expanded using the **⊕** icon.

**🔄 Refresh:** Reloads the list of requirements in Hierarchy View.

**⊕ 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.

## Favorites

Favorites allow easier access to categories, or often used items (i.e. documents, reports, collections); each can be designated a favorite by marking the item with a star. Limit the Home View to your favorites by filling in the ☆ at the top of the Category Pane.

### 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 ☆.

## Recent Items

Below the Category/Hierarchy tree is the Recent Items list. The **Recent** list can be comprised of any or all of: documents, snapshots, requirements, reports, collections, or baselines. This list enables users to easily re-select recently opened objects

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

- 1 **Hover over** the title of the Recent list, to show the gear in the title bar.
- 2 **Click the gear**, to open the **Settings** menu.
- 3 **Check the boxes** to the left of the items you want listed in the **Recent** list.
- 4 Click **OK**.

Note that changing the settings from Home View will override the settings selected in the **User Settings** dialog (see "[Recent Items](#)" on page 85).

## Actions Pane

The Actions Pane appears on the right side of all RM Browser pages. In it are listed the **Actions** possible in the current context.

These actions are arranged in expandable/collapsible sections, and can be further modified by selecting the pencil icon in each section heading (see "[Configuring Actions Pane Defaults](#)" on page 105).




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.






The Actions available depend on user permissions, object selected and context. Execute Transition, for example, will be grayed out when highlighting an object from a class without defined workflow. From Home View, the Actions listed differ depending on the Tab selected as well as the object.

In addition to the Actions listed in the right pane, an additional set of requirement related actions is available from the Actions menu at the top right of an open requirement. See ["Edit Attributes Using the Actions Box" on page 182.](#)





## 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
<b>Alphanumeric</b>	A single line of text up to 1000 characters.
<b>Calculated</b>	A read-only numeric attribute which is calculated when an attribute specified in the formula is changed.
<b>Date</b>	Allows to select either date or date and time. The date format is defined by the administrator.
<b>File Attachment</b>	<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 <b>Attachments</b> section of a requirement.</p> <p>Depending on system configuration, not all file types can be uploaded. For details, see chapter <a href="#">"Quick Search Settings" on page 92.</a></p>

Attribute Type	Description
<p><b>Group</b></p> 	<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><b>Example:</b> 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. To add a new (empty) row, click  . To add a new row with the values of the selected row, click  . To remove a row, click  .</p> <p><b>TIPS</b></p> <p><b>Choose Select all</b> to have all values added from the drop-down list; if all are not selected, multi-select has not been activated for this group.</p> <p><b>Choose None</b> to query for an empty value from the drop-down list.</p> <p>When using a group attribute as a <b>runtime parameter</b> 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.</p>
<p><b>List (single value)</b></p>	<p>A list of values configured by the administrator. This list only allows selection of one value.</p> <p><b>Select Value</b></p> <p>Next to the list attribute, click the  button to open the <b>Find &amp; Select List Value</b> dialog. For further info, see chapter "<a href="#">Find &amp; Select List Value</a>" on page 48.</p>



Attribute Type	Description
<b>List (multiple values)</b>	<p>A list of values configured by the administrator. This list allows selection of multiple values.</p> <p><b>Standard Mode</b></p> <p>If selection of multiple values is allowed, use these modifier keys:</p> <p><b>Click:</b> Makes a list value a selected value. All other selected values will be unselected.</p> <p><b>Ctrl+Click:</b> Add or remove a list value from the selected values.</p> <p><b>Shift+Click:</b> Adds all values between the previous selected value and the clicked value to the selected values.</p> <p><b>Assignment Box Mode</b></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><b>Select Value</b></p> <p>Next to the list attribute, click the  button to open the <b>Find &amp; Select List Value</b> dialog. For further info, see chapter "Find &amp; Select List Value" on page 48.</p>
<b>List (Tag Mode)</b>	<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>
<b>Check Box(es)</b>	<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>
<b>Radio Buttons</b>	<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>
<b>Lookup</b>	<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>
<b>Numeric</b>	<p>Accepts only numeric values.</p>

Attribute Type	Description
<b>Text</b>	<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 <a href="#">"HTML Text Formatting Toolbar"</a> on page 42.</p>
<b>URL</b>	<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  .</p> <p>To change an existing URL, click  .</p> <p>To remove an existing URL, click  .</p>
<b>User</b>	<p><b>User/Group Mode</b></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 are generally limited to members of a certain group.</p> <p>Examples:</p> <p>A user attribute named <b>Analyst</b> may be limited to members of the Business Analyst group.</p> <p>This list may be further limited to members of the Analyst group assigned to a specific category.</p> <p><b>Team Mode</b></p> <p>The User attribute shows a list of teams. For more information about teams, see chapter <a href="#">"Managing Teams"</a> on page 411.</p> <p><b>Selecting your own User Account</b></p> <p>If the current user is a member of a list, and should be assigned: click on <b>Me</b>.</p> <p><b>Find a User:</b></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 <b>Find &amp; Select User</b> dialog. For further info, see chapter <a href="#">"Find &amp; Select List Value"</a> on page 48.</p>

## Editable Grid, Grid, and Form Views

Requirement lists from the Quick Search View, or the Requirements tab in home view include the ability to toggle the format of the list using one of three buttons: Editable Grid, Grid, and Form.

**Editable Grid:**    "Editable Grid View" on page 35







**Grid:**    "Grid View" on page 37

**Form:**    "Form View" on page 38







**NOTE** If a query returns more than one class, the Form view is not available.

## Editable Grid View

MARKETING_REQUIREMENTS (35)				
    Load All <span style="margin-left: 20px;">Page 1 of 1</span> <span style="float: right;">Total number of pages/requirements - 1/35</span>				
<input type="checkbox"/>	 Category	Containers	Rqmt ID	 Title
<input type="checkbox"/>	RMDEMO	<a href="#">ePhoto - Release 1.1</a> <a href="#">ePhoto Requirements</a> <a href="#">Marketing Requirements for Build1</a>	MRKT_000003	Runs on "standard" home PC
<input type="checkbox"/>	RMDEMO	<a href="#">ePhoto - Release 1.1</a> <a href="#">ePhoto Requirements</a> <a href="#">User</a>	MRKT_000004	Annotate photos with text

This is a tabular view of requirements with which you can directly edit requirement attributes for one or multiple requirements. For example, when assigning multiple requirements to a release, or changing the workflow state for one or more requirements, the task can be accomplished in the Editable Grid - without the opening in Edit dialog.

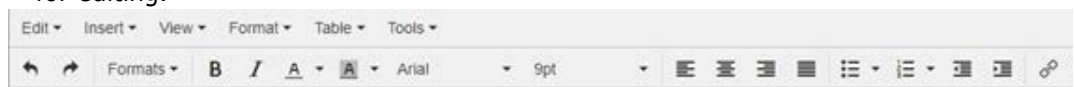
It includes the following controls:

-  **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 selected attribute is HTML enabled, the text can be formatted, the following tool bar is raised above the requirement when double-clicked 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** (Alphanumeric): A simple text attribute does not allow text formatting and does not allow line breaks.

**Multiline Text Attributes** (non-html enabled Text): A multiline text attribute (non-HTML enabled) 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.

**Workflow:** When selecting Workflow, if there are mandatory attributes associated with the target workflow, the user will be prompted to populate those attributes for the first requirement and those settings will be applied to all others.

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.

**TIPS****To Set an attribute to the same value across multiple requirements:**

**Highlight** the requirements to be changed,

**Double-click into the cell** of one instance of the **attribute**

**Set that attribute to the desired value (e.g., one instance of a drop-down list)**

Click the cursor into another of the highlighted requirements, to change all.

Except for HTML enabled 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.

**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**

The Grid or List View 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 194](#)).

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.

MARKETING_REQUIREMENTS 35							
Rqmt ID▲	Title	Text	Priority	Modified ...	Containers	Links Out	Delivery
MRKT_000001	EPhoto ...	The ePhoto system shall enable the ...	High	 Ryan ...	ePhoto - Release 1.1, eP...	 3	Build1
MRKT_000002	Support ...	The ePhoto system shall support ph...	Medium	 Ryan ...	ePhoto - Release 1.1, eP...	0	Build2
MRKT_000003	Runs on ...	The ePhoto system shall be accessi...	High	 Ryan ...	ePhoto - Release 1.1, eP...	 3	Build1
MRKT_000004	Annotate...	The user shall be able to annotate th...	Medium	 Ryan ...	ePhoto - Release 1.1, eP...	 5	Build3

### **The Navigation Bar**

From an Open requirement in the List View, a Navigation Bar, available at the bottom of the dialog, allows users to navigate to other requirements included in the list from which the displayed requirement was selected.

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.

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.

## 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 details:

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 standard attributes, there are expandable sections for 'CUSTOM ATTRIBUTES', 'SYSTEM ATTRIBUTES', 'ATTACHMENTS', 'COMMENTS', 'LINKS', 'HISTORY', 'POLLS', and 'CONTAINERS', each with a right-pointing arrow.

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 194).

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.

# The Basics of Finding, Filtering, and Formatting

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

- ["Using the Quick Search Filter" on page 39](#)
- ["Attributes to Display List" on page 40](#)
- ["Sorting Order List" on page 41](#)
- ["HTML Text Formatting Toolbar" on page 42](#)
- ["Find & Select List Value" on page 48](#)
- ["Mechanisms for Filtering and Finding" on page 49](#)
- ["Relationship Constraints Tab" on page 56](#)
- ["Display Options Tab" on page 58](#)

## Using the Quick Search Filter

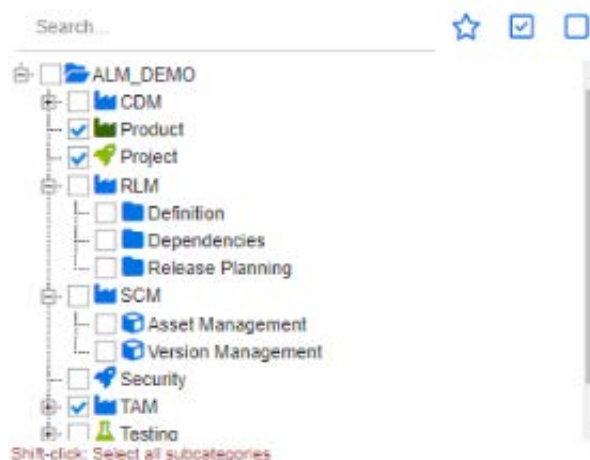
Quick Search, available from under **Views**, provides a dialog to simplify the creation of filters. These filters, available for creation and editing from both the Quick Search View and from the Requirements tab on the home page, assist in searching through the pool of requirements for just the ones you need for review or reporting.

Users may choose the set of objects most relevant in their work, create a filter, save it and apply multiple times from multiple dialogs.




For the full set of instructions see ["Finding Requirements with Quick Search" on page 174](#).

## Choosing Categories

The Choose Categories dialog is available when collecting requirements from multiple folders for reporting or reviewing.



Click inside **Choose Categories** to expand and access the following features:

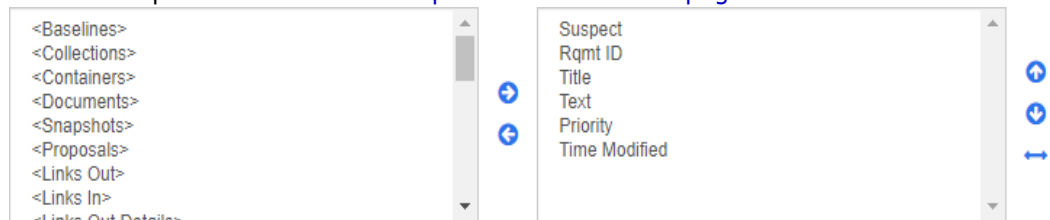
- **Search:** Enter a search string to dynamically find categories.
- Click  to select favorite categories.
- Click  to select all categories.
- Click  to clear all selected categories.
- **Shift-click** to select a parent and all sub-categories.

## 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. From Quick Search, and the requirements tab in the Home view, select the **Columns** raises the Quick Search tab in User Settings. Choose the class for which the display list should be changed, and then choose the attributes to display.

There are selections beyond the standard class attributes that can be included in the display. For example, the collections in which the requirement is contained, or the documents.


For a list of special attributes see "[Special Attributes](#)" on page 62.



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 Export (formerly 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**.



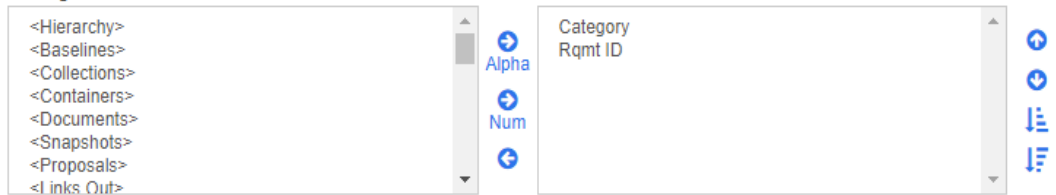
**TIP** Columns that have no width assigned, will use the remaining space.



## Sorting Order List


The **Sorting Order** list defines in which order requirements should be sorted. You can specify several attributes for sorting, e.g., ID within Category.


Sorting order:



### 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:
  -  to have the data sorted before other data.
  -  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.

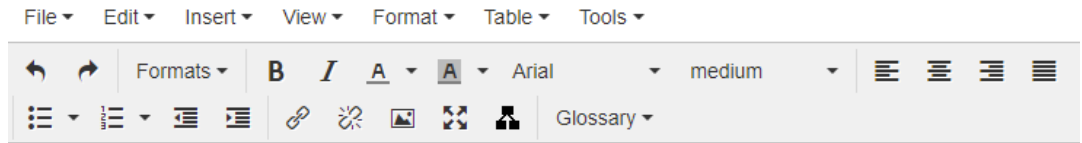


**NOTE** If you choose an attribute with the *Date* data type, the results are sorted in date order regardless of whether you chose **Alphabetic** or **Numeric**.

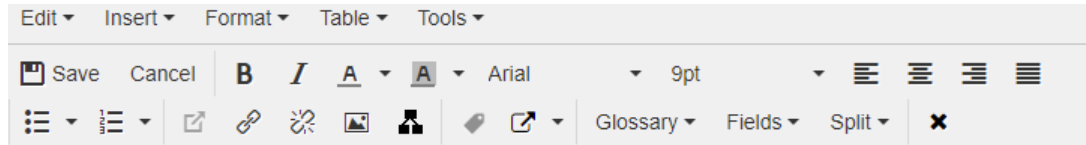
### To specify the sort direction:

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

## HTML Text Formatting Toolbar



**Figure 1-4. Standard HTML Text Formatting toolbar**



**Figure 1-5. 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), a toolbar appears when you click in the attribute's text box. The following controls are included in multiple rows:

Undo and Redo

Standard Formatting Applies:

Apply bold and italic formatting.

Select text color and background color.

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

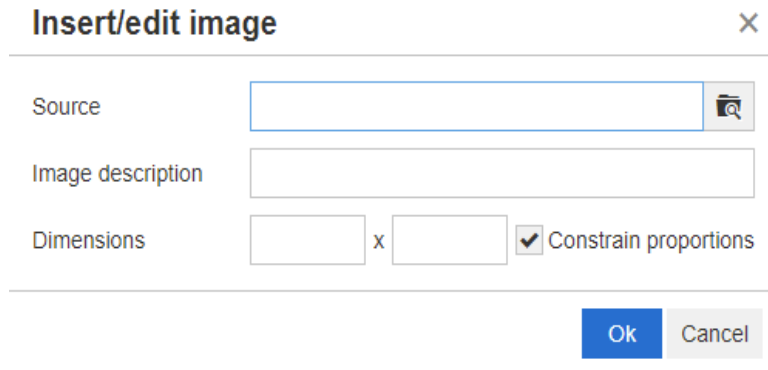
Target None

---

Ok
Cancel

**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**.



**Insert/edit image** ×




Source  


Image description

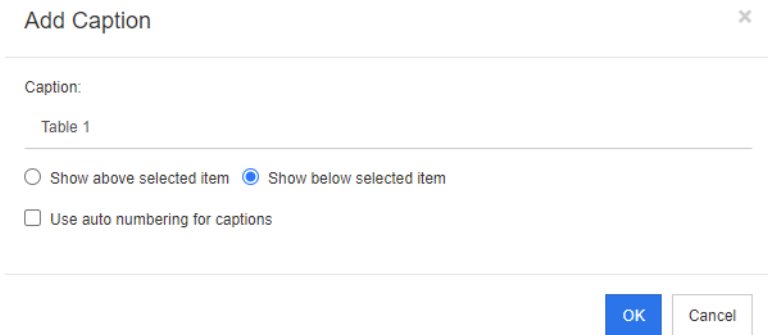
Dimensions  x   Constrain proportions

**Ok** Cancel

 **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 69.

 **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**.



**Add Caption** ×

Caption:


Table 1

Show above selected item  Show below selected item

Use auto numbering for captions

**Ok** Cancel

**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:

**Refresh:** Updates the selected cross reference link.

**Insert:** Selecting **Insert** or clicking the **Cross Reference** button opens the **Add Cross Reference** dialog, which allows users to insert a reference to a

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

### 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.

**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 provides users with the ability to include Placeholders that, like variables, will be replaced with their actual values during the export process. For further information, see chapter "Using Placeholders in Documents" on page 154.

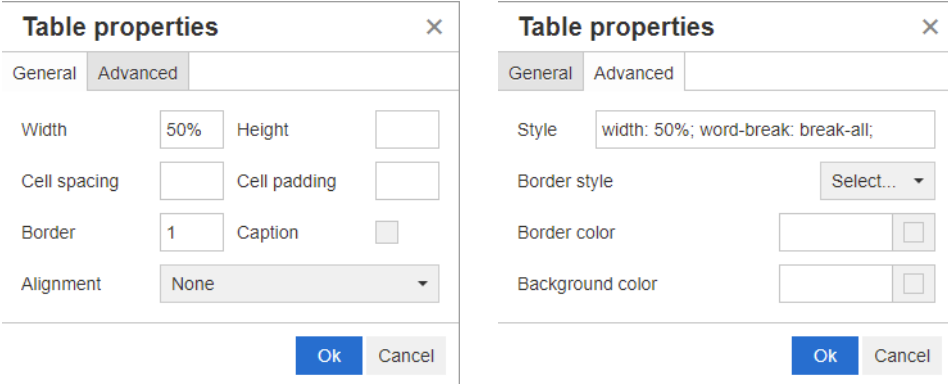
**Save:** Saves your modifications. **Save** is only available in Entire Document View.

**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.



The image shows two side-by-side screenshots of the 'Table properties' dialog box. The left dialog has the 'Advanced' tab selected, showing input fields for Width (50%), Height, Cell spacing, Cell padding, Border (1), Caption, and Alignment (None). The right dialog has the 'General' tab selected, showing a Style field with the text 'width: 50%; word-break: break-all;', a 'Border style' dropdown menu set to 'Select...', and fields for 'Border color' and 'Background color'. Both dialogs have 'Ok' and 'Cancel' buttons at the bottom.


**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.

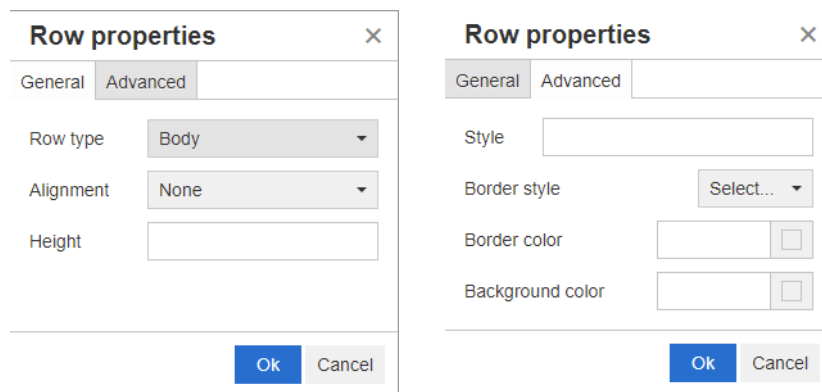
**Border color:** Defines the color of the table border. The value can be any HTML known color (e.g. red, green, blue) or color value (#FF0000, #00FF00, #0000FF). Not all browser may support this feature. Clicking the grey box opens the **Color** dialog which allows easy selection of the desired color.

**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.

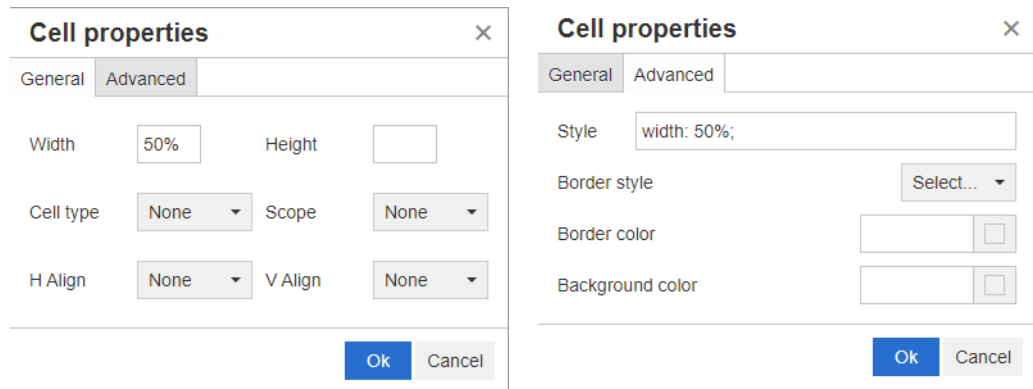
**Border color:** Defines the color of the border of all cells in the selected row. The value can be any HTML known color (e.g. red, green, blue) or color value (#FF0000, #00FF00, #0000FF). Not all browser may support this feature. Clicking the grey box opens the **Color** dialog which allows easy selection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

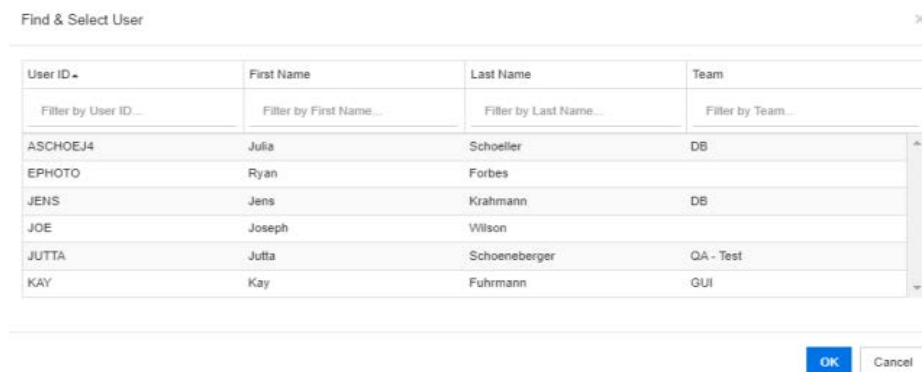
When exporting a document, you may have page breaks within a chapter (or requirement), e.g. before a long table.

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

A page break is visualized by  .

### Find & Select List Value

For list attributes and user attributes, the **Find & Select** dialog is available when the lists get long. Click the  icon next to any list Attribute to raise the dialog that enables filtering. The dialog for list attributes lists all possible values, while the dialog for user attributes displays User IDs along with full names and Team membership. The screenshot and steps below describe the dialog for user attributes.





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:** If enabled, filter the list by entering part of the team name.

When the list shows the desired value, check the box (or boxes if multi-select) and click **OK**.

## Mechanisms for Filtering and Finding

Throughout Dimensions RM there are functions to help users limit the search while collecting requirements. Requirements gathering can focus on attribute content or relationships. The functions listed in this section are accessed from multiple dialogs in exactly the same way.

In this section we discuss the following:

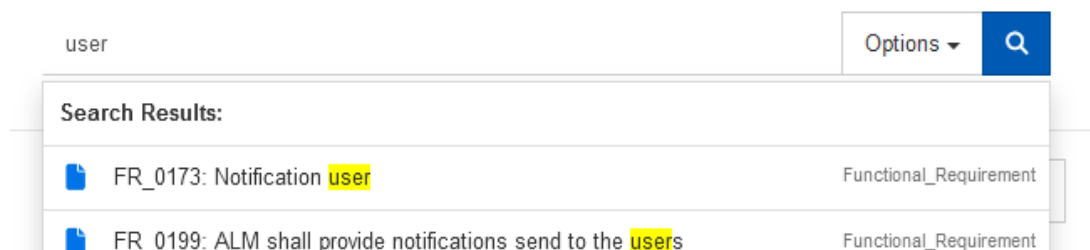
- Search through recently accessed: ["Quick Find from Recent" on page 49](#)
- Using Advanced Search: ["Advanced Search" on page 50](#)

### Quick Find from Recent

When working with requirements users often perform functions using the same or related objects, this often means that when using Actions such as **Create Link** or **Add to Document** you may be looking for something recently created or accessed. To facilitate the search these Actions provide a facility to select from a recent list as well to offer a link to the **Advanced Search** Dialog.

- 1 Click inside the search box to open the recent requirements list.
  - a If displayed, select the relevant requirement from the list.
  - b Click **Add**.

*A quick find rather than an Advanced Search*



**Figure 1-6.** Click into the 'Search' box to list recently accessed requirements, or enter a search string.

- 2 Enter a search string and click the search icon to locate matching requirements.
- 3 Click **Options** to further refine the search:

Use **Limit Search to:** to limit the range of the search string to PUID (Rqmt. ID), Title and/or Description.

Use **Class Filter** to limit Classes displayed. When linking, only linkable objects will be listed

Use **Category** to limit Categories.

- 4 Select one or use **ctrl+click** to select multiple targets.
- 5 Click on **Add**.
- 6 **Link or Add More** returns you to the dialog. **Close** Exits.

If additional search options are required to locate the targets of your search, use **Advanced Search** to access the full capabilities of **Find Now** (see "[Advanced Search](#)" on page 50).

### **Advanced Search**

The Advanced Search, or its component parts, is central to the ability to finding objects to include in documents or reports or to link to. The search, which culminates with the **Find Now** button provides mechanisms for filtering Attributes and Relationships, as well as to define the display that will ensure recognition of the items - once found.

The options in the advanced search can be saved, user-feedback indicates that this is particularly useful for display options.

The Advanced Search consists of a main dialog, and three sub-dialogs all of which will become familiar to RM Users.

#### **From the Main dialog:**

**Input the Relationship** or Class that is the target of the search.

Relationship: If the source requirement is related to multiple classes, choose the relationship to the class that is the target of your search.

Class: If you are searching for requirements to add to a container, choose the Class.

**Filters Saved from Quick Search or Home View:** A saved filter may be selected and applied here. Relevant Class reports may also be used.

**Attribute Constraints:** As needed, to limit selection to requirements containing the attribute content specified. See "[Attribute Constraints Tab](#)" on page 51

**Relationship Constraints:** As needed to limit selection to requirements included in named containers or to those with specified links. See "[Relationship Constraints Tab](#)" on page 56.

**Display Options:** As needed, to display the results most helpful in the search. See "[Display Options Tab](#)" on page 58.

**Link Attributes:** This option is only available if you have selected a relationship for which link attributes have been defined.

Click **Link Attributes**. This opens the *Edit Link Attributes* dialog.


Edit or select the desired or required attributes (see "[Editing Link Attributes](#)" on page 218).

Click **Save**.

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

**Find Now:** Click this button to run the search. The results are displayed in the lower pane of the dialog.

**Create Link Note:**

If Linking is the goal, each requirement that is already linked to the original requirement has a chain icon  next to it.

**If adding requirements to a Document:**

**An icon in the first column** indicates that the requirement is already in the document, although it can be included again in other chapters.

**Once an object is selected**, the **Add as subrequirement** box may be checked to add the object as a subrequirement to the object selected in the Navigation pane.

**If the selected requirement is already in the document**, the Remove button will become clickable. Selecting Remove, will remove the object from the document.

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

Click on **Add or Add Link**.

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

## Attribute Constraints Tab

This tab limits the requirements selected based on the content of selected attributes. It is used in many RM dialogs including, report generation, advanced search, and gathering requirements to add to containers.

**Select the Attribute Constraints tab:**

**1 Category:** Choose the Category or Categories to be included in the search.

**Apply for all Classes:** For Traceability Reports Check "**Apply for all Classes**" to apply the restriction to all selected classes.

**2 Setting Constraints on Related Classes**

**With Traceability reports**, select an entry from the **Class** list to set constraints for the selected class.

**Select Related Classes: With Class reports and Graphical reports**, you can filter by attributes contained in **Linked** items by executing the following steps:

**Click Select Related Classes**, to open the dialog.

**Select one or several classes.** To include a class that is linked to one of the related classes, expand the class (by clicking the triangle next to the option box) and select the child class.

Click **Save**. Once related classes have been saved, the Class list will be available.

**Select an entry from the Class** list to set attribute constraints on the related class (e.g., show only related functional requirements with a workflow status of Approved).

**3 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.

**Use wildcards** in the attributes constraints sections to query for a keyword. For example, if you want to find the requirements that contain the word "system" in the title, enter \*system\* in the **Title** Attribute

**4** To enter values into the attribute boxes of more than one class, return to 3.

**5** Select the **Case sensitive search** check box to match case.

**Attribute Constraints Tab Controls**

This section describes the controls associated with selecting and setting 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.

For Category multi-select see ["Using the Quick Search Filter" on page 39](#).

**Group Attributes:**

Group attributes behave like a table with one or several values per row. Quick Search allows the user to consider how these values will be evaluated.

You can select one of the following:



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

The following examples use 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.

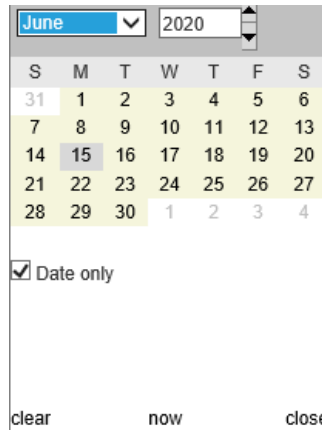
Choice	Description
Enter now	The attribute value is stored as part of the query.
Enter at runtime	The user is prompted to enter the attribute value when the query runs. When applying runtime options, they may be saved by checking ' <b>Remember these Parameters</b> '.
Current Date	This option is only 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 .



S	M	T	W	T	F	S
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4

Date only

clear                      now                      close

- 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 or not 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

The Display Options Tab provides a facility for users to select the attributes displayed for selected classes when configuring detail for reports, documents, and search queries.

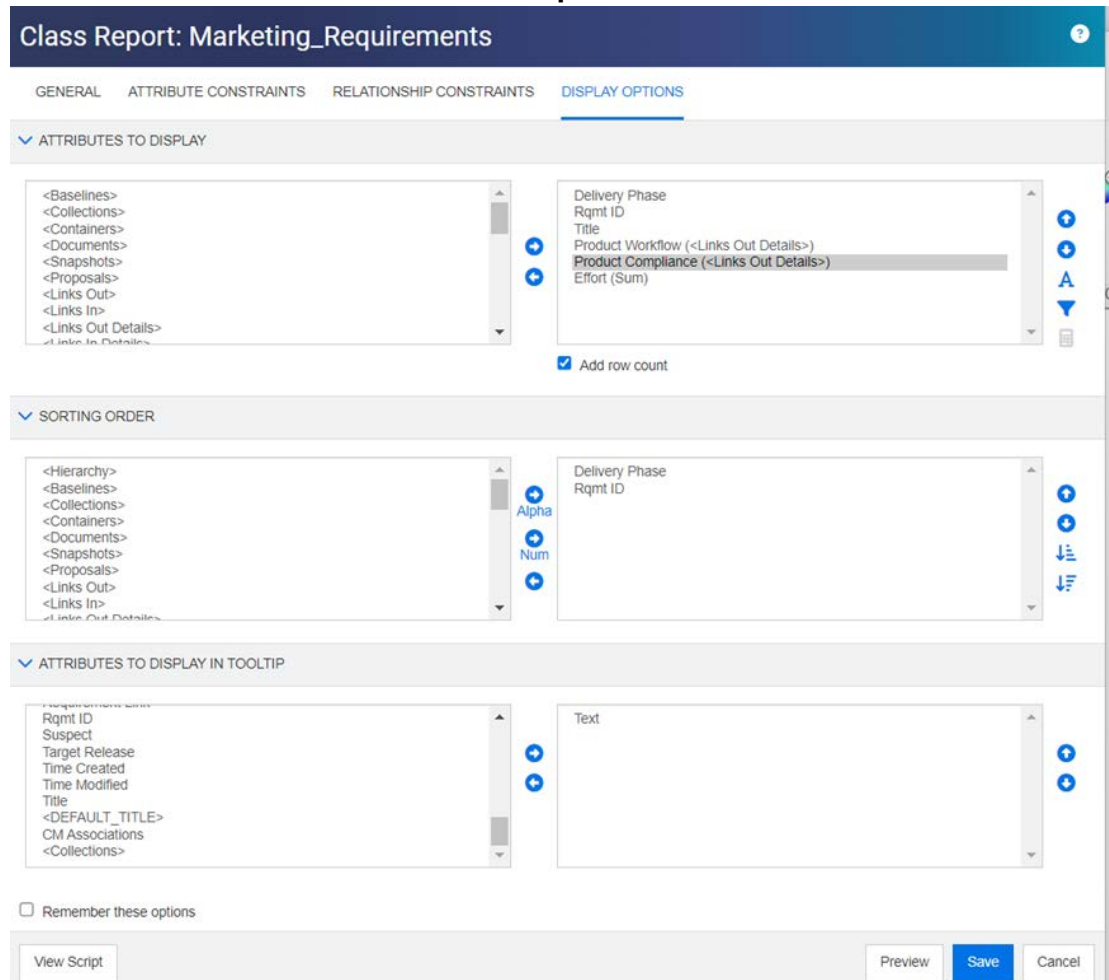
This tab determines which attributes are displayed, how they are displayed, and, in some cases, how they shall be named when displayed.

From the Display Options Tab:

**Specify Columns to Display** and the order in which they appear in the listing, see ["Attributes to Display List" on page 40.](#)

**For Class, Relationship and Traceability reports** the **Add row count** check box to display the total number of rows at the bottom of the report.

**To specify the sort type and order**, see chapter ["Sorting Order List" on page 41.](#) The **sort order and associated tool tip** can be set for each class.



**Figure 1-7. Selection for Class Report, including Workflow and Compliance from Linked Product Class. (Modified data from RMDEMO sample was used for this report.)**

**Check Remember these options** to store choices in user settings for access the next time the dialog is invoked for the same class.

The available icons with descriptions are listed in [Figure 1-8.](#)








This is followed by discussions on the use of:

[Additional Insights into linked requirements using <Links In Details> or <Links Out Details>](#)

[Including Filtered Comments in reports](#)

[Calculating Numeric Attribute Values in Reports](#)

See [Special Attributes](#) for a complete list of "virtual" attributes.

	<b>Move Up:</b> Move the highlighted entry up in the display or sort order
	<b>Move Down:</b> Move the highlighted entry down in the display or sort order
	<b>Rename:</b> Provides a mechanism to rename the displayed entry; this is particularly useful when displaying attributes from linked classes.
	<b>Filter:</b> Provides a mechanism to access Filter Links or Filter Comments, depending on selected attribute type. Including data from <Links In Details> or <Links Out Details> provides additional insights into linked objects.
	<b>Calculation Settings:</b> For numeric attributes, choose a function and, optionally, change the label.
	<b>Sort ascending:</b> Sort selected numeric attributes 0-9; Alphanumeric A-Z For date attributes select as numeric, ascending sorts oldest first.
	<b>Sort descending:</b> Sort selected numeric attributes 9-0; Alphanumeric Z-A For date attributes select as numeric, descending sorts most recent first.

**Figure 1-8. Icons from the Display Options Tab**

### Additional Insights into linked requirements using <Links In Details> or <Links Out Details>

Using Display Options settings it is possible to include attributes from requirements to which the selected requirement is linked.

For example, in a schema in which Marketing Requirements are linked to Product Requirements, a report listing Marketing Requirement detail can include the attribute information from the linked Product Requirement(s), for example, the Workflow Status and/or the Owner.

These **Insights** into linked requirements are achieved using the Special Attributes <Links In Details> or <Links Out Details>. **Either must be selected multiple times** in order to display multiple attributes from the same linked class.

**Highlight the Attribute <Links In Details> or <Links Out Details>** in the display attributes list.


In the report example in [Figure 1-9](#), <Links Out Details> was selected twice in order to display both Workflow and Compliance from the Linked Product Requirements.

**Click**  to open the **Filter Links** dialog.

**In the Filter Links dialog**, 'Show Links to:' drop-down, choose the relevant class.

**From 'Display Attributes:'** choose the attribute whose content should be displayed, If a list attribute is selected checking **Chart** will *chart* rather than list the content. See [Figure 1-9](#), Product Workflow and Product Compliance are list attributes with Chart checked for each, the result is for each of the linked product requirements, the Workflow and Compliance is shown.

**Click OK** to close the dialog.

**Click**  to modify the column title displayed.

For example, to change <Links Out Details> to Product Workflow. The original attribute name is retained in the display options text.

**Choose the Preview** button to review input prior to saving the report.

Marketing_Requirements					
Deliver...	Rqmt ID	Title	Product Workflow	Product Compliance	Effort
Build1	MRKT_000001	EPhoto will be an online phot...	 3	 2 1	4
Build1	MRKT_000003	Runs on "standard" home PC	 3	 1 2	4
Build1	MRKT_000023	Displaying stored photo info	 1	 1	7
Build1	MRKT_000025	Setting personal preferences	 2	 1 1	6
Build1	MRKT_000026	Application preferences reme...	 1 1	 1 1	4
Build2	MRKT_000029	System response times	 1	 1	4
Build2	MRKT_000037	Smart Phone Accessible	 2	 2	7
Build2	MRKT_000038	Integration	 3	 1 2	4
Build3	MRKT_000004	Annotate photos with text	 4 1	 4 1	5
Build3	MRKT_000039	Tablets	 3	 3	6
Build3	MRKT_000040	Duplicates	 1	 1	6
Build3	MRKT_000041	Facial recognition	 1	 1	5
Build3	MRKT_000042	Search facilities	 1	 1	4
					Sum: 66

**Figure 1-9. Report output using settings displayed in [Figure 1-7](#).**

### Including Filtered Comments in reports

**Add the <Comments>** attribute to the list of displayed attributes.

**Select the <Comments>** attribute in the list of displayed attributes.

**Click** . This opens the **Filter Comments** dialog.

**Select one of the predefined values** from the list or enter the number of days to set the maximum age for comments to be included.

Click **OK** to close the **Filter Comments** 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). 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:

**Include the numerical attribute** for which you want to calculate sum, average, min or max value to the list of displayed attributes.

**Select the numerical attribute** in the list of displayed attributes.

**Click**  to open the **Calculation Settings** dialog:

**From the Function box**, select the desired function.

If desired, change the text in the **Label** box.

The numeric attribute in the list of display attributes will contain the function selected in parenthesis, e.g. Dev Effort (Sum) as used in [Figure 1-9](#).

Click **OK** to close the Calculated Settings dialog.



**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 522.

### 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.
<Chapters>	RTM_CHAPTERS	The name of the chapter containing the object.
<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.
<Hierarchy Parent>	RTM_HIERARCHY_PARENT	The parent of the requirement object in the hierarchy.

Attribute Name	Script Name	Description
<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".  <b>NOTE</b> 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 <b>Grid/Editable Grid Requirement Layout</b> mode), you can open a linked requirement by clicking the PUID.  Additional attributes can be included in <Links In Details>, see <a href="#">"Link Browser Settings" on page 98</a> for instructions.
<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 <b>Grid/Editable Grid Requirement Layout</b> mode), you can open a linked requirement by clicking the PUID.  Additional attributes can be included in <Links In Details>, see <a href="#">"Link Browser Settings" on page 98</a> for instructions.  Note that when using <Linked Test Cases>, test cases will not be included in the <Links Out Details> result list.
<Linked Test Cases>	RTM_LINKED_TESTCASES	The PUIDs of test cases (see chapter <a href="#">"Test Management" on page 363</a> ) this requirement links to. In result lists (i.e. Quick Search, reports or documents in <b>Grid/Editable Grid Requirement Layout</b> mode), linked requirements can be opened by clicking the PUID.  Note that by default, when using <Linked Test Cases>, test cases will not be listed 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 <b>Grid/Editable Grid Requirement Layout</b> mode), you can open a list of linked requirements by clicking the arrow or number in the <b>Links In</b> column of a requirement in the result list. Clicking a requirement in the list opens that requirement for editing.

Attribute Name	Script Name	Description
<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 <b>Grid/Editable Grid Requirement Layout</b> mode), you can open a list of linked requirements by clicking the arrow or number in the <b>Links Out</b> column of a requirement in the result list. Clicking a requirement in the list opens that requirement for editing.
<Notification>	NOTIFICATION	Indicates the configuration status of notifications. Possible values: <b>Yes:</b> Enabled <b>No:</b> Disabled If no value has been specified, Notification has not been configured.
<Proposals>	RTM_PROPOSALS	The number of proposals related to the requirement in status <b>Proposed</b> . 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 " <a href="#">Reviewing a Change Request</a> " on page 201.
<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.
<Snapshots>	RTM_SNAPSHOTS	The names of the document snapshots referencing the requirement.
<Thread>	RTM_COMMENTS_THREAD_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 509. 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 Login](#)" on page 65



- ["Single Sign On Login" on page 65](#)
- ["Single Sign On with SmartCard Login" on page 66](#)
- ["Azure Login" on page 66](#)

**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 67](#)) 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 25



**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 64.

## Changing Your Password



**NOTE** *The following affects only those organizations or users within organizations that are logging in using RM.*

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. The rules apply to all RM instances in the database.

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.
- 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.

## User Notifications



### Enabling and Disabling Notifications

Users may activate selected private notification rules, from the **Notifications** drop-down under the User Icon at the top right corner of the Browser.

#### To enable notifications, do the following:

- 1 Select **Notifications** from the user menu, this will open the Notifications dialog
- 2 From the list of **Inactive Notifications** expand the class by clicking the  next to the name.
- 3 Highlight the relevant notification rule.
- 4 Click  to move it to the active list.
- 5 Click **Save**.
- 6 Click **Close** to exit the dialog.

#### To disable notifications, do the following:

- 1 Select **Notifications** from the **user** menu.
- 2 From the **Active Notifications** list, expand the desired class by clicking  next to the class name.
- 3 Highlight the relevant notification rule.
- 4 Click  to move it to the Inactive list.
- 5 Click **Save**.

- 6 Click **Close** to exit the dialog.

## Creating Private Notification Rules

Users may activate Notifications created by the Instance Administrator (see ["Enabling and Disabling Notifications" on page 68](#)) or create and maintain personal notifications.

Users may also create Private Notifications with behavior identical to the Notification Rules defined by the Instance Administrators. The only difference between Private Notifications and those available to all members of the group is that only the creator has access to the Private Notification.

To create a new Private Notification:

- 1 Select **Notifications** from the user menu, this will open the Notifications dialog.
- 2 For detailed instructions, see ["Notification Rules" on page 423](#).

## 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

**Home View, Glossary Tab:** See chapter ["Glossary Tab" on page 285](#);

**From HTML enabled attributes** in requirements and document chapters: See chapter ["HTML Text Formatting Toolbar" on page 42](#)

**From Documents**, clicking the  icon scans for glossary entries. See chapter ["Detail Pane" on page 110](#)

## 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)

For details see:

["Opening the Graph Editor" on page 70](#)


["The Graph Editor Dialog" on page 70](#)

["Graph Editor File Menu" on page 71](#)


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

## 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 .

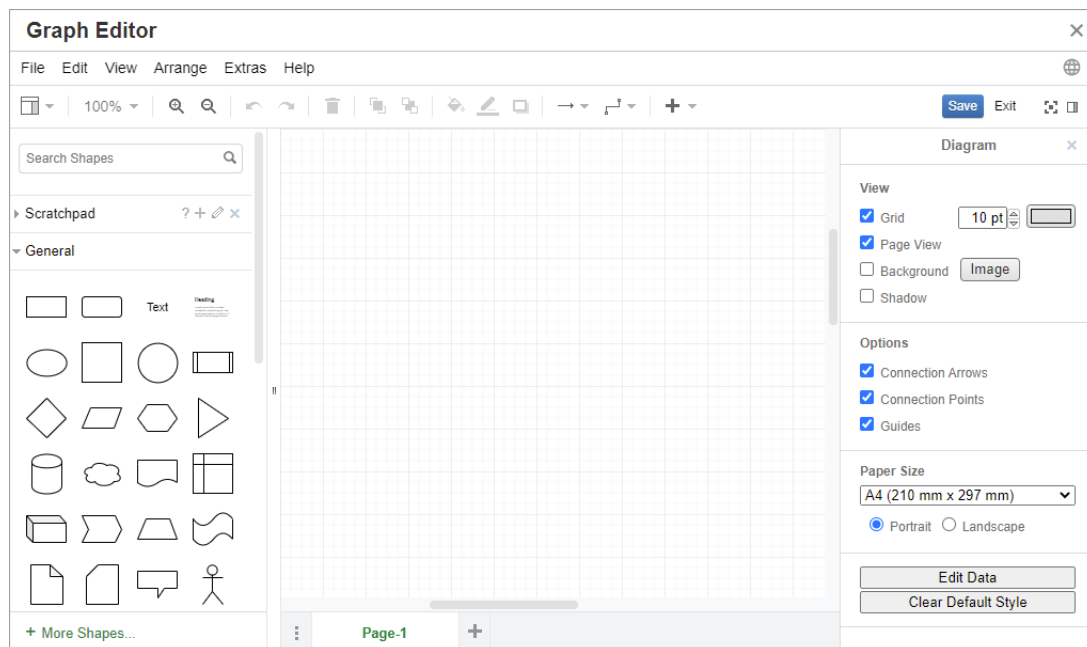
### To open the graph editor in a document:

- 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



## Graph Editor File Menu

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

**1 Import from:** Allows import of Microsoft ® Visio files in vsdx format and other file formats. 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:**

**On the File menu, point to Import from,** then select the file location:

**Device...:** This opens the **Choose File to Upload** dialog. Then, select the file you wish to import and click **Open**.

**URL...:** Enter the URL of the file you wish to import into the **URL** box.

Click **Import**.

**2 Export as:** Allows users to export the graph into different formats.

**3 Page Setup:** Opens a dialog which allows you to choose:

- Paper size
- Orientation
- Background color
- Grid size (of the edit area)

**4 Print:** Provides the following functions:

- Printing
- Preview
- Scaling

## Working with Comments

Comments can be added to chapters or requirements. Comments allow users to discuss topics regarding a requirement or chapter. The function provides the ability for team members to follow comment threads and to consider 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 174](#)).



**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 Details see:**

["Comments in Documents" on page 72](#)

["Managing Comments in Requirements" on page 74](#)

["Adding a Comment from the Actions Pane" on page 75](#)

["Adding a Comment from a Discussion" on page 75](#)

["Replying to a Comment" on page 72](#)

## Comments in Documents

**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 "[Comments in Documents](#)" on page 72 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**.

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 **Close**.
-  **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 **Close**.
-  **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 notification service, users added to a comment will be notified of the change.


## Adding a Comment 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.

When 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.

## 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:

Click the **About** link in the upper right of RM Browser. The **About Dimensions RM** dialog box opens, displaying the following information:

**Version:** The exact version of Dimensions RM you are using.

**Web Server:** The type of Web server that is hosting RM.  
For example, Apache Tomcat/9.0.68

**Web Server OS:** The operating system in use on the Web server.

**Database:** The Database in use, with the version number and configuration.

**Client:** Database Client information.

**Browser Name:** The name of browser software you are using.

**Browser Agent:** Version specific information about the browser and its configuration.

**Contact Information:** For links to the Open Text home page, corporate contact information, and other useful links, see the **Contact Information** tab.

## Using Spell Check in RM Browser

Dimensions RM supports spell checking in these attribute types:

### Text boxes

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

## 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 77.

### 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 gear (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 78.

**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 79.

**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

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# Dimensions RM Settings

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## User Settings Versus Instance Settings

Instance Settings are those established and maintained by the instance administrator. Many of these settings may be overridden by individual users in order to create an environment that addresses their own needs. A user, for example, may change the language used by the Browser, may limit the requirement types available by default, as well as the attributes displayed by each type.

The following sections define all settings, with detail included for those that may be modified by users. The Instance-wide settings, those available only to administrators, are included in this section.



### NOTE

In some dialogs, the **Quick Search** tab for example, each class selected is first displayed with the '**Use Instance settings**' box checked, this box must be cleared before changes can be made.

Some settings are instance-wide. They are grayed out and cannot be edited in the **User Settings** dialog.

Each of the **User Settings** tabs provides, at the bottom left, a button to **Reset to Instance Settings**.

## Configuring Settings

**The User Settings and Instance Settings** dialogs are similar, although the focus of this section is to describe the function and application of **User Settings, Instance Settings** are also listed. Users may not be able to change these settings, but they will want to understand them and, perhaps, request changes.

**User Settings** are accessed from the Welcome menu at the top right corner of the screen. **Instance Settings** are accessed from the Administration Menu.

The main Settings dialog consists of a list of tabs, *General, Home, Requirements, etc.* Within each tab, a set of options relative to the tab are listed. Users and/or Administrators may choose the defaults for each tab.

Once change(s) has been made:

- the **OK** button saves the changes and exits the Settings dialog,
- the Apply button saves the changes,
- Cancel - cancels changes and exits the Settings dialog.

The Tabs and their descriptions are as follows:

- ["General Settings" on page 83.](#)
- ["Home Settings" on page 84.](#)
- ["Requirements Settings" on page 86.](#)
- ["Quick Search Settings" on page 92.](#)
- ["Hierarchy Settings" on page 93.](#)

- ["Document Settings" on page 94.](#)
- ["Report Settings" on page 97.](#)
- ["Link Browser Settings" on page 98.](#)
- ["Split View Settings" on page 99.](#)
- ["Branch/Sync View Settings" on page 103.](#)
- ["Notification Settings" on page 99.](#)
- ["Risk Management Settings" on page 100.](#)
- ["Test Management" on page 102.](#)
- ["Security" on page 103.](#)

Not all Tabs are available with all implementations. If, for example, Test Management has not been implemented, the settings will not be listed.

## General Settings

The following are set from the **General** tab in User Settings (under the Welcome Menu) or Instance Settings (from the Administration Menu).

### 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.

### Theme

Administrators or Users have the ability to choose an RM Browser Theme. The choices include the default Open Text Blue, the legacy RM Blue, Cyan or Green.

### Categories: Show Inactive Categories

An Administrator may choose to deactivate selected categories; this is typically done for completed projects or retired components. Once deactivated, categories are, by default, hidden in the category tree and in query dialogs. All objects (requirements, documents, collections, baselines and reports) contained in an inactive category are read-only.

If displayed, inactive categories and the subcategories within them are represented by folder icons in gray, with the name in gray and italic text.

To activate or deactivate categories, see chapter ["Activating or Deactivating a Category" on page 417.](#)

Users may choose to enable or disable the display of inactive categories:

#### **Enable: Show Inactive Categories**

When **enabled**, the category tree will display inactive categories and all query dialogs will include their content.

#### **Disable: Show Inactive Categories**

If this option is **disabled**, the category tree will not display inactive categories and query dialogs will not include their content.

### 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 set in the dialog.

#### Enable:

When this option is **enabled**, the category attribute for new objects will be **prepopulated** with the category displayed in the bread crumb.

#### Disable:

When **disabled**, the prepopulated category for new objects will be identical to the **category last used** in any dialog or tab.

### Breadcrumb

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

The administrator may choose to include the database name in the breadcrumb. This is useful for teams working in multiple instances.

#### Enable: Show Database Name

### Collection: Automatic Refresh

Users may choose whether **report-based collections** (e.g., collections created based on a query) should be automatically refreshed when opened.

**Enabled:** report based collections are refreshed when the collection is opened. When report based collections are used to support active integrations, we recommend that this setting is enabled.

**Disabled:** collections must be manually refreshed. For further information see ["Refreshing the Contents of a Collection" on page 328](#).

### Teams

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

Teams provide a facility for assigning tasks to a groups defined as a Team (see ["Managing Teams" on page 411](#))

**Enabled:** Teams functionality is enabled

### Agile

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

Dimensions RM provides support for Agile Development. For detail, see ["Agile" on page 375](#)).

## Home Settings

The following are set from the **Home** tab in User Settings (under the Welcome Menu) or Instance Settings (from the Administration Menu).

### Tabs

Lists the tabs available to users from the **Home** view, the order in which they are listed as well as the labels assigned

All tabs available for use are included in the **Available Tabs** list. However, users may choose a subset of those available to include on the **Visible Tabs** list.

Items that appear on the **Visible** list may be selected and moved to the **Available** list, and returned, should the need arise.

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

### Modifying Tab Labels:

The **Instance Administrator or users** may modify the tab names to conform to a project specific process language. For example, if Risks are referred to as Hazards, or Dashboards as Corporate Status, these labels can be applied.

To modify a tab label, highlight a tab from the list of **Visible Tabs** and then select the letter **A** located below the arrows used to order the tabs.

### Default View

The listing in the leftmost panel of the home page, the Category pane, may be set to one of two displays:

**Enable Category View:** list categories and subcategories like folders on the file system. In the category view, a folder is selected, objects are listed relative to the selected category and New objects will be, by default, created within that folder.

**Enable Hierarchy View:** also displays categories, as folders, but the display expands to list the objects (requirements, documents, etc.) contained within the folders, arranged as a hierarchy. Many organizations choose to manage requirements in this hierarchical format with header requirements offset from the detail, below, in a document-like structure. In fact, documents can be created and populated directly from the hierarchy structure.

It is typical for all team members maintaining a requirement hierarchy to choose the hierarchy view for object creation and modification. This will ensure the maintenance of the hierarchical structure.

### Recent Items

Users check one or more boxes to select the type of recently modified objects to be included under **Recent** on the Home View. When modifying or reviewing a set of requirements or executing favorite reports, **Recent** allows users to easily return to an object for further consideration or for linking.

Using the gear to the right of Recent allows users to change the setting while they work in order to limit the view to what is important - now:

Document / Snapshots.

Requirements

Reports

Collections / Baselines

### Documents: Show only most recent Snapshots

**Enabled:** Only the most recent document snapshot is displayed in Home View. By clearing this option, all document snapshots are listed.

### Pagination

**Enabled:** List views in Documents Collections and Baseline tabs will be limited by the **Page Size** specified.

## Requirements Settings

The following are set from the **Requirements** tab in User Settings (under the Welcome Menu) or Instance Settings (from the Administration Menu).

Details for the Requirement tab settings can be accessed as follows:

- [Concurrent Editing](#),
- [Display Settings for Classes](#),
- [Display Settings for User Attributes](#),
- [Display Settings for Lists](#),
- [Workflow Settings](#),
- [Text Field Height](#),
- [Copy Options](#),
- [Change Proposal](#),
- [Suspect Links](#),
- [Change Class](#),
- [Comments](#),
- [Complexity Analysis](#),
- [Similarity Analysis](#),
- [Default Links View](#).

### **Concurrent Editing**

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

**Enable: Lock Requirements while editing** - users will not be able to open a requirement object for editing while it is locked (i.e., open by a team member in edit mode). Users *are* notified that the item is locked and by whom.

**Enable: Allow concurrent editing and merging** - multiple users are allowed to modify an object at the same time. When concurrent editing is allowed, a dialog is raised when the second user saves the file. See "[Merging Requirement Changes](#)" on page 239.

Most organizations choose concurrent editing, as the merge facility works well.

### **Display Settings for Classes**

This setting can be changed in **Instance** or **User Settings**.

Limits the classes displayed, by default, and controls the order in which they are displayed. This allows analysts, for example, to list Functional requirements first, and to limit the default list to exclude test cases and defects.

Users must Disable: **Use Instance Settings** in order to make modifications.

All classes available for access are included in the **Available Classes** list on the left. Users may choose a subset of those available to include on the **Selected Classes** list on the right. The up and down arrows may be used to change the order of display.

When a subset of classes are selected for display, choosing **All Classes** in dialogs including Quick Search, the selected classes are listed in order. The **Show More** button *is available at the bottom of the list* to include all remaining classes

#### **To Modify Display settings by Class within Category:**

Below the Selected classes list is the **Settings per Category** box which raises the dialog to specify a different set of classes within selected categories. To modify class settings within category:

1. Click the **Settings per Category box**.
2. Select the category for which you want to change the displayed classes.
3. Clear the **Inherit from parent category** option.
4. Select the desired classes
5. Repeat 2-4 for every category to be modified.
6. Click **Save**.

### **Display Settings for User Attributes**

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

The Display setting for User Attributes defines how the content of attributes containing user identifiers are displayed throughout the system. This setting affects not only attributes defined locally, e.g., list of users assigned as reviewers or testers, but also the system attributes used to display the user who initially created an object (**Initial Created By**) and who created or modified an object version (**Created By and Modified by**).

#### **To change the display settings execute these steps:**

1. Select **Instance Settings** from the **Administration** menu.
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. Corporate Identifier.

**Show User Full Name:** Shows only the user's full name, e.g. Ryan Forbes

**Show User Full Name and User ID:** Shows the user's full name and ID, e.g. Ryan Forbes (Corporate Identifier).

**Show User ID and User Full Name:** Shows the user ID and the full name, e.g. Corporate Identifier (Ryan Forbes).

### **Display Settings for Categories**

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

The Display setting for Categories allows the administrator to choose the most reasonable setting for category paths based on the format and depth of the structure defined for the instance.

In the **Display Settings for Category** section choose one of the following radio buttons:

**Show Full Path:** Always display the full category path, e.g. RMDEMO\TAM\Doc\Administration

**Show Name only:** Display only the tip, e.g.: Administration

**Show Name with 'n' parent(s):** Display the tip plus a selected number of parents, e.g. with one parent selected: Doc\Administration

### **Display Settings for Lists**

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

This option defines how multi-line text attributes behave in any list of requirements: e.g., a Quick Search including a description of other multi-line text attribute, Requirement tab in Home view, a collection or report.

**Enable: Display all lines** will display full content.

**Enable: Display first line only** will display the first line of each entry

**Enable: Display first line only - expand on select** will display the first line, when the entry is selected the full content will be visible.

Note that **Attributes that allow selection of multiple values** will attempt to show all values on one line with a character separating those values:

**List attribute: Multi-Select 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.

**Special attributes:** The values listed for Special Attributes (e.g. <Collections>, <Baselines>, <Documents> <Chapters>, <Snapshots>, <Containers>) are separated by a comma.

### **Workflow Settings**

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

In workflow definition, the process applied may include **Automatic Transitions**. For example, rules may dictate that once a functional requirement has been assigned a title, a description, and a development effort, the object will be transitioned to the next state, without user intervention.

As designed, this automatic transition is only applied to the latest (current) version of an object. This setting provides the facility to allow automatic transition on non-current objects (e.g. requirements with current status "Replaced").

**Enable: Execute automatic transition on non-current objects** to allow automatic transitions to be applied to objects with a current status that is not current.

### **Text Field Height**

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



The **Text Field Height** setting defines the default height applied to the each text box (e.g., description).

The following options are available:

**Auto:** The default behavior.

**Fixed:** Selecting this option allows the instance administrator to enter the height of text box in pixels. Values must be between 50 and 2147483647.

### Copy Options

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

The **Copy Options** settings establish whether or not the default behavior for a requirement created using the **Copy** action, to be added to the collection(s) and/or document(s) in which the source is a member. This setting also sets the default for any links associated with the object will be included in the copied object.

This setting establishes the default for the **Copy** Action, it is possible to change the default as part of the **copy** dialog.

Enabling the copied requirement setting as the default depends very much on the process in place for the organization. Teams that are, for example, document focused (i.e., perform most functions from within a document) will, generally, intend that a copied requirement will be modified and remain part of the document, as well as any collections in which the source is contained.

The following options are available and are independent of one another - all may be enabled.

**Enable: Add copied requirements to same collections as original requirements** - will cause, as the default, the option to include a newly created object to be included in all collections in which the original is a member.

**Enable: Add copied requirements to same documents as original requirements** - will cause, as the default, the option to include a newly created object to be included in all documents in which the original is a member.

**Enable: Copy links from original requirements** - will cause, as the default, the option to include all links in a newly created object that were associated with the original.



**NOTE** When creating a document using the option to copy **Chapters and Requirements** from an existing document, these options will not apply.

### Change Proposal

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

These settings apply only when the organization using the Actions **Propose New** and **Propose Change** as part of their process. The process surrounding these actions involves allowing users to propose new requirements, rather than to create them, and to propose changes to existing requirements rather than to make the change. Proposed requirements and/or changes can be reviewed and accepted by team leads prior to acceptance. A similar process can be adopted using **workflow**.

For further information about proposing requirements, see chapter "[Proposing a New Requirement](#)" on page 193.

The following options are available and are independent of one another - all may be enabled.

**Enable: Make Change Reason mandatory for Propose New** - will force the user to include the reason for the change when using the Action **Propose New** to propose, rather than to create, a new requirement.

**Enable: Make Change Reason mandatory for Propose Change** - will force the user to include the reason for the change (attribute Change Reason) when using the Action **Propose Change** to proposing a change to an existing requirement.

**Enable: Propose Change for non-current objects** - Allows user to propose a change to a non-current object (e.g. requirements with current status "Replaced").

### **Suspect Links**

Please note that the first two settings can only be changed in the **Instance Settings** dialog.

However, if the administrator has chosen to enable the option 'New Version Automatically Clears Suspect Links', the cautious users may choose to override that setting in **User Settings** by requiring confirmation.

Suspicion is raised when a related requirement is changed, for details see "[Suspect Links](#)" on page 219. A Business requirement may elicit a dozen functional requirements, but what happens when the business requirement is changed? The implemented process may decree that each of these linked requirements become **suspect**.

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 following options are independent of one another - both may be enabled.

**Enable: Visualize upstream and downstream suspect links** - an arrow, rather than the suspect triangle, will display the direction of the requirement that caused suspicion to be raised. If the requirement is upstream a down arrow will be displayed to mark suspicion, it downstream an uparrow.

**Enable: New Version Automatically Clears Suspect Links** - When this option is enabled, suspect links are automatically cleared when the suspected requirement is modified and saved. If this option is not enabled, suspect links must be cleared manually when saving a modified requirement.

The following setting is only actionable by the user if the 'New version Automatically Clears...' has been enabled in **Instance Settings**.

**Enable: Confirm clearing suspect links on Save** - When enabled, a dialog is raised which allows the user the opportunity to review and confirm the clearing of the suspect link.

### **Change Class**

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

These **Change Class** settings define the behavior when changing the class of a requirement. "[Changing the Class of a Requirement](#)" on page 198).

The following options are available and are independent of one another - all may be enabled.

**Enable: Retain Workflow State** - The **Workflow** state of the originating object is applied to the new class, provided that both the new class and the originating class have a workflow state with the same name.

**Enable: Retain Links** - Links will be preserved, provided that matching relationships exist in the new 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 not enabled, no links are retained.

### **Comments**

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

**Enable: Include Accepted state** - Allows the **Accepted** workflow state to be applied to comments, as well as providing a mechanism for filtering comments in the accepted state.

### **Glossary Check**

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

The **Glossary Check** settings control the response when a user includes a term in the text attribute that is listed in the glossary as "Not Recommended".

**Disabled:** When enabled, glossary check is disabled.

**Warning:** When enabled, a warning is raised at time of submission prompting the user to reconsider the use of the term, or to continue. The submission is not blocked.

**Error:** When enabled, a message is raised at the time of an attempted submission indicating that the term cannot be used in the requirement text. The submission is blocked.

### **Complexity Analysis**

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

Natural Language Processing based on the Flesch–Kincaid readability tests, has been implemented in order to review and to raise warnings concerning the complexity of requirements. For a complete description of these settings, please see ["NLP Complexity Analysis" on page 261](#).

### **Similarity Analysis**

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

Natural Language processes designed to analyze sentence similarity or semantic textual similarity has been implemented. For a complete description of these settings, please see ["NLP Similarity Analysis" on page 262](#).

### **Default Links View**

This setting may be changed in both **Instance** and **User Settings**.

There are two ways to display links in the **Links** section of the Edit dialog.

**Enable: Quick View** - Lists all linked requirements, no matter the class, in a single table, with only common attributes available for display.

**Enable: Extended View** - List linked requirements by class, with the properties function available to list any and all attributes in the class.

### Display Setting for Requirement Header

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

The **Requirement Header Options** establish the attributes to be displayed when a versioned object (e.g., requirement, test case, etc.) is opened for viewing or editing. It is possible to enable one, two, three or none of the options listed below.

**Enable: Class Name** - Includes the **Class Name** in the header of an open object.

**Enable: Rqmt ID** - Includes the **Rqmt ID** in the header of an open object.

**Enable: Title** - Includes the **Title** in the header of an open object.



**Figure 2-1. Header for Test Case, with Rqmt. ID (PUID) and Title enabled.**

## Quick Search Settings

The following are set from the **Quick Search** tab in User Settings (under the Welcome Menu) or Instance Settings (from the Administration Menu).

### Select a Class and choose the Attributes to Display, Sort Order, and Tool Tip



**NOTE** The **Use Instance settings** checkbox that applies to class attributes to display is located just below the '**Attributes to display in the tooltip**' setting. The checkbox must be cleared for each class, before class settings can be modified.

To change the attributes (columns) displayed in Quick Search results:

**Select a class** from the **Choose a class** list. The current settings for **Attributes To Display**, **Sorting Order** and **tooltip** are displayed.

**Use the arrows** to move attributes on or off the display list (For additional detail see "[Attributes to Display List](#)" on page 40.

**Use the arrows** to choose sort order, for additional detail see "[Sorting Order List](#)" on page 41.

### Additional Settings

**Automatically run default query:** Select this checkbox to execute the most recently used search when the page is opened. If this feature is not enabled, the Quick Search fields will be populated, but the search will not be executed until the search button is clicked.

**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:** Check this box to apply instance defaults for pagination, uncheck it to specify the **Page Size** (number of records displayed per page).

### Split View

For settings relating to **Split View** and **Document Split View**, see chapter "[Split View Settings](#)" on page 99.

## Hierarchy Settings

The following are set from the **Hierarchy Settings** tab in User Settings (under the Welcome Menu) or Instance Settings (from the Administration Menu).

### Hierarchy Tree, Tooltips, and Export

The **Hierarchy** settings define which attributes are displayed in the hierarchy tree, the attributes displayed when a user mouses over the hierarchy entry, and the attributes to be included in an export.



**NOTE** The **Use Instance settings** checkbox must be cleared for each class, before class related settings can be changed; this setting is located just below the '**Attributes to Export**' section.

#### To change the attributes (columns) displayed:

**Select a class** in the **Choose a class** list:

The current settings for **Attributes To Display**, **Attributes to Display in the Tooltip**, and **Attributes to Export in the selected class** are displayed.

**Specify the columns** to display, see chapter "[Attributes to Display List](#)" on page 40.

**Specify the attributes** to be displayed in the tooltip, choose those attributes most helpful when mousing over entries in the Hierarchy tree. List selection works much the same way as described in chapter "[Attributes to Display List](#)" on page 40.

**Modify the Attributes to export** list, see chapter "[Attributes to Display List](#)" on page 40.



**NOTE** When modifying multiple classes, you do not have to click **Apply** before you select another class. The changes made are remembered as long as the dialog box is open.

#### Add Requirements at

The **Add Requirements at** option defines at which position in the hierarchy requirements are added when no designation is clear (i.e., add child, add below, etc.):

**Start of hierarchy:** Adds the requirement as the first requirement.

**End of hierarchy:** 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

The following can be set from the **Document** tab in User Settings (under the Welcome Menu) with exceptions noted, or Instance Settings (from the Administration Menu).

The document settings include:

- [Export Options](#),
- [Lock Document During Edit](#),
- [Default Requirement Layout](#),
- [Default Document View Mode](#),
- [Add Requirements at](#),
- [Default Workflow](#),
- [Move Objects](#),
- [Inline Editing](#),
- [Import/Export with](#)
- [Manage export templates](#)

### **Export Options**

In Documents View in RM Browser, requirements and chapters are typically numbered by default. When a document is exported using Microsoft® Word the Word document will include the numbers as displayed in Documents View, unless this setting is overridden by the administrator. If, in instance settings, the administrator has not checked the "Export Chapter Title numbering" box, chapter numbering will not be exported. The same is true for Requirement Title numbering.

As Dimensions RM supports many approaches to chapter and requirement numbering when exporting documents using Word, it is recommended that this single setting should not be relied upon to control chapter or title numbering for all. Please see: "[Exporting Documents](#)" on page 165.

#### **Use Instance settings:**

When this checkbox is cleared by a user, the actual instance settings for the two associated boxes will be displayed; these may be cleared or checked.

#### **Export Chapter Title numbering:**

Clear this check box to clear automatic numbering, allowing the user to use Word settings to assign chapter numbers.

#### **Export Requirement Title numbering:**

Clear this check box to clear automatic requirement numbering, allowing the user to use Word settings to assign numbers to listed requirements.

Click **OK**.

### **Autoloading Documents**

Selecting autoload will cause the document that was opened in the previous RM Browser session to be automatically opened.

#### **To set autoloading of documents:**

**Select** or clear the **Auto load document** check box.

**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 Requirement Locks" on page 422](#)).

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 must click  to refresh 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 157](#).

### **Default Requirement Layout**

The **Default Requirement Layout** option defines the initial layout for requirements in a document.

To change the default requirement layout:

In the **Document Settings** section, select one of these options from the **Default Requirement Layout** list box:

**Editable Grid**

**Grid**

**Paragraph**

Click **OK**.

Additional changes to the layout may be applied using the **Format Document** or **Format Chapter** settings as described in chapters "[Formatting Documents](#)" on page 129 and "[Formatting Chapters](#)" on page 145.

### **Default Document View Mode**

The **Default Document View Mode** defines how documents will be viewed when first opened.

**Chapter:** Limits the display to a single highlighted chapter or sub-chapter with its content.

**Entire Document:** Allows the user to scroll through the entire document.



**NOTE** You can also change the setting in Document View (see chapter "[Detail Pane](#)" on page 110). 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 users to select a default from among workflows defined for documents and snapshots. This default can be changed during document creation.

### **Move Objects**

Checking the **Move Objects** box protects against erroneous moves using drag and drop.

Once checked, the system will require confirmation when using drag and drop to relocate objects.



## Inline Editing

Checking the **Inline Editing** box restricts document editing, essentially making the document read only, while allowing reviewers to add comments.

## Import/Export with

Select the Default Setting for importing and exporting documents using Word. The Docx4j Library is available for organizations that cannot install Microsoft Office on the server.

**Microsoft Office**

**Docx4j Library**

## Manage export templates

Select a default export (formerly publish) template.

# Report Settings

## Relationship Constraint Mode Settings

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

With the **Relationship Constraint Mode** setting, the Instance administrator defines how the relationship (specified as a **Relationship Constraint** for the executed report) between two requirements is evaluated.

### Only Current:

**Enabled:** This means that a report will return only related requirements with Status "Current". Enabled is the default setting for **Only Current**.

**Disabled:** By disabling the **Only Current** setting, a report will return a related requirement even if its Status is other than "Current" (e.g. Proposed, Deleted, Replaced).

This setting affects the relationship evaluation in either direction, outgoing relationship (e.g. from Business requirement to Functional) and incoming relationship (from Functional to Business).

If, for example, a Business Requirement is linked to a Functional Requirement that has been marked as deleted (Status = Deleted), the report will not return this relationship.

## Traceability Default View

Traceability reports can be displayed in either Gap View (an excel report that displays the missing links) or a structured Outline View.

To set the default view:

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

## Link Browser Settings

The Link Browser Settings control the color, format and attributes of the display, as well as the attributes displayed for Links In and Links Out details.

Users must Disable: **Use Instance Settings** in order to make modifications.

### To change the class color using predefined colors:

- Choose a class** from the list
- Choose a Color** from the color squares
- Click OK**

### To define a class color using the Color Picker

**Choose a class** from the list

#### Do one of the following:

##### 1. Use a color range:

From the vertical color bar, select the color range.

Select the color in the preview box.

##### 2. Mix a color using **H** (hue), **S** (saturation), and **V** (brightness)

**H:** Valid range 0 to 359

**S:** Valid range 0 to 100

**V:** Valid range 0 to 100

##### 3. Mix a color using **R** (red), **G** (green), and **B** (blue) box.

The valid range for R, G, and B is 0 to 255.

##### 4. Mix a color using the hex value.

The hex value follows the RGB schema. Each color is represented by 2 characters,.

For example, #ffeedd means R (ff)=255, G (ee)=238 B (dd)=221.

**Click OK.**

### To change the node radius:

#### Do one of the following:

##### 1. Enter a number (minimum 40) into the **Node radius (px)**

##### 2. Enable the **Fit to PUID** check box.

This is recommended and will adjust the node radius to fit the attributes selected for display.

**Click OK.**

### To change the 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 Items selected for Attributes to Display are included in Links In and Links Out Details.

The selection of Attribute in both links display and tool tips work in the same way as described in ["Attributes to Display List" on page 40](#).

However, the following restrictions apply:

The display is limited to 3 attributes as to avoid unreadable text in the requirement node.

Special attributes are not supported. For a list see ["Special Attributes" on page 62](#).

## Split View Settings

The settings for the Split View mode of Quick Search may be modified from the **Split View** tab in User Settings (under the Welcome Menu) or Instance Settings (from the Administration Menu).

Users must Disable: **Use Instance Settings** in order to make modifications.

### To change the columns displayed in Split View:

**Select a class** from the list.

The **Attributes To Display** and **Sorting Order** sections are displayed.

**Specify the attributes to display**, for assistance see chapter ["Attributes to Display List" on page 40](#).

**Specify the sort order**, see chapter ["Sorting Order List" on page 41](#).

**Click Apply** if additional classes will be modified

### Automatically run default query:

**Enable:** Run the most recently used search criteria when the page is opened.

**Disable:** Use the most recently used search criteria, but do not execute until you click the search button.

### 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

## Notification Settings

This section defines the high-level settings for notifications generated by user choices to **Follow** objects.

These settings can only be set or modified in the **Instance Settings** dialog.

User's may activate selected Notification Rules from the Notifications tab under the Welcome Menu. Please see ["User Notifications" on page 68](#)

### Notification (Delivery Method):

The method chosen for delivery method may be via email, browser alert or both.

**Email** - Notifications will be sent via email.

**Browser** - Alerts will be raised in the browser.



**IMPORTANT!** E-mails will only be sent if the Open Text Mail Service has been configured and is running. For further information see chapter "RM Mail Service" in the Dimensions RM Administrator's Guide.

**Type:** Notification text may be configured for messages relating to Requirement objects (General), Chapters, and Comments.

**Email Subject:** The subject text may be localized, however the placeholder (e.g, <#PUID#>) should remain unchanged.

**Email Text:** The text of the message may be localized, and additional placeholders may be included.

## Risk Management Settings

The Risk settings define the configuration for the additional tab that may be made available from the Home View. For additional detail concerning the configuration see "[Activating Risk Management](#)" on page 263.

This tab may only be configured from the **Instance Settings**.

Risk Management Reporting uses the attribute names defined locally in schema definition. The reports were designed to use color coding to calculate and to 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

**Figure 2-2. Status Report from Home View, Risks Tab**

### Instance Settings - Risks Tab





#### Describe the Levels:

**Names:** Choose the severity level names, e.g., Low, Medium, High, Extreme

**Colors:** Choose relevant colors (for details see "[Link Browser Settings](#)" on page 98).

**Description:** Enter a short, optional explanation.

**Icons** allow the deletion or the reordering of rows.

Name	Color	Description	
Low		Description	✕ ↑ ↓
Medium		Description	✕ ↑ ↓
High		Description	✕ ↑ ↓
Extreme		Description	✕ ↑ ↓

Severity:	Acceptable	Tolerable	Undesirable	Intolerable
	✕ ← →	✕ ← →	✕ ← →	✕ ← →
	Little to no effect on event	Effects are felt, but not critical to outcome	Serious impact to the course of action and	Could result in disaster

**Risk Matrix Calculations:**

The Risk Matrix is based on the Severity level should an issue occur, together with the chance of it occurring.

There is suggested text, however the names assigned for both severity level and probability of occurrence can be defined by the instance administrator.

**Severity:** Define, with a short description, the severity levels. The down-arrow in each color square provides access to the severity levels.

**Occurrence Rating:** How likely is it that the issue will occur.

Severity:	Acceptable	Tolerable	Undesirable	Intolerable
	✕ ← →	✕ ← →	✕ ← →	✕ ← →
	Little to no effect on event	Effects are felt, but not critical to outcome	Serious impact to the course of action and outcome	Could result in disaster

**Occurrence:**

✕ ↑ ↓	<input type="text" value="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 ↓

## Test Management

The Test Management settings define the configuration for the additional tab that may be made available from the Home View.



Before enabling Test Management, ensure that all required classes and relationships have been created by your Administrator. For further information see chapter "Test Case Management" in the *Dimensions RM Administrator's Guide*.

For additional details see "[Working with Test Management](#)" on page 364.

### Enable:

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

When **Test Management** has been enabled, the **Test** view will be visible and available on the menu bar:



### Runtime Dialog

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

When enabled the estimated and actual run times will be tracked and displayed after all Test Steps have been completed.

### Pagination

Users may enable this option to break the list display in the **Test** view into multiple pages should the list exceed the quantity entered in the **Page Size** field.

### Open Objects

This setting is used to control how objects in Test Management classes are opened from within the Test View.

For example, when editing attributes, test related classes may be opened using the standard Edit Requirement dialog, however the recommended practice is to choose "Open in Test Management View" Select one:

- Open in Edit Dialog
- Open in Test Management View - Recommended
- Always ask how to open

### Status Colors

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

**Execution Status** is a list attribute defined in the **Test Run** class.

In our example, this list includes: Blocked, Executed, Failed, In Progress, Not Executed, Not Planned, Passed, Passed with Deviations. Administrators may apply local naming conventions to the states defined.

For each state, a color code may be selected to further classify the state name. For additional color selection details see "[Link Browser Settings](#)" on page 98)

## Branch/Sync View Settings

### Displayed Columns

A separate set of columns can be selected for display in the Branch View mode of Quick Search.

**Users must disable Use Instance settings:** to override the default settings set by your administrator at the instance level for the selected class.

### To change the columns displayed in Branch View mode:

**Select a class** in the **Choose a class** list. The following sections are displayed:

**Attributes To Display** Specify the columns to display, see chapter "[Attributes to Display List](#)" on page 40.

**Sorting Order** Specify the **sorting order** see chapter "[Sorting Order List](#)" on page 41.

**Attributes to Display in Details** Specify attributes to highlight when viewing changes for listed attributes.

The following are only available from **Instance Settings** and control the attributes to be provided with branched requirements and then merged:

#### **Attributes to provide/merge** from **Project to Product**

When branching requirements, not all attributes will be copied to the branch, only those that should be merged when the time comes. Only user populated attributes are included in the list.

The Instance Administrator must choose the Attributes to be provided to the branched requirement when branching from Project to Product

#### **Attributes to provide/merge** from **Product to Project**

When branching requirements, not all attributes will be copied, only those that should be merged when the time comes. Only user populated attributes are included in the list.

The Instance Administrator must choose the Attributes to be provided to the branched requirement when branching from Product to Project

### Additional Settings

**Provide with Links:** Selecting this option sets 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.

## Security

This section defines settings associated with application security.

These settings , available from **Instance Settings, Security** Tab, can only be changed by the Administrator.

These settings include:

- [Client Idle Timeout](#)
- [Upload File Restrictions](#)
- [Attachment](#)
- [Sanitize HTML Code](#)
- [Show Last Login Date for User](#)

**Recommended Security Settings:**

Session Idle Timeout

Upload File Restrictions

Allow all file types

Allow these file types

Disallow these file types

Attachment  Disable automatic opening

Sanitize HTML code  Enable

Show Last Login Date for User  Enable

**Client Idle Timeout**

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

**To specify the number of minutes a user session is allowed to be idle before it times out:**

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

**Upload File Restrictions**

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



**IMPORTANT!** For reasons of security and safety, it is recommended that Administrators create a whitelist and use it to populate the list following instructions in 3a, below.

**From Instance Settings, Security Tab**

**Select one from the following:**

**a Allow these file types: RECOMMENDED SETTING!**

This setting limits the upload possibilities to the types listed. Any other file type cannot be uploaded.

**b 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).

**c 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.

**3** Click **OK**.

### **Attachment**



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

**To FORCE users to save attachments locally before they are opened, automatic opening must be DISABLED. To do so execute the following.**

**From Instance Settings, Security Tab:**

At the **Attachment** option, enable the selection for: **Disable automatic opening**.

Click **OK**.

### **Sanitize HTML Code**



**IMPORTANT!** For reasons of security and safety, it is recommended that the setting **Sanitize HTML** code be enabled.

**To enable the examination of HTML content, preserving only those tags and attributes designated "safe", execute the following.**

**From Instance Settings, Security Tab:**

At the **Sanitize HTML code** option, **Enable** the tab.

Click **OK**.

### **Show Last Login Date for User**

**To enable the display of the user's last login date in the browser footer:**

**From Instance Settings, Security Tab:**

At the **Show Last Login Date for User** option, **Enable** the tab.

Click **OK**.


## **Configuring Actions Pane Defaults**

Administrators or Users have the ability to select the functions listed in the Actions pane. This allows non-common functions to be hidden, e.g. the *Remove* command for removing requirements, an Action that is almost never allowed.

**To configure actions, do the following:**

**1** Move the mouse pointer over the section title, e.g. Requirements.

**2** Select the mode for editing


 : Click to edit instance settings. This option is only available for administrators.

 : Click to edit user settings.

**3** Update the Action boxes:

Check the box to display.

Uncheck to Hide

**4** Click  to confirm your selection.

## Chapter 3

---

# Working with Documents

About Documents	108
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Working with Chapters and Requirements	139
Document Snapshots	160
Exporting Documents	165
Using Workflows with Documents	170

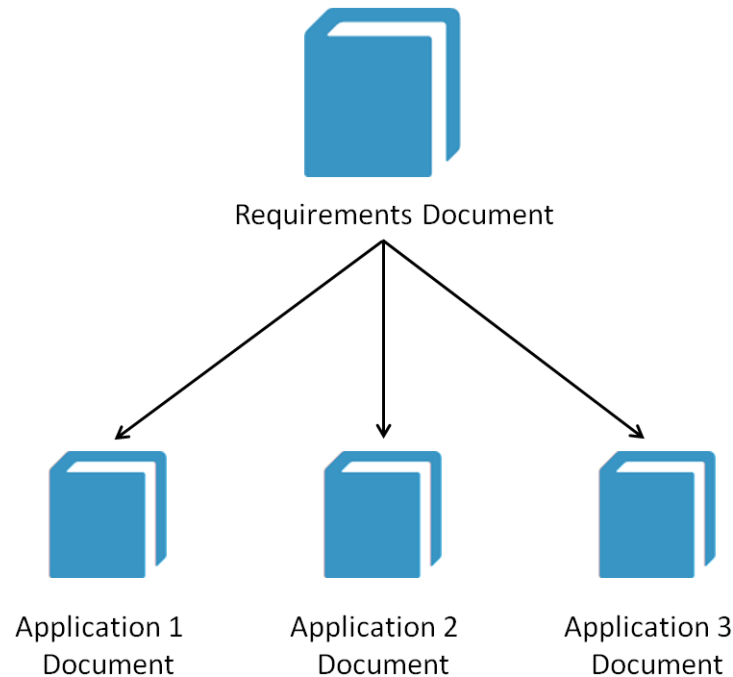
## About Documents

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 export reports such as system or software requirement specifications. Requirements can be added to, removed from or created within the document.

### Parent and Child Documents

Documents created with the intention of managing a common structure and content can be created as Parent Documents, their structure and content is inherited by each child created based on the parent. Content defined in or linked into the parent, cannot be modified in the child.

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

["Opening Documents or Snapshots" on page 116](#)

["Navigation Pane" on page 109](#)

["Detail Pane" on page 110](#)

["Document Filtering" on page 111](#)

"Document Layouts" on page 113

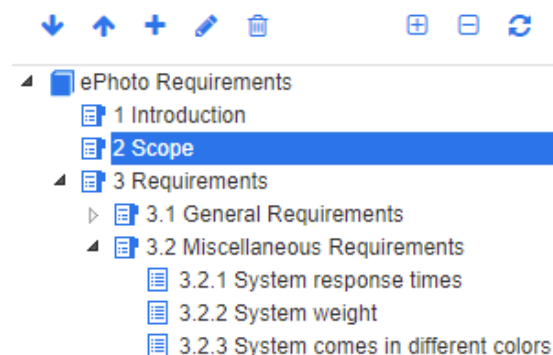
"No Permission to View one or more Objects" on page 117

"Working with Document Changes" on page 118

For details concerning Document Creation, please see "Working with Documents" on page 122.

## 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 (Document Name)** of the document is selected.

See "Creating a New Chapter" on page 139.



**Edit chapter:** The **Edit Chapter** dialog allows changes to the chapter title, content or formatting. See "Editing a Chapter" on page 142 and "Formatting Chapters" on page 145.










**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 143.



**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 (name) of the document.
-  **Chapter:** This marks 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 attributes displayed in the Navigation pane can be modified using "[Display Options Tab](#)" on page 132.

The PUID of each requirement is displayed, by default, as a tool tip when you hover over the requirement in the Navigation pane. This can be modified using "[Display Options Tab](#)" on page 132.

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**, the content can be displayed using 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.

In Grid layout requirements from different classes contained within the same chapter must be added in groups. Each class is displayed in separate tables.

**Chapter Text** is displayed using paragraph layout. The requirements within the chapter may be display in Grid (Table) layout or using Paragraph Layout.

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.


 **Disable Inline Editing** select this icon to disallow change during review, comments may be created but no edits may be introduced.


**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 118.


 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 69.

 **Entire Document View:** One of two possible view modes, the Entire Document View allows users to scroll through the whole document. See "[Document View Modes](#)" on page 114.

 **Chapter Content View:** Changes the document view to the Chapter Content view, which allows you to scroll through individual chapters. See "[Document View Modes](#)" on page 114.

 **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 119.

 **Print:** This button invokes your system's Print dialog to print the current contents of the Details pane. See "[Printing](#)" on page 116.

 **Refresh:** This button repopulates the Detail pane with fresh data from the database.

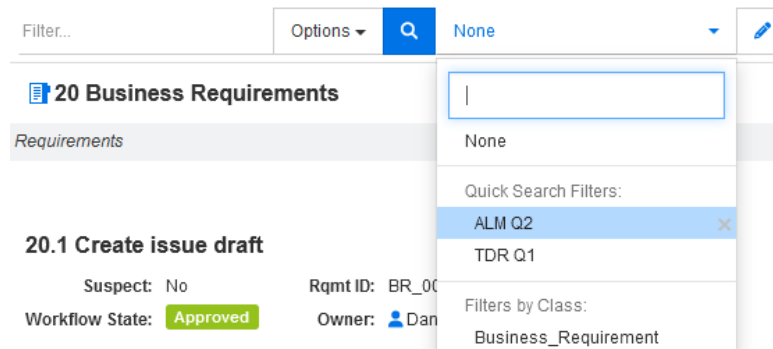
## Document Filtering

The following allow users to filter the document data displayed.

- 1 **Filter:** Enter a search string and click the search icon to find matching document data.
- 2 **Options:** Click **Options** to further refine the search:
  - Use **Limit Search to:** to limit the range of the search string to PUID (Rqmt. ID) Title and/or Description.
  - Check Include Chapters** to include chapter text in the **Search**.
  - Check Show Context in Entire Document View** to include chapter and/or sub-chapter headers to provide context to requirements matching the search.
- 3 **Saved Filters** may be accessed by clicking the drop-down to the right of the search icon.
  - A filter created in **Quick Search** may be applied to documents, with or without additional edits.

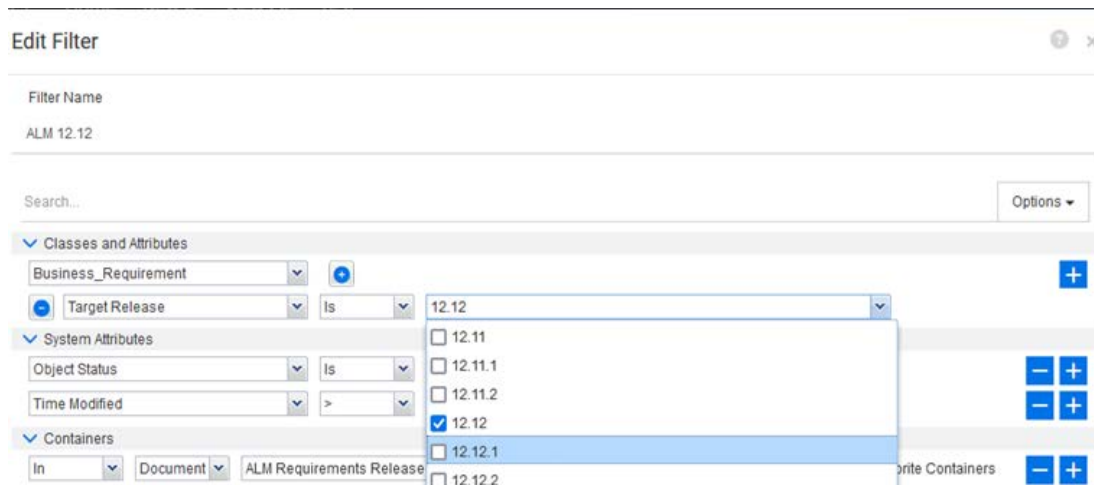
For a complete description of the **Quick Search** functionality discussed below see "[Finding Requirements with Quick Search](#)" on page 174.

- 4 To Edit the a Quick Search Filter from within a document:
  - Use the Pencil icon** to raise the **Edit Filter** dialog (to see the image in [Figure 3-1](#)).
  - Edit an existing filter** and save it with a new name.
  - Edit an existing filter** and save it with the same name, the saved edits will be applied to the filter in **Quick Search**.
- 5 To create a new filter:
  - Clear the filter selection (select None) and click on the pencil; this will raise the **New Filter** dialog.



**Figure 3-1. From the Document View, choose filter from those saved**





**Figure 3-2. Edit Filter dialog.**

## 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.

**Actions Pane:** To perform any action on the currently selected requirement, 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 open the *attributes* dialog.

To perform any 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"/>		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"/>		MRKT_000030	System weight	The system shall weigh less than 8 pounds.	High	30-Sep-2015@01:54:24	
<input type="checkbox"/>		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.

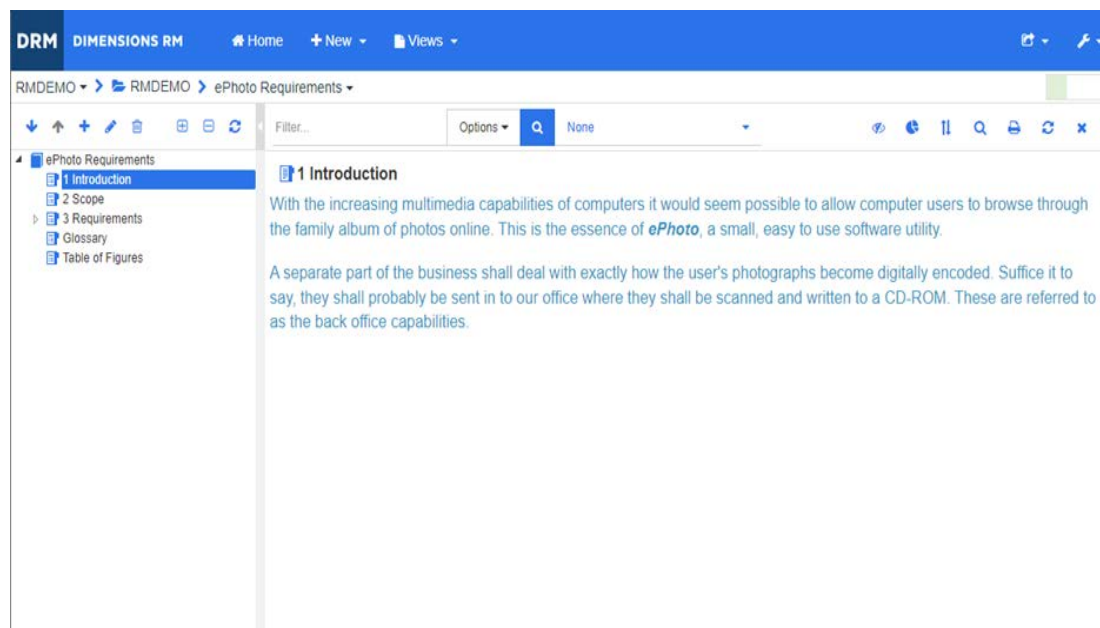
**Attribute Editing:** Double click the table cell to edit the attribute of the requirement.

**Requirement Editing:** Double click the Requirement ID or select the requirement and click **Open** from the Actions pane.

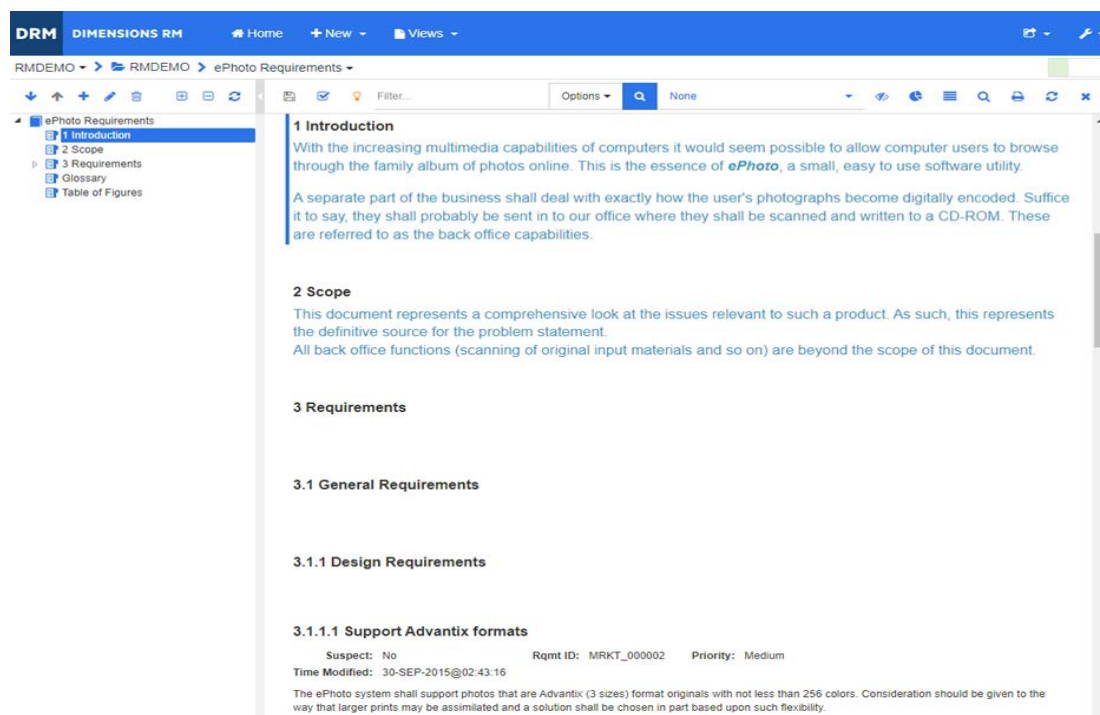
**To perform any action on a requirement listed in the Editable Grid Layout,** select the requirement and then click on the desired action from the **Requirements** group of the **Actions** pane.

## Document View Modes

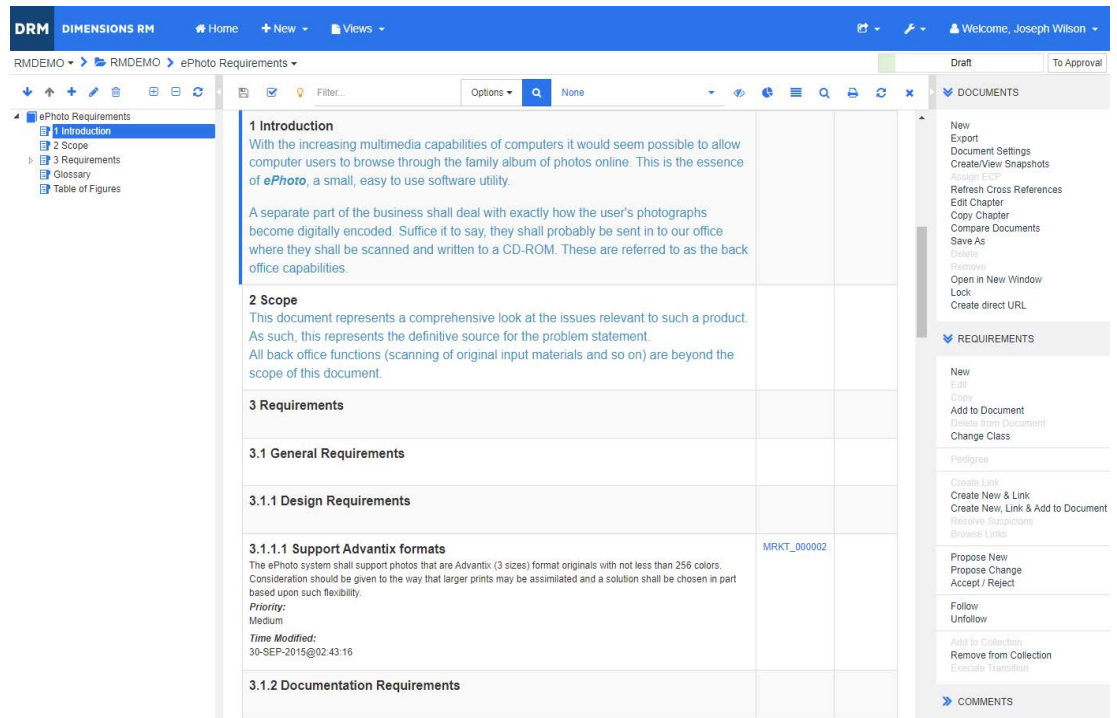
For documents, there are two view modes available: Chapter and Entire Document. The view mode defines how the document is displayed in the detail pane. The Document View Mode can be changed either through Instance Setting/User Setting (see chapter "[Default Document View Mode](#)" on page 96) or by clicking or in the Detail Pane (see chapter "[Detail Pane](#)" on page 110).



**Figure 3-3. Document View Mode: Chapter**



**Figure 3-4. Document View Mode: Entire Document (Standard Mode)**



**Figure 3-5. 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. The contents of the sections in the Form layout are printed only if the sections are expanded.

### To print the contents of the Detail pane:


- 1 Click **Print** in the Detail pane.
  - A window opens your systems Print dialog with content formatted for printing.
- 2 Click **Print**. The requirement is sent to your printer.

## Opening Documents or Snapshots

### 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.

### 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.


**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.
- 2 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.

## **No Permission to View one or more Objects**

The following message raised when first opening a document indicates that not everything contained in the document is available for viewing:

*Warning you do not have permission to view one or more objects in this document.*

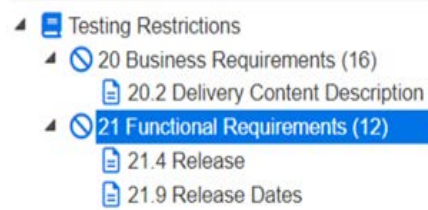
*Those objects are not displayed.*

This means that there are requirements in the document that belong to:

- a Class to which you do not have read permission,
- a Category to which you do not have read permission, or
- a category which has been Deactivated.

Chapters or subchapters containing hidden objects are shown w

with a warning symbol:



**Figure 3-6.** The warning indicates no read access on object(s) within the section.

To see a count of the unavailable objects you may change a setting:



Document Settings-->Format Document-->Document Tree and select 'Show count of assigned Requirements in chapters title'.

If the issue is permissions, you may speak to you Team Lead or Instance Administrator.

If the issue is that the Category containing those objects has been deactivated, you may acquire read-only access to deactivated categories "[Categories: Show Inactive Categories](#)" on page 83.

## 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, as well as change made to 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 162](#)).

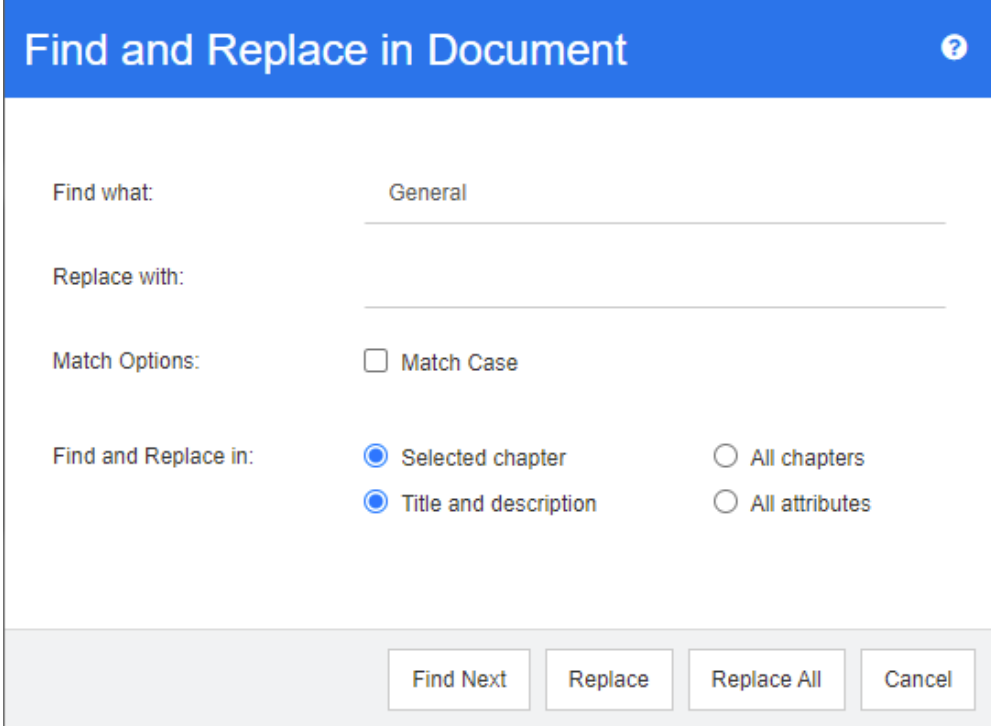
**For read-only objects** (snapshots and ECP-controlled documents without an ECP assigned), the **Replace** and **Replace All** buttons are not shown. With these objects, only the Search feature of the dialog works.

To use the **Replace** and **Replace All** commands, you must have permission to replace a requirement or chapter. If you only have permission to change a subset of the objects selected, a message will be raised.

### To find and replace character strings:

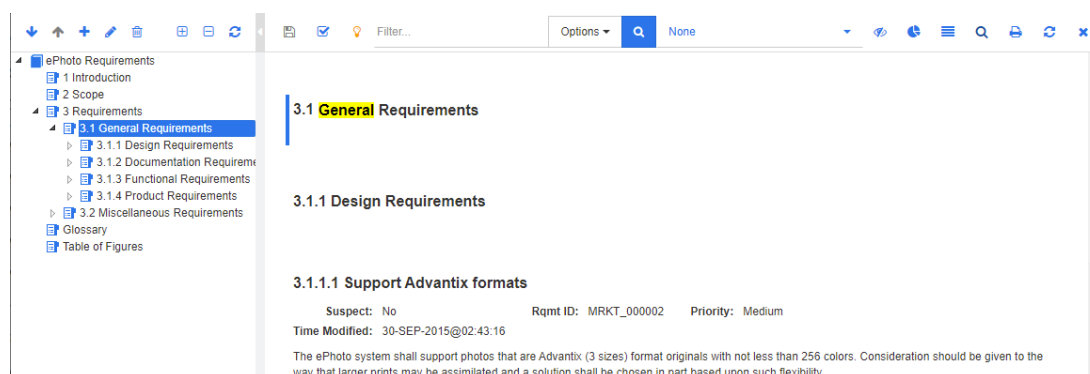
- 1 Open the document to the Document work page, if it is not already open. See ["Opening Documents or Snapshots" on page 116](#).
- 2 If you wish to search within a specific chapter, select it in the Navigation pane.

- 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.

To copy the URL of an open document or snapshot:

- 1 With the document or snapshot open in a work page,
- 2 Click **Create direct URL** in the **Document** set of the **Actions** pane.
- 3 **Click the icon** to copy the URL to the clipboard.
- 4 Click **OK** to close the dialog.
- 5 Use the relevant command to paste the URL into a file or application.

**To copy the URL of a closed document or snapshot:**

- 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 267](#).
- 2 Select the **Documents** tab.
- 3 **Expand documents prefaced with a right-angle bracket**, to list:  
**Associated snapshots**  
**Child documents** (Child) listed below the Parent (Parent)  
For additional details see chapter ["Documents Tab" on page 280](#).
- 4 Select the desired document or snapshot.
- 5 Click **Create direct URL** in the **Documents** group of the **Actions** pane.
- 6 Click the icon to copy the URL to the clipboard.
- 7 Click **OK** to close the dialog.
- 8 Use the relevant command to paste the URL into a file or application.

## Working with Documents

This section discusses the details of document creation and deletion, the document settings assigned at creation and their modification over the life of the document.

["Creating a New Document" on page 122](#)

["Creating a New Document from the Hierarchy View" on page 125](#).

["Deleting a Document" on page 125](#).

["Removing a Document" on page 126](#).

["Saving a Copy of a Document Under a New Name" on page 127](#).

["Document Settings" on page 127](#).

### Creating a New Document

A new document may inherit the settings, chapter structure and even the content from an existing document.

Many organizations create and maintain document templates. They can include standard settings, cover page, chapters with overview text, a corporate glossary, and any additional sections required by the organization. There may be one such template, or one for each project or report type. Create it once, review and approve it and then use it as a basis many times.

One of the following may be used as a basis for the creation of a new document.

- The blank template.

- The chapter structure of an existing document or corporate template.
- The chapter structure and requirements of an existing document.

**To create a new document:**

**1 Select Document** from the **New** menu.

**2 Name:** Enter a name for the document.

**3 Description:** Enter a description of the document.

The description is maintained in the **Document Settings** dialog and can be included when listing documents from the Documents Tab in Home View.

The Description is not copied when the document content is copied.

**4 Create Options:** Select one of the following:

**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.

**Chapters Only:** Creates the document based upon the chapter structure of an existing document that you select from the Template list.

**Chapters and Requirements:** Creates the document based upon the chapter structure and requirements of an existing document that you select from the Template list.

**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.

**As Child:** A child document inherits its layout and content from the parent (see ["About Documents" on page 108](#)). Enabling this option will raise a list of available parents from which one may be selected.

**Based on Sibling:** This option is only available when **As Child** is selected. Selecting this option allows the user to base the new document on an existing child. The new child document will be a copy of the selected child document and also have the same parent document.

**Find Document:**

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.

**5 Document Settings:**

**Inherit from selected Document:** If selected, the document options listed below will reflect those in the selected base document, assuming you did NOT use blank.

To modify these settings, clear this option and continue.

**Export Title:** Select to use the string in the **Name** field as the document's title when exporting to Word.

**Update To Current (Tip):** If this option is selected, the document will always reflect the most recent version of requirements added with the Status of **Current**. Clearing this option ensures that all requirements in the document will not be affected by modifications made outside the document.

**Checking this box, after it has been unchecked,** will raise a confirmation dialog asking the question: *Do you want to update all existing requirements to the latest version in the document?*

**OK will change** the setting, and update every object in the document to the latest version (i.e., status Current).

**Cancel will change the setting,** leaving content unchanged.

To **manually change** the version of a requirement included in a document see: ["Exchange Requirement Version in a Document"](#) on page 153.

**About the Use of Update to Current (Tip):**

This setting is often checked during the requirements definition and review process, but unchecked when the document begins final review.

It might be the case, for example, that the requirements document is in review for release 2.2, while work is underway for release 3. Clearing this option will ensure that the 2.2 document will no longer reflect changes applied to ongoing release 3 work. Changes made to requirements from **inside** the open document will be reflected.

**Glossary:** Select this option to automatically create the chapter "Glossary". This chapter contains the explanations for the terms used in this document.

**ECP Controlled:** Only visible if the Instance Administrator has created a Class of type ECP. ECP Control is a process, and once adopted in a document, it cannot be undone. For additional information please see ["Assigning an ECP to a Document"](#) on page 152.

**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 42). 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 is selected, attributes will be included in the **Custom Attributes** section. Depending on Workflow settings, some attributes may be mandatory. Mandatory attributes must be populated to allow creation of the document.

**8** Click **OK**.

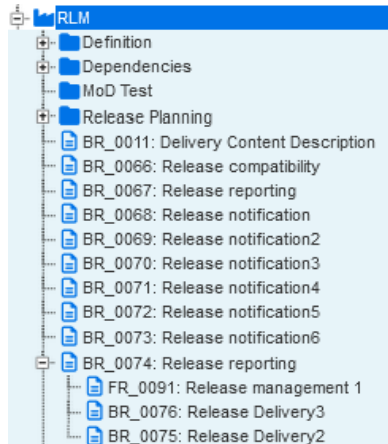
## Creating a New Document from the Hierarchy View

The following describes the process for creating a document from the Hierarchy. The document navigation pane will reflect the hierarchy structure.

It is also possible to add a set of requirements to an existing document based on a segment of the hierarchy structure. For details see ["Adding Requirements from the Hierarchy to a Document" on page 147](#)

### To create a new document:

- 1 From the Home View, select the segment of the hierarchy from from which to create the document. In the example below, the category RLM and its content is selected.




- 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.
- 4 **Description:** Enter a description of the document. This description will be shown in the **Document Settings** dialog and can be included with the entries displayed in the Documents Tab.
- 5 Click **OK**.

## Deleting a Document

When you delete a document, it is marked as deleted, but the data is retained and can be displayed using the action **Show Deleted Documents**. Users can delete documents if you have "Delete" permission for documents and collections.

When a document with Snapshots is marked as deleted, associated snapshots will also be marked as deleted.

### Deleting a Document From 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 the deleted parent is later undeleted.

#### ***Deleting a Document From 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 the deleted parent is later undeleted.

## **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.

### **To save a document under a new name:**

- 1 Open the document to the Document work page.  
See ["Open the Home View by clicking ." on page 116](#).
- 2 Click **Save As** in the Documents group of the Actions pane.
- 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 available only if the option **Chapters and Requirements** is selected.  
When this option is selected, **copies** of all requirements contained in the original document are **created and added** to the new document. Links between requirements are copied as well if the linked requirements are also part of the document.  
If this option is not selected, the requirements contained in the original document will be linked into the new document: same requirements, same identifiers.
- 7 **Chapters Only:** Select this option to copy only the chapters from the original document (no requirements).
- 8 Click **OK**.

## **Document Settings**

The **Document Settings** dialog provides access to attribute details, general formatting, options for display, attributes for export, class restrictions and dependencies. Most settings can be changed during the life of the document.

Document Settings are accessed in Document View, i.e, from within an open document.

**General:** Allows you to change document name, description, detail settings and workflow. See ["Editing Document Attributes" on page 128](#).

**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 129](#).

**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 Tab](#)" on page 132.

**Export Options:** Allows you to specify the attributes for each class when exporting the document. For further information, see chapter "[Export Options Tab](#)" on page 134.

**Restrict Classes:** Allows you to specify the classes that can be used with the document. For further information, see chapter "[Restrict Classes Tab](#):" on page 134.

**Dependencies:** Shows the dependencies between a parent document and a child document. For further information, see chapter "[The Dependencies Tab](#)" on page 135.

### **Editing Document Attributes**

Document Settings are accessed in Document View, i.e, from within an open document. See "[Opening Documents or Snapshots](#)" on page 116.

The **General** tab

#### **To edit a document's attributes in the General Tab:**

**1 Name:** Enter or modify the document name.

**2 Description:** Enter or modify the document description.

The description can be included when listing documents from the Documents Tab in Home View.

The Description is not copied when the document content is copied.

**3 Workflow:** Select or modify the selection of the workflow to be used with the document.

Selecting a workflow loads the attributes associate with the workflow. These likely include Author, Start and End Dates, Reviewer and Approver.

**4 Document Settings:**

**Export Title:** Select to use the string in the **Name** field as the document's title when exporting to Word.

**Update To Current (Tip):** If this option is selected, the document will always reflect the most recent version of requirements added with the Status of **Current**. Clearing this option ensures that all requirements in the document will not be affected by modifications made outside the document.

**Checking this box, after it has been unchecked**, will raise a confirmation dialog asking the question: *Do you want to update all existing requirements to the latest version in the document?*

**OK will change** the setting, and update every object in the document to the latest version (i.e., status Current).

**Cancel will change the setting**, leaving content unchanged.

To **manually change** the version of a requirement included in a document see: "[Exchange Requirement Version in a Document](#)" on page 153.

#### **About the Use of Update to Current (Tip):**

This setting is often checked during the requirements definition and review process, but unchecked when the document begins final review.



It might be the case, for example, that the requirements document is in review for release 2.2, while work is underway for release 3. Clearing this option will ensure that the 2.2 document will no longer reflect changes applied to ongoing release 3 work. Changes made to requirements from **inside** the open document will be reflected.

**Glossary:** If the Instance Administrator has chosen to create the Glossary Class, check this box in order to generate a glossary reflecting definitions for terms used in this document.

**Update to Parent:** Only visible if the document for which the settings are modified is a Child Document.

**When checked:** Changes made to the parent will be applied to the child document when the child is opened.

**When Unchecked:** Changes made to the parent will not be applied to the child.

**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 42). It is updated when a document is opened or reloaded.

5 Click **OK**.

## **Formatting Documents**

### **The Format Document Tab**

Document Settings are accessed in Document View, i.e. from within an open document. See "[Opening Documents or Snapshots](#)" on page 116.

#### **To specify document format:**

##### **1 Page Orientation on Export:**

**Inherit from export template:** Uses the same page orientation as specified in the publish template. If no publish template has been specified, the default (portrait) is used.

**Portrait:** Sets the page orientation to portrait.

**Landscape:** Sets the page orientation to landscape.

**Reset all chapters:** Resets the page orientation for all chapters to inherit from the previous chapter. This is necessary only if the orientation has been changed.

##### **2 Entire Document View:**

Settings available when Entire Document View has been selected.

**Standard Mode:** Chapters are shown as individual sections. Requirements are displayed as defined by **Requirement Layout** setting.

**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.

##### **3 Requirement Layout:**

**Attributes specified in the Display Options** settings are displayed/exported (see chapter "[Display Options Tab](#)" on page 132).

**Editable Grid:** Requirements are displayed in one or more tables, one table per class and one requirement per row. Requirements can be edited in place, a feature that is also available in Entire Document View.

**Grid:** Requirement are displayed in one or more tables, one table per class and one requirement per row.

Attributes specified in the **Display Options** settings are displayed/exported (see chapter "[Display Options Tab](#)" on page 132).

**Paragraph:** Requirements are displayed individually.

#### **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**.

**<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*

**<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.*

#### **Format Selected Chapter:**

Change or apply changes to the currently selected chapter "[Editing a Chapter](#)" on page 142

#### **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: **Inherit From Parent**

#### **4 Export Req. Template:**

Custom templates are define by the Instance Administrator, if defined available templates can be selected from the drop-down.

To use a custom template, the **Requirement Layout** must be **Paragraph**.

If a publish template for the requirement class exists, the layout and attributes included uses that specified in the template.

#### **5 First Chapter Number:**

In order to support documents exported in separate sections, it is possible to set the first chapter number to a starting number of your choice. The Chapter Numbers can include decimal points (e.g., 2 or 2.2).

#### **6 Document Numbering:**

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.

**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  <b>NOTE</b> There will be no requirement numbering displayed in the document, document tree, or the grid layout.

#### **If the Document Numbering is changed:**

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.

This **allows you to return** to the document as it was before the changes were made.

If you do not wish to make a snapshot, just Cancel the snapshot dialog when it is raised.

**Click the Refresh** button to see changes to numbering take effect on the work page.

## **7 Document Tree:**

By changing the these options additional counts and information will 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 with orange shading all requirements with status "Proposed" as well as chapters holding proposed objects.

8 Click **OK**.

### Display Options Tab

On the **Display Options** tab of the **Document Settings** dialog, users may specify the attributes displayed for each requirement class in the following document sections:

**Detail Pane** (Attributes to Display)

**Navigation Pane** (Attributes to Display in the Tree)

**Tooltip** (Attributes display when a user hovers over an attribute in the Navigation Pane)



**NOTE** These settings are specific to the current document. To reuse settings, new documents can be based on existing documents or saved with new names.

#### To specify document properties:

- 1 Open the document, for details see ["Opening Documents or Snapshots" on page 116](#).
- 2 Click **Document Settings** in the **Documents** group of the **Actions** pane.
- 3 Select the **Display Options** tab.

▼ ATTRIBUTES TO DISPLAY

<Follow> <Suspect History> <Hierarchy Parent> Approver Attachment Author Beta Test needed CM Requests Calculated Effort	+ + +	Title Workflow State SW Component Priority <Linked Test Cases>	+ + + ↕ + + +
---	-------------	--	---------------------------------

▼ ATTRIBUTES TO DISPLAY IN THE TREE

Object version ID Owner Planned for Release Priority Requirement Link SW Component Spent Effort Suspect Tag	+ +	Rqmt ID Title	+ +
---	--------	------------------	--------

▼ ATTRIBUTES TO DISPLAY IN THE TOOLTIP






Category Created By Current Status Dev Effort Function Initial Created By Initial Time Created Modified By Object ID	+ +	Description	+ +
--	--------	-------------	--------

4 **Choose a 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, select items from the attributes listed on the left and use the right-arrow to move them to the right (for details see chapter ["Attributes to Display List" on page 40](#)).

The icons available from the Document Display Options include the following:

	<b>Move Up:</b> Move the highlighted entry up in the display or sort order
	<b>Move Down:</b> Move the highlighted entry down in the display or sort order
	<b>Rename:</b> Provides a mechanism to rename the displayed entry; this is particularly useful when displaying attributes from linked classes.
	<b>Set Column Width:</b> Provides a mechanism to restrict the column width in pixels.
	<p><b>Filter:</b> Choose the classes to be displayed when including &lt;Links in Details&gt; or &lt;Links out Details&gt;. Highlight the &lt;Link-xxx-Details&gt; attribute selected to display, click on the Filter and, from the <b>Filter Links</b> dialog choose the target classes to be included.</p> <p>Notes:</p> <p style="padding-left: 40px;">For clarification the filtered links can be <b>Renamed</b>.</p> <p style="padding-left: 40px;">These attributes can be included in multiple sections, with alternate filters and names.</p>

## 6 Attributes to Display in the Tree:

To specify the attributes to display in the Navigation pane select items from the attributes listed on the left and use the right-arrow to move them to the right (for details see chapter ["Attributes to Display List" on page 40](#)).

## 7 Attributes to Display in the Tooltip:

To specify the attributes to display in the Navigation pane tooltips select items from the attributes listed on the left and use the right-arrow to move them to the right (for details see chapter ["Attributes to Display List" on page 40](#)).

## 8 Related Classes to Auto-Include:

Select a relationship to automatically include the linked requirements 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 Tab**

The export options allow users to specify the attributes of each class to be exported. By default, the attributes specified in **Display Options** (see "Display Options Tab" on page 132) are exported.

To modify the export Options, follow the instructions in "Display Options Tab" on page 132.

### **Restrict Classes Tab:**

The document Settings includes a tab to allow the document to be restricted to certain classes. A Functional Spec, for example, might be restricted to Functional Requirements and this setting will keep analysts from adding items from other classes by mistake.

This setting can be made, or modified at any time and will have no effect on requirements already in the document.

#### **To restrict certain classes to a document, execute these steps:**

- 1 Open the document, see "Opening Documents or Snapshots" on page 116.
- 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.


### **The Dependencies Tab**

A child document depends on a parent document. This dependency can be viewed in the **Document Settings** dialog for either, parent and child documents.

#### **To review the dependencies between parent and child documents:**

- 1 Open the Parent or Child document, see "Opening Documents or Snapshots" on page 116.
- 2 Click **Document Settings** in the **Documents** section of the **Actions** pane.
- 3 Select the **Dependencies** tab.

If the open document is a **Parent** all children will be listed, and can be opened to review data added to the child.

If the open document is a **Child**, it is possible to break the link between Child and Parent 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 42](#).



**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:

Select the cross reference.

In the HTML text formatting toolbar, open the drop-down menu of the Cross Reference button.

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"> <li><b>Accept the change</b> the second user made</li> <li><b>Accept the change</b> the first user made</li> <li><b>Accept the original value</b></li> <li><b>Combine the changes manually</b> by editing the value directly in the main part of the dialog</li> </ul>

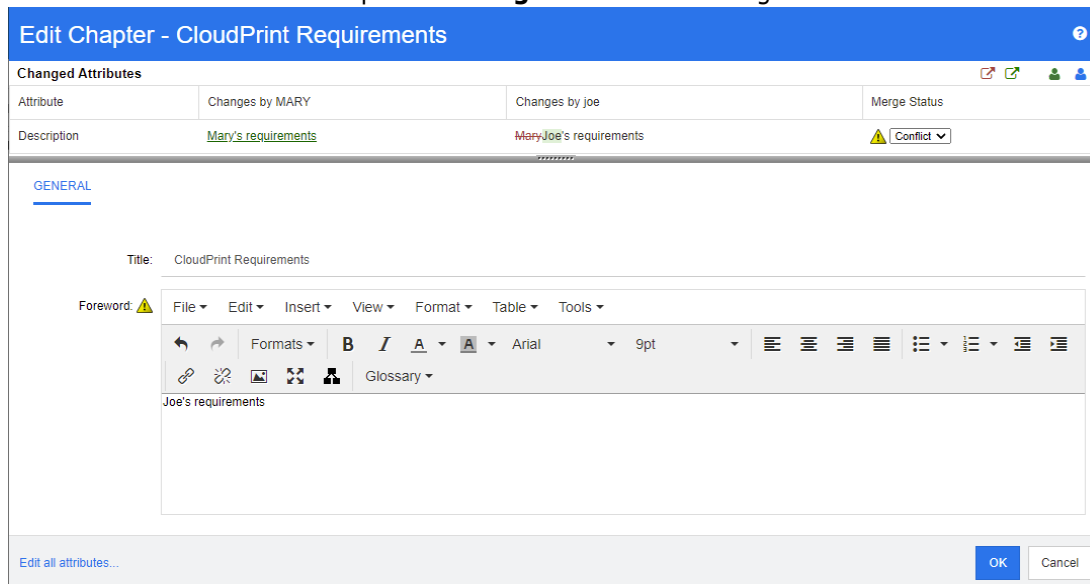
The following scenario summarizes the actions that lead to document merging.


- 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 138](#) and ["Merging the Changes" on page 138](#).



## 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

This section discusses the following:

- ["Creating a New Chapter" on page 139](#)
- ["Editing a Chapter" on page 142](#)
- ["Editing a Chapter or Requirement in Entire Document View Mode" on page 142](#)
- ["Deleting a Chapter" on page 143](#)
- ["Copying Chapters" on page 144](#)
- ["Formatting Chapters" on page 145](#)

### Creating a New Chapter

New Chapters may be created using one of several methods:

**Creating a Chapter from the Navigation Pane:** From either **Chapter Content** or **Entire Document View Modes** chapters can be created using the New Chapter button in the Navigation pane. This method provides a dialogs for defining, populating and formatting the new Chapter. For details see ["Creating a Chapter from the Navigation Pane" on page 140](#).

**Creating a Chapter from Entire Document View** a chapter can be created by clicking in an insertion point and entering title and text. For details see ["Creating a Chapter in the Entire Document View" on page 141](#)

## Creating a Chapter from the Navigation Pane

- 1 Click the **New Chapter** button in the Navigation pane. The **New Chapter** dialog opens.

- 2 In the **Title** field, type the name of the chapter.
- 3 Click in the box under the title. The HTML edit control is displayed. Type the description in the box.
- 4 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.
- 5 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 as well as the graphical representation. 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.

**Note:** Content may be modified from within the document, but do not attempt to modify the hierarchy structure once a chapter has been populated based on the Hierarchy.

- 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.

If the report returns multiple versions or non-current versions of a requirement, they will be included in the document.

- 7 Optionally select the **Automatic Refresh** option to dynamically refresh the content in the chapter when the report is updated.

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 If the chapter should be added as a subchapter to the object highlighted when the **New Chapter** button was clicked: check the **Add as subchapter** check box
- 9 Click **OK**.



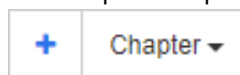
**NOTE** Any chapter created in a Parent Document, will become available in the related Child Documents immediately.

### **Creating a Chapter in the Entire Document View**

Adding a chapter to a document in Entire Document View means clicking into the intended location and adding the title and description. Additional details and formatting can be added later.

- 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 relevant entry, in this example "Chapter"



- 3 When adding a chapter below 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 save using Save  .

## 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 116](#).
- 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 42](#).
- 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 142](#). 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 116](#).
- 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 or vice versa.

### To Copy a Chapter to or From a Document

- 1 Open the document to the Document work page, if it is not already open. See ["Opening Documents or Snapshots" on page 116](#).
- 2 Select the Chapter to be copied from the Navigation Pane.
- 3 Click **Copy Chapter** in the **Documents** section of the **Actions** pane.

#### Copy Direction:

- 4 Select the Copy direction from the drop-down:
  - a **Copy to Document** - Will copy the selected chapter to a document accessible within the Instance or, when selected, into the same document.
  - b **Copy from Document** - Will allow the user to select a Chapter to be copied from a document accessible within the Instance or, when selected, a chapter from within the same document.

#### Create Options:

- 5 The following options are available in the **Create Options** section:
  - a 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.
  - b Include Requirements:
 

When **enabled**, any requirements in the selected chapter (and sub-chapters if **Include Subchapters** is enabled) will be added with the Chapter.

If **disabled**, no requirements will be added to the Chapter.
  - c **Copy Requirements:** This option is only available if **Include Requirements** is **enabled**.
 

When **enabled**, copies of the requirements in the selected chapter will be created in the target;


If **disabled**, the existing requirements will be added to the Chapter.

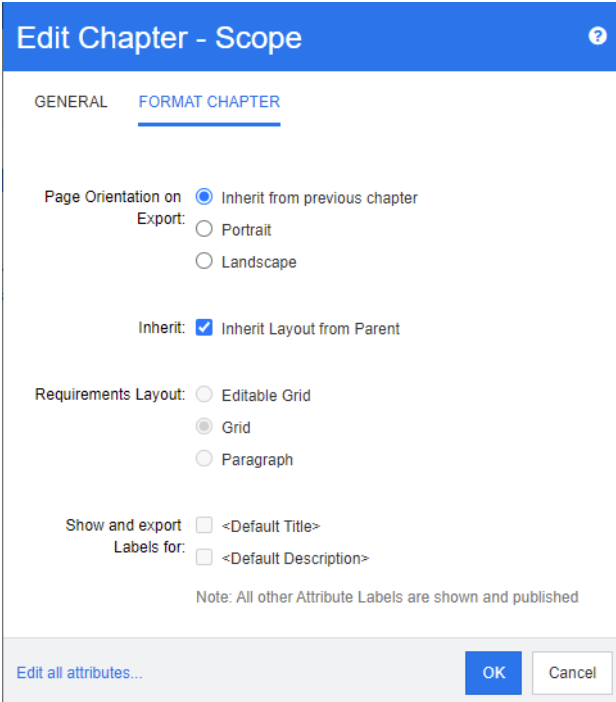
- 6 From the **Document** drop-down, select the document to be copied from or to.
  - a The list can be filtered by typing part of the document name.
  - b To open the selected document in a different tab or window, click .
  - c To select the current document, click .
- 7 Click OK.

## Formatting Chapters

For formatting the root chapter (which includes the foreword), see chapter "[Formatting Documents](#)" on page 129.

### 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 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>

Note: All other Attribute Labels are shown and published

Buttons: Edit all attributes..., OK, Cancel

- 3 **Page Orientation on Export:** The page orientation setting changes the orientation for the remainder of the document starting with the selected chapter.
  - a **Inherit from previous chapter:** Uses the same page orientation as the chapter that was exported before the selected chapter.
  - b **Portrait:** Sets the page orientation to portrait.
  - c **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:**



- 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 Tab" on page 132).
- 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 Tab" on page 132).
- 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 Tab" on page 132).



**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:**

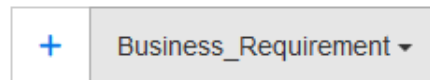
- 1 Select the chapter to which you want to add the new requirement.
- 2 Select **New** from the **Requirements** set of the Actions pane. This opens the **New** dialog.
- 3 From the **Class** box, select the class for the requirement you wish to create.
- 4 Fill out the requirement attributes as required..
- 5 Click **Save**.

## Creating a New Requirement in the Entire Document View

The **Entire Document View** allows users to create chapters in the usual way "[Creating a New Chapter](#)" on page 139. As well as using the following shortcut.

**To create a requirement, do the following:**

- 1 Move the mouse pointer at the location where the new requirement should be inserted. This will display a class selection dialog like this:



- 2 From the drop-down, select the requirement class.
- 3 Click + . This adds an empty requirement to the document.
- 4 Enter the attribute values for the requirement. Note that Mandatory attributes must be entered even if they are not included in the document display.
- 5 Click **Save** to create the requirement and add it to the document.

## Adding Requirements to a Document

Existing requirements can be added to an open document, using the **Quick Find** dialog or the **Advanced Search**.

- 1 From an open document in the Requirements set of Actions select **Add to Document**.
- 2 Click inside the search box to open the recent requirements list.
  - a If displayed, select the relevant requirement from the list.
  - b Click **Add**.
- 3 You may also enter a search string, or choose options to restrict the search to specific categories or classes. See "[Quick Find from Recent](#)" on page 49 for additional details.

If additional options are required to locate the targets of your search, use **Advanced Search** to access the full capabilities of **Find Now** (see "[Advanced Search](#)" on page 50).

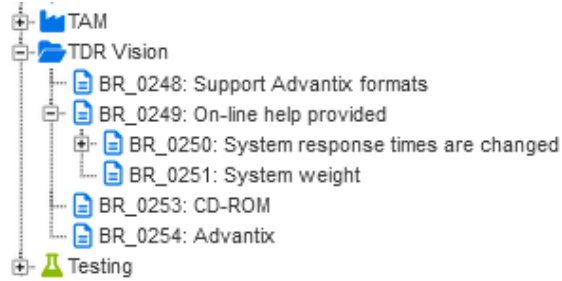


**TIP** To manually change the version of a specific requirement that is included in the document, see "[Exchange Requirement Version in a Document](#)" on page 153.

## Adding Requirements from the Hierarchy to a Document

The steps below describe a quick method when adding requirements from the hierarchy to a document. This Action requires that you are in the Home view.

- 1 Highlight the Hierarchy section to be added, in the example below, TDR Vision was selected.



- 2 From the Hierarchy section of the Actions pane, select **Add to Document**.
- 3 From the list of documents displayed in the Add to Document dialog check the target Document(s).
- 4 Click **OK**.
- 5 The requirements are added to the root node of the document. From the open document, you may highlight the segment header (TDR Vision in this example) and use the arrows to relocate it.

The addition of individual requirements in selected document locations is described in Section ["Adding Requirements to a Document" on page 147](#).

#### 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.

## Splitting Text Into Requirements

Select chapter text or multiple statements from a single requirement and use Split to convert them into a new requirement.

To convert chapter text: ["Converting Chapter Text into Requirements,"](#)

To split a requirement into multiple requirements: ["Converting Selected Text into a Requirement,"](#)

#### Converting Chapter Text 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 194.
- 7 Click **Close**.



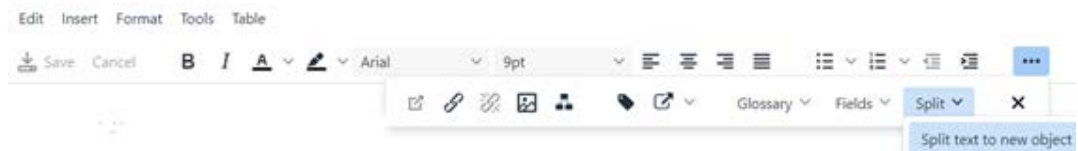
#### NOTE

- 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 Text into a Requirement

The following function is available only from **Entire Document View** mode.

If this is not your default way of working, it would still be useful to switch if there is chapter text that should be converted to requirement text, or when there are requirements comprised of multiple statements. In both cases, the requirement text can be copied and pasted into a new requirement dialog. However, a new requirement can be created *around* them using **split**:



#### To split text into a new requirement:

- 1 Highlight the text string from the free-form text within a chapter, or from the HTML enabled attribute within an existing requirement.
- 2 In the text editor of the **Entire Document View** click **Split** and select **Split text to new object** to open the dialog.
- 3 Select the targeted Class from the **New Class** drop-down.

- 4 Click **Next**.
- 5 Populate attributes and/or change the category as desired or required.
- 6 Click **Save**.
- 7 This opens the **Split Text to New Object** dialog which provides an overview of the conversion.
  - a Clicking the ID (left-side) opens the original version of the chapter link or the original requirement.
  - b Clicking the New-ID (right-side) opens the newly created requirement for editing.
- 8 After reviewing the results, 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.
- The Title of the donor requirement 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.

## Using Comments in Documents

Comments can be added to text, chapters or requirements within documents. Comments allow users to discuss topics within the context of a document, and to track their review and approval as the document is prepared for distribution.

For further information about creating and tracking comments, see chapter "[Working with Comments](#)" on page 72.

## 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 128.

### To assign an ECP:

- 1 Open the document to the Document work page, if it is not already open. See "[Opening Documents or Snapshots](#)" on page 116.

- 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 "[Mechanisms for Filtering and Finding](#)" on page 49 and "[Relationship Constraints Tab](#)" on page 56.
- 6 **Display Options:** As needed, specify how to display the results. See "[Display Options Tab](#)" on page 58.
- 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.

## Exchange Requirement Version 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 Select **Open** from below the Requirements set of the Actions Pane.
- 3 Expand the **History** section of the open requirement.

The screenshot shows a software interface with a 'HISTORY' section expanded. Below it is a 'Pedigree' table with columns for 'Time Modified', 'Object ID', 'Modified By', and 'Current Status'. The table lists three versions of a requirement, all modified by 'Ryan Forbes'. The first two versions are marked as 'Replaced', and the third is marked as 'Current (Baseline)'. There are also 'LINKS' and 'POLLS' sections visible above and below the history table.

Pedigree				Properties		
		Time Modified	Object ID	Modified By	Current Status	
			18-MAY-2006@09:17:06	33	Ryan Forbes	Replaced
			25-NOV-2014@08:23:23	51	Ryan Forbes	Replaced
			30-SEP-2015@01:54:24	67	Ryan Forbes	Current (Baseline)



The version in use by the document will not show an Exchange ( ⇄ ) icon (nor will rejected versions).

- 4 Click ⇄ of the version you want to use in the document. This opens the **Exchange Requirement** dialog.
- 5 Click **Yes** to confirm the change.

## Using Placeholders in Documents

With Document Mode set to **Entire Document View**, Placeholders can be included in chapters or requirements. Placeholders establish a location for document attributes that will be included when the document is exported. For example, the date of the most recent modification, the number of requirements contained in the document and the document owner can be listed on the title page, each time the document is exported.

### 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 " <a href="#">Specifying a Format for Date Placeholders</a> " on page 156.
Document Created By	The name of the user who created the document. The format depends on the display setting for user attributes (see chapter " <a href="#">Display Settings for User Attributes</a> " on page 87).
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 " <a href="#">Specifying a Format for Date Placeholders</a> " on page 156.
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 " <a href="#">Display Settings for User Attributes</a> " on page 87).
Document Owner	The name of the user who owns the document. The format depends on the display setting for user attributes (see chapter " <a href="#">Display Settings for User Attributes</a> " on page 87).
Document Requirement Count	The number of requirements in the document.

Placeholder	Description
Document Revision Number	The revision number of a snapshot (e.g. 1.2). 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 2.1, the major part would be 2. 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 2.1, the minor part would be 1. For documents, it is always 0.
Document Title	The name of the document
	<i>The following placeholders will only hold data if Workflow has been assigned to the document.</i>
Document Workflow	The name of the workflow assigned to the document.
Document Workflow State	The state of the document in the workflow. .
Document Workflow State Reached At	The date or date and time the document reached the current state in the workflow. For details concerning date format, see <a href="#">"Specifying a Format for Date Placeholders" on page 156</a> .
Document Workflow Transition History	For all or for a selected transition: the date or date and time the document reached the state in the workflow. For details concerning date format, see <a href="#">"Specifying a Format for Date Placeholders" on page 156</a>

### ***Adding a Placeholder to a Chapter or Requirement***

**To add a placeholder to a chapter or requirement, do the following:**

- 1** Open the Document (see chapter ["Opening Documents or Snapshots" on page 116](#)).
- 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 142](#)).
- 3** Click into the chapter description or a text attribute of a requirement that is HTML enabled.
- 4** Place the cursor on the Placeholder's target location.
- 5** From the **Fields** drop-down list, click on the desired Placeholder.
- 6** Click **Save**.

### ***Including a Placeholder in Document Headers and Footers.***

Place holders can also be used be used in Document Header and Footer files. The Header and footer files, once formatted, are placed in the Tomcat structure on the server. Placement is under the control of the Administrator, and instructions for definition can be found in the *Dimensions RM Administrator's Guide*, Section: "Defining Headers and Footers for Exported Documents".

The most efficient way to add an 'export ready' placeholder to a header or footer is to follow the steps listed in ["Adding a Placeholder to a Chapter or Requirement" on page 155](#), steps 1-5 and then to copy or cut the placeholder and copy it into the header or footer.

## 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
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

Format	Description
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"> <li>■ Accept the change the second user made</li> <li>■ Accept the change the first user made</li> <li>■ Accept the original value</li> <li>■ Combine the changes manually by editing the value directly in the main part of the dialog box.</li> </ul>

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 159](#) and ["Merging the Changes" on page 160](#).


## 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.

The screenshot shows the 'Edit Chapter - Scope' dialog box. At the top, there is a 'Changed Attributes' section with a table:

Attribute	Changes by JOE	Changes by mary	Merge Status
Description	None	This document represents a comprehensive look at the issues relevant to such a product. As such, this represents the definitive source for the problem statement. All back office <del>functions</del> operations (scanning of original input materials and so on) are beyond the scope of this document.	Automatic
Title	Document Scope	Scope of Document- <del>Scope</del>	Conflict



Below the table, the 'GENERAL' tab is selected. The 'Title' field shows 'Scope of Document' with a conflict warning icon. The 'Description' field shows the document content with a rich text editor toolbar. The 'Automatic Content' section has radio buttons for 'None' (selected), 'Based on Report', 'Embed graphical Chart', and 'Hierarchy'. At the bottom right, there are 'OK' and 'Cancel' buttons.

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**.

# Document 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 contained in the document.

The snapshot creation also saves the settings specified in the **Properties** dialog.

### To create a snapshot of a document:

- 1 Create snapshot may be initiated from an open or closed document.
  - From an open document Click **Create/View Snapshots** in the Documents set of the Actions pane.
  - From Home View, Documents tab, select a document and click **Create Snapshot** from the Document group in the Actions pane.
- 2 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.
- 9 Click the **OK** button in the **Create Snapshot** dialog.
- 10 Click the **Close** button in the **Snapshots** dialog.

See ["Working with Snapshots" on page 161](#) for additional details.

## Working with Snapshots

Snapshots can be accessed from within an open document, or a snapshot can be highlighted and accessed from the Document set of the Actions pane.

### To access a snapshot associated with an open document 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.

### To access the snapshot related to a closed document:

- 1 Select the document owned by the snapshot in the **Documents** tab of the Home page.
- 2 Expand the document to allow selection of the snapshot.
- 3 Select the desired snapshot from the list.

The usual Document Actions are also available for Snapshots, including:


- **Open:** A snapshot can be selected and opened in the Document work page.  
Once opened, document settings including the document name, description may be modified. A workflow may be assigned to a snapshot.
- **Save As:** A snapshot may be saved under a new name as a working document based entirely on the contents of the selected Snapshot.
- **Export:** The snapshot contents may be exported (see ["Exporting Documents" on page 165](#)).
- **Delete:** The snapshot may be marked as Deleted.
- **Remove:** This opens the **Remove Snapshot** dialog. Click **OK** to delete the snapshot.



## 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 contains the union of all of the chapters in the selected document(s) and/or snapshot(s). The detail pane contains a **Requirement Difference Summary**.

For related dialogs, see:

- ["Working with the Compare Document Navigation Pane"](#) on page 163
- ["Working with the Requirement Difference Summary"](#) on page 164.

## 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).


**The detail pane** contains a **Requirement Difference Summary**


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.

The attributes displayed are those defined for display in the document See ["Display Options Tab"](#) on page 132.

### Additional Notes:

**The icon that indicates requirement modification** is also shown in the grid view.

**When selecting a modified 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,

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).

For additional information concerning the difference summary see "[Working with the Requirement Difference Summary](#)" on page 164.

## 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 the following:

-  **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 165. 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 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

Dimensions RM Documents can be maintained throughout the release process and published using templates based on corporate formats. It is also possible to maintain a document with a single chapter, created because many customers enjoy working in document view.

### Run in Background:

The document export can be run in background. simply check the box at export and the export will be performed in the background while you continue to work. With this new function comes a new Action:

**Export History** Provides access to the export status.

### Docx4j Java Library:

Functionality from the docx4j Java Library, intended to support those customers unable to install Microsoft Office on corporate servers, is available for export.

Documents can be exported from Dimensions RM as

- Word Document Export (including Docx4j): ["Export as a Microsoft Word Document" on page 165.](#)
- To export as a Roundtrip Document: ["Export as a Roundtrip Document" on page 167.](#)
- To export as PDF Document: ["Export as an Adobe PDF Document" on page 168.](#)
- To export as **Excel Spreadsheet**: ["Export as a Microsoft Excel Spreadsheet" on page 168.](#)
- To export in ReqIF format: ["Export as a ReqIFZ Document" on page 169](#)

Additional Document Export Related features:

- ["Viewing Attachments in the Exported Document" on page 166](#)
- ["Copying the Export URL of a Document to the Clipboard" on page 170](#)

## Export as a Microsoft Word Document

### To export to a Microsoft Word file:

- 1 Select **Export** from the Documents group of the Actions Pane

Export may be selected when highlighting a document from the **Document Tab** on the Home View, or from an open document or snapshot

- 2 Export Document as:

**Microsoft Word Document.**

**Docx4j**

**Generate TOC page numbers:** If exporting in docx4j format, check this box if the output should include page numbers.

### 3 Run in Background:

Check this box if the export process should be run in background. This can be particularly useful when exporting large files.

When choosing to Run in Background, you may check status using the **Export History** Action from the Documents group of the Actions Pane.

### 4 Click on **Export**.

About exporting Documents in Word Format:

**The RM document name** becomes the name of the Word file.

**If the Export Title box is checked**, the RM document name appears as the title of the Word document.

**The Navigation pane** becomes the Word Document Table of Contents.

**The content and layout in the Detail pane** define the body of the Word document



#### NOTE

If Microsoft Word is **not installed** on the server, and the Word (Office) is selected Microsoft Word documents are created with file extension .doc instead of .docx. When opening a .doc file, you might receive a message informing you that this file is not in correct docx format. You can safely click **Yes** in the dialog box and the file will open in Word, then save the file in docx.



When the .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.

## 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 Tab](#)" on page 132.

The links are displayed as icons. Double-click the icon in the exported document to open the associated file.

The following illustration shows the file attachment links in an example exported in grid format:, the display is similar in paragraph format.

#	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

## 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 standard 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 Select **Export** from the Documents group of the Actions Pane

Export may be selected when highlighting a document from the **Document Tab** on the Home View, or from an open document or snapshot

- 2 Export Document as:

Select **Roundtrip Word Document (\*.docx)**.

- 3 **Run in Background:**

Check this box if the export process should be run in background. This can be particularly useful when exporting large files.

When choosing to Run in Background, you may check status using the **Export History** Action from the Documents group of the Actions Pane.

- 4 Click on **Export**.

## Export as an Adobe PDF Document



### NOTE

Attachments cannot be embedded into a 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.

**If the Export Title box is checked**, the RM document name appears as the title of the PDF document.

**The Navigation pane** becomes the PDF Document Table of Contents.

**The content and layout in the Detail pane** define the body of the document

### To export to an Adobe PDF file:

- 1 Select **Export** from the Documents group of the Actions Pane  
Export may be selected when highlighting a document from the **Document Tab** on the Home View, or from an open document or snapshot
- 2 Export Document as:  
Select **PDF Document**
- 3 **Run in Background:**  
Check this box if the export process should be run in background. This can be particularly useful when exporting large files.  
When choosing to Run in Background, you may check status using the **Export History** Action from the Documents group of the Actions Pane.
- 4 Click on **Export**.

## 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.

### To export to a Microsoft Excel file:

- 1 Select **Export** from the Documents group of the Actions Pane  
Export may be selected when highlighting a document from the **Document Tab** on the Home View, or from an open document or snapshot
- 2 **Export Document as:**  
Select **Excel Spreadsheet**
- 3 **Select Options:**

**Include images:** If selected, images are exported into the Excel file.

**Include Tables:** If selected, tables are exported in the Excel File.

**Export all displayed attributes:** If selected all attributes selected in the Attributes to Display list (see chapter "[Display Options Tab](#)" on page 132) are exported into the Excel spreadsheet. If this option is clear, only Document Section Identifier, Chapter Title, Title and Description attributes are exported into the Excel spreadsheet.

**4 Run in Background:**

Check this box if the export process should be run in background. This can be particularly useful when exporting large files.

When choosing to Run in Background, you may check status using the **Export History** Action from the Documents group of the Actions Pane.

**5** Click on **Export**.

## Export as a ReqIFZ Document

An RM document or snapshot can be exported 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.

**Attachments cannot** be embedded into a ReqIFZ document

**To export to an ReqIFZ file:**

**1** Select **Export** from the Documents group of the Actions Pane

Export may be selected when highlighting a document from the **Document Tab** on the Home View, or from an open document or snapshot

**2** Export Document as:

Select **ReqIF Document (\*.reqifz)**.

**3 DOORS Support for image export** option

Select this option to convert images for import into DOORS.

If this option is clear, images are exported in their original format.

**4 Run in Background:**

Check this box if the export process should be run in background. This can be particularly useful when exporting large files.

When choosing to Run in Background, you may check status using the **Export History** Action from the Documents group of the Actions Pane.

**5** Click on **Export**.



## 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,  
For assistance see ["Opening Documents or Snapshots" on page 116](#).
- 2 Click **Export** in the **Documents** group of the **Actions** pane.
- 3 At the **Export Document** prompt, select the export format from the drop-down.
- 4 Click **Create direct URL** to 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 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.
- 8 If Security allows, add User Name and Password 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 116](#)).
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 116](#)).
- 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.

Once the Workflow setting is confirmed, it cannot be changed.

- 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 170](#)).

**To execute a transition, do the following:**

- 1 **Open the document**

For assistance see chapter ["Opening Documents or Snapshots" on page 116](#).

- 2 Click the transition button:

The next transition is located below the **Welcome** menu in the top right corner of the open document dialog.

Depending on the Workflow definition, executing the transition may open a form for input which must be filled out to complete the transition.

## 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 116](#)).
- 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 194](#) (start with point 2 of the list) and ["Workflows" on page 186](#).





## Chapter 4

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# Working with Requirements

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# Requirement Basics

This section discusses methods for finding requirements, and using filters to help find them again.

- "Finding Requirements with Quick Search" on page 174
- "Finding Requirements using Group Attributes" on page 176
- "Using Search Filters" on page 179
- "Global Search" on page 180

## Finding Requirements with Quick Search



### NOTE

There are two implicit attributes that represent the user responsible for the **initial** creation of 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.

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 indicates the current class and attribute selection. To expand the dialog, click on the down arrow, from here you may modify the 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:

- 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.
- 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 92.

#### 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 241.

#### 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 38.



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

### ***Finding Requirements using 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**

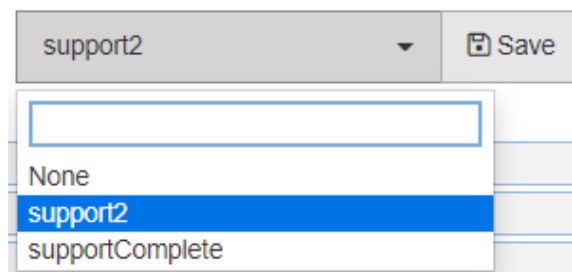
When choosing the **Not Null** operator, a requirement is added to the result list if any group attribute value has been specified.

### ***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 4-1. Filters Saved in Quick Search can be used in Document View**

## **Using Search Filters**

### **The Saved Filter list**

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.

## Saving Quick Search Results

Quick Search results can be saved to a file using **Export** from the **Actions** pane. Excel is the default, however a list of alternate formats is available for selection (see ["Exporting Requirements" on page 201](#)).

Quick Search results collected using List or Editable Grid view may also be formatted for printing using **Print to Fit**.



**NOTE** To print the Form view of a single requirement, see ["Printing a Requirement" on page 198](#).

### To print Quick Search Results:

- 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

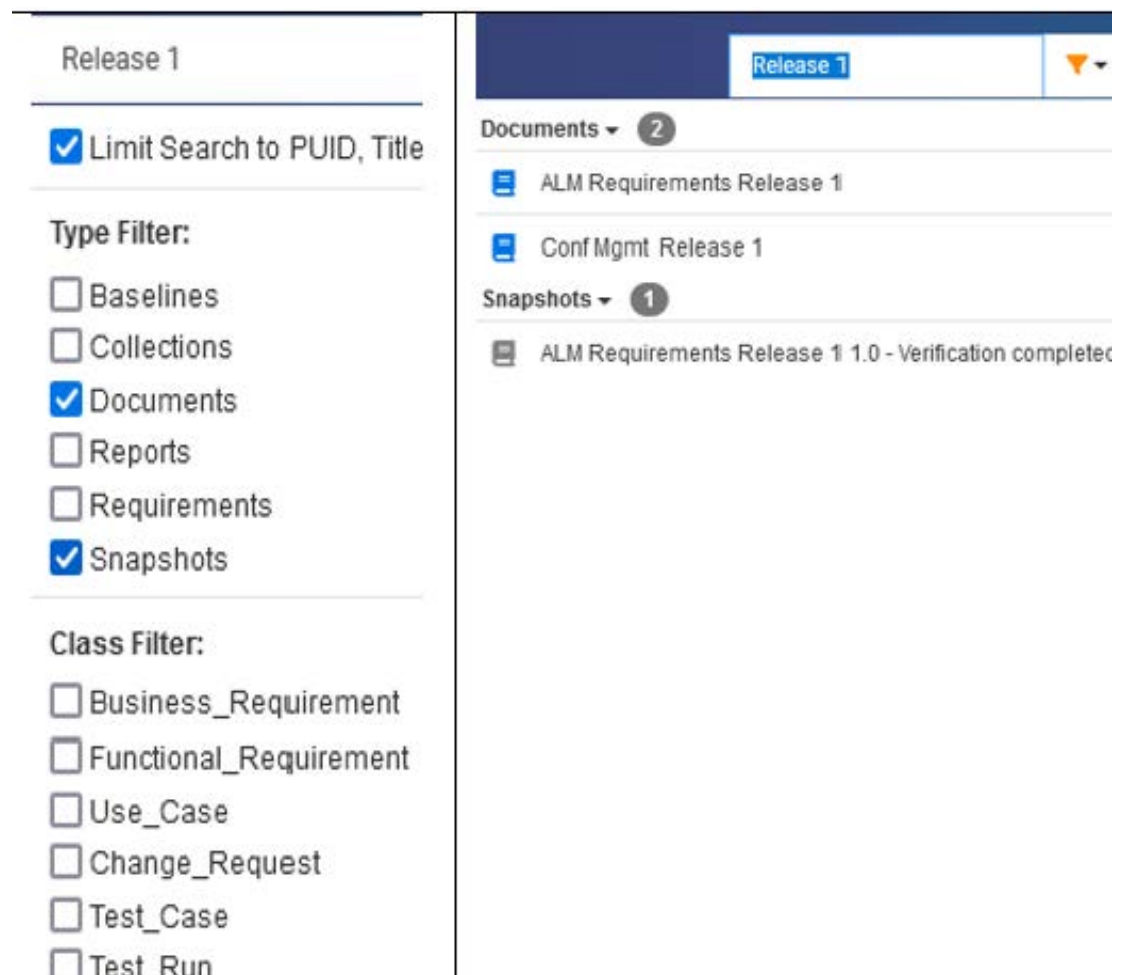
Global Search, accessible using the search icon on the menu bar, provides a facility to search for terms included in any current requirement or in the title of a document, collection or report. Are you searching for all requirements relating to the TDRO component? Or, for all documents containing the term "Verified" in the title - or "Release1"? In all such situations: use Global Search!

The dialog is accessible from the Menu Bar:



- Global Search expands with a click on the the search icon.
- Enter a search string, expand the filter to limit the search to Type (Baselines, Collections, Documents, Reports, Requirements, Snapshots) or use the Class Filter to limit the search to selected classes.

- 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.
- The search parameters, as well as the results are stored in user settings and reloaded the next time the dialog is opened.
- The result section lists matches in groups of 20, if more remain to be displayed a "Show more..." link provides access to an additional 20 items.
- 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. Long requirement lists are more easily accessed, displayed and re-filtered using Quick Search, with the Instance Name (the root) set at the top. This provides access to the full pool of requirements to which you have access.



**Figure 4-2. Global Search for 'Release 1' in Documents and Snapshots**

## Save, Update, Delete, Remove Functions

Dimensions RM allows users to define 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. Based on the permissions assigned by the Instance Administrator, not all may be visible.

- **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.

## Actions from the Dialog Title

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

The title pane, located at the top of the **Edit Attributes** dialog, provides access to a few common functions.

Action	Description
	Allows the user to <b>follow</b> (request notification of change) the object, as well as to view those users actively following the object.
	Reloads the current dialog. Reloading will (with warning) lose any changes applied, returning the requirement to its original state.
	Opens the <b>Print</b> dialog
	Opens the online help.

## Edit Attributes Using the Actions Box

The **Actions** box, a drop-down list located at the top right corner of the edit requirements dialog, lists requirement related functions. The Actions available will depend on permissions and workflow status.

**The following actions may be available:**

Action	Description
Link	Opens the <b>Link Requirements</b> dialog. For further information, see chapter <a href="#">"Create Link or Link Existing" on page 209</a> .
Create New & Link	Opens the <b>New &amp; Link</b> dialog to create a new requirement and link it with the existing requirement.
Browse Links	Opens the <b>Link Browser</b> dialog. For further information, see chapter <a href="#">"Using Link Browser" on page 224</a> .
Add Comment	Puts the requirement into <b>Add a Comment</b> mode (same as clicking <b>Start a new discussion</b> in the <b>Comments</b> section). For further information about comments, see chapter <a href="#">"Participating in Discussions" on page 256</a> .
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 <a href="#">"Submitting a Change Request" on page 200</a> .
Accept/Reject	Allows the user to review and to accept or reject a change request. For further information, see chapter <a href="#">"Reviewing a Change Request" on page 201</a> .
Add to Collection	Opens the <b>Add to Collection</b> dialog to add the current requirement to a collection. For further information about collections see chapter <a href="#">"Managing Requirements in a Collection" on page 324</a> .
Create direct URL	Opens the Requirement Link dialog containing 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 <b>Print</b> 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 <a href="#">"Viewing Information about a Class" on page 183</a> .
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 232.

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 notifications. This feature allows users to be notified, via browser or email, when selected requirements are changed.




**IMPORTANT!** The notification e-mails generated will only be sent if the Open Text 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 change notification**, highlight the desired requirement listed in a work pane and select **Follow** from the **Actions** pane.

To subscribe to change notification from the **Edit Requirements** dialog:

- 1 Highlight the desired requirement in a work pane.
- 2 Select **Open** 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 **Follow** this requirement.
- 4 Click **Follow**.


The **Follow** attribute may be selected for display wherever columns can be configured. See "[Quick Search Settings](#)" on page 92.

### Unsubscribing a Requirement Change Notification



To **unsubscribe from change notification**, highlight the desired requirement listed in a work pane and select **Unfollow** from the **Actions** pane.

To unsubscribe from change notification from the **Edit Requirements** dialog:

- 1 Selecting the desired requirement in a work pane.
- 2 Select **Open** 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 which contains the list of users subscribed to notifications 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 239](#).

This configuration is set through the Instance Settings dialog, which is available only to administrators. For further information, see chapter ["Concurrent Editing" on page 86](#).

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

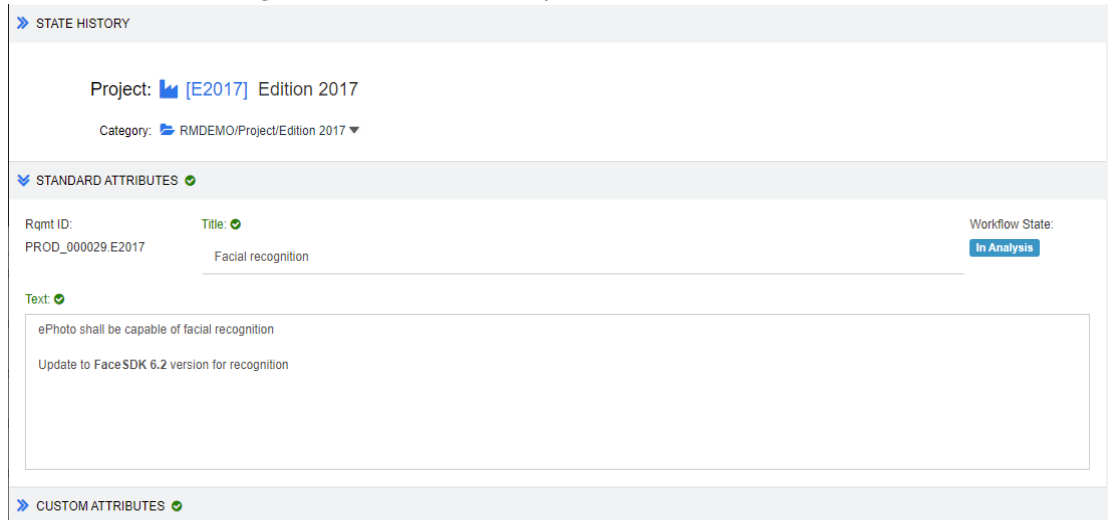
For details see ["Managing Requirement Locks" on page 422](#).

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 4-3. 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 4-4. 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.



Attribute	Prior Value	New Value
Workflow State	In Test	Completed

**Figure 4-5. 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.

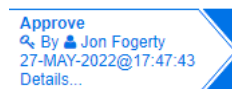
A quick transition is one that is automatically executed once all mandatory criteria have been met. For example, if a transition from Proposed to Review requires that an Analyst be assigned, the requirement may be transitioned automatically as soon as that attribute is populated.

For additional information concerning workflow elements, transition forms and settings see ["Editing Workflows" on page 483](#).

### 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.

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 4-6. 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.

For assistance if electronic signature is required: See [Transitioning Requirements with Electronic Signatures](#)

### **Transitioning Multiple Requirements to a different Workflow State**

To transition one or more requirements using Execute Transition

- 1** Select the requirement(s) to be transitioned from a document, collection or using Quick Search, see chapter "[Finding Requirements with Quick Search](#)" on page 174.
- 2** Click **Execute Transition** in the Requirements set of the Actions pane.
- 3** Select the desired transition from the **Transition** box.
- 4** Click **OK**.  
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 7](#).  
If the transition is a **regular transition**, this opens a dialog for editing the attribute values of the requirement(s). Continue with step [Step 5](#).
- 5** Populate and/or modify all mandatory attributes. Other changes may be made, however if multiple requirements are transitioned, the values input on the form will be applied to **all** requirements.
- 6** Click **OK** to start execution of the transition.
- 7** 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**

- 1** Open the requirement for editing. See "[Editing a Requirement](#)" on page 194.
- 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**

- 1** Open the requirement for editing. See "[Editing a Requirement](#)" on page 194.

## 2 Expand the **History** section of the Edit Attributes dialog.

LINKS			
HISTORY			
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
POLLS			

### 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 207.

To change the displayed or exported columns, see chapter ["Hierarchy Settings"](#) on page 93.

To add one or several requirements to one or several documents, see chapter ["Adding Requirements from the Hierarchy to a Document"](#) on page 147.

# Working with Requirements

Strictly speaking, we should not limit the discussion to requirements, as many object types are stored using RM. The object may be a change request, or a test case a comment or - a requirement.

When creating, editing, or viewing any object, it will be displayed using a form. This may be a default form, or one created by the Instance Administrator.

Displayed at the top of the form are the names of the sections found within it.

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

Clicking on a section name (e.g., Custom) limits the display to the attributes managed within that section, while choosing **All**, makes all sections available. Sections containing lists of items display the number of items contained: **Attachments, Comments, Links, History, Polls, and Containers**.

## Creating a New Requirement

In some installations, users do not have permission to create a new requirement, the process instead requires that a new requirement be proposed, see "[Proposing a New Requirement](#)" on page 193 for related instructions.

The dialog used to create a new requirement can be reached by one of the following:

**Selecting New** from the Requirements group on the **Actions** pane.

The new Action should not be used to create Agile Products, see chapter "[Adding Agile Products](#)" on page 390. To use an existing product with agile, see chapter "[Manual Product Assignment](#)" on page 391.

**Selecting Create New and Link from the Actions pane or from the Links** section of the Edit Attributes dialog.



**The form used for creation will differ depending on the selected class and local settings.**

**Class:** Select the class to which the new requirement will belong.

The available list includes all of the classes for which you have "create" or "submit" permission. If the New dialog was invoked using **Create New and Link**, the Class may not be changed in this dialog.

**Category:** Select the category to which the new requirement will belong.

**Attributes:** Complete the fields in the attributes sections, as needed.


**Mandatory 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.


**Applying HTML Formatting:** If a text attribute has been defined to accept HTML formatting, a tool bar appears when you click into the text box. For details see "[HTML Text Formatting Toolbar](#)" on page 42.

**Group Attributes:** If the form includes Group Attributes, the requirement class has been defined to include one or more group attributes. See ["Working with Group Attributes" on page 230](#).

**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.

**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 325](#), 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**.

#### Add as subrequirement:

If the **New** dialog was invoked while working within an open document or from the Hierarchy, check this box to add the new requirement as a subrequirement of a selected requirement.

If no requirement was selected, the targeted location will depend on **Chapter** or **Hierarchy Category** location and settings.

#### Close after save:

**Check this box** to close the requirement after saving it.

**Uncheck the box** to open for editing or linking after it is saved.

#### Save Buttons:

**Save:** to create the new requirement. The requirement opens for editing if the **Close after save** checkbox is not selected, see ["Editing a Requirement" on page 194](#).

**Save & Copy:** to create the new requirement, immediately open a new requirement of the same class populated with selected the attribute values.

An attribute is copied into the new requirement only if the Instance Administrator has selected the **Populate On Copy** option when defining the attribute. See ["Attribute Properties" on page 427](#).

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

## Mass Creating Requirements

Dimensions RM allows the creation of large numbers of requirements linked to a base requirement. An example of this is the creation of Test Runs from Test Cases.

Note that mass creation of requirements is only available for classes defined to 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 174.
- 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 194).
- 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 267.
- 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 194](#)).

- 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 230](#).
  - **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 42](#).
- 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 223 and "[Container Properties](#)" on page 228.

## Editing a Requirement



### TIPS

**The Actions pane** or panel is displayed on the right wherever you find yourself in RM; this list provides access to functions relevant to your location.

**An additional set of Actions** is listed at the top right of the all class related dialogs. For further information, see chapter "[Edit Attributes Using the Actions Box](#)" on page 182.

Each object managed in RM, whether a requirement, test case, glossary or information object can be selected and opened using the **Open** action from the **Actions** Pane.

**Authorized users** may modify attributes within the form and save their changes to create a new version of the object, with change details referencing the user introducing the changes.

The edit dialogs are segmented, by attribute groups, segment titles may be modified by the Instance Administrator. Each segment name is listed across the top of the form for easy selection and expansion.

Each new object, when opened, will expand the segment last selected.

**All** - This segment, when selected, makes **all** segments available.

Some typical section names include:

**State History** - If using Workflow, shows the progression

**Standard or Main** - Displays Title, Description, Requirement ID, Category,

**Custom or Details Section** - Properties determined by the organization to be relevant to the class, e.g., priority, target release, estimated effort, design status, or reviewer.

**System Attributes** - Implicit attributes defined and maintained within RM maintaining, for example, who created or modified a requirement, what was added or modified, and when.



**Segments with Content Counts** - The remaining segments list attachments, comments, links, history and containers; these segments display number of entries when populated.

**The edit attributes, Select and/or Expand the section to be modified.**

**Category:** Listed, by default, in the **Main** or **Details** Section or accessible by selecting **All**.

Click the arrow next to the category to save the requirement in a different category.

**Attributes:** Complete updates in the attributes sections, as needed.

**Mandatory Attributes** that are incomplete or incorrect are flagged with a red exclamation mark (  ). A green check mark (  ) indicates that the attribute has been populated correctly.

**Tips** concerning expected or acceptable values may be displayed when the user hovers over the attribute's exclamation mark or check mark.

**List Attributes:** If an entry in a list appears to be grayed out, this entry has been deleted and cannot be selected - although it can still be used in a search.

**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 230](#).

**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 lists 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 42](#).

**File Attachments:** To attach a file to, or remove a file from, the requirement, expand this section. See ["Working with File Attachments" on page 229](#).

**Comments:** To view comments associated with the requirement or participate in or start a discussion, expand this section. See ["Participating in Discussions" on page 256](#).

**Containers:** To add/remove the requirement to/from a collection or document, expand the Container section. See chapter ["The Containers Section" on page 226](#).

**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 207](#).

**Link Attributes:** The **Link Attributes** section is only visible if the Link Attributes have been defined as part of the process, see ["Editing Link Attributes" on page 218](#).

**Dimensions CM:** If the implementation has been integrated with Dimensions CM, this section displays Dimensions CM projects and requests associated with the requirement.

**History:** This section displays information such as the date and time the requirement was modified, who modified it, and its status.

**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 252](#).

**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.

**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.

**Clickable Buttons** shown at the bottom of the modified requirement will depend on process, and permissions. The following may be available.

**Copy** - Create a new object of the same class pre-populated with attributes designated as [Populate on Copy](#). See "[Copying a Requirement](#)" on page 196.

**Copy with Links** - As above, but includes with the copy all current links.

**Close** - Close the dialog. If there are unsaved changes a warning is raised.

**Update** - Changes are saved 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 - Changes** are saved as a new version of the requirement. If no changes were made, the requirement cannot be saved; changes to links are immediate.

Depending on your configuration, replacing a requirement may trigger the **Clear Suspect for** dialog (see "[Clearing Suspect Links When Replacing a Requirement](#)" on page 221).

**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.



#### 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 34.

## Copying a Requirement

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

The **Copy** function is available for selection from the Actions pane in almost any view or context. Objects from any class can be copied.

Note that an attribute is copied into the new requirement only if the Instance Administrator has selected the **Populate On Copy** option when defining the attribute. See "[Attribute Properties](#)" on page 427.

The following options are available

**Copy with Links** - a checkbox to include all links from the source with the newly created object(s). This is useful when copying, for example, similar functional requirements elicited from the same upstream requirement(s).

**Copy with Containers** - a checkbox to include the newly created objects in **collections** and **documents** in which the source is a member.

**Collections** - a checkbox to include, or exclude, the newly created object(s) in the collections in which the source is a member.

**Documents** - a checkbox to include, or exclude, the newly created object(s) in the documents in which the source is a member

## 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 and linked to the original. The history, including the locked parent, is displayed in the **Pedigree View** (see chapter "Using Pedigree View" on page 237).

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

### 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**.

## 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, although the data as well as the object history is retained. When the requirement is undeleted, a new version replaces the previous version to ensure that the audit trail includes the requirement's deletion.

**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. Its use is only recommended if the requirement was created in error.


**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 **Open** from the Requirements set of the Actions pane.
- 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 it with the wrong class. **Using the Change Class** function changes the class of a requirement while recording the change in the requirement's history, which may be important for audit trails.

When Changing the Class:

**The corresponding Title and Text attributes** (the names depend on the related classes) are transferred automatically.

**Depending on the Dimensions RM configuration**, the linked requirements may become suspect.

#### To change the class of a requirement:

##### 1 Select one or several requirements

Selection may be made from any requirements list.

##### 2 Click **Change Class** in the **Requirements** set of the **Actions** pane.

##### 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 Populate attributes and/or change the category as desired or required.

##### 6 Click **Save**.

Save opens the **Changed** dialog which presents an overview of the changed requirements.

**Click the left ID link** (the name depends on the original class) of a requirement, to open the original version.

**Click the New ID** to open the new requirement for additional editing. For further information about editing requirements, see chapter "[Editing a Requirement](#)" on page 194.

**If the Workflow feature is enabled** for the target class: After class conversion, the requirement can be transitioned into the State following the **New** transition or it may be **Rejected**.

##### 7 Click **Close**.

## 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

The Change Request within Dimensions RM refers to the *proposal* to apply a change to a selected requirement. This section refers to those organizations that use the Actions:


**Propose Change** to Propose a change to an existing requirement. Propose change has, historically, been referred to as submitting a change request.

**Propose New** to propose a new requirement, see ["Proposing a New Requirement" on page 193](#).

In many organizations, users are not allowed to change a requirement, but only to propose a change while review and acceptance of the proposed change is left to the team leads.

Change proposals are also used when the requirement gathering process is nearly completed and a stricter review process is in place.

### 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.
- 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** When submitting a change request, links and containers are inherited. For further information see chapters ["Inherited Links" on page 223](#) and ["Container Properties" on page 228](#).



## 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 136.


- 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

Everything managed within RM can be Exported and, depending on selected output format, the processes for exporting is similar. The following offer some unique formats and options:

- **Documents** and **Snapshots** offer some unique output formats and options, for details see "[Exporting Documents](#)" on page 165.
- **Dashboards** can be exported to PowerPoint or PDF (see "[Exporting a Dashboard](#)" on page 277).
- For exporting requirements from the **Hierarchy View**, see chapter "[Exporting Requirements in the Hierarchy View](#)" on page 207.

- 1 To Export a **Report**
  - a Open the Home View by clicking , and select a report from the Report tab.
  - b Select **Run** from the **Reports** set of the Actions pane.
  - c Click **Export** from the **Reports** set of the Actions pane.
  - d From the **Export as** box, select the target format.
  - e Go to [Step 3](#).
- 2 To Export a Collection or Baseline:
  - a Open the Home View by clicking , and select a Collection or Baseline from their respective tabs.
  - b Click **Export** from the **Collection or Baseline** set of the Actions pane.
  - c From the **Export as** box, select the target format.
- 3 Based on the format, proceed as follows:
  - To export as **Excel Spreadsheet**: ["Export as a Microsoft Excel Spreadsheet" on page 202](#)
  - To export as **Word Document**: ["Export as a Microsoft Word Document" on page 203](#).
  - To export as **PDF Document**: ["Export as an Adobe PDF Document" on page 203](#).
  - To export as **XML Document**: ["Export as an XML Document" on page 203](#).
  - To export as a **Web Page**: ["Export as a Web Page" on page 206](#).
  - To export as **CSV (Comma Delimited)**: ["Export as a CSV File" on page 206](#).
  - To export as **Plain Text or Plain Text (Table)**: ["Export as a Plain Text or Plain Text Table File" on page 206](#).

## Export as a Microsoft Excel Spreadsheet

To export any requirement set after selecting **Excel Spreadsheet** (\*.xlsx).

- 1 Select any of the following options:
  - a **Include images**: If selected, images are exported into the Excel file. Many Images cannot be exported into a cell, if you cannot paste a selected image into a cell, RM will also be unable to export the image.  
  
We recommend that objects containing images be exported as part of a document using Microsoft Word.
  - b **Include Tables**: If selected, requirement could span more than a single row in excel. If not selected, the Caption is included; if there is no caption, then 'Table' with the first table entry.
  - c **Include the script**: If selected, the script used to query the requirements is included in the Excel spreadsheet.
- 2 Click **Export**

---

## Export as a Microsoft Word Document

### Word on the Server:

Microsoft Word is required on the Dimensions RM Server to generate DOCX or PDF files. If Word is not installed on the server, a .doc file is created. 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.

**To export any requirement set** after selecting **Word Document (\*.docx)**.

- 1 Select Page Orientation:
  - a Portrait (default)
  - b Landscape
- 2 Click **Export**.

## Export as an Adobe PDF Document

### Word on the Server:

Microsoft Word is required on the Dimensions RM Server to generate PDF files.

Functionality from the docx4j Java Library, considered Beta, is included with Dimensions RM in support of those customers unable to install Microsoft Office on corporate servers. This functionality can be used to export requirements from Document View. See "[Exporting Documents](#)" on page 165.

**To export any requirement set** after selecting **PDF Document**.

- 1 Select Page Orientation:
  - a Portrait (default)
  - b Landscape
- 2 Click **Export**.

## Export as an XML Document

**To export any requirement set** after selecting **PDF Document**.

- 1 **Encode:** To Include images and formatting (e.g., text colors, text alignment, Check the box.
- 2 Click **Export**.

### ***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="SPRINTS" user="EPHOTO"
3 -   xmlns="http://schemas.serena.com/rqm/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 -   </attribute>
33 - </requirement>
34 - <LINK name="Marketing_Requirements_CHANGE">
35 - <requirement class="MARKETING_REQUIREMENTS" id="8" version="1"
36 -   puid="MRKT_000001">
37 -   <attribute id="PUID">MRKT_000001</attribute>
38 -   <attribute id="TEXT">
39 -     shall look and feel just like an electronic photo album.
40 -   </attribute>
41 - </requirement>
42 - <LINK name="Marketing_Requirements_CHANGE">
43 - <requirement class="MARKETING_REQUIREMENTS" id="8" version="1"
44 -   puid="MRKT_000001">
45 -   <attribute id="PUID">MRKT_000001</attribute>
46 -   <attribute id="TEXT">
47 -     The ePhoto system shall enable the user to browse an on-line photo
48 -     album. It shall look and feel just like an electronic photo album, just
49 -     like the one on the coffee table.
50 -   </attribute>
51 - </requirement>
52 - <requirement class="MARKETING_REQUIREMENTS" id="42" version="1"
53 -   puid="MRKT_000001">
54 -   <attribute id="PUID">MRKT_000001</attribute>
55 -   <attribute id="TEXT">
56 -     The ePhoto system shall enable the user to browse an on-line photo
57 -     album. It shall look and feel just like an electronic photo album, just
58 -     like the one on the coffee table.
59 -   </attribute>
60 - </requirement>
61 - </LINK>
62 - </requirement>
63 - <requirement class="MARKETING_REQUIREMENTS" id="2" version="1"
64 -   puid="MRKT_000002">
65 -   <attribute id="PUID">MRKT_000002</attribute>
66 -   <attribute id="TEXT">
67 -     shall look and feel just like an electronic photo album.
68 -   </attribute>
69 - </requirement>

```

```

</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. <b>NOTE:</b> 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.

Key	Description
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 any requirement set after selecting **Web Page**.

Please just Click **Export**.

## Export as a CSV File

To export any requirement set after selecting **CSV (Comma delimited)**.

Please just Click **Export**.

There are special considerations when exporting *Test Case* or *Test Run* requirements (as defined for "[Test Management](#)" on page 363) to CSV format:

- 1 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)
- 2 The Test Step number will not be exported.
- 3 If the intention when exporting to CSV is to re-import the exported file, you must include the ID column PUID or Object ID.

## Export as a Plain Text or Plain Text Table File

To export any requirement set after selecting **Plain Text (\*.txt)** or **Plain Text Table**

Please just Click **Export**.

## 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.



**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.

### 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**.

## Working with Links

Links provide traceability, the breakdown and 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 provide Quick Search filtering to simplify linking.

From an open **Document** where Actions such as Create New, Link & Add to Document are available.

**Split View** and **Document Split View** provide Quick Search filtering to support drag and drop linking.










The **Relationship** matrix provides one click linking

**Link Browser** displays relationships as well as providing a facility for building new ones.






The default behavior is to create a link between current versions of requirements, rather than specific requirement versions. A link joining a business with one or more functional requirements will hold, even if all involved are modified, because the link is transferred to

the child. A 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 are defined as follows:

	<b>Browse Links:</b> Opens the Link Browser dialog. For details, see chapter <a href="#">"Using Link Browser" on page 224</a> .
	<b>Suspect History:</b> Opens the Suspect History dialog. For details, see chapter <a href="#">"Using the Suspect History" on page 222</a> .
	<b>Expand:</b> Expands all link sections. This function is not available once a user has shifted to Quick View.
	<b>Collapse:</b> Collapses all link sections. This function is not available when using Quick View.
	<b>Quick View:</b> 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.
	<b>Extended View:</b> 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.
	<b>Properties:</b> Opens the <i>Link Properties</i> dialog. For details, see <a href="#">"Link Properties" on page 218</a> .
	<b>Clear all suspicious links:</b> Clears all suspicious links. For details, see chapter <a href="#">"Clearing Suspect Links" on page 221</a> .
	<b>Link Existing:</b> Opens the <i>Link Requirements</i> dialog to allow users to link the current requirement to an existing requirement. See <a href="#">"Create Link or Link Existing" on page 209</a> .
	<b>Create New &amp; Link:</b> This function is useful when breaking a single requirement into multiple related requirements, for example, a Business Requirement into multiple Functional requirements. See <a href="#">"Creating a new Requirement and Linking to it" on page 215</a> . Opens a dialog to select the relationship to be created, if there are multiple relationships possible, before opening the New requirement dialog. The newly created requirement will be linked and, if you choose <b>Save &amp; Copy</b> , the next requirement will also be linked to the originally selected requirement.
	<b>Propose New &amp; Link:</b> 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.
	<b>Edit Link Attributes:</b> Opens the <i>Edit Link Attributes</i> dialog that allows you to view and modify custom attributes for a link. For details, see chapter <a href="#">"Editing Link Attributes" on page 218</a> .



	<b>Delete Link:</b> 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.
	<b>Remove Link:</b> 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.  <b>CAUTION!</b> You cannot restore a removed link.
	<b>Undelete Link:</b> 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 " <a href="#">Link Properties</a> " on page 218.
	<b>Raise Suspicion:</b> 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 " <a href="#">Suspect Links</a> " on page 219.
	<b>Resolve Suspicion:</b> 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 " <a href="#">Suspect Links</a> " on page 219.


## Create Link or Link Existing

### Features Include:

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

- Quick display of recently accessed requirements
- Display Deleted Links for relinking, if selected in [Link Properties](#).
- An option to include text to filter the recent list
- Use the **Options** dialog to:
  - Limit the search** to Rqmt ID (PUID), Title or Description
  - Choose a related class**, if multiple class relationships exist
  - Filter by** category
- Access **Advanced Search** dialog to expand access to the full range of the **Find Now** dialog

### To link a selected requirement to Existing Requirements:

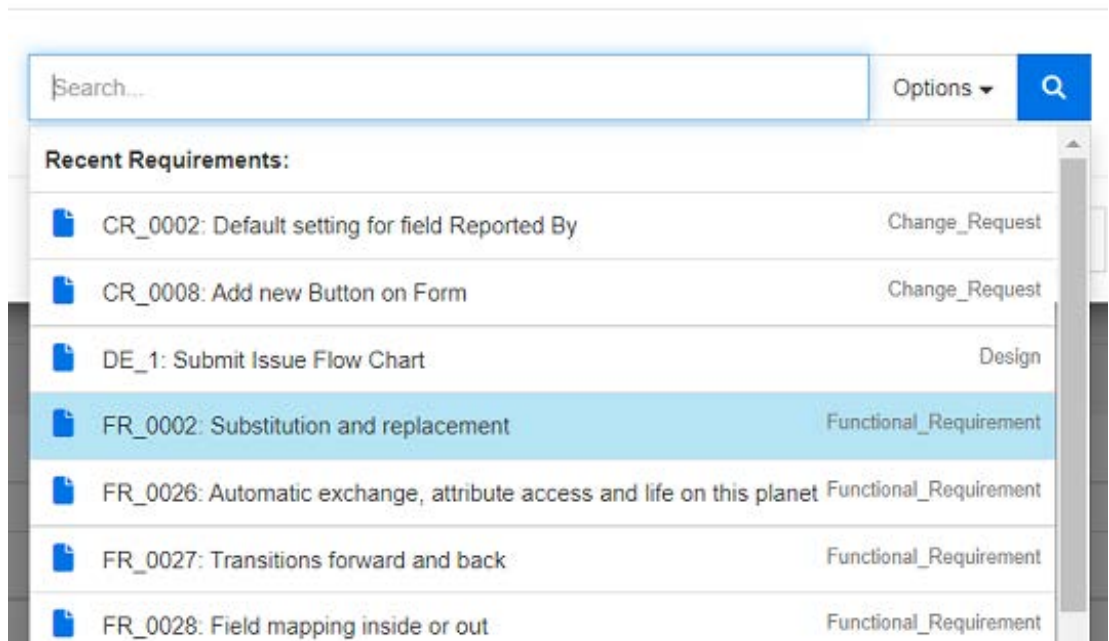
- 1** From any requirement list, highlight one or more listed requirements  
Select the **Create Link** action from the Requirements set of the Actions pane.
- 2** Or from within the Edit Attributes dialog for a requirement.
  - a** Expand the **Links** section.
  - b** Click  , to opens the *Link Existing Requirements* dialog.
- 3** To display the list of recently accessed requirements (as shown below):
  - a** Click into the search box

- b If displayed**, select the relevant requirement from the list, otherwise go to [Limiting the Search](#).
- c Click Add.**

If the link is to be added between two requirements belonging to separate classes, your task is complete you can close the dialog or select **Link More** add additional links.


However, if the relationship is cyclic (e.g., Functional to Functional) you will be asked another question. See "[Creating a Cyclic Link](#)" on page 211.

Link Business\_Requirement: BR\_0052



**Figure 4-7.** Click into the 'Search' box to force the display of recently accessed requirements or type a search string.

### Limiting the Search

If the list is long, or the target of your search has not been located continue with the following, Click the search  at any time to refresh the display.

**4** Enter a search string to filter the list displayed.

**5** Click **Options** to apply additional filters:

**Limit** the search string to PUID, Title or Description.

**Class Filter:** If the selected requirement contains relationships to multiple classes, select the **Class** of the requirement you are searching for.

**Category Filter:** Select the category or categories to be searched, use **ctrl+click** to select multiples.

**6** If the object of your search has been located:

Select and Click **Add**.

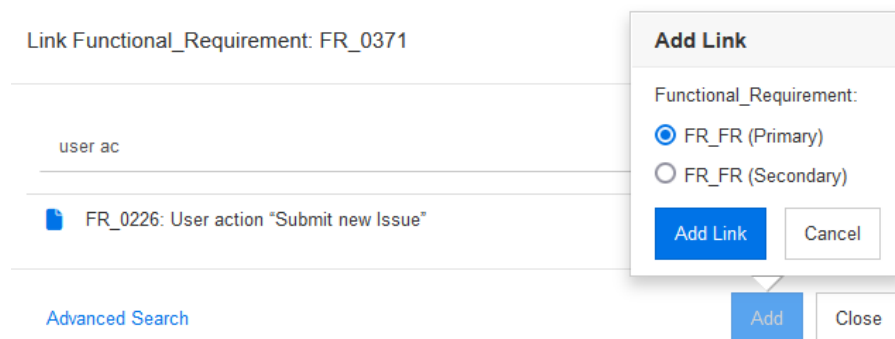
Use **Link More** to return to the list.

To expand your search to the full range of the Instance, use **Advanced Search "Link Using Advanced Search Mode"** on page 211.

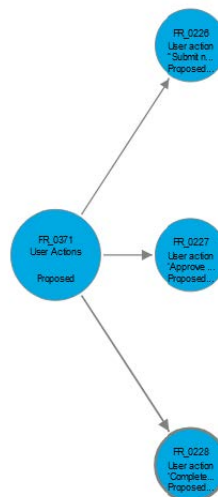
### Creating a Cyclic Link

Cyclic relationships (see "cyclic relationship" on page 531) are generally created in order to break a single requirement into related subrequirements. To link two requirements from the same class using link existing, we need to know which is Primary and which Secondary.

The decision: If the requirement you are linking from (FR\_0371 in the example below) should be Primary, to the the requirement selected - choose Primary. If the requirement you are linking from should be secondary (a subrequirement) to the one selected to link to (FR\_0226 in the example below) choose Secondary.





When applying cyclic links, i.e., breaking a requirement into related subrequirements the link browser from, in this example, FR\_0371 will look like this:



### Link Using Advanced Search Mode

- 1 Click **Advanced Search**.

- 2 **Constraints:** As needed, specify criteria to locate the desired requirements. See ["Attribute Constraints Tab" on page 51](#) and ["Relationship Constraints Tab" on page 56](#).
- 3 **Display Options:** As needed, specify how to display the results. See ["Display Options Tab" on page 58](#).
- 4 **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 218](#)).
  - c Click **Save**.
- 5 **Remember these options:** Select this checkbox to retain the current settings as the default for future invocations of the dialog.
- 6 **Filters:** If you saved filters in Quick Search, you can use these filters to search for the requirement you wish to link to.
- 7 **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

- 8 **New Search:** Click this button to clear the current search criteria and results.
- 9 Select one or use **ctrl+click** to select multiples
- 10 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.

In a typical setup, an upstream requirement class is selected on the left side of the split, and a related downstream class is selected on the right (e.g. Functional --> Test Case), however, there is not rule. Split View and Document Split View may be used to directly link requirements from one class to another; they will be linked in the direction of the relationship line in the schema.

Using the filtering of Quick Search (see ["Finding Requirements with Quick Search" on page 174](#)) requirements list can be filtered on both sides of the Split View dialog. Linking using drag-and-drop is available to drag requirements from one side to the other to leave them linked.

The class listed on the right side, typically the downstream class, provides an extended list of functionality, including clickable icons to link selected requirements.

## To use Split View for linking, follow these steps:

See [Document Split View](#), for instructions using Document Split View.

- 1 In the menu bar, under Views, select **Split View**
- 2 The Quick Search window is split into two dialogs.

A class is selected on the left side, while the remaining dialog a list of related classes to be selected on the right.

Category	Design ID	Title	Modified By	Time Modified
RMDemo	DESIGN_000001	ePhoto Actions	Ryan For...	31-AUG-2016@01:24:44
RMDemo	DESIGN_000002	Photo upload	Ryan For...	31-AUG-2016@01:19:30
RMDemo	DESIGN_000003	Photo uploader DB Connection	Ryan For...	31-AUG-2016@01:20:16
RMDemo/Tools/CloData	DESIGN_000004	CloudData Flow	Ryan For...	18-AUG-2017@02:50:21

Reqmt ID	Title	Links In	Links Out	Time Modified
COMP_000001	Utilize ToolTk	1	2	23-FEB-2021@07:11:34
COMP_000002	Application settings will be saved	1	1	19-FEB-2018@15:50:58
COMP_000003	Default window size 140:100	1	1	19-FEB-2018@15:51:18
COMP_000004	Images can be expanded to full size	1	2	19-FEB-2018@15:54:39
COMP_000005	Last 5 images will be remembered	1	3	28-JUL-2020@06:08:14
COMP_000006	Multiline text annotations	1	2	19-FEB-2018@15:55:06
COMP_000007	Cut and paste text	1	1	19-FEB-2018@15:55:42
COMP_000008	Search and replace supported	1	1	19-FEB-2018@15:55:53
COMP_000009	DB supports Create, Read, Update, Delete	1	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	1	2	19-FEB-2018@17:15:34
COMP_000012	Accl based database	1	2	30-SEP-2015@01:41:47
COMP_000013	At least 1024 entries stored	1	1	30-SEP-2015@01:41:47
COMP_000014	Name of DB unique	1	1	19-FEB-2018@15:57:16
COMP_000015	Each user has own DB	1	1	18-AUG-2017@01:11:12
COMP_000016	DB's installed in central location.	1	1	19-FEB-2018@15:57:36
COMP_000017	Windows Desktop used	2	1	19-FEB-2018@15:57:50
COMP_000018	Launched from Windows 'Start'	2	1	19-FEB-2018@15:58:02
COMP_000019	GUI complies with Presentation Manager style guide	1	1	19-FEB-2018@15:58:17
COMP_000020	Minimum VGA supported	1	1	28-JUL-2020@06:15:11
COMP_000021	Will run on 300 MHz Celeron with 32 megs ram	1	1	30-SEP-2015@01:41:48
COMP_000022	Installed software less than 5 megs	0	1	18-AUG-2017@01:12:58

**Figure 4-8. Quick Search in Split View mode**

The Class Selection may include any Quick Search option, including limiting the requirements to the contents of a container.

The right Quick Search window provides the full set of Requirement Actions, in addition to the following:



### Create Link:

Highlight one or more requirements on the left, and one or more requirements on the right and click the Create Link icon to create links.

It is also possible to drag a requirements from one side to the other to link two requirements.



### Delete Link: Deletes an existing link between selected requirements.



**Remove Link:** Permanently removes the links between one or several requirements selected from the left and requirements to which they are linked on the right.



You cannot restore a removed link.



**Undelete Link:** Undeletes deleted links a requirement selected from the left and previously linked requirements selected on the right.  
To list deleted links see [Show: Filters the listed requirements](#).

**Relationship:** Shows all relationships between the two selected classes.

**Show:** Filters the listed requirements.

**All:** Lists all requirements.

**Linked:** Select a requirement on the left, and view the linked requirements on the right.

**Not Linked:** Select a requirement on the left to list 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.



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

Requirement ID

Title

Owner

Last modification date

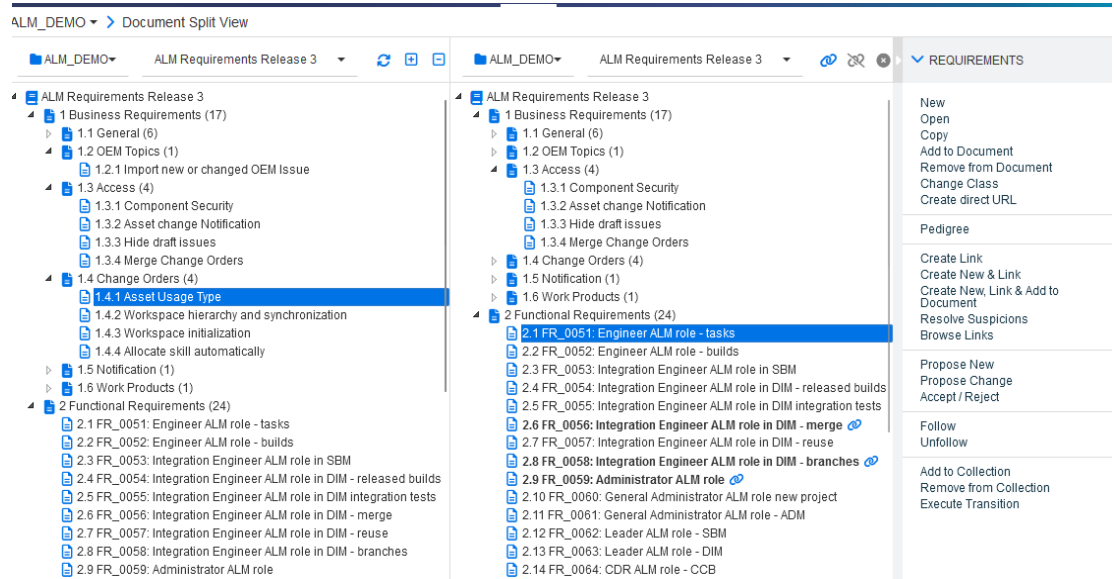
Number of links



### Document Split View

For those more comfortable viewing requirements from document structure, **Document Split View** is available.

The two sides of the split can be populated with the same document to facilitate linking between the the document classes or two different documents may be selected to link requirements from, for example, a design document, with their functional breakdown.



**Figure 4-9. Select an object on the left and see the link icons on the right.**

In Document Split View, the right Quick Search window provides these additional functions:



#### **Create Link:**

Highlight one or more requirements on the left, and one or more requirements on the right and click the Create Link icon to create links.

It is also possible to drag a requirements from DIM on one side to the other to link two requirements.



**Delete Link:** Deletes the links between selected requirements.



**Remove Link:** Permanently removes the links between selected requirements.



You cannot restore a removed link.



**Undelete Link:** Restores previously deleted links.



**Refresh** the dialog on the right.




**Expand all Chapters** in the document.



**Collapse all Chapters** in the document.

## 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**. The **New** dialog is opened, with indications at the bottom that once saved, the new requirement will be linked to the one selected.
  - c** Populate and Save the new requirement.
- 2** **Or** from within a requirement opened for editing:
  - a** Expand the Links section.
  - b** Expand the class containing the requirement to which you want to link.
  - c** Select the requirement.
  - d** Click  to open the **Create New & Link** dialog.
  - e** Select the class in which you want to create the new requirement.
  - f** Select **Next**.
  - g** The **New** dialog is opened, with indications at the bottom that once saved, the requirement will be linked to the one selected.
  - h** Click on **Save**, or use **Save & Copy** or **Save & New** to create additional requirements also linked to the parent.



**NOTE** If configured by the administrator, the identically named attribute values from the source will 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** Select **Open** from the requirements set of the actions pane.
- 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 Highlight an object and select **Open** from the requirements set of the actions pane.
- 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 218.

### To restore a deleted link:

- 1 Highlight the object and select **Open** from the requirements set of the actions pane.
- 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.

▲ Functional\_Requirement: FR\_0026



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 219 or "[Clearing Suspect Links](#)" on page 221.

## Link Properties

In the links section of the **Edit Attributes** the **Properties** dialog can be used to select or modify the attributes displayed for all classes listed using **Quick View**, or for individual classes using the more detailed **Extended View**. The sorting order in both can be modified.

**Attributes To Display:** To specify the attributes to display, see chapter "[Attributes to Display List](#)" on page 40.

**Sorting Order:** To specify the sort order, see chapter "[Sorting Order List](#)" on page 41.

In addition to the display, the following changes can be made to all classes listed:

**Include all requirement versions:** List not just the currently linked version, but ALL versions of the linked requirement. When checking this box, the user will be prompted to include Current Status and the Object Version ID, in order to understand the individual versions listed.

**Note:** This is useful information for checking version history, but we don't recommend leaving this box checked. For products with long histories, the list can be extensive.

**Show link creation information:** If checked, the list includes the date and time the link was created.

**Show deleted links:** If checked, deleted links, displayed in italics, will be included on this list and will also be available to other actions such as **Link Existing** for ease of relinking.



### NOTE

To modify default Properties for all users of the instance, an **Administrator** can click the button (bottom left) **Set as Instance Settings**. This will make the selected settings the default for all users, until they introduce their own settings.

## Editing Link Attributes

Link attributes can be used when additional information relating to link objects is needed. For example, if the team is creating test cases for multiple customers, they may consider one of several possibilities:

They might define a **List Attribute** within each test case class to identify the customer(s) for whom the test is relevant,


or

They might define the List Attribute on the link itself.

**Link attributes can be edited:**

- When creating a link on an existing requirement (see chapter ["Create Link or Link Existing" on page 209](#));
- When creating a link on a new requirement (see chapter ["Creating a new Requirement and Linking to it" on page 215](#));
- When creating a link on a new change request (see chapter ["Proposing a new Requirement and Linking to it" on page 216](#));




#### To edit link attributes on an existing link:

- 1 Highlight the object and select **Open** from the requirements set of the actions pane.
- 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**.

## Suspect Links

**Suspect** is a system attribute maintained in every class; it is either TRUE or False. When establishing relationships between classes, the Instance Administrator can choose to raise suspicion (i.e, set the Suspect attribute to TRUE) when certain attributes in linked requirements are changed. The team must review the Suspect requirement to identify the possible impact of the change.

Suspicion may be limited to the impact of upstream changes or limited to changes in specific attributes, for example, title or description.




	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,
	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.
	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.

#### When is suspicion raised:

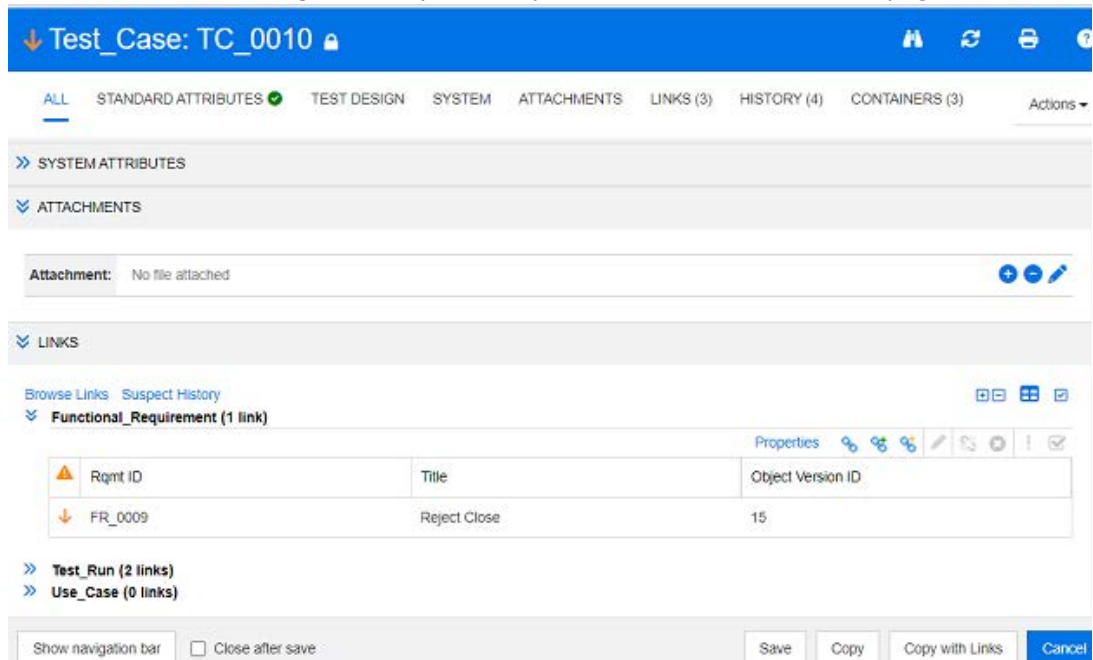
Not every change in a parent requirement will raise suspicion in the child, nor will every change in the child initiate a review of the parent. Certain attributes may be exempted from raising suspicion, for example, a change in the Notes attribute or the priority may not raise suspicion, while a change in the 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 processes.

### 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 **Open** from the Requirements set of the Actions pane.
- 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 the this dialog, see chapter "[Suspect Reason Information](#)" on page 221.



- 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

Replacement for Tasks:

Description:

**GENERAL SETTINGS**

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 222).

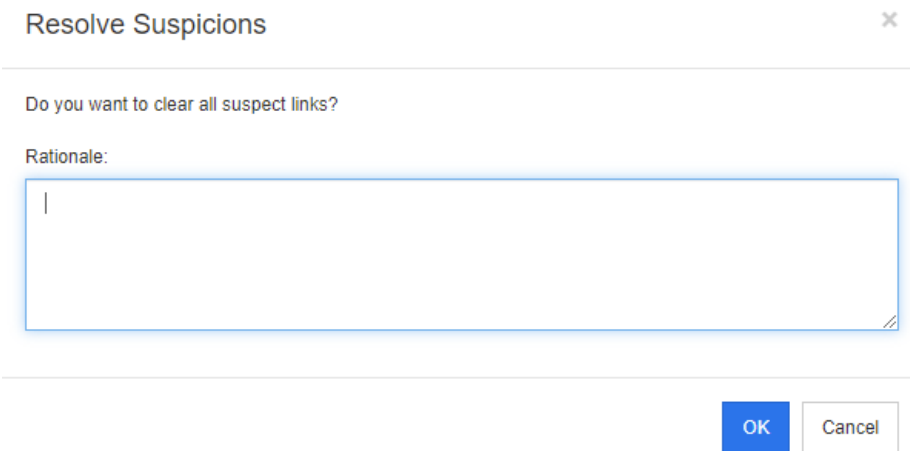
#### Clearing Suspect Links When Replacing a Requirement

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 ["Change Class"](#) on page 90).

## Specifying a Reason for Resolving a Suspect Link

The **Resolve Suspicions** dialog is shown when you want to resolve a suspect link manually.



**Figure 4-10. 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 **Open** from the **Requirements** set of the **Actions** pane.
- 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.
New Value	The new value of the changed attribute.


Column	Description
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"> <li>■ <b>Manual:</b> The user shown under <b>Cleared By</b> cleared the suspect status manually.</li> <li>■ <b>Replaced:</b> The user shown under <b>Cleared By</b> cleared the suspect status by replacing the requirement with a new version.</li> </ul>
Rationale	A comment added by the user responsible for the resolution.

## Inherited Links

When proposing a requirement change (i.e., creating a proposal), all links associated with the originating requirement are inherited.

### To identify inherited links:

- 1 After selecting the desired proposal in a work pane, select **Open** from the Requirements set of the Actions pane.

[» STANDARD ATTRIBUTES](#) 

[» CUSTOM ATTRIBUTES](#)

[» SYSTEM ATTRIBUTES](#)

[» ATTACHMENTS](#)

[» COMMENTS](#)

[» LINKS](#)


[Browse Links](#) [Suspect History](#)

» **ECPs (0 links)**

» **Product\_Requirements (3 links)**

	Rqmt ID	Title
	<a href="#">PROD_000020</a>	<a href="#">256 color VGA</a>
	<a href="#">PROD_000021</a>	<a href="#">Run on 300 Mhz celeron with 32 megs of ram</a>
	<a href="#">PROD_000022</a>	<a href="#">Install footprint less than 5 megs of disk space</a>

- 2 Expand the **Links** section.
- 3 Open a class which has links.

- 4 Inherited links are marked by  .



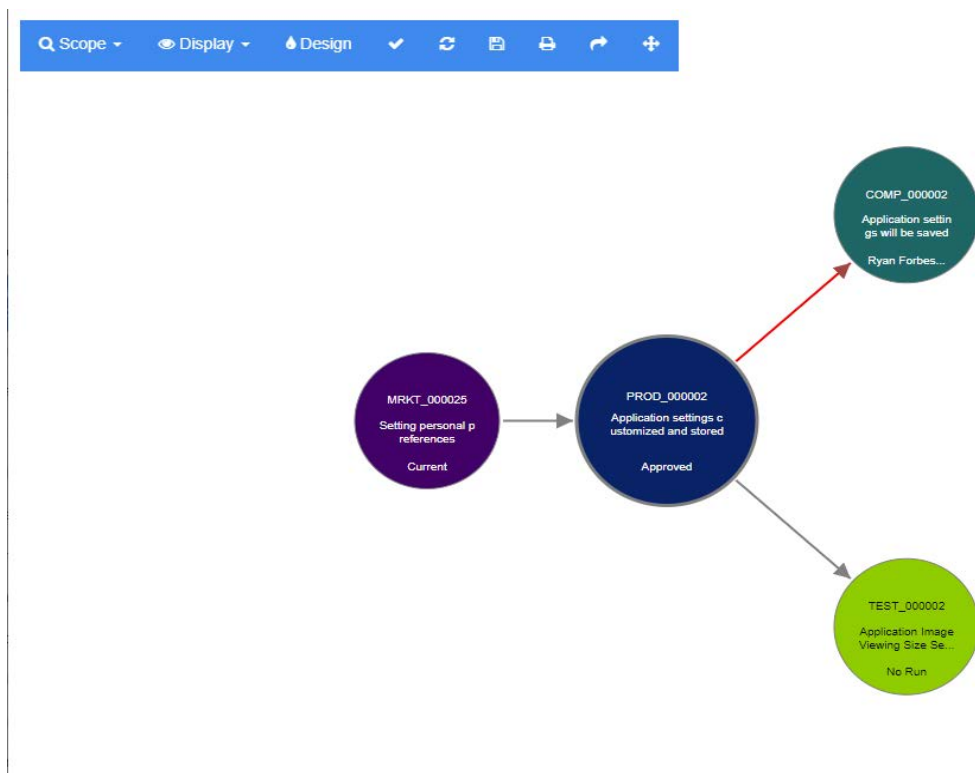
**NOTE** When proposing a requirement change, the collections containing the original requirement are inherited. For further information, see chapter "Container Properties" on page 228.

## Using Link Browser

Given a selected requirement object(s), the Link Browser displays all related objects.

To access Link Browser, select one or several requirements from almost any list in the product, and select Browse Links from the **Action** Pane.

From the link section of an open requirement, Browse Links can also be accessed.



Clicking on a displayed requirement expands the view to their related requirements and, if selected, the containers to which they belong. Double-clicking a requirement opens the *Edit Attributes* dialog.

Link Browser allows zoom in or zoom out by turning the mouse-wheel.

### **The 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 98.



**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 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 an existing requirement to one selected from the list presented.

**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 Collection** dialog.

### 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 221.

**Resolve Suspicion:** Clears the suspected link.






## The Containers Section

Documents, Snapshots, Collections and Baselines that include the selected requirement are listed under the Container Section of the Open Requirement Form. The following discusses the functions available from the Open Requirement.



Collection details beyond those accessible from the Container section can be found in "[Working with Collections and Baselines](#)" on page 323.

Complete details concerning Documents and Snapshots can be found in the Chapter "[Working with Documents](#)" on page 107.

The expanded **Container** section offers the following functions:


	<b>Select Attributes to View</b> Opens the dialog that provides a mechanism for choosing the attributes to display. For details see chapter " <a href="#">Container Properties</a> " on page 228.
	<b>Add to Collection:</b> Opens the <i>Add to Collection</i> dialog which allows users 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. As the document structure and requirement location is so much more critical, objects can only be added to a document from the open document.
	<b>Remove from Collection:</b> Permanently removes the object 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.
	<b>Expand</b> the containers subsection to view, create, or remove links within the context of the open object and the specific container. The version of the linked object listed corresponds to the version of the object in the container. <b>See the Links section to list only links to the current version of an object.</b>
	<b>Open Container:</b> Opens the desired container. If the container is a document or snapshot, it will open at the first location of the open requirement within the document. If the container is a collection or baseline, it will open the container with the open requirement highlighted.

The list of containers to which the open object is a member are listed in a table. You can sort the entries within that table by clicking a column header.

	<b>Ascending order:</b> The entries are sorted by the values of the marked column in ascending order (0...9, A...Z).
	<b>Descending order:</b> The entries are sorted by the values of the marked column in descending order (9...0, Z...A).

### ***Adding a Requirement to an Existing Collection***


For a requirement open for editing:

- 1 Expand the **Containers** section.
- 2 Click  to open the **Add to Collection** dialog.
- 3 In the Add to Collection dialog, select the relevant collection(s).
- 4 Click **OK**.

It is also possible to add an open requirement to a Collection using the **Actions** menu located in the top right of the open requirement.

- 1 Select **Add to Collection** from the Actions menu.
- 2 In the Add to Collection dialog, select the relevant collection(s).
- 3 Click **OK**. The requirement is added immediately.

### **Removing a Requirement from a Collection**


- 1 Open the *Edit Attributes* dialog for a requirement.
- 2 Expand the **Containers** section.
- 3 Select the Collection 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**


For a quick view of either Document, Snapshot, Collection or Baseline:

- 1 Open the *Edit Attributes* dialog for a requirement.
- 2 Expand the **Containers** section.
- 3 Click  next to the container you want to open.



### **Container Properties**

In the *Container Properties* dialog you can define which data should be displayed in the **Container** section.


#### **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.




#### **NOTE**

- To modify default Container properties for the Instance, an **Administrator** can make changes and then click the button (bottom left) **Set as Instance Settings**.

## **Inherited Containers**

When making a proposal, any containers on the originating requirement are **To Be inherited**. Based on process, the proposed requirement will replace the original version once **Accepted**.

**To identify inherited containers:**

- 1 After selecting the desired proposal in a work pane, select **Open** from the Requirements set of the Actions pane.
- 2 Expand the **Container** section.
- 3 Containers into which the proposed requirement is **To Be Inherited** is marked .



**NOTE** When making a proposal, also the links of the original requirement are inherited. For further information, see chapter "[Inherited Links](#)" on page 223.

## 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 of the open requirement dialog box. Depending on the configuration of the file attachment attribute, it can hold a single file or multiple files.






**NOTE** If there is no ability to add an attachment, request that the Instance Administrator add one or more File Attachment attributes to the relevant class. For more information, see "[Attribute Definition](#)" on page 425

**To attach, replace, delete, or download a file:**

- 1 After selecting the desired requirement in a work pane, select **Open** from the **Requirements** set of the **Actions** pane.
- 2 If it is collapsed, expand the **Attachments** section:



- 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**.

- **File Name:** Click the filename link to open the file. If your organization has set security such that files must be downloaded before opening, the file will be downloaded.



**CAUTION!** Attribute changes, including those made to attachments, are not saved until you click the **Save** button as described below. If you try to exit without saving the changes - you will be warned.

- 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 190).



**NOTE** An attribute is copied into the next requirement only if the administrator selected the **Populate On Copy** option when defining the attribute. See "[Attribute Properties](#)" on page 427

- **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\_00001

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

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_00001	Application CRUD Processing 111	Desktop-Windows-XP Desktop-Windows-7
TEST_00002	Application Image Viewing Size Settings	Mobile-Android-KitKat
TEST_00003	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
















Each object in the database, whether a Change Request, a Test Case, a Defect or a Requirement maintains its history. The history provides the team with information about the object and how it has been modified over time. The **History** section is always included on the default forms when opened for editing or review.




The history section not only shows who made which changes and when, it allows users to compare versions, with additions, deletions and changes marked in the report.

To view the history of a requirement:

- 1 After selecting the desired requirement in a work pane, select **Open** from the Requirement set of the Actions pane.
- 2 Expand the **History** section.


To change the attributes displayed see "[Changing History Properties Display](#)" on page 233.


▼ HISTORY						
Pedigree					Properties	Differences
	Object Version ID	Workflow State	Owner	Modified By	Current Status	
	 1	<b>New</b>	 Ryan Forbes	 Ryan Forbes	Replaced	
	 2	<b>New</b>	 Ryan Forbes	 Ryan Forbes	Replaced	
	 3	<b>New</b>	 Ryan Forbes	 Ryan Forbes	Replaced	
	 4	<b>In Review</b>	 Peticia Miata	 Ryan Forbes	Current	


Icon	Description
	Clicking the information icon opens the History Details dialog, displaying a quick compare between the current and the selected item.
	Opens the version of the object selected.
	The eye appears at the top of the History Details dialog, clicking the eye will open History Differences, providing a full compare between the selected items. See " <a href="#">Viewing History Differences</a> " on page 233.



When using branching, additional information, where applicable, is listed in the Current Status column.

 : The requirement was branched (provided) to a different product or project or the requirement version was used to create a new version using synchronization.

 : The requirement was branched (provided) from another product or project.

 : The requirement was synchronized.

## Changing History Properties Display

To replace the current version of an object with content from an earlier version, see ["Making a Previous Version Current" on page 235](#).

The attributes included in the History display can be modified using **Properties**.



### NOTE

#### To the Instance Administrator:

To modify **default properties** for all users of the Instance, an **Administrator** can introduce changes and then click the button (bottom left) **Set as Instance Settings**.

#### To change the attributes displayed:

- 1 In an open requirement object, expand the **History section**.
- 2 Click **Properties** to access the **History Properties** dialog.
- 3 To specify the attributes to display, select attributes from the left and use the arrows to move them to the right. For details see chapter ["Attributes to Display List" on page 40](#).
- 4 To specify the sort order, see chapter ["Sorting Order List" on page 41](#).
- 5 The attributes selected for display, as well as their order, are **remembered for each class** and are used when viewing History for any requirement in that class.

## Viewing History Differences

You can view the differences between the open requirement and a selected version of the requirement, or between two selected versions of the requirement.

**To view the differences:**

- 1 Expand the **History** section, if it is not already expanded.

The screenshot shows a user interface with a sidebar on the left containing two expandable sections: 'LINKS' (expanded) and 'HISTORY' (collapsed). Below the sidebar, the main content area is titled 'Pedigree' and contains a table with the following data:

	Time Modified	Modified By	Current Status
	18-MAY-2006@08:59:35	<a href="#">Ryan Forbes</a>	Replaced (Baselined)
	30-SEP-2015@01:41:48	<a href="#">Ryan Forbes</a>	Replaced

- 2 Perform one of the following actions:

**To compare the open requirement with another version**, select another version and then click **Differences**.

**To compare two versions of the requirement**, select both and then click **Differences**.

The **History Differences** dialog box opens, displaying visual indications of what changed between the two versions.

History Differences for Product\_Requirements: PROD\_0000

▼ STANDARD ATTRIBUTES ○

Rqmt ID:  
PROD\_000001

**Text** ○  
This effort shall be undertaken using the Tcl/Tk scripting language. This ensures rapid prototyping and high portability. Tr  
~~3-14~~  
7, Windows  
~~95, Windows NT~~  
10 and various UNIX flavors.

**Title** ○  
Try to use Tcl/Tk-

▶ CUSTOM ATTRIBUTES ○

▶ SYSTEM ATTRIBUTES ○

Created By:  
Ryan Forbes



#### NOTE

**If you select more than two versions** in the **History** section, the **Differences** link is disabled.

**The version with the lower Object ID** shows changes replaced.

**In the default forms template**, the section name used for **History** is fixed. The Instance Administrator may not use this Section name for Custom attributes. 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 contained in the previous version. **To make a previous version current:**

- 1 Expand the **History** section, if it is not already expanded.
- 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 237).

## Changing Requirement Versions in Documents

Opening a requirement to the history section from within a document provides users the ability to **exchange** the requirement version included in the document with another. This exchange may be necessary because the latest version of the requirement is not relevant to the document, or because **'Update to Current'** was not checked and the latest version is exactly what is needed.

To change the version contained within the document:

- 1 From within the document, open the requirement for which the version must be exchanged.
- 2 Expand the **History** section from within the document.

HISTORY					
pedigree <span style="float: right;">Properties Differences</span>					
		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					

- 3 Find the correct version and click , this opens the Exchange Requirement dialog.
- 4 If your process creates all documents with **'Update to Current'** enabled (i.e., the latest version of a requirement is always included in a document), the Exchange dialog will ask "Are you sure..." and, if you are, click the **Yes**.

### Exchange Requirement

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
<input type="checkbox"/>	ePhoto Tablet Requirements	30-AUG-2021@12:32:08	30-AUG-2021@12:32:08

- 5 If your process includes documents or sets of documents that do have **'Update to Current'** enabled (i.e., the requirement(s) included in documents are always updated manually), the Exchange dialog will not only ask for confirmation, but will also include

other documents that contain the requirement, and do not have **'Update to Current'** enabled.

By selecting the documents in the list, the requirement version will be exchanged in 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).

## Using Pedigree View

Pedigree View is a graphical representation of the history of a requirement.

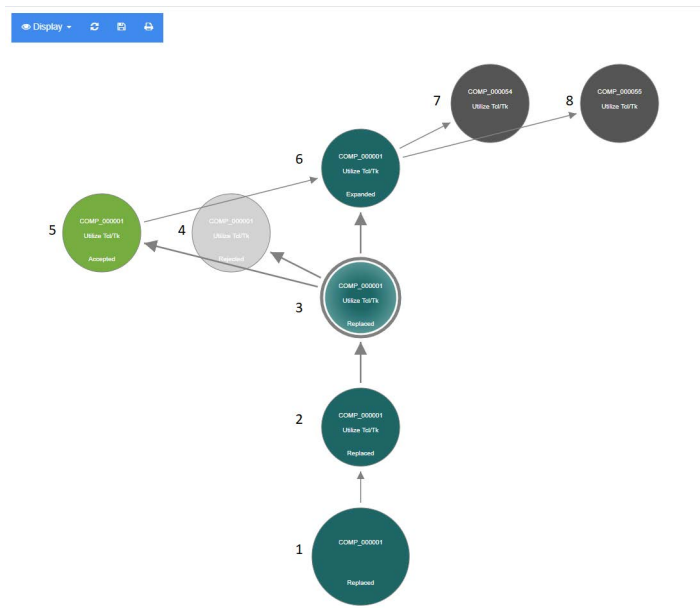
The Pedigree View uses the default settings of the Link Browser, and will reflect changes made to those settings.

**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 4-11. 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).

It is possible to make previous versions current in the History section of the *Edit Attributes* dialog (see chapter ["Making a Previous Version Current" on page 235](#)).

**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 197](#).

**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.

# Merging Requirement Changes



**NOTE** RM Browser can be configured enable concurrent editing (see "[Concurrent Editing](#)" on page 86). This allows multiple users to edit a requirement or chapter at the same time. This section describes requirement merging.

If RM Browser is configured to allow concurrent editing, 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"> <li>■ Accept the change the second user made</li> <li>■ Accept the change the first user made</li> <li>■ Accept the original value</li> <li>■ Combine the changes manually by editing the value directly in the main part of the dialog box</li> </ul>

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 240 and "Merging Changes" on page 241.

## 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.

Component\_Requirements: COMP\_00024

ALL STANDARD CUSTOM SYSTEM ATTACHMENTS COMMENTS (1) LINKS (1) HISTORY (4) POLLS CONTAINERS Actions

**Changed Attributes**

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	<u>Component</u>	ComponentModule	Conflict
Verification Method	<u>Analysis</u>	AnalysisInspection	Conflict

Category: RMDemo

STANDARD ATTRIBUTES

Rqmt ID: COMP\_00024 Title: Utilize Tcl/Tk

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, Windows XP and various UNIX flavors.

Show navigation bar  Close after save Save Copy Copy with Links Cancel

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

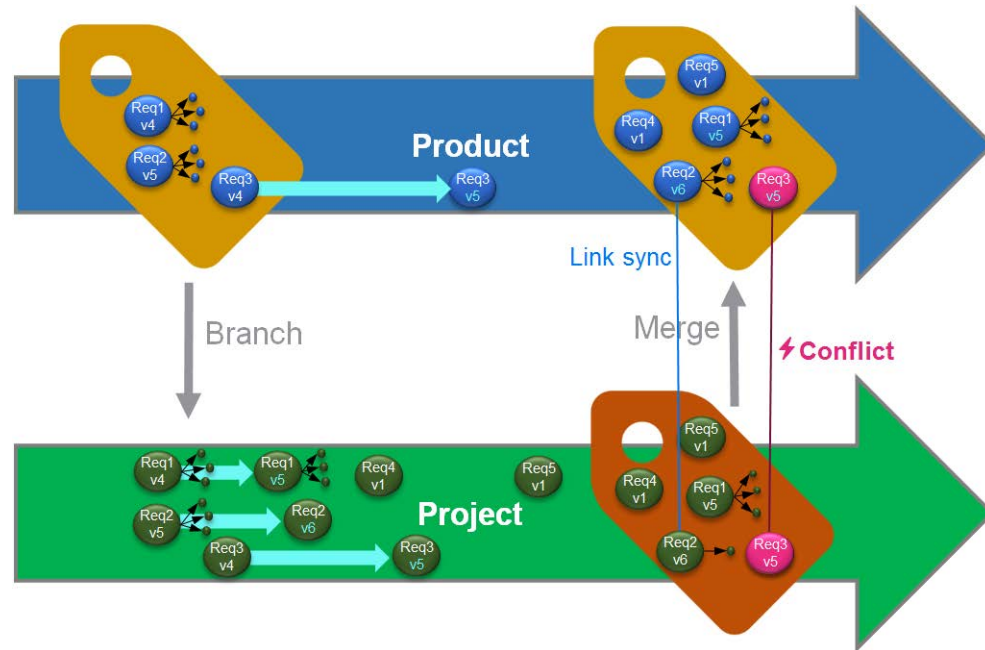
Branching and merging of requirements provides support for maintaining variants or for sharing common components.

It is often the case that multiple releases of software must be supported at the same time. Release 9, 10 and 11 may require support, and patches, while Release 12 is in development.

There are also organizations releasing complex software and hardware components used by customers producing guidance systems, the technology to power engines and to run trains. These organizations develop components that must be modified for a targeted manufacturer or model. In such organizations, there is a need to separate all that is core from modifications made to address the requirements of a customer. Components may be owned by a single engineering team, but included in a range of system releases.

In support of needs expressed by many of our own customers, Dimensions RM has developed a branching model that can support multiple products comprised of selected variant components targeted for release. Each engineering team has visibility into the base.

The following demonstrates the a product branched to a single project variant. There may be many project variants, that can be included in multiple products.



The image above shows the following scenario:

- 1 From Product, a branch (the Project) is created and assigned to the Product. The (blue) requirements Req1, Req2 and Req3 have been copied into the Project (shown as green requirements). The version number for each of the green requirements is, initially, identical with that of their blue counterparts.
- 2 In Project, the green requirements Req1, Req2 and Req3 are modified. For Req2 also the links are removed; 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 in the 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.

Branching requires the creation of **Product** and **Project** classes. If **Project** and **Product** do not appear on the menu when selecting **New** from the main menu bar, please check with your Instance Administrator or, if you have administration access see "[Creating Product and Project Classes for Branching](#)" on page 480.

Before a Product can be defined and populated, a Product Category must be created, see: "[Creating a New Product or Project](#)" on page 243 for details.

## Creating a New Product or Project

### Creating a new Product

Once the Product and Project Classes been created, they can each be used to create, populate and track entities within them.

The creation of a New Product creates a category of the same name. Sets of requirements, be they for a full system or for a single application, can be managed within these Product Categories.

To create a new product, do the following:

- 1 In the main menu bar, point to **New** and select **Product** from the drop-down menu. This opens the **New Product** dialog.
- 2 Fill the **Name** box.
- 3 If desired, specify the **Description**. The description is displayed whenever Product or Project information is displayed, including in branch target selection.
- 4 Specify the **Short Name**; this short name will be used for change identification and must be unique. A short name is created based on Product Name



**NOTE** If your administrator has not created the **Product** class, the **Short Name** attribute may not be available. If the group intends to use branching, request that a **Product** class be created following the instructions in "[Creating Product and Project Classes for Branching](#)" on page 480.

- 5 It is possible to associate requirements from an existing Project to a new Product. If this new Product is being created to hold new requirements, or any objects not already associated with a Project, please proceed to #8.
- 6 If this new product is to be assigned one or more existing projects, do the following, although project assignment may be done at any time:
  - a Click **Assignment**. This opens the **Assign Project(s)** dialog.
  - b From the list of existing projects, select the project or projects to assign to this new Product.
  - c Click **OK**.
- 7 If desired, assign the project to a container. For further information on containers, see chapter "[The Containers Section](#)" on page 226.
- 8 Click one of the following buttons:
  - **Save** to create the new product and close the **New Product** dialog.

- **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 ["Attribute Properties" on page 427](#).

- **Save & New** to create another new product, clearing the attribute values prior to its creation.

### 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 special 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** 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 project subcategory must be below the **Project** category.
- 3 Specify the **Short Name**; the short name will be appended to the PUID (Requirement ID) on branched objects; it must be unique.
- 4 If desired, specify the **Description**. The description is displayed whenever Product or Project information is displayed, including in branch target selection.
- 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 to the project.
  - c Click **OK**.
- 6 If desired, assign the project to a container. For further information on containers, see chapter ["The Containers Section" on page 226](#).
- 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.
  - **Save & Copy** to create the new project and retain the attribute values to populate 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 ["Attribute Properties" on page 427](#).

- **Save & New** to create the new project and clear the attribute values prior to its population.

## Editing a Product or Project

When highlighting either a **product** or a **project category**, additional icons are displayed below the main menu bar:



-  Opens the edit dialog for the selected product or project.
-  Opens the Product/Project Assignment Matrix.

### The Edit Dialog

In the Product /Project Edit dialog, the description, the short name and the entity Name may be changed. Care should be taken with name changes, as it can be confusing if users have become familiar with the Product/Project structure.

Existing projects may be assigned to a product, for example, a component may be assigned for use in a new Product, or a Product may be assigned to a Project. These assignments are made in the **Assignment** section of the Edit Product / Project dialog, Click **Assignment** and the elements available will be listed.

When editing a Product, the assignment dialog will default to listing Projects; Open the drop-down to switch to the list of Products. Assignments can be made to either.


From the list, check the box next to the product or projects to be assigned and then click OK.

### The Assignment Matrix

The Product/Project Assignment Matrix is intended to show the big picture in the world of Products and related Projects:

- 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.

### 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.

### Showing Shared Requirements

To open the **Shared Requirements** dialog click on the table cell intersecting **Product** and **Project** and the full list of shared requirements will be displayed. A filter is available at the top of each column.

### 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.

## 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 objects 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 92).

- 1 Open the requirement for editing (see chapter "[Editing a Requirement](#)" on page 194).
- 2 Expand the **Used in Branches** section.
- 3 Click **Provide** to open the Provide dialog.
- 4 Select from the list displayed the Product or Project into which the object should be branched.
- 5 If links should be included with the branched object, check **Provide with Links**. Note that the **Select Links** button is available should you wish to provide only specific links.
- 6 Click **OK**. This branches the requirement immediately. If there are unsaved changes associated with this requirement, they will not be included in the branched version. **If unsaved changes should have been included in the newly branched object, highlight the new branch and choose Synchronize.**

## Deleting a Single Requirement from a Branch

As with objects in any category, an item that is included in a Branch can be marked as deleted in the Branch).

To mark a provided item as deleted, do the following:

- 1 Open the requirement in the source for editing (see chapter "[Editing a Requirement](#)" on page 194).
- 2 Expand the **Used in Branches** 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 restored.

## The Branch View

The **Branch View** dialog allows users to **Provide** multiple requirements from a selected class or container to a Target, as well as to **Unprovide** (mark the branched item as deleted) requirements.

Selected requirements may also be Synchronized from the Branch View, although merging multiple requirements or containers is most effectively done using the **Synchronize View**.

### To open Branch View, do the following:

- 1 In the menu bar, point to **Views**.
- 2 Select **Branch View** from the menu.  
The Branch View is split into 2 parts:
  - The left-hand side is used to list the **Documents, Categories**, or the requirements available in the selected **Class** in the **Source** Product or Project
  - The right-hand side lists targets available based on the Source.
- 3 The method of selection from source to target may include:
  - All objects contained in a selected category
  - All objects contained in a selected Document
  - Items highlighted from classes or collected using class filters
- 4 To Branch selected requirements from a class see: ["Branching Selected Requirements from a Class" on page 247](#)
- 5 To Branch from a Category see: ["Branching All Requirements in a Category" on page 248](#)
- 6 To Branch a Document and Document Content see: ["Branching from a Document" on page 248](#)

It is also possible to Synchronizing Branched requirements from the **Branch View**, see ["Accessing Synchronize from the Branch View" on page 251](#).

For merging multiple requirements, categories, or documents, the Synchronize View is recommended (see ["Synchronizing" on page 249](#)).



### **Branching Selected Requirements from a Class**

One or more requirements can be selected from the list on the left and branched to a selected target using the button above the target list.

- 1 In the menu bar, point to Views and select Branch View from the menu.

- 2 From the **Source** box, select the *Product* or *Project* from which to branch requirements.
- 3 Expand the **Class** section.
- 4 Select the Class, Quick Search style filtering may be applied
- 5 Highlight the objects to be branched
- 6 From the Target select the product(s) or project(s) to receive the provided requirements.
- 7 Click **Provide**. The selected objects, with associated links will be displayed for review.
- 8 Review and if acceptable, click **OK**.

Highlighting a single branched requirement from the list on the left, will display additional information on the right:

-  The selected requirement has been branched. Note that the arrow is directional; indicating a branch down from a product or up from project to Product.
-  The selected requirement or the branched requirement has been modified.

Unprovide is available from Branch View to delete selected requirements from a branch.

### ***Branching All Requirements in a Category***

- 1 In the menu bar, point to **Views** and select **Branch View** from the menu.
- 2 From the **Source** box, select the *Product* or *Project* from 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) to receive the provided requirements.
- 7 To maintain links to other requirements, ensure that the **Provide with Links option** is selected.
- 8 To create subcategories in the target, ensure that the **Create Subcategories** box is checked.
- 9 Click **OK**.

### ***Branching from a Document***

All requirements contained in a document, including the document itself, can be branched from Branch View or Home View

#### **To branch all requirements contained in a document from Branch View:**

- 1 In the menu bar, point to Views and select **Branch View** from the menu.



- 2 From the **Source** box, select the *Product* or *Project* in which the document is contained.
- 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.

#### To branch all requirements contained in a document, from Home:

- 1 Open the Home View and select the **Documents** tab.
- 2 Select the category in which the document resides.
- 3 Select the desired document.
- 4 From the Actions pane, under Documents select **Provide**.
- 5 From the dialog: '*Provide Document Content to Project*' select the Target.
- 6 The **Provide with Links** box is checked by default, uncheck this box if links should not be included.
- 7 Click **OK**.

## Synchronizing

Merging changes made in branched objects can be accomplished in one of the following methods:

- A single requirement can be synchronized from the **Edit Attributes Dialog**, see ["Accessing Synchronize from the Edit Attributes Dialog" on page 250](#),
- Branched projects or containers can be listed, reviewed and synchronized individually from the **Branch View**, see ["Accessing Synchronize from the Branch View" on page 251](#).

Reviewing and merging multiple requirements, including a complete Product or Project is most effectively done using **Synchronize View**

#### *The Dialog from the Synchronize View*





**NOTE** When selecting and merging multiple requirements, all custom (those editable by users) as well as Workflow State can be accepted.

- 1 In the menu bar, point to **Views** and select **Synchronize View** from the menu.
- 2 From the **Source** box, select the *Product* or *Project* for which you want to merge requirements.
- 3 From the **Target** box, select the *Project* or *Product*. The entries listed for selection will depend on your choice for **Source**.





- 4 After selecting both Source and Target, the content is compared. The center column lists change type, clicking the type will open a dialog showing detail of changes in source, target or both.
  - **Conflicted** - The set of requirements modified in both **Source** and **Target**. These can be reviewed, for physically conflicting changes (e.g., both sides changing the description), conflicts can be mitigated and the **Apply Changes** button clicked to complete the merge.
  - **New** - Requirements added to either **Source** or Target, with details listed and an arrow indicating its ability to be included on both sides.
  - **Modified** - Requirements modified in either **Source** or Target, with an arrow indicating its ability to be included in both.
  - **Deleted** - Requirements deleted in either Source or Target; the deleted object will be displayed with strike through.
  - **Unchanged** - No change in **Source** or **Target**.
- 5 Click on **Show Details** to display change details for selected attributes (see "[Branch/Sync View Settings](#)" on page 103). **Hide Details**, will suppress highlighted change.
- 6 You may choose to merge selectively or merge all changes made in the target to the source or the source to the target using one of the following:
  - Click directional arrows < or > to select a single requirement for merging. The arrows indicate that the requirements will be synchronized to right or left, the changes are not applied until the **Apply Changes** button is selected.
  - Click << or >> to select all requirements for merging. The arrows indicate that the requirements will be synchronized to right or left. once selected the individual directional arrows change color.
  - The selection may be limited by type, highlight one or more boxes to list only New, Modified, Deleted, **Conflicted**, or **Unchanged**.
- 7 Once changes have been reviewed Click **Apply Changes**. This synchronizes all selected changes.

### **Accessing Synchronize from the Edit Attributes Dialog**

- 1 Open the requirement for editing (see chapter "[Editing a Requirement](#)" on page 194).
- 2 Expand the **Used in Branches** section.
- 3 Highlight the object to be synchronized.
- 4 Click **Synchronize** to open the **Synchronize** dialog.
- 5 In the menu bar, point to Views and select **Synchronize View** from the menu.
- 6 Select the **Source**, the **Target** and **Search**.
- 7 On top of the **Synchronize** dialog, you can choose from these options, please note that it is possible to merge a branched requirement into the source, or merge source changes into the branch requirement:
  - a **Apply changes to <REQUIREMENT\_ID> (source)**: This copies all attribute values from the *source to the target*.

- b Apply changes to <REQUIREMENT\_ID>.<SHORT\_NAME> (provided):** This copies all attribute values from the *branched object into the source*.
  - c Ignore changes:** This disables all attributes.
- 8** 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 .
  - 9** An enabled value may show an arrow next to the attribute name. Clicking toggles between the following options for the attribute:
    - Apply changes to <REQUIREMENT\_ID> (source)
    - Apply changes to <REQUIREMENT\_ID>.<SHORT\_NAME> (provided)
    - Ignore changes
  - 10** Click **OK**. This applies all changes, your work is done.

### Accessing Synchronize from the Branch View

- 1** In the menu bar, point to **Views** and select **Branch View**
- 2** From the **Source** box, select the *Product* or *Project* for which you want to merge a requirement.
- 3** To display requirements contained in the Source, choose the Category, Document or Class to list requirements. Filters may be applied to assist in the search, see "[Finding Requirements with Quick Search](#)" on page 174.
- 4** Click Search
- 5** On the right will be listed Products or Projects containing requirements branched from the Source.
- 6** On the left, highlighting the requirement you wish to merge, will display information concerning the status of the requirement in all branches listed:
  -  The selected requirement has been branched. Note that the arrow is directional; indicating a branch down from a product or up from project to Product.
  -  Either the selected requirement or the branched requirement has been modified.
- 7** Select the relevant branch.
- 8** Click Synchronize, to open the Synchronize dialog.
- 9** At the 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 *source to the target*.
  - b Apply changes to <REQUIREMENT\_ID>.<SHORT\_NAME> (provided):** This copies all attribute values from the *branched object into the source*.
  - c Ignore changes:** This disables all attributes.
- 10** 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 .

- 11 An enabled value may show an arrow next to the attribute name. Clicking toggles between the following options for the attribute:
  - Apply changes to <REQUIREMENT\_ID> (source)
  - Apply changes to <REQUIREMENT\_ID>.<SHORT\_NAME> (provided)
  - Ignore changes
- 12 Click **OK**. The selected changes are applied.

## 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.

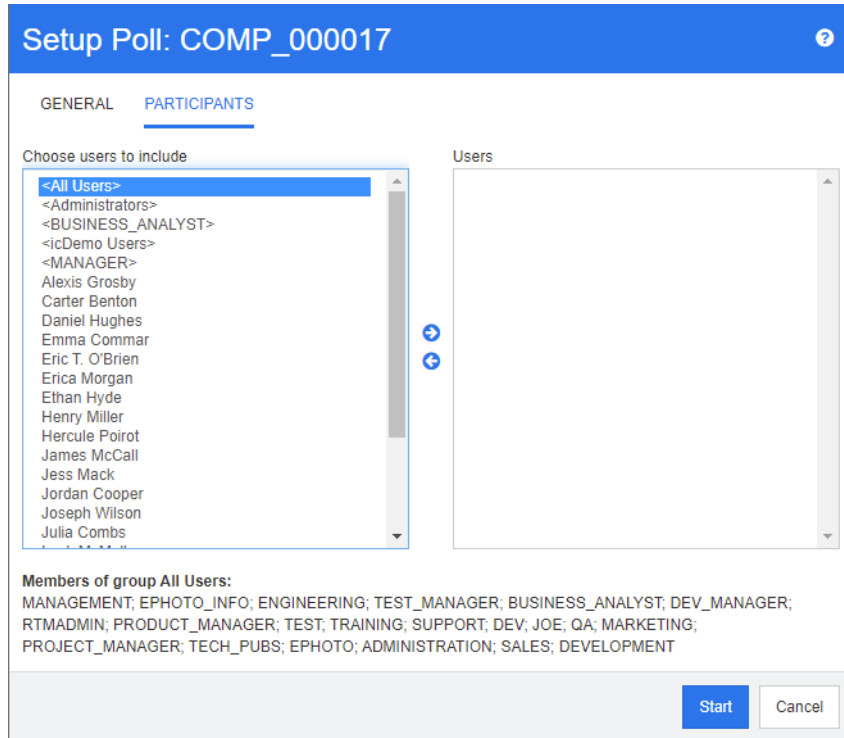
There is no practical limit to the number of answers that you can include. When you begin typing in the last answer field, a new answer field is automatically created below it.

The screenshot shows a web interface for setting up a poll. At the top, a blue header reads 'Setup Poll: COMP\_000017'. Below this, there are two tabs: 'GENERAL' (selected) and 'PARTICIPANTS'. Under the 'GENERAL' tab, the 'Title' field contains 'Documentation'. The 'Question' field contains 'What documentation should be included in this package?'. The 'Answers' section is a list with three items: 'Getting Started Guide', 'Online Help', and 'Tutorial'. To the right of each answer is a set of control icons: an up arrow, a down arrow, a plus sign, a minus sign, and a list icon. The 'Response deadline' is set to 'No deadline'. At the bottom right, there are 'Start' and 'Cancel' buttons.

- 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.



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 72.

## AI-Powered Generation and Review

Dimensions RM provides facilities for creating and reviewing requirements. The current implementation was built and tested using Google Gemini, and ChatGPT, although other solutions adopted by the organization, e.g., LLaMA 3 may also be used.

The Instance Administrator is responsible for configuring the organizations AI solution, see "[AI Administrator Server Setup](#)" on page 259 for details.

The following sections include:

["Verifying Requirement Quality"](#) on page 256

["Generating Test Cases"](#) on page 257

["Generating User Stories"](#) on page 258

["Creating Requirement Titles"](#) on page 258

### Verifying Requirement Quality

Applying AI to requirement review will help the team identify ambiguous, incomplete or contradictory requirements before they reach the stakeholder for review.




Analysts may click on **Verify Quality** as part of the Review process, just to see what AI thinks of their requirement.

☆ AI Quality Verification ✕

Type	Answer	Reason	Solution
Atomic	Yes		
Correct	Yes		
Complete	Partial	The feature does not specify how long the selection should be remembered or if there are any limitations on the number of projects that can be stored.	Add specific details on the duration of remembering selections and any constraints on the number of projects that can be stored.
Verifiable	Yes		
Consistent	Yes		
Unambiguous	Partial	The feature could be clearer on how the selection will be remembered and accessed by users.	Provide more detailed information on how users can access and manage the stored project selections.

The verification of requirement quality reviews the requirement statement and reports back with its findings in the essential characteristics: Atomic, Correct, Complete, Verifiable, Consistent and Unambiguous.

To Verify the Quality of a Requirement:


- 1 Open the Home View by clicking .
- 2 Select a requirement from any listing.
- 3 From the Requirements section of the Actions Pane, select **Verify Quality**.
- 4 Review and consider the response(s), if any.

## Generating Test Cases

Test Cases can be generated from any class with links to the Test Case Class, for example from Functional Requirements and/or Use Cases.

The test case generator will create, and rate, test cases based on input from one or more requirements input. Once a generated test case is accepted for creation it will be linked to the requirement.

To generate Test Cases:

- 1 Open the Home View by clicking .
- 2 Select one or more requirements from any requirement list.
- 3 From the Requirements section of the Actions Pane, select **AI Generation**.
- 4 Review the generated Test Cases returned, and:

**Check the box** to select one or more of the proposed test cases.

**Click Select all** to check all boxes.

**Click Accept** to create Test Cases from the elements selected.

Test Case IDs are listed in the **Accepted** dialog.

Test Cases are linked to the selected requirement.

If the selection does not look interesting,

**Click Regenerate** to give it another try; the alternatives can be interesting.


- 5 Click **Close** to exit the list.

We learned with out testing that the Test Cases generated may highlight issues with the phrasing of the requirements input.

## Generating User Stories

User Stories are generated from one or more Use Cases.

To generate User Stories:

- 1 Open the Home View by clicking .
- 2 Select one or more Use Cases.
- 3 From the Requirements section of the Actions Pane, select **AI Generation**.  
If Test Case generation is enabled, select the User Story tab from the dialog.
- 4 Review the list of generated User Stories returned, and:
  - Check the box** to select one or more of the proposed User Stories.
  - Click Select all** to check all boxes.
  - Click Accept** to create User Stories from those selected.  
User Story IDs are listed in the **Accepted** dialog.  
Each User Story will be linked to the selected Use Case.
- 5 If generated stories do not look interesting,
  - Click Regenerate** to give it another try; the alternatives can be interesting.
  - Click **Close** to exit the list.

## Creating Requirement Titles

When importing requirements from a solution that does not require titles or when importing data from Microsoft Word or Excel files missing titles, an AI Action is available to generate a title for all of these requirements traveling through life without one.

The titles are added using the **Generate Titles** action from an open document.

**To Add Titles:**

- 1 Open a document containing requirements without titles
- 2 **Select Generate Titles** from the Document Section of the Actions Pane
  - A message is displayed: **AI Generation Started**
  - Followed by: **AI Generation Started**
- 3 Review the generated titles and accept or modify.

## AI Administrator Server Setup

This section describes the integration between Dimensions RM and your selected AI Solution. The Dimensions RM implementation was built and tested using Google Gemini, and ChatGPT.

The settings for the AI functionality can only be established or modified through the **Integration** tab accessed from the Administration Menu.

The AI implementation was built and tested using Google Gemini and ChatGPT.

In this Section we include:

[Enabling Google Gemini Integration](#)

[Enabling ChatGPT](#)

[Enabling Test Case Generation](#)

[Enabling User Story Generation](#)

[Enabling Quality Verification](#)

[Enabling Title Generation](#)

### Enabling Google Gemini Integration

The screenshot shows the 'Integration' settings page. On the left, there are tabs for 'GitHub' and 'Aviator'. The 'Aviator' tab is active. The main content area is titled 'Aviator Generative AI' and has a toggle switch set to 'Enable'. Below this, there are radio buttons for 'Google Gemini' (selected) and 'ChatGPT'. Further down, there are three input fields: 'Google Project ID' with the value 'otl-adm-requirements', 'Region' with the value 'europe-west1', and 'Model' with the value 'gemini-1.5-flash'.

### Enabling ChatGPT

The screenshot shows the 'Integration' settings page. On the left, there are tabs for 'GitHub' and 'Aviator'. The 'Aviator' tab is active. The main content area is titled 'Aviator Generative AI' and has a toggle switch set to 'Enable'. Below this, there are radio buttons for 'Google Gemini' and 'ChatGPT' (selected). Further down, there are three input fields: 'Endpoint' with the value 'https://api.openai.com/', 'Key' with a masked value represented by dots, and 'Model' with the value 'gpt-3.5-turbo'.

## Enabling Test Case Generation

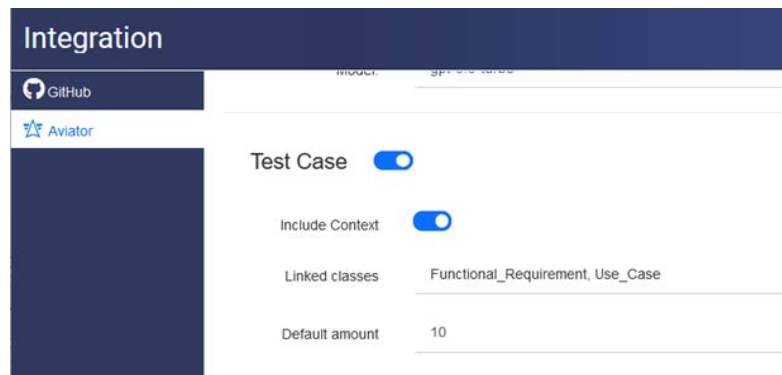
The following are set in the Test Case section of the Integration Aviator tab accessed from the Administration Menu. A Test Case class must exist in order to enable Test Case generation.

**Test Case:** When enabled, the Action **AI Generation** will be included in the Requirements set of the Actions pane; Test Case generation will be supported.

**Include Context:** When enabled, additional context will be included with the Test Case generation.

**Linked Classes:** From the drop-down, select from the classes linked to the Test Case Class, those classes to be used as input to the Test Case generation. In the example below, we have chosen the Functional Requirement and Use Case classes.

**Default Amount:** The number of Test Case generated with each submission. The default is 10.



**Figure 4-12. Test Case Generation, Enabled.**

## Enabling User Story Generation

The following are set in the User Story section of the Integration Aviator tab accessed from the Administration Menu. A User Story class must exist in order to enable User Story generation.

**User Story:** When **enabled**, the Action **AI Generation** will be included in the Requirements set of the Actions pane; User Story generation will be supported.

**Default Amount:** The number of User Stories generated with each submission. The default is 10.

## Enabling Quality Verification

The following are set in the User Story section of the Integration Aviator tab accessed from the Administration Menu. Quality Verification is used to review and report on the Quality of the requirements.

**Quality:** When **enabled**, the Action **Verify Quality** will be included in the Requirements set of the Actions pane.

**The Quality Verification** is capable of checking requirements to ensure that they meet one or more of the following: Atomic, Correct, Complete, Verifiable, Consistent and Unambiguous.

All or a subset may be enabled.

## Enabling Title Generation

**Title Generation** is enabled in the **Title** section of the Integration Aviator tab accessed from the Administration Menu.

### Once enabled:

Title generation is available when accessing the **Generate Titles** Action from the Document Section of the Actions Pane.

Title generation is included as an option in ReqIF import

# 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**.

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.

The screenshot shows a configuration window titled "Settings per Class" for the class "Business\_Requirement". It includes a "Select Attribute:" dropdown menu currently set to "Description". Below this, there is a checked "Enabled" checkbox and a slider for "Allowed Complexity" ranging from "High" to "Low", with a current value of 50/120. The window concludes with "Save" and "Close" buttons.

## 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


## Defining the Risk Management Class

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:

If you are unfamiliar with the creation of new classes, detail Instructions can be found in ["Schema Class Creation" on page 465](#).

- 1 Select Schema Definition from the Administration menu to open the Instance schema (if there are issues, see ["Opening and Unlocking the Instance Schema" on page 464](#)).
- 2 From the desired location on the schema grid, right click and select Add Class.
- 3 From the menu, select **Risk**.
- 4 The Class Name will default to the class type, depending on local conventions the name can be changed to e.g., Risk\_Mgt or left as simply **Risk**.
- 5 Click  to save the schema definition.

The default Risk class contains the following User Defined Attributes, any or all of which may be modified (see ["Attribute Definition" on page 425](#)). 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

Attribute Name	Description
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
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 " <a href="#">Hiding an Attribute</a> " on page 428).
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

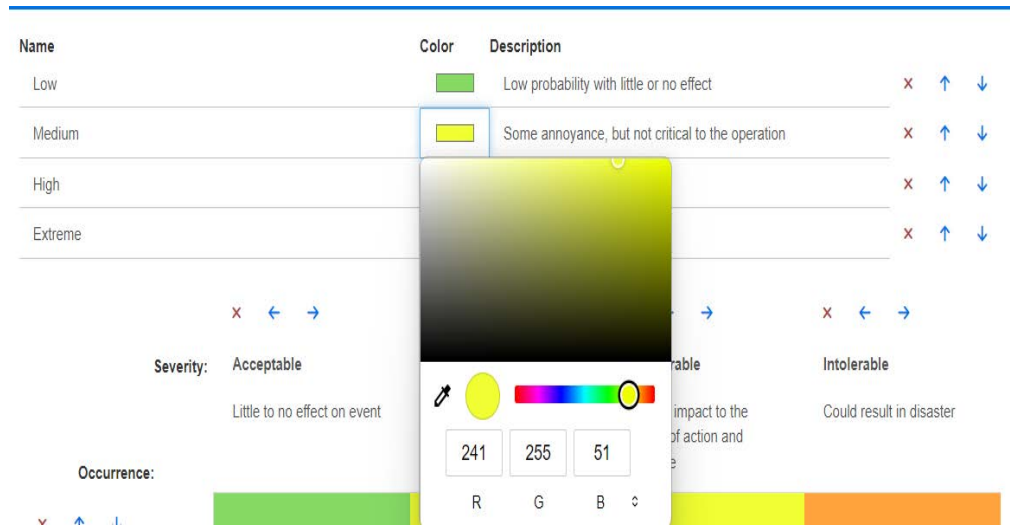
In addition to all standard reporting facilities, a **Risks** tab may be added to the Home View. The tab is defined in **Instance Settings**, using the attribute names defined in schema definition. This tab was designed to use color coding to calculate and display the current risk threat.

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.



- 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.





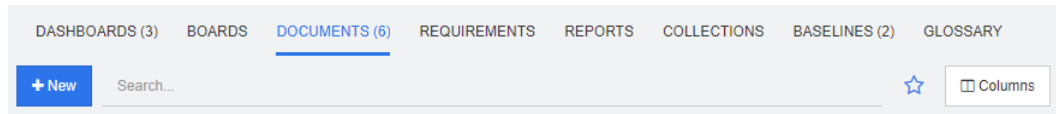
## Chapter 5


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# Working with the Home View

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## About the Home View



To open the Home View, click  in the menu bar.

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.

The tabs available from Home are dependent on the needs of the process. The following may have been included:

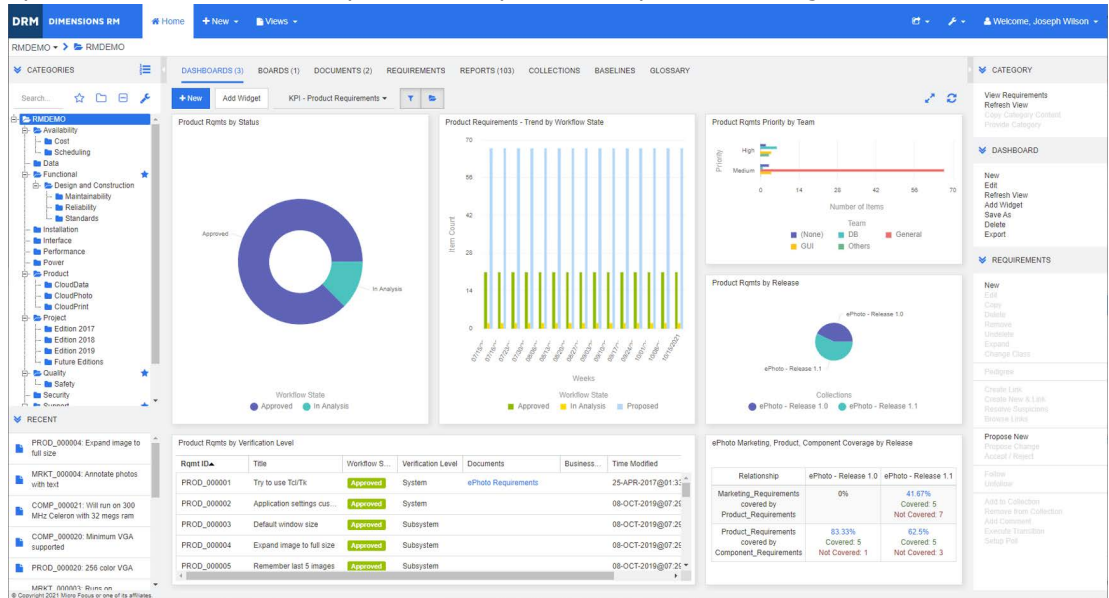
Tab Name	Description
<b>Baselines</b>	The <b>Baselines</b> tab allows you to create, open, delete, and modify baselines. For details, see chapter " <a href="#">Baselines Tab</a> " on page 285.
<b>Boards</b>	The <b>Boards</b> tab allows you to create, modify, and delete boards for viewing Kanban reports. For details, see chapter " <a href="#">Boards Tab</a> " on page 278.
<b>Collections</b>	The <b>Collections</b> tab allows you to create, open, delete, and modify collections. For details, see chapter " <a href="#">Collections Tab</a> " on page 284.
<b>Dashboard</b>	The <b>Dashboards</b> tab allows you to create, modify, delete, and export dashboards. For details, see chapter " <a href="#">Dashboard</a> " on page 269.
<b>Documents</b>	The <b>Documents</b> tab allows you to create, open, delete, and export documents. For details, see chapter " <a href="#">Documents Tab</a> " on page 280.
<b>Glossary</b>	The <b>Glossary</b> tab allows you to create, edit, and delete glossary entries. For details, see chapter " <a href="#">Glossary Tab</a> " on page 285.
<b>Reports</b>	The <b>Reports</b> tab allows you to create, open, edit, and delete reports and export the report results. For details, see chapter " <a href="#">Reports Tab</a> " on page 281.
<b>Requirements</b>	The Requirements tab allows you to create, edit, delete, and export requirements. For details, see chapter " <a href="#">Requirements Tab</a> " on page 281.

For details concerning settings see "[Home Settings](#)" on page 84)

# 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 272).
- 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 273, "[Adding a Graphical Report to the Dashboard](#)" on page 274, or "[Adding a Website to the Dashboard](#)" on page 275.



**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 the dashboard can be accessed in subcategories of the category in which it was created. Users who do not have access to the root category will be able to access the dashboard from subcategories to which they do have access.
- 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 289](#).

### 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 272](#).
- 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 274.
- 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 294.

### 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 272.
- 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 274.
- 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 272](#).
- 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 272.
- 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.opentext.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 the dashboard is accessible in subcategories of the category in which it was created.

Users who do not have access to the root category will be able to access the dashboard from subcategories to which they do have access.

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 272.
- 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**.

### ***Creating a Dashboard 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 267.

- 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.

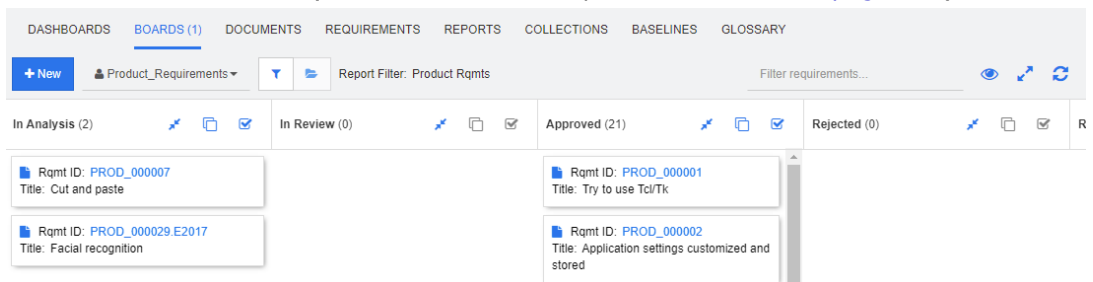
## Default Dashboards

When creating or editing a public dashboard, the Dashboard can be defined as the default dashboard for the selected category. As a result, this dashboard will be displayed when the category is selected by a user. Users may choose to reset the default to a another public Dashboard or to one of their own making.


For further information on creating or editing dashboards, see chapters "[Creating a Dashboard](#)" on page 272 and "[Editing a Dashboard](#)" on page 276.

## Boards Tab

The Boards tab allows you to add Kanban reports. You can add an unlimited number of boards, each having one Kanban report. Kanban reports retrieve their data from class reports (see "[Creating a Class Report](#)" on page 293) and are available for any class defined with a workflow (for workflows see chapter "[Workflows](#)" on page 186).



### Accessing and Switching Boards




Available Boards are accessed using the drop-down list to the right of the **New** button. The  icon identifies private boards.

Categories, like folders, are typically used to store the requirements related to a project, and Kanban reports are generally stored in and executed from a single Category, and include data from that folder and the folders below it.

The Kanban reports allow multi-selection of requirements. For further information about multi-selection, see chapter "[Selecting Multiple Requirements](#)" on page 38.

### 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, type parts of a report name in search.
- 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 **Show in Subcategories:** If checked the Board is accessible in subcategories of the category in which it was created.  
Users who do not have access to the root category will be able to access the Board from subcategories to which they do have access.
- 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 <span>1</span>	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) <span>2</span>	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.

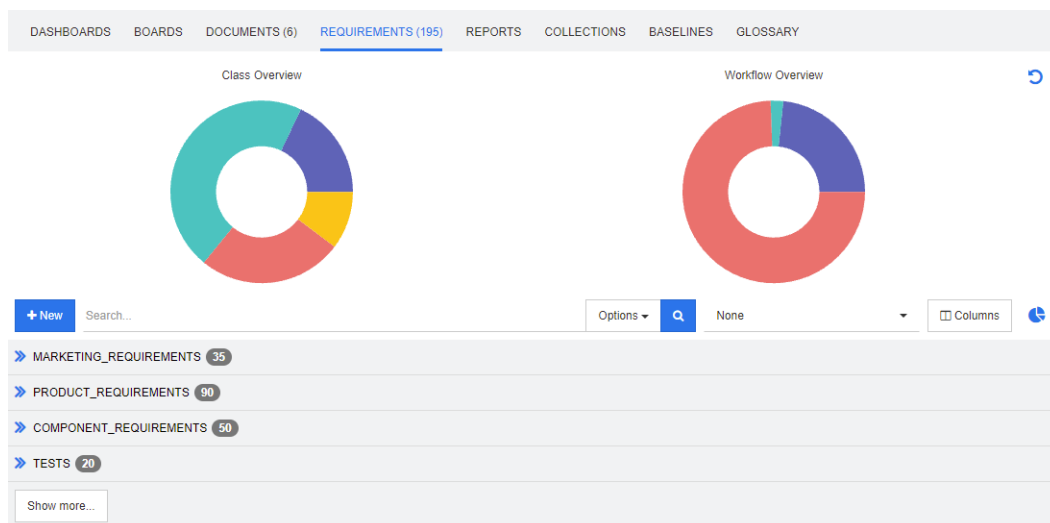
**Properties:** Opens the **Properties** dialog, which allows selection of document related attributes (also custom attributes) for display in the Home View.

: 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 85.

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 3, "Working with Documents" on page 107](#).



## Requirements Tab



The **Requirements** tab provides quick access to all requirements of the selected categories. You can filter those requirements the **Search** box, or by selecting one of the filters saved using Quick Search..

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, open the folder on the icons bar in the Category pane. The folder icon toggles between limiting the display to the selected category, and including the content in subcategories.
- The columns displayed are identical with those used in Quick Search. For details, see chapter "[Quick Search Settings](#)" on page 92.








If you want to search by specific attributes, use Quick Search (see chapter "[Finding Requirements with Quick Search](#)" on page 174).

## Reports Tab









This section describes the listing, selection and execution of reports from Home. To access details concerning report creation, edit and execution, see "[Creating Reports](#)" on page 293.

Reports allow users to filter objects based on class, category, attributes (system or custom) or relationships. All data can be defined at report creation time, or selected attributes can be entered at run time. Reports are assigned names, descriptions and saved; all are listed for reuse in the Reports Tab.

The following icons are available: from the Reports menu bar:

-  New Creates a New Report
-  Search Filter reports listed
-  Click to show only favorites
-  Click to show only public reports
-  Click to show only private reports
-  Click to list all reports, sortable by selected tabs
-  Click to list reports by Type

**The following icons are used with display:**

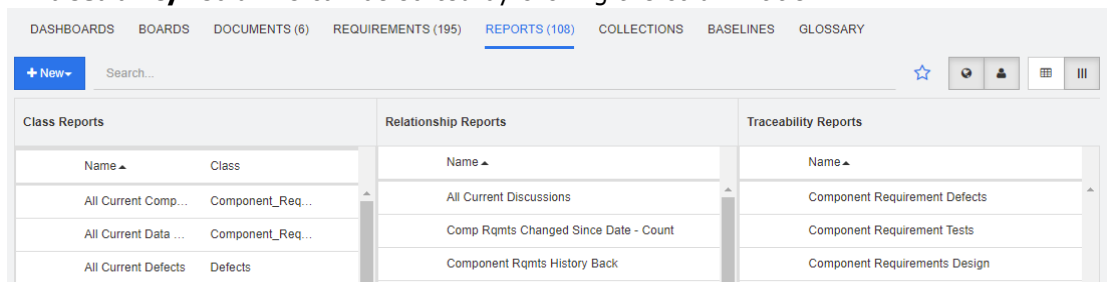
-  Class Report
-  Class Distribution Report
-  Class Trend Report
-  Relationship Report
-  Relationship Matrix Report
-  Traceability Report
-  Traceability Coverage Report
-  Report created by the current user

**Executing a Report**

Double-click an item to execute, or select the item and then click an action in the Actions pane. See [Chapter 6, "Working with Reports" on page 289](#).

**Reports by Type Mode**

An alphabetical listing of the reports contained in the currently selected category or categories. Reports are listed in columns by report type: **Class**, **Relationship**, and **Traceability**. Columns can be sorted by clicking the column title.




**All Reports Mode**

An alphabetical listing of the reports in the currently selected category or categories. The All Reports mode allows users to select the columns displayed. The different report types (Class, Relationship, and Traceability) are distinguished by the Type column. The Class column includes the requirement type.

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 Dl...	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

To change the displayed columns:

- 1 The  Columns icon opens the **Report Properties** dialog.
- 2 Add the columns you wish to show and remove the columns you wish to hide.
- 3 Click **OK**.



#### TIP

- Checking the box **Show Report Tooltip on hover** will display the description of a report. When there are many reports to choose from, the display of a clear description becomes very useful.

### ***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.

## Collections Tab

Collections are named groups of objects selected from one or more classes. Collections allow you to easily gather requirements for assignment, for review, or for baseline creation. As with all containers in Dimensions RM, collections do not contain copies of requirements, but links to a requirement version - typically the latest.

See "[Managing Requirements in a Collection](#)" on page 324 for additional detail concerning the creation and maintenance of Collections. The information in the listing include collection name, the number of objects contained in the collection. Use the columns tab to modify attributes displayed or sort order.

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

Double-click an item to view content in the Collections work page, or select the item and then click an action from the Actions pane.

The screenshot shows the Collections work page interface. At the top, there are two donut charts: 'Class Overview' (a blue and teal chart) and 'Workflow Overview' (a green and blue chart). Below the charts, the text 'ALM Release 2: FR and UC' is visible. At the bottom, there are two navigation tabs: 'FUNCTIONAL\_REQUIREMENT' with a count of 44, and 'USE\_CASE' with a count of 8. A toolbar with various icons (grid, list, refresh, etc.) is located to the right of the charts.

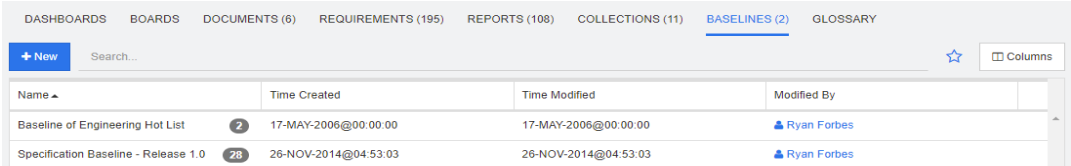
In the open collection, Editable-Grid, Grid, or Form view can be selected, Overview Graphs showing a class overview and, if relevant, a workflow overview. The display can be refresh, extended, or, using the **X**, closed.

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 331](#).

## Baselines Tab

Baselines are frozen groups of objects. They are created using the content in a collection or Document. Once created the content cannot be modified.

The following is an alphabetical listing of the baselines in a selected category.



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

To open a Baseline, double-click an item in the Baseline list, or select Open from the Baseline actions available in the Actions pane. Individual Baseline items may be viewed, the baseline itself may be exported, it's properties modified (but never its content).

It is possible to select two items from the list and to compare them, an excellent way to understand what has changed before reviews or releases, see ["Baseline and Collection Related Functions" on page 334](#).

To view additional information about Baselines, see ["Managing Baselines" on page 329](#).

## Glossary Tab

An Alphabetical list of terms used in application, product or corporate reports are created and managed within Dimensions RM. The **Glossary** tab is only available if the instance administrator created the Glossary class following the instructions outlined in ["Defining a Class" on page 466](#).

- To Add a Glossary entry, see ["Adding a Glossary Entry" on page 286](#).
- To Copy a Glossary entry, see ["Copying Glossary Entries" on page 287](#).
- To Edit a Glossary entry, see ["Editing a Glossary Entry" on page 287](#).
- To Move a Glossary entry, see ["Moving Glossary Entries" on page 287](#)
- To Delete a Glossary entry, see ["Deleting Glossary Entries" on page 288](#)
- To display extended Glossary information, see ["Viewing Extended Information" on page 288](#)

## Adding a Glossary Entry

- 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 the glossary definition into the **Description** box.
- 4 Alternative words for the term may be entered into the **Synonyms** box. Separate entries with a comma.
- 5 From the Groups drop-down, select the relevant Attribute Group.  
Terms may be separated into attribute groups, for example, Corporate terms, or terms associated with specific products. To add items to the Groups attribute in the Glossary Class see "[Attribute Definition](#)" on page 415.
- 6 If the **Not Recommended** option is checked, the following occurs in the document:
  - The term is **not** included in the Glossary chapter.
  - If Glossary highlighting is enabled, the term is marked in red.

The description for Not Recommended entries should state the reason why this term should not be used.
- 7 **Show in Subcategories:** If checked, typically the default, the glossary entry is accessible in subcategories of the category in which it was defined.  
Users who do not have access to the root category will have access to the entry from all subcategories to which they do have access.
- 8 Click **Save**.

---

## 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.

## Editing a Glossary Entry

**To edit an existing glossary entry, do the following:**

- 1 From the Glossary Tab, select the glossary entry in the list.
- 2 Select **Edit** from 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**, **Synonym**, or **Groups**.
- 4 If the **Not Recommended** option is selected, the following occurs in the document:
  - The term is not included in the Glossary chapter.
  - If Glossary highlighting is enabled, the term is marked in red.

The description for Not Recommended entries should state the reason why this term should not be used.

- 5 **Show in Subcategories:** If checked, typically the default, the glossary entry is accessible in subcategories of the category in which it was defined.

Users who do not have access to the root category will have access to the entry from all subcategories to which they do have access.

- 6 Click **Save** at the bottom of the edit form or click **Save** in the **Glossary** set of the **Actions** pane.

## Moving Glossary Entries

**Glossary entries may be moved from one category to another, or to the root category such that they become available to all subcategories. To move the entry, 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 target 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.



## Chapter 6

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# Working with Reports

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# About Reports

A Report allows users to filter (Query) requirements based on category or attribute content (e.g. creation 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 A listing of reports by Category is available in the **Reports** tab of the Home View.
- 2 For assistance in locating the desired report.
 

Search is available to limit the display.

Listing All Reports  rather than Reports by Type  will include report details including the description.

When displaying a report result, reports of the same type can be accessed from the bread crumb which is located above the report results.
- 3 Double-click the desired or highlight the report and select Run from the Actions pane.
- 4 If the report was defined with runtime options, enter the information requested.
 

Click the **Run Report** button on the report dialog.



To run an existing report with Runtime Parameters see: ["Running a Report with Runtime Parameters" on page 291.](#)

## Viewing the Report: Report Options and Functions

The following are available from the **menu bar** on the executed report:



 **Filter by Categories:** If the funnel is selected, the report only shows data matching the selected category in the **Categories** tree, for example:

  Selected




 |  Unselected, the report reflects all matching data in the Categories tree.

**Note the following:** If a report has constraints on one or more categories, it will override the category selected; the report will show all requirements matching the category constraint(s).


 **Include Subcategories:** If selected (gray background), the report shows data from the selected category and its subcategories. Note that the **Include Subcategories** is only selectable once **Filter by Categories** is selected.


  Processing data in selected category and subcategories.

**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 35.](#)


 : Change to grid view. For details, see chapter ["Grid View" on page 37](#).

 : Change to form view. Form view is only supported for Class reports. For details, see chapter ["Form View" on page 38](#).

 : Reloads the report result with the selected parameters. Note that this function is only available if the report uses runtime parameters.

 : Refreshes/Reloads the report result

 : Expands the report

 : 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.

## 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 ["Running a Report with Runtime Parameters" on page 291](#).
- 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.

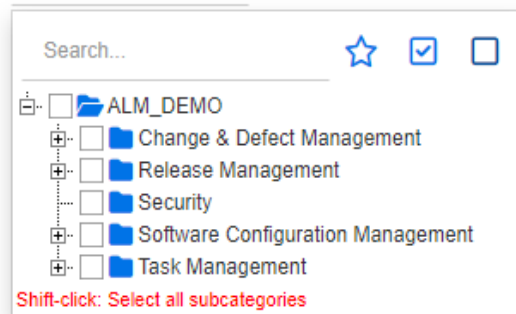
### **Selecting a Category Runtime Parameter**

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 ▾



## Creating Reports

The following chapters describe how to create the different report types:

["Creating a Class Report" on page 293](#)

["Creating a Graphical Report" on page 294](#)

["Creating a Relationship Report" on page 302](#)

["Creating a Traceability Report" on page 304](#)

### Creating a Class Report

The following describes the creation of a Class Report.

With this and all Reports, if the person executing the reports does 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 parameters.

#### To create a class report:

**Select Class Report** from the **New** menu, to open the Class Report dialog.

**Class:** Select the desired class from the list.

#### To save the report:

- Enter a name in the **Name** box.
- Type a description in the **Description** box. The maximum number of characters is 1024.
- In the **Category** list, select the category in which the report will be saved.

**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 the report is visible for 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:** If checked the report is accessible in subcategories of the category in which it was saved.

When reports are stored in the root category, with show in subcategories checked, users without root access will be able to see and run the report from all subcategories to which they do have access.

**Attribute Constraints:** As needed, to limit selection to requirements containing the attribute content specified. See "[Mechanisms for Filtering and Finding](#)" on page 49

**Relationship Constraints:** As needed to limit selection to requirements included in named containers or to those with specified links. See "[Relationship Constraints Tab](#)" on page 56.

**Display Options:** As needed, specify the attributes to include in the report. See "[Display Options Tab](#)" on page 58 for display details and report examples.

**View Script / View Wizard:** Click to toggle between the Wizard and Script views of the dialog. Although most functions are now available using the Wizard, selecting Script View allows users to add SQL-like functions to a basis report created using the wizard (see "[Script Syntax](#)" on page 509).

**If the report has been modified in Script View, the Wizard will no long be available.**

**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 be created using one of the following types:

- [Distribution Reports](#)
- [Trend Reports](#)
- [GANTT Reports](#)
- Calendar

A Distribution Report presents an overview of status, for example, given the requirements assigned to a particular release, report on where we are using workflow state and priority or analyst assigned.

A Trend Report presents the data over time, allows the team to see how quickly they are proceeding toward the goal.

A GANTT Report provides a mechanism to display status against time; how long did it take us to get here, and how far do we have to go.

## 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.
- 3 In the **required to save** group, select **Distribution Report** from the **Type** box.
- 4 If you want to save the report:
  - Enter a name in the **Name** box.
  - Type a description in the **Description** box. The maximum number of characters is 1024.
  - In the **Category** list, select the category in which the report will be saved.

- 5 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:** If checked the report is accessible in subcategories of the category in which it was saved. Reports useful for all users should be created in or moved to the root category.

Users who do not have access to the root category will be able to run the report from all subcategories to which they do have access.

- 6 **Attribute Constraints:** As needed, specify criteria to locate the desired requirements.

See ["Mechanisms for Filtering and Finding" on page 49](#) and ["Relationship Constraints Tab" on page 56](#).

- 7 **Display Options:**

Note that **Row and Column boxes** must not include: Multi line, HTML enabled or Date attributes

- 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 300](#).
- 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, additional content will be collected into a single row.

**Filter by Constraint:** Checking this box will ensure that the report is limited by the constraints, irrespective of the number of containers that include selected objects. Available if the **Row** box or **Column** box contains **List**, **Group**, or **Special Attribute**.

- c In the **Chart Content** set, an attribute may also be selected to be used to calculate totals displayed in **Sum Totals By**.
- d For Pie reports only the **Row** is available.

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 301.

**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.
- 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 "[Mechanisms for Filtering and Finding](#)" on page 49 and "[Relationship Constraints Tab](#)" on page 56.
- 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 300.
- 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 301.

- 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:** If checked the report is accessible in subcategories of the category in which it was saved. Reports useful for all users are typically created in or moved to the root category.

Users who do not have access to the root category will be able to run the report from all subcategories to which they do have access.
  - 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 "[Save, Update, Delete, Remove Functions](#)" on [page 181](#).



**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 "[Mechanisms for Filtering and Finding](#)" on [page 49](#) and "[Relationship Constraints Tab](#)" on [page 56](#).
- 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:** If checked the report is accessible in subcategories of the category in which it was saved. Reports useful for all users are typically created in or moved to the root category.

Users who do not have access to the root category will be able to run the report from all subcategories to which they do have access.

**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 allows users to show only requirements 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 295](#) and ["Trend Reports" on page 296](#).

**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 301](#), for all other styles see ["Common Options" on page 300](#).

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.

**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.



#### 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.

## 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.

- 1 Select **Relationship Report** from the **New** menu. The *Query By Relationship* dialog opens.
- 2 **Relationship:** Select the relationship to be reported on from the drop-down.
- 3 If you want to save the report:
  - a Enter a name in the **Name** box.
  - b Type a description in the **Description** box; this will be displayed when users hover over the report name. The maximum number of characters is 1024.
  - c In the **Category** list, select the category in which the report will be saved.
- 4 To make the report public:
  - **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.
- 5 **Show in Subcategories:** If checked the report is accessible in subcategories of the category in which it was saved.

When reports are stored in the root category, users without root access will be able to run the report from all subcategories to which they do have access.

## 6 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.

For additional using the Matrix View see ["Using the Matrix View" on page 304](#).

### b Select a **report type**:

A sample of the selected report type is displayed on the right hand side of the dialog.

- **Full (compliance and non-compliance):**

All matching requirements in the primary with and without links to secondary.  
**Check the box** to include secondary without links to primary.

or

Secondary with and without links to primary. Check the box to include primary without links to secondary.

- **Compliance only:** The 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.



**NOTE** The **Non-Compliance only** option is only available if the **Table View** option is selected.

- **Non-Compliance only:** The reports lists either:

All matching requirements in the primary class with no links to matching requirements in the secondary class

All matching requirements in the secondary class with no links to matching requirements in the primary class

**7 Constraints Source/Constraints Target:** As needed, to limit selection in the source (primary) class and/or target class to requirements containing the attribute(s) content specified. See ["Mechanisms for Filtering and Finding" on page 49](#).

**8 Container Source/Container Target:** As needed, to limit selection to container(s) holding source and/or target requirements. See ["Relationship Constraints Tab" on page 56](#).



**NOTE** For Matrix View, only a single attribute is displayed for each of source and target.

- 9 Display Source/Display Target:** As needed, specify the attributes from the secondary class to be included in the report. See "[Display Options Tab](#)" on page 58. .
- 10 Preview:** Click this button to run the report without saving the report or closing the dialog.
- 11 Save:** Click this button to save and run the report. The dialog will close.

### Using the Matrix View

- 1** 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.
- 2** 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.
- 3** To create a link between two requirements do the following:
  - a** Click the gray square where both requirements intersect. This opens the **Create Link** dialog.
  - b** Click **OK** to create the link.
- 4** To delete the link between two requirements do the following:
  - a** Click the blue or red square where both requirements intersect. This opens the **Delete Link** dialog.
  - b** Click **OK** to delete the link.
- 5** To clear a suspect link between two requirements, do the following:
  - a** Right-click the red square where both requirements intersect.
  - b** Select **Resolve Suspicion** from the shortcut menu. This opens the **Resolve Suspicion** dialog.
  - c** Click **OK** to resolve the suspicion.

## Creating a Traceability Report

Traceability reports support 2 modes, **Matrix** and **Coverage**.

**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.

Select **Traceability Report** from the **New** menu.

**Top-level class:** Select the root class for the report.

**Type:** Select **Matrix** or **Coverage**

**To Save the Report:**

**Name:** Enter a name in the **Name** box.

**Description:** Type a description of the query in the **Description** box. The maximum number of characters is 1024.

**Category:** From the **Category** drop-down, select the category in which the query will be saved.

**To make the report public:**

**Public Report:** Select this box to make the report public, otherwise the report is private. Permission must be granted in the Reports section to create a Public Report.

**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:**

If checked the report is accessible in subcategories of the category in which it was saved.

When reports are stored in the root category, users without root access are able to run the report from all subcategories to which they do have access.

**Related Classes to Display tab:**

**Select the Relationships:** Check the boxes next to the classes to specify the relationships that should be displayed in the traceability report.

The selected Top-Level class is pre-checked.

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.

**Constraints:** As needed, specify criteria to locate the desired requirements.

["Mechanisms for Filtering and Finding" on page 49](#)

["Relationship Constraints Tab" on page 56.](#)

**Display Options:** The Display Options tab is only visible if the selected type is Matrix.

As needed, specify how to display the results.

In traceability reports all classes are available for selection on the Display Options Tab, but only those included in the "Related Classes to Display" are saved with the report.

See ["Display Options Tab" on page 58](#).

**Group By:** Available if selected Type is **Coverage**.

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.

**Display Options:** As needed, specify the attributes to include in the report.

See ["Display Options Tab" on page 58](#) for display details and report examples.

**View Script / View Wizard:**

Click to toggle between the Wizard and Script views of the dialog. Although most functions are now available using the Wizard, selecting Script View allows users to add SQL-like functions to a basis report created using the wizard (see ["Script Syntax" on page 509](#)).

**Once the script has been modified, the Wizard will no longer be available.**

**Select one 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.

**Cancel:** Click this to exit without saving changes.

For additional information see: ["Working in the Traceability Work Page" on page 306](#). A section that includes:

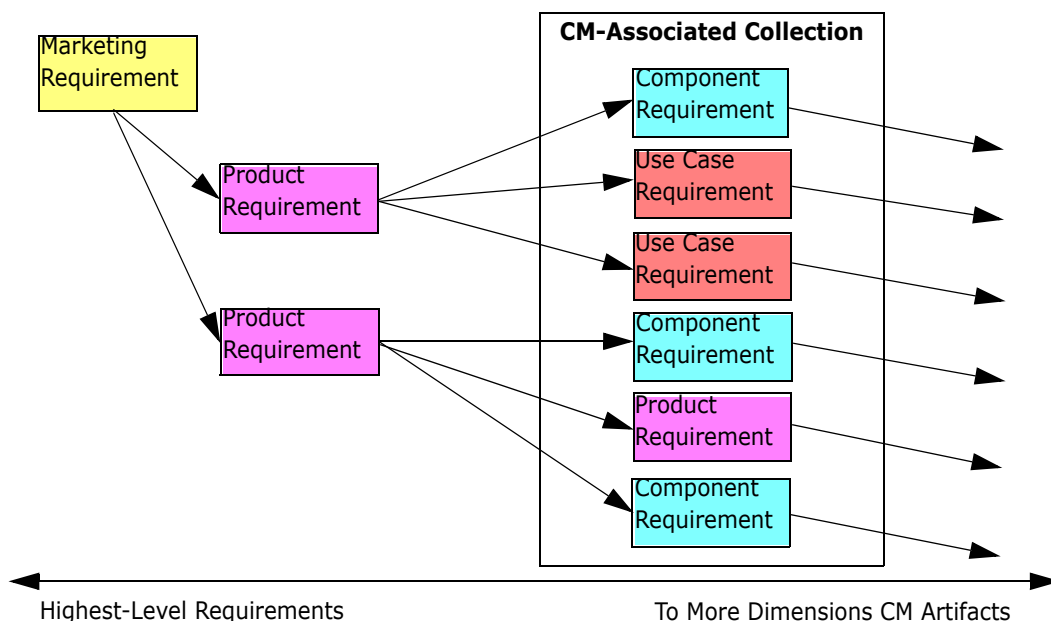
["Understanding the Traceability Tree" on page 307](#)

["Customizing the Traceability Tree" on page 308](#)

## 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.

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 <a href="#">"Understanding the Traceability Tree" on page 307</a> .
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:


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 308](#).

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 308](#).

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.

### **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.

- 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.

- Initially, the **Choose a class** list is the only field that is displayed. Select a class in the **Choose a class** list.
- Attributes to Display in the Tree:** To specify which attributes to display in the report, see chapter ["Attributes to Display List" on page 40](#).
- Attributes to Display in the Tooltip:** To specify which attributes to show in the tooltip, see chapter ["Attributes to Display List" on page 40](#).
- 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:

- Select the desired report in the Reports tab of the Home View.
- 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. Permission must be granted in the Reports section to create a Public Report.

**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:** If checked the report is accessible in subcategories of the category in which it was saved. Reports useful for all users are typically created in or moved to the root category.

Users who do not have access to the root category will be able to run the report from all subcategories to which they do have access.

**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.

**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.
Compliance only	The report lists either: <ul style="list-style-type: none"> <li>■ All matching requirements in the primary class that have links to matching requirements in the secondary class</li> <li>■ All matching requirements in the secondary class that have links to matching requirements in the primary class</li> </ul>
Non-Compliance only	The reports lists either: <ul style="list-style-type: none"> <li>■ All matching requirements in the primary class that have no links to matching requirements in the secondary class</li> <li>■ All matching requirements in the secondary class that have no links to matching requirements in the primary class</li> </ul>

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 ["Mechanisms for Filtering and Finding" on page 49](#) and ["Relationship Constraints Tab" on page 56](#).
- 6 **Display Options:** As needed, specify how to display the results. See ["Display Options Tab" on page 58](#).
- 7 **Display Options:** As needed, specify the attributes to include in the report. See ["Display Options Tab" on page 58](#) for display details and report examples.
- 8 **View Script / View Wizard:** Click to toggle between the Wizard and Script views of the dialog. Although most functions are now available using the Wizard, selecting Script View allows users to add SQL-like functions to a basis report created using the wizard (see ["Script Syntax" on page 509](#)).

**Once the report has been modified, the Wizard will no long be available.**

- 9 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


Everything managed within Dimensions RM can be exported.

For complete details concerning the export of Reports, Collections, Baselines, Categories, Documents, or Snapshots, please see "[Exporting Requirements](#)" on page 201.


## 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.

## 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 <b>&amp;hideTitleBar=true</b> to the URL.	<code>http://myserver:8080/rtmBrowser/cgi-bin/rtmBrowser.exe?goto=report&amp;db=ORCL&amp;proj=RMDEMO&amp;reportID=1141&amp;hideTitleBar=true</code>
Show Trace Report in Outline View	To view a trace report in Outline View, add <b>&amp;outlineView=1</b> to the URL.	<code>http://myserver:8080/rtmBrowser/cgi-bin/rtmBrowser.exe?goto=report&amp;db=ORCL&amp;proj=RMDEMO&amp;reportID=1141&amp;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 <b>&amp;&lt;Parameter Name&gt;=&lt;value&gt;</b> to the URL.  When providing runtime parameters, the value must be URL encoded (e.g. Café translates to Caf%C3%A9).	http:// myserver:8080/ rtmBrowser/cgi-bin/ rtmBrowser.exe?goto =report&db=ORCL&pro j=RMDEMO&reportID=3 522&RTP__VERIFICATI ON_LEVEL_1=System
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.	http:// myserver:8080/ rtmBrowser/cgi-bin/ rtmBrowser.exe?goto =report&db=ORCL&pro j=RMDEMO&reportID=3 522&RTP__VERIFICATI ON_LEVEL_1=System M odule

### 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__VERIFICATION_LEVEL_1=System`
- 16** You can now use the Report URL in your file or application.

## Compliance Reporting

The Dimensions RM Compliance Report is designed to help organizations use the data stored in Dimensions RM to assess adherence to corporate by-laws, rules, regulations, and standards - internal or external.

Some of the **Compliance** functionality can be included in traceability reports, or gathered into multiple reports to show progress on your dashboard. However, the Compliance Audit allows the organization to wrap a single report around all the rules and to limit the output to the errors.

For a set of categories or a release document, you might check that:

- All requirements have been assigned to the specified release.
- All objects contained in the release have been approved.
- All requirements relationships exist.

- All linked test cases have succeeded.

The Compliance Audit lists those objects that have failed to meet defined conditions.

The following Sections provide instructions for:

- creating a report: ["Creating a Simple Compliance Report" on page 316](#)
- compliance report execution: ["Executing a Compliance Report" on page 320](#)

## Creating a Simple Compliance Report

There are three parts to the Compliance Audit:

- 1 General: Naming the report and describing goals: ["Compliance Report: General" on page 316](#)
- 2 Scope: Establishing the extent of the reports coverage: ["Compliance Report: Scope" on page 317](#)
- 3 Rules: Define the rules that must be met for compliance: ["Compliance Report: Rules" on page 318](#)

### **Compliance Report: General**

To create or execute Compliance Reports select the Compliance tab on the Home View. If the tab is not available to you, please check the instructions in ["Home Settings" on page 84](#).

Complete the following steps to initiate report creation.



**CAUTION!** As with all reports, if a user does 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.

- 1 Select the Compliance tab from Home View.
- 2 Click on **New** to open the **New Compliance Audit >> General** Dialog.
- 3 **Enter a Name.**
- 4 Use the description attribute to define the goals.
- 5 Determine the accessibility of the report:
  - Public Report:** Select this box to make the report public, otherwise the report is private. Permission must be granted in the Reports section to create a Public Report.
  - 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.
- 6 **Category:** This setting refers to the category in which the report will be saved, it defaults to the current category. You may configure using the drop-down.

- 7** Show in Subcategories: If checked the report is accessible in subcategories of the category in which it was saved. Reports useful for all users are typically created in or moved to the root category.

Users who do not have access to the root category will be able to run the report from all subcategories to which they do have access.

A sample Compliance, General Dialog:

Simple Compliance Audit » General

GENERAL

Name: Simple Compliance Audit

Description:

The workflow state of all Functional Requirements must be approved.

All Functional Requirements must be linked to at least one Test Case.

Public Compliance Audit

Visible for: All

Editable for: Administrator

Category: ALM\_DEMO

Show In Subcategories

View All

Next > Save Cancel

- 8** Click on **Next** to proceed to the **Scope** Dialog

### **Compliance Report: Scope**

Identify all objects relevant to the report. The scope may include all objects in a category, or those included in a report, baseline, or document.

It is possible to expand the scope to include all objects linked to objects defined as in scope.

- 9** For scope you may choose to:
- Define Now - with redefinition or reassessment provided at run time.
  - Defined on Run - leaving the Scope decisions for later.

We recommend defining the scope, but leaving room for a reassessment at run time, although this depends on your report target.

- 10** Should you chose Define Now Click on **Add Scope**, which raises the Scope >> Definition Dialog.

Objects are selected using a check mark, multiple items may be selected.

- a** Select the Scope Type. The Scope may be based on one or more **Categories**, **Containers** or **Reports**.

- b** If **Categories** is chosen, you may choose only the Current Category or you may include its subcategories.



**NOTE** This choice of category does not refer to the category in which the **Compliance Audit** was created and/or saved, but the category from which it is executed.

- c** If **Containers** is chosen, choose the Document, Snapshot, Collection or Baseline that will be used to identify the relevant objects in the Compliance Report.
- The category may be entered here as a filter to assist in object selection.
- d** If **Reports** is chosen, choose the report that will be used to scope the Compliance Report.

Type any characters contained in the report to filter the list.

- e** Click **OK**.

- 11 Include Linked Objects:** Check this box if you wish to include in scope all objects linked to selected objects. For this example, we have included the full release scope in the document.

A sample Compliance Scope Dialog - limiting the scope to only those objects contained in the release document.

- 12** Click on **Next** to proceed to the **Rules** Dialog

### **Compliance Report: Rules**

The rules consist of one or more statements defining the requirements of the audit, for example.

- The workflow state of all Functional Requirements must Approved.
- All Functional Requirements must be linked to at least one Test Case.



**NOTE** Please note that the fields that must have input prior to proceeding are listed in red.

- 13 Enter the Rule Name - Rules may be selected and executed individually, so each should have a meaningful name. For example, FR Workflow Approved
- 14 Enter the goal of the rule. For example, all Functional Requirements must be approved.
- 15 Rules have one or more **Conditions**, and conditions have **Constraints**: The first condition should be ready for constraints.
- 16 Click on **Add Constraint**. This will open a new line, with fields to be populated:
  - a Select Type: Category, Class, Object Type or Title. In this example, we will choose Class.
  - b Once the Type has been selected, the possible choices on the right will be listed. In our example, classes are listed, we chose Functional.
  - c Click on **Add Constraint**, to further constrain the search to Function requirements NOT IN the state Approved.

A sample Compliance condition -

Simple Compliance Audit » Rules

▼ RULES 1

▼ FR Workflow Approved

Name: FR Workflow Approved

Description:

File Edit View Insert Format Tools Table

Paragraph B I A sans-serif 9pt

All Functional Requirements must be approved.

Conditions (1): + Add Condition

▼ Condition 1

▼ Source Constraints (2) + Add Constraint

Class	in	Functional_Requirement
Workflow State	not in	Approved Completed In Dev In Test Proposed

Add Link Constraint

Count: = 0

View All < Prev Save Cancel

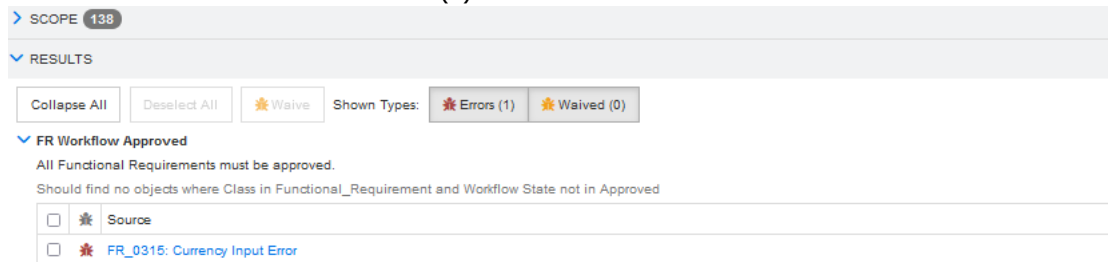
- 17 **Set the Count to zero.** We are reporting on the number of Functional Requirements with a Workflow that is **NOT approved**, only errors will be reported.
- 18 **Save** the report.

We will pause there to execute the report. To add relationships to the Audit, see ["Expanding a Compliance Report" on page 320](#).

## Executing a Compliance Report

- 1 Select the Compliance tab from Home View.
- 2 Select a saved report from the drop-down, and click on **Run**, to raise the dialog.
- 3 If you have included the ability to modify the Scope at run-time, you may do so.
- 4 Compliance reports may be comprised of many rules, and these rules may be executed selectively.

Check the box next to the rule(s) to be executed and click on **Run**.



- 5 From the execution dialog, we can review the scope, which could consist of thousands of objects, or we can simply click on the 'Errors' tab to list the problems. We can link directly to the offending object and, perhaps, fix it and run the report again.

Some errors may be waived, for the life of the execution or until the issue is corrected. you may choose to **Waive** an error.

### To waive a Compliance Error

- 1 Check the box to the left of the error,
- 2 Click on the Waive button, to raise the Waive dialog.
- 3 Enter a reason for waiving the error.
- 4 Continue execution of the report, the waived issue will continue to display.

## Expanding a Compliance Report

### Adding Relationships to Compliance

Compliance Reports can be expanded over time, new rules or conditions added to existing rules may be created as needs arise. The following adds a new rule to an existing report:

- 1 Select the Compliance tab from Home View.



- 2 Select a saved report from the drop-down, and click on the Edit pencil to open the dialog. You may use the **Next** button to skip the General and Scope dialogs to get to Rules or click on the **View All** button at the bottom of the dialog to scroll through the full report.
- 3 **Click on Add Rule**, to add a new rule to the existing dialog.
- 4 Enter the Rule Name - For this second example, we are including relationships, the Rule name might be "In FR to TC"
- 5 Enter the goal of the rule. For example: All Functional requirements must be linked to at least one Test Case.
- 6 The first **condition** is created with the rule, Click on **Add Constraint**, to open a new constraint line.
  - a Select type - Class in this example as we are checking the existence of a link/relationship between the objects in two classes.
  - b Once the Type has been selected, the possible choices on the right will be listed. In this example, choose the Functional Class.
  - c Click in **Add Link Constraint**.
  - d The link direction will default to any, which is fine for this example.
  - e Click on **Add Constraint**, to add the target constraint.  
We will choose Class, in, Value, Test Case.
- 7 Count should be set to > (greater-than) zero, as there must be at least one link between each Functional Requirement and the Test Case.

fr to tc

Name: fr to tc

Description: Functional must be linked to at least one test case

Conditions (1): + Add Condition

Condition 1

Source Constraints (1): + Add Constraint

Class in Functional\_Requirement

Remove Link Constraint

Link Direction: Any

Any Link Direction. Both primary and secondary linked objects form the Target Scope.

Target Constraints (1): + Add Constraint

Class in Value Test\_Case

Count: >

Any rule or combination of rules is accepted in the compliance report, and the rules may be defined separately and executed separately. This means that segments of a large compliance audit may be run by different application teams at different times.

All attributes contained in a class, or all titles in a document may be evaluated. Choosing, for example, a requirement class, additional constraints can be added until we have ensured that all is as it should be.

To the test for existing relationships we can added constraints to ensure that each related test case has Passed testing.

## Chapter 7

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# Working with Collections and Baselines

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# Managing Requirements in a Collection

Collections are named groups of objects selected from one or more classes.

Collections allow users to gather requirements for assignment, for integration support, for review, or for baseline creation. As with all containers in Dimensions RM, collections do not contain copies of requirements, but links to a requirement version - in collections it is typically the latest.




**CAUTION!** When you display the content of a collection, you only see the requirements for which you have read access.

The content of Collections can be included in other containers and all report types,

## To list the Collection Content

### From Home View:

- 1 Open the Home View by clicking .
- 2 Select the desired category if relevant.
- 3 Select the **Collections** tab.

With the 'Include Sub-directories'  folder open, all collections in categories to which you have access will be listed.

Using the Columns tab additional collection properties, including Work Flow related attributes can be included in the display.

- 4 To list content, double-click the desired collection or select and click on **View Content** under Collections in the Action pane.

### From Quick Search:

#### 1 Select Classes

Complete the Quick Search settings, ensuring that you have selected 'All Classes' or at least all classes contained in the Collection.

#### 2 Collections can be Favorites

Include the collection under Containers. Note that like Categories, Collections can be marked as Favorites.



The following sections discuss additional Collection related Functions:

["Creating a New Collection" on page 325](#)

["Adding Requirements to a Collection" on page 326](#)

["Removing Requirements from a Collection" on page 327](#)

["Deleting a Collection" on page 327](#)

["Undeleting a Collection" on page 328](#)

["Removing a Collection" on page 328](#)

["Refreshing the Contents of a Collection" on page 328](#)

["Updating Collection Properties" on page 329](#)

["Modifying the URL of a Collection or Baseline" on page 336](#)

## Creating a New Collection

### To create a collection:

- 1 Select **Collection** from the New menu. The New Collection dialog is opened.
- 2 **Collection Name:** Enter the name of the new collection.
- 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 an object contained in this collection is edited, the link is transferred to the new object. Best practice is to check this box and, when a fixed (immutable) object list is needed to Baseline the Collection.
  - Delete old version from collection on Edit & Save:** When an object contained in this collection is edited, the link is transferred to the new object and the original object is deleted. Best practice is to check this box, leaving it unchecked will cause multiple versions of a single requirement to be contained in the collection.
  - Revert to previous version on Remove:** If this box is checked, when an object is **Removed** from the instance the link is transferred to the parent, if a parent exists. This box is unchecked by default.
  - Objects can be added/removed:** If this box is checked, the collection is active, requirements can be added or removed from the collection. This box is checked by default.
  - Remove deleted objects from collection:** If this box is checked, objects marked as deleted will be removed from the collection. The default is to leave deleted objects in the collection, as they remain in the instance, but will be marked as deleted.
  - Use these rules as the default for new collections:** Check this box to apply the selected 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
  - Selected Container(s):** Selecting this will raise the **Add Containers** dialog. Using check boxes, select one or more containers from existing types: Collections, Documents, Snapshots or Baselines. The new Baseline will contain all requirements from selected container(s). See ["Add Containers" on page 330](#).

**Query:** First choose **Category** from the drop-down, and then the report name.

If the list is long, use the **Find Query** filter at the bottom of the dialog to filter on report name.

**7** Click OK.

Collections allow users to gather requirements for assignment, for integration support, for review, or for baseline creation. **Actions** available from the collection include:

**Compare:** The ability to compare two baselines or a baseline and a collection. For details see ["Comparing Collections or Baselines" on page 334](#).

**Browse Links:** Show the link graph for the collection contents, can be interesting. For details see ["Using Link Browser" on page 224](#).

**Resolve Suspicion:** Clear suspicion on direct links from each object in the collection; this may require a **Reason**. For additional information see ["Suspect Links" on page 219](#).

For additional functionality, see:

["Adding Requirements to a Collection" on page 326](#)

["Removing Requirements from a Collection" on page 327](#)

["Deleting a Collection" on page 327](#)

["Undeleting a Collection" on page 328](#)

["Removing a Collection" on page 328](#)

["Refreshing the Contents of a Collection" on page 328](#)

["Updating Collection Properties" on page 329](#)

## Adding Requirements to a Collection

There are several ways to add requirements to a Collection. New Collections, as discussed in ["Creating a New Collection" on page 325](#), can be populated during creation.

Requirements can be added from the Quick Search, or from any list of objects,

- 1** Select one or several requirements in a work pane.
- 2** Select **Add to Collection** from the **Requirements** set of the **Actions** pane.
- 3** From the "Add to Collection" dialog, select the desired collection or collections. Use the filters across the top to limit the selection.

**4** Click **OK**.

When larger groups of requirements must be added to a collection, **use Organize by 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.
- 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 ["Mechanisms for Filtering and Finding" on page 49](#) and ["Relationship Constraints Tab" on page 56](#).
- 6 Display Options:** As needed, specify how to display the results.  
See ["Display Options Tab" on page 58](#).
- 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 38](#).
- 10 Collection:** Select the collection to which you want to add or remove requirements.
- 11** Click one of the following buttons:
  - Ad:** To add the selected requirements to the collection.
  - Remove:** To remove the selected requirements from the collection.

## Removing Requirements from a Collection

From the Requirements view, you can remove requirements from a collection or collections simply by selecting requirements and clicking **Remove from Collection**.

### 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.
- 3** Select the desired collection or collections.
- 4** Click **OK**.

## Deleting a Collection

When you delete a collection, it is marked as deleted. Content can no longer be added to a deleted collection and it is hidden from the list displayed on the Home View Collections tab unless the Action: **Show Deleted Collections** is selected.

To permanently remove a collection, use the **"Remove"** function (see ["Removing a Collection" on page 328](#)).

### To delete a collection:

- 1** Open the Home View, see chapter ["Working with the Home View" on page 267](#).
- 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, see chapter "[Working with the Home View](#)" on page 267.
- 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 gray text color.
- 4 Select one or several deleted collections.
- 5 Click **Undelete** in the **Collections** set of the **Actions** pane.
- 6 Click **OK** to undelete the selected collection or collections.

## Removing a Collection

Removing a collection removes the collection, not the contents, from the database **permanently**. Removed collections cannot be restored.

Collections can be marked as deleted using the Delete (see "[Deleting a Collection](#)" on page 327).

### To permanently remove a collection:

- 1 Open the Home View, see chapter "[Working with the Home View](#)" on page 267.
- 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.

## Refreshing the Contents of a Collection

The contents of collections created based on queries/reports will change as the content of the project changes. It is possible for an instance administrator to set an option to automatically refresh all collections based on queries/reports. This setting defaults to off (unchecked) for reasons of both performance and control. To activate/deactivate this option, see chapter "[General Settings](#)" on page 83.

If automatic refresh is off, the collection should be refreshed to include content modifications. To manually refresh the contents of a collection, execute these steps:

- 1 Open the Home View, see chapter "[Working with the Home View](#)" on page 267.



- 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 (i.e., if the collection is static).

## 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 From the main menu bar, select the **Home** View.
- 2 Select the **Collections** tab.
- 3 Select the desired collection.
- 4 Click **Edit Properties** from the **Collections** set of the **Actions** pane to open the **Properties** dialog.
- 5 Modify the name, description and collection rules as needed. See "[Creating a New Collection](#)" on page 325 for information on defining collection rules.
- 6 Click **OK** to confirm your changes.

## Managing Baselines

A **Baseline** is a frozen and labeled state that can be used for comparison or review. **Collections, Hierarchies, Report (Query) output,** or the object content of a **Document** may be baselined.

Note the following:

**Baseline Content:** The content of a baseline cannot be changed, however, it can be renamed or deleted by users with the appropriate permission.

Users may delete or rename baselines that they created, irrespective of assigned permissions.

**Collections** may be created from Baselines.

**Object Locking:** Opening a requirement from within a baseline will display a lock in the Header. Changes applied to the baselined object will be saved as a new version; the baselined version remains unchanged.

**Links** between objects contained in the baseline are also baselined, and cannot be modified once the baseline is created. Changes applied will be outside the baseline.

**Suspect Links:** Requirements with suspect links remain suspect even after they are baselined. Suspicion can be cleared, without modifying the baseline.

**Workflow Transitions:** Objects contained in a baseline may be transitioned. The new version is created; the baselined object is unchanged.

Baseline Content can be accessed from the Baselines tab in Home View .

The following sections discuss Baseline related Functions:

["Creating a New Baseline" on page 330](#)

["Removing a Baseline" on page 331](#)

["Updating Baseline Properties" on page 331](#)

["Copying the URL of a Collection or Baseline to the Clipboard" on page 336](#)

## Creating a New Baseline

A **Baseline** is a frozen and labeled state that can be used for comparison or review. **Collections, Hierarchies, Report (Query) output,** or the object content of a **Document** may be baselined.

### To create a baseline from a Collection:

1 Select **Baseline** from the **New** menu. The **Create Baseline** dialog opens.

2 **Name:** Enter a name for the baseline.

3 **Description:** Enter a description of the baseline.


4 **Category:** Select the category in which the baseline will be stored.

You can add a baseline to any category to which you have access.

5 **Workflow:** An optional workflow may be selected.

Based on local process, the inclusion of the workflow may require the input of additional data.

6 **Based on:** The content may be supplied from

**Selected Container(s):** Click  to raise the **Add Containers** dialog. Using check boxes, select one or more containers from existing types: Collections, Documents, Snapshots or Baselines. The new Baseline will contain all requirements from selected container(s). See ["Add Containers" on page 330](#).

**Query:** First choose **Category** from the drop-down, and then the report name.

If the list is long, use the **Find Query** filter at the bottom of the dialog to filter on report name.

**Hierarchy:** A baseline, including hierarchy structure, will be captured from the current **Category** and its sub-categories. In order to maintain the full structure, if the selection is made from a hierarchy folder, the baseline will include content from the containing category.

7 Click OK.

## Add Containers

### To select and add containers:

1 **Type:** Select Container Type: Collection, Baseline, Document, Snapshot.

2 **Category:** Locate the Category in which the baseline or collection shall be stored.

3 Using check boxes, select one or more containers from the list.

When the new baseline or collection is created, it will contain all requirements from selected container(s).

## Removing a Baseline



**CAUTION!** Removing a baseline removes the baseline from the database **permanently**. Removed baselines cannot be restored.

### To remove a baseline:

- 1 From the main menu bar, select the **Home** View.
- 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

Users may change the name, the description, the category location or the workflow assignment



**NOTE** You cannot rename a baseline that was created from Dimensions CM using the ALM integration.

### To edit the properties of a baseline:

- 1 From the main menu bar, select the **Home** View.
- 2 Select the **Baselines** tab.
- 3 Select the desired baseline.
- 4 Click **Edit Properties** from the **Baselines** set of the **Actions** pane. to open the **Properties** dialog.
- 5 Modify the name, description, category or workflow assignment.  
For additional detail see ["Creating a New Baseline" on page 330](#).
- 6 Click **OK** to confirm your changes.

# Working with Parent Collections

## About Parent Collections

A parent collection allows users to link the content of collections, baselines, documents, or snapshots. Parent collections provide access to all objects contained in the children. If an object is added to or removed from a child, the change is reflected in the Parent.

Parent collections are identified by the "(Parent)" suffix in their name.

### Use Cases

**Requirement Structure:** Parent collections can help to structure requirements. The parent collection could, for example, represent a project, while child collections represent components or functions.

**Cross Category Reference:** 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.

The following sections discuss additional Parent Collection related Functions:

["Creating a Parent Collection" on page 332](#)


["Adding a Child to a Parent Collection" on page 333](#)

["Removing a Child from a Parent Collection" on page 333](#)

## Creating a Parent Collection

Parent collections can be created based on Documents, Snapshots, Collections or Baselines, once created they are always listed for selection under the Collections tab on the Home view


### 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.
- 7 **Description:** Enter a description of the baseline.  
The maximum length of the description is 512 characters.
- 8 **Category:** Select the category in which the parent collection will be stored.  
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 additional 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.


## 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; parent collections are always included with collections.
- 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.
- 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.

## Baseline and Collection Related Functions

### Comparing Collections or Baselines

**To compare the contents of two collections or baselines:**

- 1 Open the Home View by clicking .
- 2 Select the **Collections** or **Baselines** tab.
- 3 Select the desired collection or baseline.
- 4 To open the **Compare Containers** dialog, Click **Compare** from **Actions** pane.
- 5 **Select Container:** Click  to list available **Compare Containers**.
- 6 **Description:** Select this option to display description in the results.
- 7 Click the **Compare** button.

The summary lists the Requirement ID, Title, Description (if selected), and the class for the following. The output can be limited using the icons at the top of the summary:

**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 requirements in both containers, but changed.

**Unchanged Requirements:** This is a list of requirements in both containers, but unchanged.

- 8 To open a details view of a requirement, double-click the requirement.

### Using Workflows with Collections or Baselines

If configured by your administrator, you can use Workflows with collections and baselines.

**To assign a collection or baseline to a workflow, do the following:**

- 1 From Home, select the relevant object from either the Collection or Baseline Tab.
- 2 Click **Edit Properties** in the **Collections** or **Baselines** group of the **Actions** pane. This opens the **Properties** dialog.
- 3 From the **Workflow** drop-down, select the desired workflow.
- 4 Click **OK**.

### Executing a Transition on a Collection or Baseline

#### To execute a transition, do the following:

- 1 From Home, select the relevant object from either the Collection or Baseline Tab.
- 2 Open the **Collection** or **Baseline** by double-clicking or clicking Open from the **Actions** pane.
- 3 The **Workflow** transition button is displayed on the right side of the Breadcrumb.  
The current **Workflow** State and well as the next state are displayed below the **Welcome** menu. if there is no transition displayed, the object has reached its final transition state.
- 4 Click on the transition to execute.  
A dialog will be raised should the transition rules require additional information.
- 5 Depending on configuration and content, a progress bar may also be displayed.


### 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.

- 1 From Home, select the relevant object from either the **Collections** or **Baselines** Tab.
- 2 Open the **Collection** or **Baseline** by double-clicking or selecting **Open** from the relevant set on the **Actions** pane.
- 3 Once opened, the progress bar at the top right shows:
  - Workflow progress** of objects contained in the collection
  - Current Workflow State** followed by the
  - Next Transition State**
- 4 Clicking in the **Workflow Progress** bar opens the **Edit Attributes** dialog for the container.  
This dialog contains all standard, custom and system attributes associated with the collection or baseline.

## 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 <b>&amp;editableGrid=true</b> to the URL.	<code>http://myserver:8080/rtmBrowser/cgi-bin/rtmBrowser.exe?goto=collection&amp;db=ORCL&amp;proj=RMDEMO&amp;collectionId=5&amp;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 <b>&amp;hideTitleBar=true</b> to the URL.	<code>http://myserver:8080/rtmBrowser/cgi-bin/rtmBrowser.exe?goto=collection&amp;db=ORCL&amp;proj=RMDEMO&amp;collectionId=5&amp;hideTitleBar=true</code>







## Chapter 8

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# Importing Requirements

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# Importing Requirements from Microsoft Word Documents

## Considerations concerning the import of Microsoft Word Documents

To check which versions of Microsoft Office are supported, please refer to the Platform Matrix at <https://www.microfocus.com/documentation/dimensions-rm/>.

### If Microsoft Office is NOT installed on the server:

**Importing Microsoft Word documents** through RM Browser is only supported using the Import Mode: *Entire Document (Chapters Only)*. If there are issues, consider RM Import.

**Importing Microsoft Excel** files must be saved as CSV and imported through RM Browser (see "Importing Requirements from a CSV or Excel File" on page 349).

### PDF Documents:

PDF documents should only be imported with **Entire Document (Chapters only)** mode.

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 and, therefore, raise errors in imported requirements.

## Should RM Browser or RM Import be used for importing documents?

Using the RM Browser to import Microsoft Word documents can be available to all users to:

- Create new requirements
- Create an RM document and populate it with new requirements
- Update or replace existing requirement versions

When importing a Word document using RM Browser, you can choose to import:

- The entire document (creating an RM document)  
Any document with images can be imported, creating a new RM Document. Text and images from the import can then be selected to create requirements.
- Only the requirements contained in table format

**The RM Browser** Word Document Import requires that the Word document be of the expected layout and format (as described in the following sections).

**RM Import** with Template Creation from **RM Import Designer** provides a facility for importing requirements previously stored in word documents. Instructions for using RM Import Designer and RM Import can be found in the ***Dimensions RM Administrator's Guide***.

RM Import Designer and RM Import can be installed on the the desktops of selected users. Please see the chapter *Installing the Administrator Client* in the Dimensions RM Installation Guide.

## Formatting Requirements for Browser Import

The rest of this section refers to Browser Import only, for organizations with a backlog of Microsoft Word documents that could be imported into RM you might consider testing import using RM Import.

For import using MS Word Documents, 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 several layout options available for import, the following are examples:

### 1 Word Tables imported into a single class:

The simplest approach is to define each row as a requirement, with the attribute display names (as they are defined in the selected class), in the header in bold.

<b>Title</b>	<b>Text</b>	<b>Category</b>	<b>Delivery Phase</b>
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

### 2 Specify the class name of each requirement within the table row.

**Importing requirements exported and modified for re-import** is best accomplished using Excel. However, Excel is notoriously bad for including images within a cell. When exporting requirements containing images intended for modification and re-import, we recommend using Microsoft Word Tables or Roundtrip (see [Importing a Roundtrip Document](#)).

### 3 Create a table for each requirement.

<b>TITLE</b>	Runs on "standard" home PC		
<b>Priority</b>	<b>Paragraph Title</b>	<b>Document ID</b>	
1	Feature 3	Marketing Rqmts	
<b>Category</b>	RMDEMO/Power	<b>Delivery Phase</b>	Build1 TBD
<b>Text</b>			
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.			

Rules for formatting Microsoft Word Tables for RM Browser Import:

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.

**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.)

**Category** must match the supported formats (see chapter "[Category Import Formats](#)" on page 345).

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 Browser Import](#)" on page 341).
- 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.

The following Sections provide access to:

- [Importing a Word Document in Entire Document \(Chapters only\) Mode](#)
- [Importing a Word Document in Entire Document Mode](#)

- [Importing a Word Document in Tables only Mode](#)
- [Importing a Roundtrip Document](#)

### **Importing a Word Document in Entire Document (Chapters only) Mode**

The **Entire Document (Chapters only)** mode will import the document "as is". This mode can be used when importing Word Documents into RM when Microsoft Office is NOT installed on the server.

Tables and text are not parsed as requirements, however if requirement text is formatted in a way that makes the requirement statements easily to select, the **Change Class** action can be used to create requirements from the document text, while leaving document free-form text (e.g., Chapter introductions) in place. The **Change Class** function is described in chapter ["Splitting Text Into Requirements" on page 150](#).

#### **To import a Word document:**

- 1** In RM Browser, select **Word document** from the **Import** menu.
- 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 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.

- 6 Category:** Select the category into which you wish to import the document.
- 7 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 Import with Word Processing:** Although 'Chapters Only' has been selected, MS Word Processing will be applied on import.

Selected: Apply Word Processing on Import. This must not be checked if MS Office is NOT installed on the server.

Cleared: Word Processing is not applied on Import.

- 10 Show Preview:** This is only available if **Import with Word Processing is cleared**. Selected: Raise a dialog displaying an outline of the document sections prior to the actual import. Check boxes to the left of those sections to be included, uncheck those to exclude.

**Checking** the Title box will select all, you may then deselect sections and their associated subsection as desired.

**11** Click **Import**.

After the import has been completed, the **Import Results** dialog opens. This dialog will display success for document creation, and information the number of chapters created.

**12** Click **Close** to dismiss the results.

**13** 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 343](#)) 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 355.
- 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 used to import a document exported as a **Roundtrip Word Document**. For further information on importing roundtrip documents, see chapter ["Importing a Roundtrip Document"](#) on page 346.

### **Importing a Word Document in Tables only Mode**

The **Tables only** mode imports requirements stored in Microsoft Word Tables; any surrounding document text is not imported.

When importing requirements stored in Tables, first ensure that all **mandatory** attributes that have not been defined with default values are included and contain values. If not, add a column with the missing attribute name and fill each cell with values.

#### **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 **Tables Only** from the drop-down list.
- 5 Choose whether to **Create**, or **Replace** content selected from tables within the 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 **Class Identifier:**

Specify the attribute name you used to identify the requirement class to be used for the requirements contained in the table. For example, Class Name. See ["Formatting Requirements for Browser Import"](#) on page 341.

- 7 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 355.

- 8 Click **Close** to dismiss the results.

- 9 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 167](#)), 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 **Roundtrip** 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 Document has chapter numbers:**  
Check if document chapters are numbered.
- 7** 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 355](#).

- 8 Click the **Close** button to dismiss the results.
- 9 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. <b>NOTE:</b> This option is not available for the <b>Create</b> 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. <b>NOTE 1:</b> This option does not remove CM locks. <b>NOTE 2:</b> This option is not available for the <b>Create</b> 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

CSV or Excel import provides a facility for bulk imports of stakeholder requirements, as well as the ability to export sets of requirements for review and re-import. The robustness of this functionality allows users to create, replace, update, delete, undelete, remove, link or unlink requirements.

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.



**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.

## Using CSV to Correct Errors:

**Update** overwrites the content of the requirement without maintaining a record of the change. This is typically not recommended, as maintaining history is one of many reasons to use RM. However, if someone has modified many objects with incorrect data - update might be the best way to fix erroneous entries.

If the need arises, grant the user responsible for error correction access to Update, export the incorrect entries, make the changes and import the corrections.

## To import requirements and requirement data from a CSV or Excel file:

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

- 1 To open the **Excel / CSV** Import dialog, select **Excel / CSV File** from the **Import menu**.
- 2 Click **Browse...** and select the CSV or Excel file to be imported.

- 3 From the **Import Mode** list, choose one of the following import options:.

Import Mode	Mapping Guidelines
<b>Create</b>	<p>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.</p> <p>First select the requirements class from the <b>RM Class</b> field. Then, select the column from the <b>File Column List</b> field and the corresponding attribute from the <b>RM Attribute</b> list. Click the right arrow button to add the mapped pair to the list of <b>Mapped Attributes</b>.</p>
<b>Update</b>	<p><b>Update presents two mapping sections.</b></p> <p>The first defines the criteria necessary to <b>locate</b> 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.</p> <p>The second section provides the facility to Select the column from the <b>File Column List</b> field and the corresponding attribute from the <b>RM Attribute List</b> field, before clicking the right arrow button to add the mapped pair to the <b>Mapped List</b> field.</p> <p>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 <b>Ignore rows matching multiple objects</b> option. For example, if using an internal requirement identifier or a title, if the identifier appears multiple times it might be best to reconsider those changes.</p> <p>It is also possible to create new requirements if no requirement matching the criteria specified is found.</p>
<b>Replace</b>	Refer to the information above on Update.
<b>Delete</b>	<p>Only the unique identifier is required to mark one or more requirements as deleted using this import facility.</p> <p>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 <b>Ignore rows matching multiple objects</b> option.</p>
<b>Undelete</b>	In situations where a group of requirements has been, perhaps mistakenly, marked as deleted, they can be 'Undeleted' using this import mode.
<b>Remove</b>	<p>Only the unique identifier is required to remove (as in erase) one or more requirements versions from the database.</p> <p>Only the <b>Current</b> version is removed; the previous <b>Replaced</b> version becomes current.</p>

Import Mode	Mapping Guidelines
<b>Link</b>	<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> <p><b>Choose the relationship</b> from the <b>Relationship</b> list. This relationship is used to identify relevant attributes in the primary and secondary objects identified.</p> <p><b>Select the value(s) from the import file that will be used to identify the primary requirement</b>, select the value from the primary class and then click the right arrow button to add the mapped pair to the <b>Mapped List</b> field. For example, Rqmt. Id to Rqmt. ID.</p> <p><b>Select the value(s) from the import file that will be used to identify the secondary requirement</b>, select the value from the secondary class and then click the right arrow button to add the mapped pair to the <b>Mapped List</b> field. For example, Rqmt. Id to Rqmt. ID.</p> <p><b>Select the Ignore rows matching multiple objects</b> option to include only those rows in the import file that uniquely match one object in Dimensions RM.</p> <p><b>NOTE</b> TEXT type attributes are not valid for Link pairing so they will not be included in the attribute list when in Link mode.</p>
<b>Delete Link</b>	<p>Refer to the instructions above for <b>Link</b>.</p> <p>Marks link as deleted.</p>
<b>Remove Link</b>	<p>Refer to the instructions above for <b>Link</b>.</p> <p>Permanently removes a link.</p>

- 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.
- 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.  
*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.*
- 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 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.

Should the object exist in a category other than the one listed, use the **category drop-down** to modify the selection.

- c Select the Document or Collection.
- 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 New Collection name into the box provided on the dialog
- d Click **OK**.

Select a collection... ? X

---

RMDEMO\Availability ☆ Columns

Name ▲	Time Created	Time Modified	Modified By
Filter by Name...	Filter by Time Created...	Filter by Time Modified...	Filter by Modified By...
ePhoto - Release 1.0	25-NOV-2014@08:11:32	09-AUG-2024@14:13:54	Samuel Martin
ePhoto - Release 1.1	25-NOV-2014@08:24:59	09-AUG-2024@14:13:54	Samuel Martin
Marketing Requirements for Build1	19-FEB-2018@14:33:05	09-AUG-2024@14:13:54	Samuel Martin

New Collection:  OK Cancel

**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.
- f The container will be added to the working category.

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 the Mapping:**

- a Click  . This opens the **Save Mapping** dialog.
- b Enter a name for a mapping, e.g. *ImportStakeholderRequirements*
- c Click **OK**.

**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

## Importing Test Cases with Test Steps

Test Cases, with or without associated Test Steps (as defined in "[Creating Test Cases and Steps](#)" on page 366) can be imported using Excel or CSV import. Imports can be used to create Test Cases and Steps or to modify existing objects.

The Test Runs, as they are derived objects, cannot be imported.

The Attributes in the Test Case can be defined in the usual way, however the associated Test Steps must be labeled as Step 1, Step 2, etc. and the data must be listed in columns beginning with and then below the initial Test Case.

In the following abbreviated sample, the test cases will be created, when replacing existing objects the Test ID must be included. For additional information concerning import see chapter ["Importing Requirements from a CSV or Excel File"](#) on page 349.

Name	Design	Text	Run Time	Pty	Test Steps - Step	Test Steps - Description	Test Steps - Expected Result
Assign Chang	Ready	Assign Change	10	3 - High	Step 1	Select Release Tab and open a	The Release attributes are
					Step 2	Press button "Assign Change	An overlay window opens
					Step 3	Select one of the displayed	Change Items is assigned
					Step 4	Select a different Release and	Change Item is assigned
					Step 5	Press button	Window is
					Step 6	Open the Release again	In the tab "Assigned
Unassign	Ready	Remove Change	10	3 - High	Step 1	Select Release Tab and open a	The Release attributes are
					Step 2	Press button "Assian Change	An overlay window opens

## Importing Requirements Exported from RM

Exported data can be import as Word Documents, XML Files, Excel or CSV.

When importing user attributes, the setting must be **Show User ID**. For further information see chapter ["Display Settings for User Attributes"](#) on page 87

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.

The same rules apply as those listed in ["Importing Requirements from Microsoft Word Documents"](#) on page 340.

Roundtrip may be used to import a modified exported see ["Importing a Roundtrip Document"](#) on page 346.

- 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 the **attribute** element with the **id** value **PUID**.
  - c Import as discussed in ["Importing Requirements from an XML File" on page 347](#)
- 4 For CSV or Excel files:
- a Remove the **Row Count** row.
  - b Save the file.
  - c Import as discussed in ["Importing Requirements from a CSV or Excel File" on page 349](#)

## 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.

## Importing Requirements from a ReqIF File

Requirement Interchange Format (ReqIF) is a standardized XML file format used to exchange requirements between applications supported by the same or different vendors.

A ReqIF file contains:

### Data model

- User defined types
- User defined attributes
- User defined requirement types

### Requirements

### Links between requirements

The following Sections describe how to import requirements and documents from a ReqIF file into a Dimensions RM Instance.

### ReqIF Import from the Command Line:

Dimensions RM also supports the execution of ReqIF imports from the command line. Release specific instructions can be found in:

```
RM_Install\Common Tools \#.#\tomcat\#.#\webapps\rtmBrowser\WEB-INF\classes\ReqIF CmdLine
```

### ReqIF Export Prerequisites

The following prerequisites apply to ReqIF files exported by any solution, including other instances or installations of Dimensions RM:

- 1 Export your module or modules into a single ReqIF file.  
For specific information concerning the data included in the 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).
- 3 The complete contents of the ReqIF export directory must be included in a single ZIP file which can be imported by RM Browser.

### ReqIF Import Prerequisites

**The first entry in this list is Critical the rest are important.**

- 1 The RM Class(es) into which the requirements are to be imported **MUST** contain the following attributes (see "[Attribute Definition](#)" on page 425 for assistance):

**External ID** (Type: Alphanumeric)

**ReqIF ID** (Type: Alphanumeric)

**ReqIF Owner** (Type: Alphanumeric)

**File attachment** (Type: File Attachment)

If the **Display Name** of each of these attribute types are defined as listed above, they will be mapped automatically.

To support the **Baseline** option, the following attribute must also be defined:

**ID Backup** (Type: Alphanumeric)

- 2 Although it is possible to set defaults during import, it is simpler to establish defaults, in advance, for mandatory values:

**If alphanumeric or text**, set a default value.

**If a list attribute** choose a default selection.

- 3 Decide whether to import all into a single class or assign them to separate RM Classes.

It is possible to import all identified types into a single class, to review the data following a successful import and to use the **Change Class** Action should you need to reassign requirement types later.

However, if collaboration is your goal, i.e., to import a document and to use ReqIF to import changes as they are delivered, we recommend mapping all important requirement types contained in the import to RM Classes.

- 4 The ReqIF data is always imported into a **Document**:

**The document may be based on an existing Template Document**, in which case the template structure will be used with the resulting document named using the import file name.

A **Target Document** can be chosen. This is an existing document into which the imported requirements will be added. A **Snapshot** of the document is created prior to the import. Check the **Import Baseline** box, in order to select a Target Document.

- 5 A **Template Document** can be used to define the document structure for the imported data, a new document is created based on that structure, but assigned the name of the ReqIF document being imported. If this is the initial import, check to be sure there is no document named for the ReqIF import. If the document exists, please be prepared to rename the document.

For Import detail see:

[ReqIF Import Dialog - Setup](#),

[ReqIF Import Dialog - Mapping](#).

## ReqIF Import Dialog - Setup

If you have not already done so, please review ["Importing Requirements Exported from RM" on page 354](#).

A Note for New RM Users: In RM, an object-based requirements management solution, a [Snapshot](#) is a frozen copy of a document, while a [Baseline](#) is a frozen set of requirements contained within it.

- 1 From the **Import** menu, select Reqif. The **Import ReqIF** dialog opens.
- 2 Click **Browse** and select the ZIP file that contains your ReqIF file.
- 3 If the 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 **Choose a Document Template or Import Into an Existing document:**
  - Template Document:** Select from the drop-down list the name of the template to be used to structure the imported requirements as they are imported into a new document.
  - Target Document:** Check the **Import Baseline** box, in order to select an **existing document** into which the requirements will be imported - after a baseline is created.
  - Check the box to** indicate that the requirements contained in the existing document were imported using ReqIF.
- 5 **Category:** The category into which the document and its content will be placed.

When Import Baseline is checked, the import target is selected, the category cannot be modified.
- 6 **Table As:** If your import module contains DOORS tables, they can be imported either as HTML tables 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 all attributes choose **Requirement**.

**Requirement:** Saves every cell of your table as single requirement.

**7 Module Structure:** A document (module) may be imported 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.

**8 Import Mode:** Specifies how import should operate on incoming requirements if the Baseline Box was checked:

**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.

**Box Checked:** A requirement it is created if a match cannot be found.

**Box Unchecked:** New Requirements will not be created.

**9 Titles:** Create New Titles if empty

When importing requirements from a solution that does not require titles an RM AI Action is available to generate titles on import. See "[Creating Requirement Titles](#)" on page 258.

**Box Checked:** A title is created for all requirements missing titles.

**Box Unchecked:** Titles will not be created.

It is possible to generate titles after the requirements have been imported

**10 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**.

**b** Click  . This adds the document to the list **Selected Documents**.

**Renaming a Selected Document:**

**a** Highlight the documents (modules) you want to import in the list **Selected Documents**.

**b** Click on the **Rename** link, below the Selected Document list. This opens the *Rename document* dialog.

**c** Enter the new name into the text box.

**d** Click on the **OK** button.

**To Remove a document (module) from the Import:**

**a** Select the documents (modules) you want to remove in the list **Selected Documents**.

**b** Click  .

- 11** Click **Next**. This opens the Import ReqIF dialog for mapping. From here requirement types are identified and the ReqIF attributes mapped to RM attributes. The initial steps require that you select the class or classes into which the requirements will be imported.

## ReqIF Import Dialog - Mapping



### IMPORTANT!

In Single Class Mode, the following steps must be completed once.

In Multi-class Mode these steps must be complete for each class selected. The **Import tab will not respond until all classes have been mapped.**

If you have defined, as instructed in [ReqIF Import Prerequisites](#), the attributes ReqIF ID, **External ID, and ReqIF Owner will be populated automatically.**

If the attributes have not been defined, please close the dialog and define them.

- 12 RM Class:** list the 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, click into the list box to select the RM Class.

#### 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** Check the box to the left of **Multi Class**, to set the multi-class option.
- b** Click **Class Mapping**.
- c** Select a class from the Spec Types (import) list and then select its corresponding class from the **RM Classes** list. In the example below, the data defined in Spec Type Product\_Requirements are imported into RM as Functional\_Requirements.

Glossary entries can be moved into any class, and then reviewed, modified or the class changed to Glossary.

Class Mapping

d Click .

e Repeat steps c and d for all other classes to be mapped for import. Click **OK**. **Attribute Mapping:** An attribute mapping defines which Dimensions RM attribute receives the value of each ReqIF attribute. If you previously stored a mapping for this class, you can select it from the **Stored Mappings** list.

**13 Attribute Mapping:**

Once the classes have been identified, attributes from the ReqIF attributes list are mapped to attributes in the RM Attributes list. Most attribute types including Group, File attachments, URL and Lookup attributes are supported.




**NOTE**


The plus sign is available to automatically create and map unmapped attributes. This is very useful for the one-time import of requirements. However, if importing into an RM Document that is intended to be baselined and updated, best practice is to define attribute targets, name them accordingly and to save the mappings for consistent reuse.

a Highlight each ReqIF attribute desired for import




- b Highlight its RM target
- c Click  to assign both to the **Mapped Attributes** list.

**14** If **Import Baseline** was checked: Select the **REQIF\_ID** from the ReqIF Attributes list, select **ID Backup** from the **RM Attribute** list.

Click  to move the **REQIF\_ID** and the **ID Backup** to the Mapped Attributes. This is necessary if you are updating an existing document.

**Removing an Attribute Mapping:**

- a Select the attribute you want to remove in the **Mapped Attributes** list.
- b Click  .




**IMPORTANT!** Assign default values to Mandatory attributes, or use Map Values input values to attributes in Dimensions RM.


**15 Set Default Values:** Values may be set for text or alphanumeric attributes for which data is not provided.

**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 an optional attribute is not mapped, it will remain empty.

**17 Save your mappings:** The next import that uses the mapping between ReqIF Type and the RM Class can be retrieved by assigning a name to these mappings:

- 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 [Step 13](#) through [Step 17](#) for each class. The import cannot continue until every selected class has been mapped.

**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; if there is no special chapter marker, it may be left blank.

**21** Click **Import** to start the import.

**22** If there are **mandatory** attributes the system will raise a final warning, as the import will fail if there are no defaults assigned. Click **OK**.

During execution a message is raised indicating progress as to migration of data, followed by the migration of links.

Upon completion, the **Import was Finished** is raised followed by a detail report including:

- Import Template
- Target Document
- ReqIF Type to RM Class Mappings
- Requirements identified and imported
- Requirements failing the import

This report can be **saved** as: ReqIF Import.html.

## Chapter 9

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# Test Management

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## Working with Test Management

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 create the test case as well

The act of defining test cases as part of the requirement definition allows the analyst to consider one of the critical rules for requirement acceptance: *is it testable?* This also provides a clearer understanding of the requirement, which helps to ensure that, when developed, it will meet the need established in the requirement statement.

The QA team may revise the test case, break it down into smaller test steps but the initial test case should be elicited directly from the requirement.

### Getting Started:

Before the organization can begin to use the Test Management, it must be configured as part of the Schema. This task must be performed by the Instance Administrator, following the instructions in the ["Configuring Test Management" on page 372](#).

The following are the classes designed to support Test Management:

**Test Case** defines the goal, i.e., the specific feature to be verified. The test case includes the prerequisites, and associated data to assist the tester with the verification.

**Test Steps** sit within the Test Case holding each action and its expected results. Throughout this discussion references to the Test Case includes both the case itself and the actions necessary for verification.

**Test Runs** keep track of which test cases have been tested, when they were tested, by whom and the status for each step.

**Test Suites** provides a facility for collecting and tracking related groups of test cases, for example, all test cases associated with a specific component. The Test Suite allows the team to step through a series of cases, and then return to retest all or those that failed the first time.

**Test View** manages all aspects of the test related classes, including creation, modification, execution and status.

Working with Test Management includes:

["The View from the Test View" on page 365](#)

["Creating Test Cases and Steps" on page 366](#)

["Create and Populate a Test Suite" on page 367](#)

["Assigning Cases to a Test Suite" on page 368](#)

["Executing a Test Suite" on page 369](#)

["Baselining the Full Test Suite" on page 370](#)

["Creating a Test Run" on page 371](#) - should you choose to run test cases individually, rather than as part of a Test Suite.

## The View from the Test View

The Test View, like the Home and Quick Search Views opens dialogs for listing, executing, and reporting on the various aspects of Test Management. From the Test View, the various objects, cases, steps and suites relating to testing are created and managed.



### NOTE

Although Test Cases and Test Steps may be created as you would any objects in Dimensions RM, if the team is adopting the full implementation of Test Management, it is recommended that users work within the **Test View**. This simplifies creation, linking and reporting of elements

The Test Management dialogs ensure that testers are able to track the actual outcome and status of each executed test step, including who ran the test. when it was run, and how long it took to execute.

TEST CASES TEST SUITES TEST RUNS						
<span>Edit Attributes</span> <span>Passed</span> <span>Passed with deviations</span> <span>Failed</span> <span>Blocked</span> <span>In Progress</span> <span>Not Executed</span> <span>Search...</span>						
Run ID	Run Name	Description	Execution Status	Planned Execution Date	Responsible Tester	F
TR... 4	Define Release De...	Define the dependencies to ...	Not Executed	29 JUN 2023	Jutta Schoeneberger	
TR... 6	Assign Change It...	Assign Change Items from ...	Not Executed	29-JUN-2023	Jutta Schoeneberger	
TR... 5	Unassign Change It	Remove Change Items from a	Not Executed	29-JUN-2023	Jutta Schoeneberger	
TR... 2	Submit Release	Create new Release	Not Executed	29 JUN 2023	Jutta Schoeneberger	
TR... 2	Show Release Del...	All Release attributes	Not Executed	29-JUN-2023	Jutta Schoeneberger	
TR... 3	Complete Analysis	Complete Analysis task	Not Executed	29-JUN-2023	Ioanna Miller	
TR... 4	Specify impacted w...	Specify in the Analysis proc...	Not Executed	29-JUN-2023	Josnna Miller	

**Figure 9-1. Functionality and Reporting Available with Test Suites**

The tabs available from the **Test View** include listings of: **Test Cases**, **Test Suites**, **Test Runs**, with additional tabs raised for recently open or executed objects.

From the Test Suite listing it is also possible to Assign Cases to a Suite, Copy test cases, with links, Edit attributes or to **Export Test Details** a word or PDF file containing all Test Cases and Steps.

### Test View Filter

The following may be input to the Test View Filter:

#### Category

**Selected Baseline(s)** If baselines are selected, the Category filter is cleared.

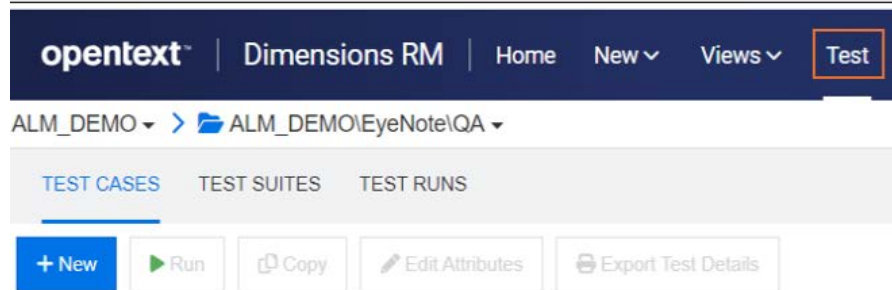
#### List Attribute

#### Assigned Tester

## Creating Test Cases and Steps

### The Test Case:

- 1 From the Menu Bar, select **Test**, which will bring you to the **Test View**
- 2 Select the **Test Cases** tab, as shown in Figure 9-2.



**Figure 9-2.** Select Test from the Menu Bar to Manage Test Cases, Suites and Runs

- 3 Click on '+ New' to open the Test Case dialog.

#### 4 Standard Attributes section:

**Title:** Test Case Creation

**Description:** Verification of Test Case Creation

- 5 Expand the **Custom Attributes** section of the form.

Your Test Team may have assigned a different name to this section and may have included additional or different items. The following are typical Test Case attributes:

#### Prerequisites:

**Describe the functionality necessary to execute the test. For example,** you must have Dimensions RM 24.4 (12.12.1) installed

**Priority:** Enter the Priority

**Estimated Run time:** Estimate the time expected to run the Test Case, e.g. 5 (this estimate is used in reporting along with the actual run time)

- 6 Click **Save**

As with all object creation, it is possible to save and copy when creating objects containing similar attributes).

- 7 **Select the Test Steps** tab at the top of the Test Case

Once the Test Case has been saved, the Test Steps section of the dialog may be expanded. It is not possible to create and link the Test Steps until the Test Case is Saved.

### The Test Steps

Each Test Step is linked to the **Test Case** in which it was created and represents a single action in its execution.

If you closed the Test Case, click on the Test Case tab or refresh the list, select and double-click to open it again.

Click on the Test Steps tab at the top of the Test Case or Scroll down to expand the **Test Steps** Section.

**8 Click the +** to add a numbered step.

**9 Step Name:** Enter the Step Name, for example: "**Enter the Test View**"

**10 Action Description**

Describe the action to be completed, for example: "From the Menu Bar, click on **Test**"

**11 Expected Result**

Enter the Expected Result, for example "The Test View, as shown in [Figure 9-2](#), is accessed"









Attachments can be included to ensure the view for the tester is as expected..

**12** You may **save** and continue with the next step, or simply continue.

Repeating steps 8-12 until all actions have been added to the Test Case.

**13 Save and Close the Test Case.**

The Test Step section header offers the following selections:

	<b>Add:</b> Adds a new Test Step
	<b>Copy Step:</b> Create a copy of the highlighted Test Step
	<b>Copy to Test Case:</b> Copy the highlighted Test Step(s) to another Test Case for reuse. This icon will raise a dialog prompting the user to choose the target case. Please note that it is also possible to copy a Test Case, including links (e.g., the test steps), as well as the Collections or Documents in which it is contained, see " <a href="#">Copying a Requirement</a> " on page 196.
	<b>Remove Step:</b> Removes the highlighted step.
	<b>Move Down:</b> Move the highlighted Test Step down in the execution order
	<b>Move Up:</b> Move the highlighted Test Step up
	<b>Link Existing:</b> 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.
	<b>Select Attributes to Display:</b> Opens User Settings-->Test Steps to Add or Remove attributes from the Test Steps listed.

## Create and Populate a Test Suite

**1** Select the **Test Suite** tab in the **Test** View.

**2 Click on '+ New'** to open the **Test Suite** dialog.

**3 Test Suite Name:**

Assign a name to the Test Suite.

**4 Description:**

Describe the Suite, and the range of cases to be tested. For example, A collection of all cases associated with Test Management functions.

**5 Responsible Tester**

Assign the tester responsible for the oversight of the suite.

**6 Save and Close the Test Suite.**

*Once created, the Test Suite is ready to have Test Cases assigned.*

*Click on the **Test Suite** tab to list existing suites from the main Test Suite dialog.*

*From here, we can select and open any test suite from the list, to assign cases, create new test cases, edit the attributes defined or copy the suite.*

## Assigning Cases to a Test Suite

Test Cases can be assigned to a Test Suite individually or as part of a Baseline

**From the Test Suites tab:**

**1** Highlight the one to which you will assign **Test Cases**.

**2 Click the Assign Test Cases button:**

Click the Assign Test to list all Test Cases available in the current category will be listed for selection.

**3** Select, if necessary, the **Test Case Category**.

**4 Filter by Baseline:**

Should your process require that only Test Cases contained in labeled baselines be submitted for testing, the property **Transfer to Child** must be turned off in the relationship **TSU\_TC** secondary.

This will allow the assignment of non-current, i.e. Replaced, test-cases to the suite (for details see ["Relationship Properties: Properties Tab"](#) on page 474.)

**Check this box**, if the Test Cases are to be selected from a baseline.

Select, if necessary, the Baseline Category.

Select the Baseline(s) from which the Test Cases will be selected.

**5 Search filter** is also available to limit the list.

**6 Check the box** next to one or more cases to be added to the suite.

**7** Click on the **Assign button**.

**8** Assign Results are displayed.

Click Close, or **Assign More**.

**To Assign Test Cases from a Baseline**



- 9 Check the box **Filter by Baselines**.
- 10 Enter the relevant category.
- 11 Select the Baseline from the drop-down list.
- 12 Click the refresh to display the Test Cases in the Baseline.
- 13 Check the box at the top to include all or check individually.
- 14 Click on the **Assign** button.

The total number assigned is displayed, along with the ability to assign more.

To execute a Test Suite, see [Executing a Test Suite](#).

## Executing a Test Suite

The Test Suite provides a facility for grouping sets of related test cases and testing each in the assigned sequence. Testing can begin with all cases, or only those with a particular status.

The **Execution Status** is a list attribute defined within the **TEST RUN** class. The default definition includes the states: Pass, Fail, Passed with Deviations, Executed, Blocked, Not Executed. The Instance Administrator can modify these states to incorporate local process terms and colors (see "[Attribute Definition](#)" on page 425).



The tester can mouse over the color icons to view the state name. The color codes are defined in Instance Settings. See "[Test Management](#)" on page 102 for additional detail.


To Execute the Test Suite:

- 1 From Test View, select the **Test Suite** tab.
- 2 Select the Test Suite to be executed.
- 3 Choose either of the following:
  - Continue Run** allows the tester to pick up where they left off with the selected Test Suite. If the Suite has not been run before, it will begin with the first Test Case.
  - Start new Run** initiates new Test Runs based on the selection:
    - Assign Test Cases** to the Suite,
    - Copy** the highlighted Test Suite creating a new Test Runs from the assigned Test Cases.
    - Edit Attributes** opens the Edit form for the highlighted Test Suite.
    - Export Test Details** Exports in Microsoft Word or PDF format each Test Case, with Test Steps included in the Suite.
- 4 **Continue Run or Start New Run:**
  - Execute each step**, testing and recording the **Actual results**, along with relevant notes and images.
  - Execution Status:** Hover over the color squares to choose the correct outcome for each step. The defaults defined are Passed, Failed, Passed with Deviations, Executed, **Blocked, Not Executed, Not Planned**,

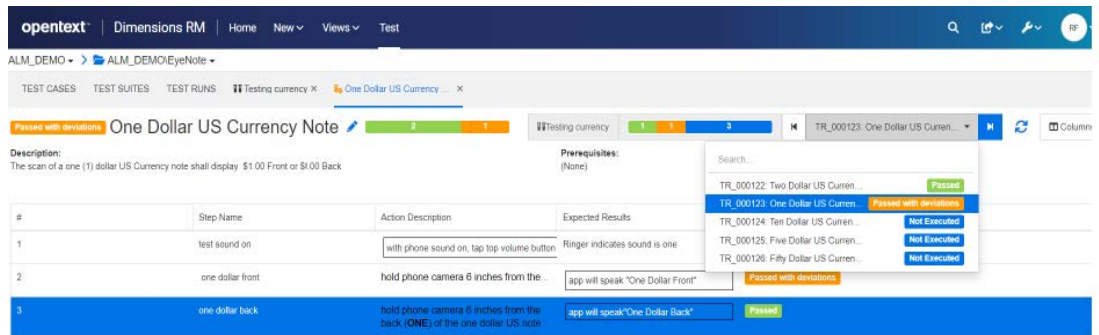
**Create, if the process allows, a defect to log failure.**

**Link** the defect with the failed step or Link the failed step to an existing defect.

	<b>Create a new defect</b> and link the defect to the <b>Test Run Step</b> that failed.
	Link the failed Test Run Step to an existing defect ( <b>Link Existing</b> ).

5 Click  the next button to proceed to the next case in the Suite.

In the **Test View**, the name of the Case currently being tested is displayed, together with the Case status, the Suite status as well as a drop-down listing all test cases included in the Suite.



## Baselining the Full Test Suite

Testing, like many things in this world of ours, is never done. The team may be testing Release 4.2 of a software application, while development has started work on 4.3 Each release will contain some modified test cases, and those that have stayed the same, must all be tested in the context of the release.

Using categories, containers and baselines the test team can report and baseline. The Test Cases can be baselined such that they can be run again as established for the assigned release. While testing, the team can work out the process that allows them to run tests, make changes, run tests, and report and baseline again.

Baselining the full **Test Suite** ensures that everything included in one or a set of test suites for 4.2, including requirements from which the test cases were elicited, is locked down. That baseline can be used as the basis for the team to begin again with 4.3 - or to test 4.2.1.

### To Create the Baseline:

Highlight one or more Test Suites and choose **Create Baseline** from the **Action** pane. The contents of one or more **Test Suites** (all test cases, test runs and their status) can be gathered into a baseline for reference, tracking and comparison.

The **Baseline** dialog is raised, with a suggested title, an attribute to include an optional description as well as the ability to include

**linked requirements** - upstream requirements linked to **Test Cases**

**linked defects** - downstream objects linked to **Test Steps**

## Export Test Traceability

Use the **Test Suites** in conjunction with the Test Suite Baseline to export, in a single report, all objects from the requirements initiating the test cases through to the execution status of the Test Run at the tip using the **Export Test Traceability**.

From the **Test** view, highlight one or more Test Suite(s) and choose **Export Test Traceability** from the Actions pane to raise the dialog. Choose the selected container(s)

**Click on the pencil** to add attributes to the selected requirements, test cases, and/or Test Runs

**Click on Export**

The Excel spread sheet will be exported.

## Creating a Test Run

If the plan is to create Test Suites, allowing the team to gather related test cases for orderly testing, the Test Run is created and executed within the Suite. There is no need to create an individual test run.

A single Test Run can be created and executed independently, allowing the tester to review and test each execution step, 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 test results, including images when necessary.



**NOTE** When creating and assigning Test Cases to Test Suites, the creation and execution of test runs is controlled within the Test Suite.

- 1 From the Test Cases listed when the **Test Cases** tab is selected, **highlight** a test case (e.g., the example created *Test Case Creation*).
- 2 Click on the Run button, to open the **Test Run** dialog. In this dialog can be entered for example the **Responsible Tester**, a **Planned Execution Date** and a **Planned Host Name**



*The Test Run dialog turns the Case into a testing tool; a single case may be used, with or without modifications, as many times as there are releases.*

- 3 **Save** and Close the **Test Run**.

From the Test Run tab, all existing runs can be listed with filtering available by status or assigned tester.

- 4 Select and open a **Test Run**.
- 5 Execute each step, testing and recording the **Actual results**, along with relevant notes and images.

It is possible to create a defect and associate the defect with the failed step, or to link the failed step to an existing defect.

	<b>Create a new defect</b> and link the defect to the <b>Test Run Step</b> that failed.
	Link the failed Test Run Step to an existing defect ( <b>Link Existing</b> ).

- 6 Click the relevant color-coded Execution Status to complete the step, the system will record execution date and tester before proceeding to the next step.

When each of the steps in the case has been tested, you may close the test run tab.

## Configuring Test Management

Test Management functionality was expanded in Dimensions RM release 12.11.1. The expansion includes, but is not limited to, the ability to:

- ‡ Bring all Test Management related artifacts into a single new view: **Test**
- ‡ Provide support for related sets of Test Cases in Test Suites
- ‡ Define **Test Cases** with links to Test Steps defined as separate , reusable objects
- ‡ Implementation can be completed by the Instance Administrator

### The configuration of test case management requires:

**Classes:** see ["Adding Test Management Classes" on page 372](#).


**Relationships:** see ["Creating Relationships between Classes" on page 373](#).

**Constraints:** see ["Enable Test Management" on page 374](#).

### Adding Test Management Classes

If you are unfamiliar with the creation of new classes, detail Instructions can be found in ["Schema Class Creation" on page 465](#).

The following outlines the steps necessary to define the classes and to configure Test Management functions. For an image of the completed schema see [Figure 9-3, "Test Management Schema Definition," on page 373](#).

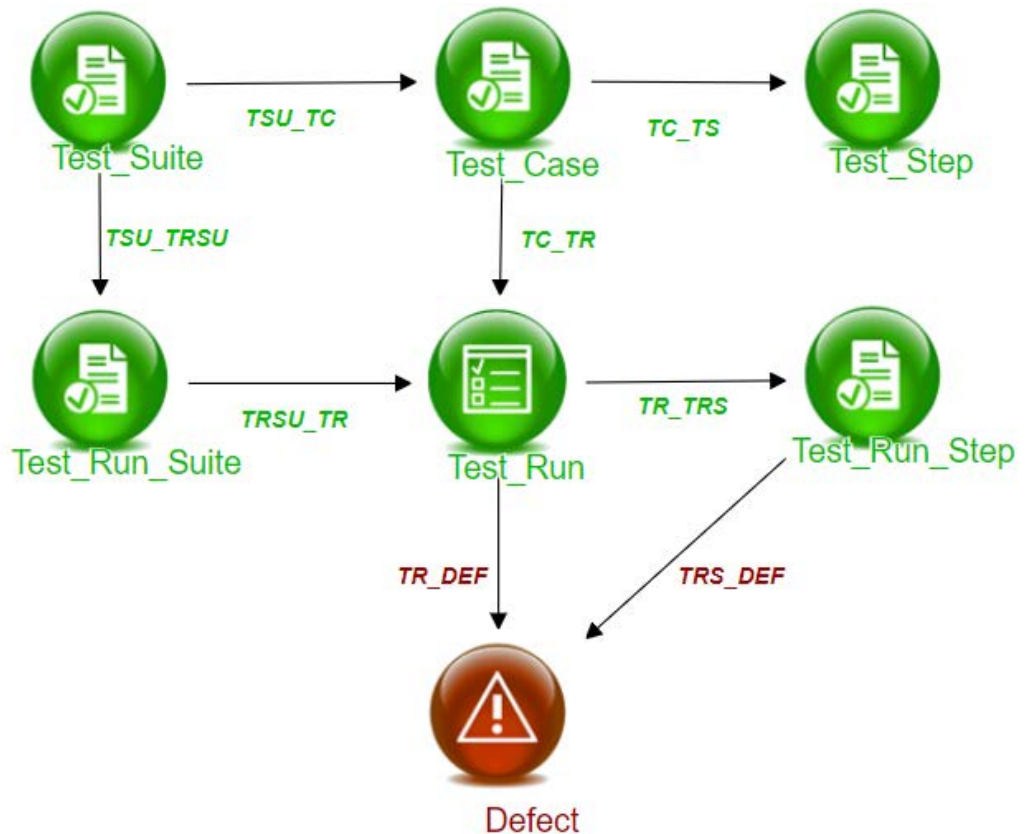
- 1 Select Schema Definition from the Administration menu to open the Instance schema (if there are issues, see ["Opening and Unlocking the Instance Schema" on page 464](#)).
- 2 From the desired location on the schema grid, right click and select Add Class.
- 3 From the menu, select **Test Suite**.
- 4 The Class Name will default to the class type, for Test Management, we recommend that you accept the name: **Test\_Suite**.
- 5 Click  to save the schema definition.

Repeat steps 2-5 for the following template classes:

- Test Run Suite
- Test Case
- Test Run
- Test Step
- Test Run Step
- Defect

## Creating Relationships between Classes

In order to link the various classes to support tracking and reporting, relationships must be created between classes.



**Figure 9-3. Test Management Schema Definition**

To create the relationships follow these steps:

- 1 If not already open, Select Schema Definition from the Administration menu to open the Instance schema (if there are issues, see ["Opening and Unlocking the Instance Schema"](#) on page 464).
- 2 From the **New** menu, select Relationship
- 3 Click inside the *Test\_Suite* class.
- 4 Click inside the *Test\_Run\_Suite* class.
- 5 When prompted, specify the relationship name: TSU\_TRSU and press **OK**.
- 6 Repeat steps 2-5 for the relationships included in the figure ["Test Management Schema Definition"](#) on page 373

**From *Test\_Suite* to *Test\_Case*: TSU\_TC**

**From *Test\_Case* to *Test\_Step*: TC\_TS**


**From *Test\_Case* to *Test\_Run*: TC\_TR**

**From *Test\_Run\_Suite* to *Test\_Run*: TRSU\_TR**

**From *Test\_Run* to *Test\_Run\_Step*: TR\_TRS**

**From *Test\_Run* to Defect: *TR\_DEF***

**From *Test\_Run\_Step* to Defect: *TRS\_DEF***

- 7 Click  to save the schema definition.

### ***Enable Test Management***

Once the classes and relationships for Test Management have been configured the various constraints necessary to support the full functionality are **created** when Test Management is enabled.

To enable Test Management:

- 1 Select **Instance Settings** from the **Administration** menu
- 2 Select the **Test Management** tab
- 3 **Enable** Test Management
- 4 Click **OK**.

## **AI Generated Test Cases**

Dimensions RM continues to expand its use of Artificial Intelligence by offering functions to generate and to review.

Please see Section "[Generating Test Cases](#)" on page 257 for details.

# Chapter 10

---

## Agile

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## Before you start

Before you can start using Agile with Dimensions RM, the following tasks must be executed:

- 1 Following instructions in **Chapter 3 of the Administrator's Guide**, create the Agile related classes and relationships.
- 2 Agile must be enabled from the Administration Menu, Instance Settings, **General** tab.

## Agile Basics

### 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

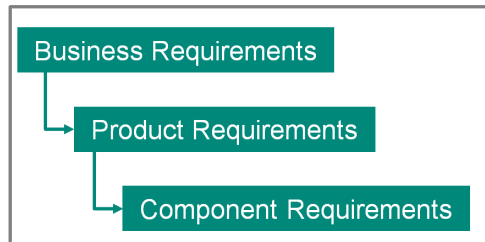
### Integration into development

- Story to be provided to (agile) development tool
- Feedback on development progress back to RM boards

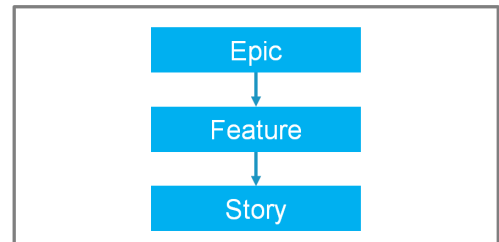


## Comparing Requirements Management and Agile Approaches

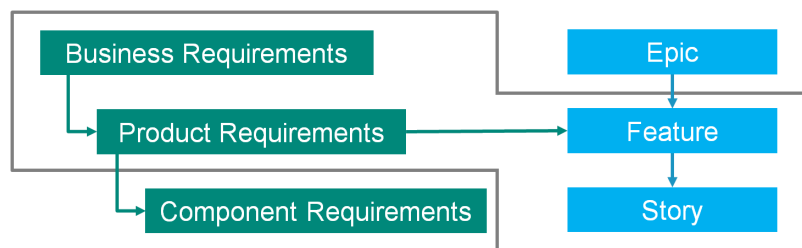
The following images compare the different approaches or requirement management.



**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 Agile Products"](#) on page 390). 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 379. A story is marked .




**TIP** You can easily change the priority of a story by using drag & drop.

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".


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 379](#).



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 379](#). 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 ["Managing List Attribute Values" on page 447](#).


## About Badges

In lists, epics, features, and stories provide additional information by using these badges:

- User or group, e.g.  JOE
- Priority, e.g.  High

In addition, stories have the following badges:

- Effort, e.g.  3/8 (remaining effort/estimated effort)

- Ranking, e.g.  29

## 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.

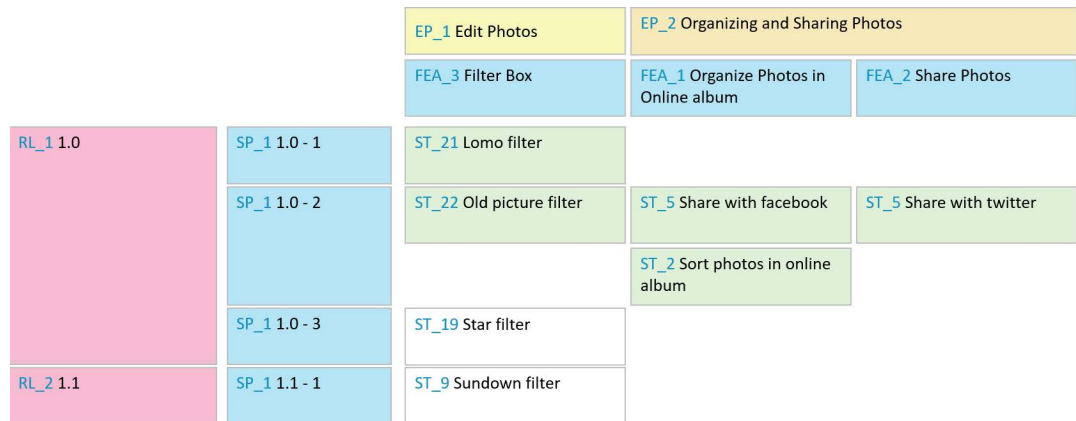
On the **Overview** tab, you see a progress bar for each release or sprint if the capacity has been specified.

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 users 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
<b>Filter by Categories</b>	Shows epics, features, and stories only for the selected category.
<b>Show my stories only</b>	Shows only the stories, which are assigned to the current user.
<b>Description</b>	<p><b>All:</b> 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><b>Stories:</b> Shows the full description of a story underneath its title.</p> <p><b>Hide:</b> Hides the description of stories, features, epics, sprints, and releases.</p>
<b>Parent Info</b>	Shows the information of parents (epics and features) on the card.
<b>Assigned features/stories</b>	<p><b>Gray:</b> Shows those features and stories which are assigned to a release, with a gray background.</p> <p><b>Hide:</b> Hides those features and stories which are assigned to a release.</p>
<b>Release progress</b>	<p><b>Show:</b> The progress is shown by changing the background of an item into a progress bar.</p> <p><b>Hide:</b> No progress is shown.</p>
<b>Sprint progress</b>	<p><b>Show:</b> The progress is shown by changing the background of an item into a progress bar.</p> <p><b>Hide:</b> No progress is shown.</p>
<b>Story progress</b>	<p><b>Show:</b> The progress is shown by changing the background of an item into a progress bar.</p> <p><b>Hide:</b> No progress is shown.</p>
<b>Show Empty Artifacts</b>	Shows features and stories which have not been assigned to an epic.
<b>Show Release Backlog</b>	Shows stories that have not assigned to releases and sprints on the <b>Story Map</b> .
<b>Truncate Story descriptions</b>	Collapses story descriptions to a single line and removes images and tables. This setting is only used with the <b>Story Map</b> .

Setting	Description
<b>Show "Assigned To" badge</b>	Shows the badge of the user or group to which a story is assigned.
<b>Show "Effort" badge</b>	Shows the effort badge of a story.
<b>Show "Priority" badge</b>	Shows the priority badge of a story.
<b>Show "Ranking" badge</b>	Shows the ranking badge of a story.
<b>Show on Card</b>	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 380.

## 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 displayed when a release or sprint is selected.

**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 artifacts 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 381](#)), 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 **X** next to the **Release** box.
  - If desired, select a feature from the Feature box or click **X** next to the Feature box to un-assign the feature.
- 3 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 397). 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:

- |                                     |                                   |   |
|-------------------------------------|-----------------------------------|---|
| <input type="checkbox"/>            | <b>Select multiple items</b>      | Shows or hides check boxes, which allow you to select multiple items. |
| <input checked="" type="checkbox"/> | <b>Select/un-select all items</b> | Selects all items.  |
| +                                   | <b>Create new item</b>            | 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 380](#).

### **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 389](#)), 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

## Adding Agile 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 or hide classes** for epics, features, stories, and tasks for a product on all Agile tabs.

**To add a product, execute these steps:**

- 1 In the Agile **New** menu, select **Product**.
- 2 Populate 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 379.
- 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 Agile 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 379](#).

- 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 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 174](#)).
- 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 379](#). 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 the Agile **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 411).

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 List Value" on page 48](#).


**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

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## Administration

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## About Administration

Dimensions RM supports two types of administrators: those assigned to control an instance and those assigned to control the environment.

### Administrator (Instance Administrator)

A group defined within each instance. Members of this group are referred to as Instance Administrators, and, as members of that group, may perform all administrator functions within the boundary of the assigned instance. For example:

- Create users and groups, with no visibility to user or group settings beyond their own instance
- Modify the instance schema, attribute settings,
- Define and/or modify categories
- Set default instance settings

The Instance Administrator group is assigned permissions to Actions accessible from the RM Browser Administration menu, as well as those accessible from the Administrator's Wrench (Spanner) icon under the Categories panel on the Home View.

### System Administrator

Members of the System Administrator group are responsible for functions that operate across the database and its environment. Membership in the System Administrator group must be granted through RM Manage.

Functions performed by this group include:


- Functions and reporting accessed through Administrative Tools, accessed from TM Browser through the Administration menu.
- From RM Manage, the creation, modification, deletion and deployment of database instances.
- From RM Manage, the configuration of login sources and licensing.
- General configuration of the integrations and solution extensions that require support from the RM Solution environment.

The System Administrator will typically maintain a basis instance, used to create and populate new instances for members of the organization. Once created, the Instance Administrator will maintain all aspects of the schema.

## 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 contains a list of users and, when selected, the details associated with their Login and Group assignment.

To limit the users displayed click the drop-down next to the . Check boxes under Status (Active, Disabled) or limit display by Login Source (e.g., Internal, LDAP, SSO).



The following functions are available from User Management:

**Export User Information:** [Exporting User Information](#)

**New User Creation:** [Creating a New User](#)

**Assign Users to Groups:** [Assigning Users to a Group](#),

**Unassign users from Groups:** [Un-Assigning Users from a Group](#).

**Create a new user with group and category membership identical to an existing user:** [Copying an Existing User](#).


**Edit User information:** [Editing a User](#).

**Change the User login:** [Changing the Login of a User](#)

**Delete a User:** [Deleting a User](#).

## Exporting User Information

**To Export listed user information:**

- 1 In **Manage Users/Groups** under the Administration menu, highlight **Users**.
- 2 To limit the user data exported click the drop-down next to the .
- 3 Click **Export** from below the list of users, to export all user data for the list of users displayed to .csv

## Creating a New User

When using Dimensions RM as the login source, unless modifications were made, 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. For details see Section *Specifying Login Sources in RM Manage* in the "Dimensions RM Administrator's Guide".

## Specifying Login Sources in RM Manage

**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 remaining 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**

- e If you are using LDAP or SSO for login, select the Login Source.
- 6 Click **Save**.
- 7 To assign the new user to a Group see ["Assigning Users to a Group"](#) on page 405

## 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.

For details see Section *Specifying Login Sources in RM Manage* in the "Dimensions RM Administrator's Guide".

- 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 the user in the user list.
- 3 Enter the new login name into the **User ID** box.
- 4 Click **Save**.

## Deleting a User



**NOTE** Deleting a user removes them from the database; this should only be done if the user was created in error and made no changes.

To remove future access for a user, while maintaining their history it is common to edit the user account (see [Editing a User](#)) checking the 'Account Disabled' box in the user detail pane. Some organizations also add text (e.g., XX) to the user name making it clear the user no longer has access.

### 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.

## Managing Groups

In Dimensions RM users are defined and assigned to groups. Membership in a group determines their role and the actions available (permissions). Category assignment is also made using Groups.

Access to all Group related functions is made through the Groups tab under the Administration menu->**Manage Users/Groups**.

**To assign** Users to Groups: [Assigning Users to a Group](#)

or to Unassign: [Un-Assigning Users from a Group](#).

**To Create** a New Group: [Creating a New Group](#).

**To Edit** the group information: [Editing a Group](#).


**To Create** a new Group based on an existing group, including the group members: [Copying a Group](#).

**To Delete** a Group: [Deleting a Group](#).

For details concerning Group Permissions, please see "[Setting Default Group Permissions](#)" on page 407.

## 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 see chapter "[Assigning Users to a Group](#)" on page 405.

## 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 405.

## 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

Users are assigned to groups from under the Administration menu ->**Manage Users/Groups -> Groups tab**.

### Access to Categories can be assigned with Groups:

Category assignments can be made automatically or selectively when adding users to Groups. Because many organizations have strict access restrictions, the default is to assign user access to categories **selectively**. The choice is displayed at the top of the **Groups Tab**:

- Automatically assign user(s) to group categorie:
- Assign user(s) to categories selectively

If no category assignment is made, the user will see the following message when they log in. To correct the issue follow the instructions in "[Manage Category Assignment](#)" on page 418.

This transaction is not permitted for this resource and user.

✕

OK

### To assign a user 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 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 but **denies** access. Access must be granted individually.
- 4 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.

- 5 Click the directional arrow to move the name(s) from the left (Not assigned column) to (Assigned) on the right → .
- 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 "[Manage Category Assignment](#)" on page 418.

## 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, Open Text 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 from the database, 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 in its revision history. This can be useful during the requirement creation phase, but if used throughout the process there would be no history and no ability to report changes or to track trends.

**Update non-current** allows a modification to a non-current item. in effect, changing history. This should be used only in case of emergency. If, as an administrator, you need it - turn it on - use it and then turn if off.

For details about the available actions and their associated permissions, see chapter "[Valid Transactions](#)" on page 408.

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 408.


- 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 .

Some access rights **are not recommended** to be granted, expand the sections to review those access rights. Those not recommended are marked .

For details about the available actions and their associated permissions, see chapter "[Valid Transactions](#)" on page 408.

- 3 Click **Save**.

### **Valid Transactions**

The valid transactions / Actions are listed below.

<b>Transaction</b>	<b>Definition</b>
<b>Attribute Transactions</b>	
Update	The user can change the attribute values.
<b>Board Transactions</b>	
Create Public	The user can create public boards and dashboards.
<b>Category Transactions</b>	
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 " <a href="#">Manage Category Assignment</a> " on page 418. <b>NOTE:</b> 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, deactivate, or move (by drag and drop) categories under the category the group or user with this right is assigned to.
<b>Class Transactions</b>	
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.
Delete	The user can mark class objects as deleted.
Execute Transition	The user can execute any transition of any class.



<b>Transaction</b>	<b>Definition</b>
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.
Change Class	The user can change the Class of an object while maintaining as much detail as possible.
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."
<b>Collection Transactions</b>	
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.
Undelete	The user can undelete collections.

Transaction	Definition
Update	The user can create/edit alias's and modify parent/child links for a collection.
<b>Document Transactions</b>	
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 <b>does not</b> 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.
<b>Import/Export Transactions</b>	
Import	The user can import documents and requirements.
Export	The user can export requirement objects. To export Documents or reports, the user must have permission to export all of the objects contained within.
<b>Relationship Transactions</b>	
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.

Transaction	Definition
Undelete	The user can undelete relationship links.
<b>Report Transactions</b>	
Create	The user can create new reports. <b>NOTE:</b> 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.
<b>User Transactions</b>	
Team Maintenance	The user can create, edit, and delete Agile teams.
User Group Assignment	The user can assign users to groups.

## Managing 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 ["Teams" on page 84](#).
- 2 On the desired classes, ensure that a user attribute with selection mode "Teams" is available.

For details chapter "User Attribute" on page 444.

The **Manage Users/Groups-->Teams** dialog provides access to lists of Teams, once selected, the members of the Team. From this dialog **Teams** can be created and administered.

To Create a Team: [Creating a New Team](#).

To Edit an existing Team: [Editing a Team](#).

To Create a new Team based on an existing Team, including the Team members: [Copying an Existing Team](#).

To Delete a Team: [Deleting a Team](#).

To assign Users to a Team: [Assigning Users to a Team](#)  
or to Unassign: [Un-Assigning Users from a Team](#).

## 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.
- 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".

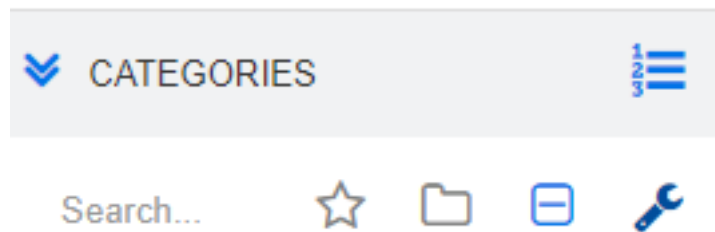
All RM objects, including reports, can be managed within categories, and, like folders on the file system, an object can be contained in only one category. Each node of the category hierarchy can have different permissions settings for user groups. All nodes in the hierarchy share the same schema.

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 416)
	Edit	Edit Category includes renaming an existing Category or modifying the description (page 416). Adding a more interesting icon in color or black and white (page 416).
	Deactivate/ Activate	Select this icon to Deactivate or to Activate a Category (page 417)
	Delete	Permanently remove a Category (page 415)
	Manage Category Assignment	These silent heads provide access to the complete list of User and Group management, including Category Assignment (page 418).

---

## 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 must 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 users hover over the category in the category tree.
- 6 Leave this box checked if the category access rights should be inherited from the parent.  
For changes in User or Group access see ["Manage Category Assignment" on page 418](#).
- 7 Click the **Add** button.

## Deleting a Category


**Deleting a Category permanently removes it from the Instance.**

Please Note:

**The Root Category** cannot be deleted, although it can be renamed.

**The Category must be empty**, before it can be deleted. Any content , requirements or subcategories, must be deleted, or relocated, before the category is deleted.

- 1 Select the wrench (spanner) icon on the Home View Categories panel.  
Note that the wrench must 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**.

## 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 must 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 must 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

Categories that permanently or periodically unused may be deactivated. Once deactivated, the default behavior will be to hide them from view and to set the content to 'Read Only'.

It is possible to modify user settings to display deactivated categories. For further information, see chapter "[Categories: Show Inactive Categories](#)" on page 83.

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 420.

### **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.
- 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; although this is not recommended. Exceptions can cause confusion when trying to figure out why Joe has access but Mary does not. It is better to create a new group when exceptions are necessary, even for a few users.

- 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 ["Exporting User Information" on page 401](#).


#### **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 List Value" on page 48](#)).
- 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 List Value" on page 48](#)).

- 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**.

## **Copy Category Content**

Category content may be copied from one category to another using the **Copy Category Content** Action listed on the Actions pane in the **Home View**.

This function is useful for organizations that need to copy all aspects of an existing category or category tree. For example:

**Strict hierarchy naming for each Project:** Organizations that use a strict hierarchy of category names, default classes, group assignments and permissions. To address

this use case, a basic structure can be created, including template/starter requirements, which can be used as a basis for new projects.

**Strict Category Structure:** The customer is branching project sub-components and has specific category settings, including access permissions, category values including default values for lists and user fields. For this use case, an entire structure or substructure can be copied

#### To Implement:

- 1 Create a destination category (see "Adding a Category" on page 415).
- 2 Highlight the source category/subcategory.
- 3 Select the **Copy Category Content** Action listed under the Category section of the Actions pane.
- 4 Select the destination category and click on OK.



#### NOTE

- Proposals are not copied. Requirements are only copied if they have the status "Current".
- Existing Requirements are copied, without history, and are assigned a new requirement identifier as with all copied requirements.
- Copied documents receive a "(copy\_#)" suffix in their name with "#" replaced by the copy number.

## Moving Requirements Between Categories

A requirement can exist in only one category at a time. **Organize by Category** allows users to search for and then bulk move requirements from one category to another.

#### 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 400](#).
- 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 ["Mechanisms for Filtering and Finding" on page 49](#) and ["Relationship Constraints Tab" on page 56](#).

- 7 **Display Options:** As needed, specify how to display the results. See "[Display Options Tab](#)" on page 58.
- 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 38.
- 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.

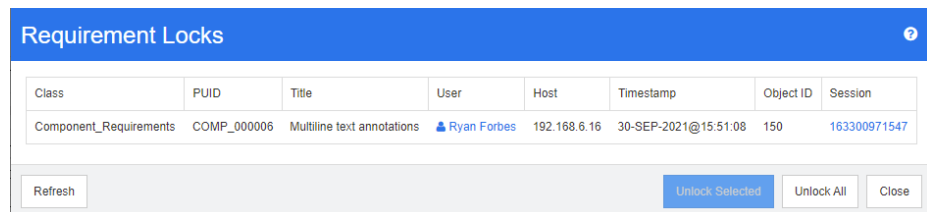
### To break locks on documents:

- 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.
- 2 If there are locked requirements, the dialog will present the list.



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

- 3 **Unlock All:** Click this button to unlock all locked requirements.

- 4 **Unlock Selected:** Click this button to unlock only the selected requirements. Ctrl-click to select multiple requirements.
- 5 **Refresh:** Click this button to update the display of locked requirements.

## Managing Notifications

Dashboards rely on reports to display, on a single screen, Key Performance indicators (KPIs) to inform the organization as to project status and goals. From the dashboard, users can drill down for a more detailed look at a particular category or an individual object. **Notifications** are used to report on changes to those individual objects.

Notifications can be based on ownership, class, state or interest. The product manager may request notification of changes to the text in a business requirement assigned to a release, the analyst responsible for creating a set of requirements may elect to be notified should any of those requirements change, or the QA lead may request notification of changes to a test case.

Notifications are created and managed by the Instance Administrator using the Notification Rule dialog, see ["Notification Rules" on page 423](#).

Users may choose to opt in or out of Notifications (see ["User Notifications" on page 68](#)).

**Configuration:** The initial configuration of the notification service must be completed by the System Administrator. Please see the Section *"Configuring E-Mail Notification"* in the Administrator's Guide for details.

## Notification Rules

There are two types of Notification Rules:

**Public Notification Rules** are created by the Instance Administrator for access by members of the designated Groups. To define and/or update public notifications select **Manage Notifications** from the **Administration Menu**.

**Private Notification Rules** can be created by any user of Dimensions RM. To define and/or update private notifications select **Notifications** from the **User Menu**.

Click on **New** to access the **New Notification Rule** dialog.

Note: To modify an existing notification highlight and click on the **Edit** button.

The Notification Rule dialog contains four tabs:

**General:** Enter the **Name** of the notification and the relevant **class** from the drop-down list. For Public Notifications, the administrator must select the **User Group(s)** who may access the rule.

**Constraints:** Choose a report type, and, where necessary, the attributes that will identify the requirement to be watched.

**Trigger:** Choose the attributes to be monitored for change. Typically, users do not want to be alerted to any requirement change, but only to changes to attributes relevant to their work.

**Display Options:** The Display Options consist of the notification subject, and the text. See "[Notification Display Options](#)" on page 425.

### Constraints and Triggers

The following describes the basic constraint types, with sample triggers employed to show how requirements may be monitored for change:

**When Object Created by me is modified** reports on changes to the item, Requirement or Chapter, created by any user who has activated this notification rule. This selection requires no further constraints, but should include, on the **Trigger** tab, one or more attributes to be monitored.

For example, if the attributes selected on the Trigger tab include Title and requirement statement (description), a notification is sent to the original creator only when either is changed.

**When Attribute has Value** requires the selection, on the constraints tab, of one or more attributes and the values used to identify the requirements to be watched. The Trigger tab lists the values that, when modified, will trigger the notification.

For example, the goal may be to report changes to the requirement statement (description) for requirements with a high priority, assigned to a particular release package. In which case, the administrator would choose the following:

#### From the Constraint tab:

Click on the small blue plus sign to select the Priority, assign a value of High

Click on the small blue plus sign to select the Release attribute, assign the relevant content.

#### From the Trigger tab:

Click on Monitored Attributes button, highlight the Requirement Statement and move it to the right.

**When comment is added and Attribute has Value** requires the selection of an attribute, as described above, together with the value used to constrain the notifications send when a comment is added to the requirement. This selection needs no triggers.

**Based on Workflow** requires that the user identify the value of the workflow state at which notifications will be raised, together with the triggers that will initiate the notification. For example, the goal may be to report changes to the requirement statement (description) for Approved objects

General Tab:

Name: "Approved Functional Modified"

Class: **Functional**

User Group <ANY>

Constraint Tab:

**Based on Workflow** is selected

**Workflow State** selected from the list is **Approved**

Trigger Tab:

From the list of Monitored attributes, Title and Description are selected. This means that a change to either will cause notifications to be sent.



## Notification Display Options

The Display Options consist of message Subject and Text. See [Figure 11-1, "Display Options: Notification Message," on page 425](#)

The Subject typically contains the class and Requirement ID. An example is provided with each new rule.

The Text box is populated by first clicking inside the box and then entering relevant notification text. The Attributes drop-down lists attributes available to the selected class; choosing attributes from this list will include in the text both display name and content.

For example, given the following:

Display Options:

A sample **subject** line is provided: "Notification of Customer Requirement <#Rqmt ID#>". You may choose to just change the requirement class (e.g., Customer to Functional) or add additional text.

Click inside the **text** box to construct the notification text. Include free-form message text, including data from the Attributes drop-down list. Once the message is complete, click on the **Save (Update if changing)** button and test the rule.

**Edit Notification Rule**

GENERAL CONSTRAINTS TRIGGER **DISPLAY OPTIONS**

Subject

Notification of Functional Requirement <#Rqmt ID#> Workflow State: <#STATE#> has been changed

Text

Attributes **B** *I* **A**

Requirement <#Rqmt ID#>, listed with Workflow State: <#STATE#> and Planned for Release: <#PLANNED\_FOR\_RELEASE#> has been changed.  
 Title: <#TITLE#>.  
 Description: <#TEXT#>

**Figure 11-1. Display Options: Notification Message**

## Attribute Definition

An attribute is a property used to manage each of the characteristics associated with the various object types defined using RM Classes. User (custom) attributes refer to those whose content is maintained by users, whether they are defined by default with the class (e.g., Title, Description) or by the Instance Administrator. System (implicit) attributes are defined and maintained by the system, managing, among other things, who did what and when.

The following sections describe the definition of attributes, their types and properties.

### Adding an Attribute to a Class:

- 1 From the Administration menu, select **Attribute Settings**.
- 2 From the left pane select the **Attribute Definition** tab.

If either **Attribute Settings** or **Schema Definition** are being edited by another user, the **Break Lock** dialog box is displayed, this dialog will identify the user currently holding the lock. For details see ["Opening and Unlocking the Instance Schema" on page 464](#).

- 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 information concerning attribute types, see ["Attribute Types" on page 426](#).

For information concerning attribute properties, see ["Attribute Properties" on page 427](#).









Additional information concerning Attributes:



**Hiding attributes** when they are no longer of value - ["Hiding an Attribute" on page 428](#).

**Deleting unused attributes** - ["Deleting an Attribute" on page 429](#).

## Attribute Types

The following sections describe each of the available attribute types, with references to associated definition detail:

	Attribute Type	Description	Page
	Alphanumeric	A single line of text up to 1000 characters.	<a href="#">430</a>
	Date	A date, the format of which (including length, default, minimum, and maximum values) can be defined by the administrator.	<a href="#">431</a>
	File Attachment	Can hold one or several files available for download or reporting.	<a href="#">432</a>
	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.	<a href="#">432</a>
	List	A list of values configured for user selection. A list attribute can be configured to display as check box(es) or radio buttons.	<a href="#">439</a>
	Lookup	A lookup attribute allows the use of an attribute to relate one object to another in order to access its values.	<a href="#">440</a>
	Numeric	Accepts only numeric values.	<a href="#">442</a>
	Text	A block of text up to 64Kb in size.	<a href="#">443</a>

	Attribute Type	Description	Page
	URL	Supports the input of one or several URLs.	444
	User	A list of user names, which can be configured to hold groups or named users.	444

## 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, <a href="#">"Naming Conventions for Attribute Display Names" on page 501</a> .
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 <a href="#">"Naming Conventions for Attribute Names" on page 501</a> .
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.
<b>Force Unique Value</b>	Check <b>Force Unique Value</b> to require that the value entered for this attribute is unique. Use Case 1: A Numeric Attribute managing labels.  Use Case 2: A text attribute, e.g., Title, that must be unique or, if checked, must be unique within a category.  For most other attribute types, this selection is 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 <b>Populate on Copy</b> 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	<p>Identically named attributes will be pre-populated when using <b>Create New &amp; Link</b> executed from Actions pane or from the Link section of an open object.</p> <p>To be applied, this option requires that both this Attribute Property be enabled as well as the Relationship Property <b>Populate Attributes on Create and Link</b> (see "<a href="#">Relationship Properties: Properties Tab</a>" on page 474).</p> <p>This allows for classes to be prepopulated based on the relationship.</p>
Change raises Suspicion	<p>The option to raise suspicion on change may be set for any custom attribute as well as for many system attributes, including:</p> <ul style="list-style-type: none"> <li>■ Workflow State</li> <li>■ Owner</li> <li>■ Category</li> </ul> <p>Once enabled, any replace action on this attribute will mark linked objects as <b>Suspect</b> (see "<a href="#">Transfer Rules</a>" on page 474)</p>

## 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**.

- |  |  |
|--|--|
| <input type="checkbox"/> Attribute Mandatory     | <input type="checkbox"/> Attribute Editable          |
| <input type="checkbox"/> Force Unique Value      | <input type="checkbox"/> Display for Entry           |
| <input type="checkbox"/> Populate on Copy        | <input type="checkbox"/> Populate on Create And Link |
| <input type="checkbox"/> Change raises Suspicion |  |

## 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 428](#)) 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.

**Figure 11-2. 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.
<b>Advanced Settings</b>	
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 defining a 'Date Attribute'. The left sidebar lists various attributes, with 'End Date' selected. The main configuration area includes the following fields and options:

- Approval:** A dropdown menu.
- Attributes:** A list of attributes with checkboxes for 'Implicit' and 'Attribute Mandatory'.
- Display Name:** A text field containing 'End Date'.
- Attribute Name:** A text field containing 'END\_DATE'.
- Description:** A large text area for describing the attribute.
- Checkboxes:**
  - Attribute Mandatory
  - Force Unique Value
  - Populate on Copy
  - Change raises Suspicion
  - Attribute Editable
  - Display for Entry
  - Populate on Create And Link
- Display Format:** A dropdown menu showing 'DD-MON-RRRR' and a 'Presets' button.
- Default Value:** A text field with a 'Current Date' checkbox.
- Buttons:** '+ New', 'Remove', 'Save', and 'Close'.

**Figure 11-3. Date Attribute Definition**

The date attribute properties are described in the following table.

Property	Description
Display Format	The date format. <b>NOTE:</b> 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.
<b>Advanced Settings</b>	
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 229](#).

The file attachment attribute properties are described in the following table.

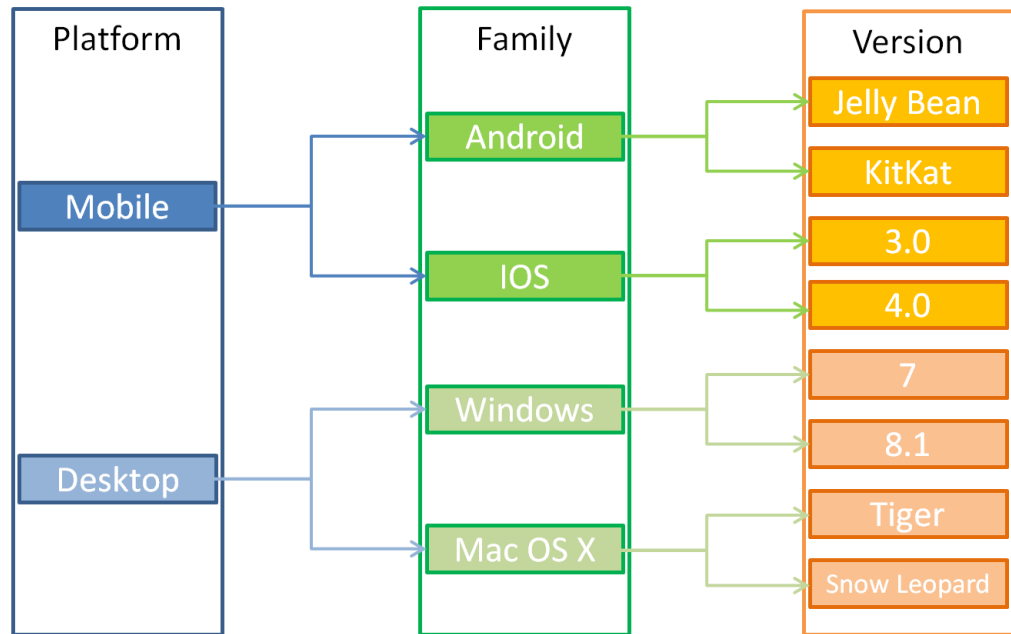
Property	Description
<b>Allow multiple selections</b>	Whether the attribute can hold one or multiple files. <ul style="list-style-type: none"> <li>■ Enabled: The attribute can hold multiple files.</li> <li>■ Disabled: The attribute can hold a single file.</li> </ul>

## Group Attribute

A group attribute allows users 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**.

The following displays a simplified representation of the group attribute **Operating System** defined in 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.

Each group member contains its own list of values which may be different depending on the selected value of the previous group member.

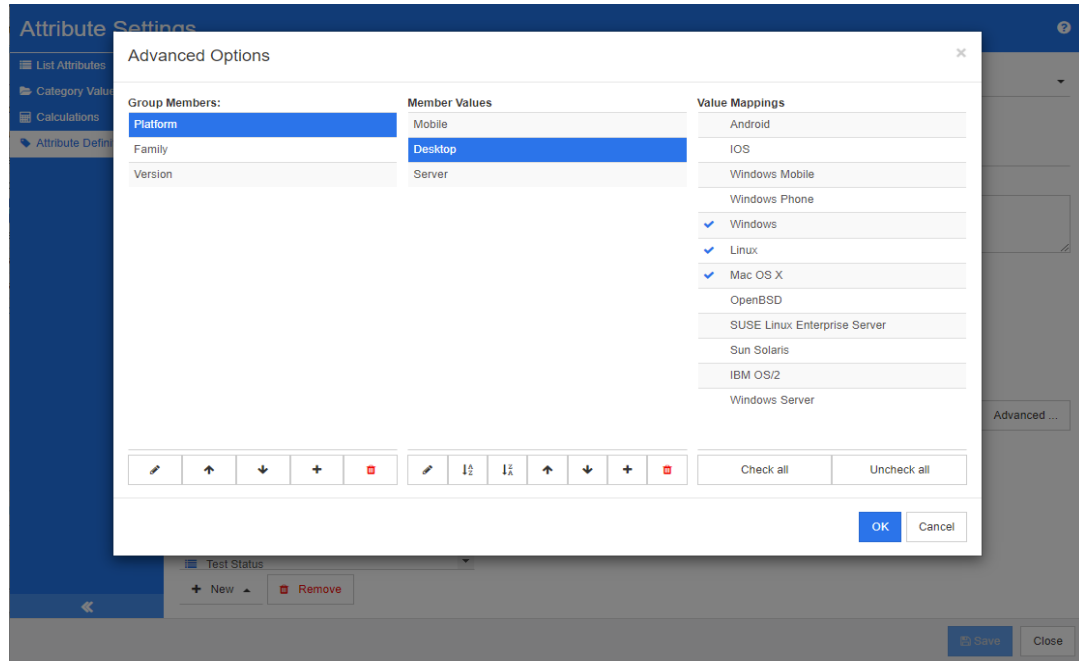
#### Defining a Group Attribute;

The group attribute definition begins by choosing **Group** when adding a new attribute (see "[Attribute Definition](#)" on page 425).

The attribute must be named, in the example used the display name is: Operating Systems.

#### 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**.



**Figure 11-4. Group Attribute Definition**

### **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 **v**.

### **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.

## **List Attribute**

The **List Attribute** dialog does not support the definition of new attributes; it provides a facility to modify existing list attributes.

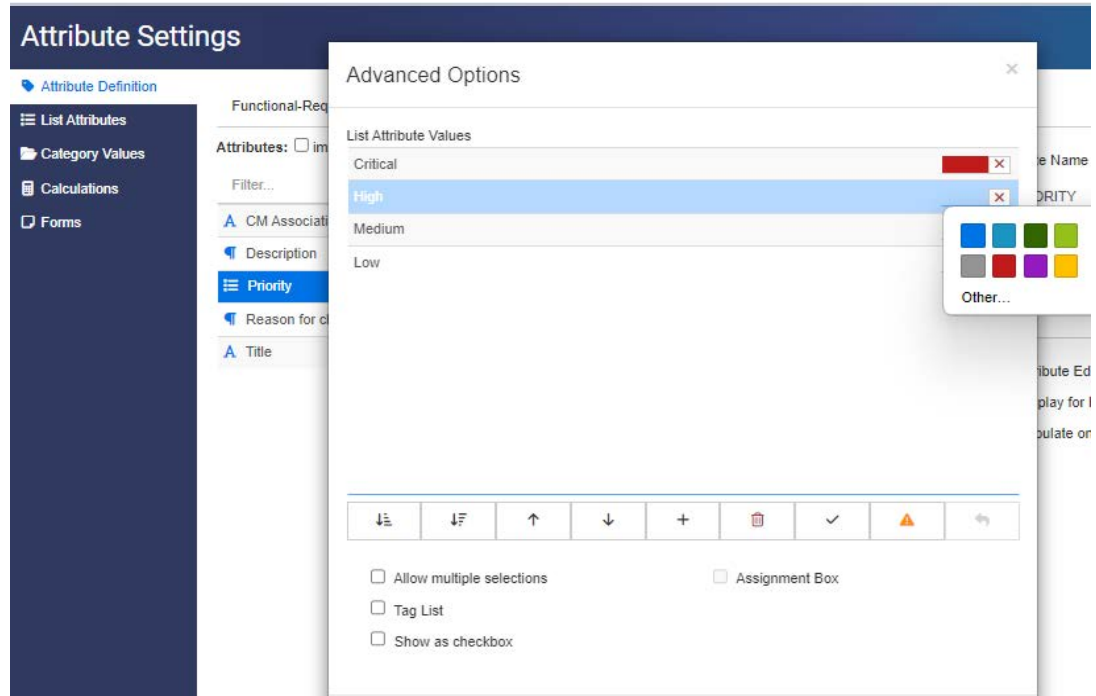
#### **To Add a Value to an existing List Attribute:**

- 1 Select a class from the drop-down provided. The List attributes defined within the class will be displayed.
- 2 Choose the List Attribute to be modified. The List Values will be displayed.
- 3 Click . This opens the **New Value Name** dialog.
- 4 Type the value into the box.
- 5 Click **OK**.

From this dialog, the List Values may be sorted, individual values may be moved up or down, added, deleted, or set as the default. It is also possible to mark a value to indicate that, when set, changes to the object will not raise suspicion.

### About List Attributes



A list attribute is a configurable attribute that presents a list of values for user selection. For example, you could define Critical, High, Medium and Low as priorities, set a default priority or require that users set the priority.




**Figure 11-5.** List Attributes may be shown as a color-coded label

### Defining a List Attribute

The list attribute properties are described in the following table.



Property	Description
<b>List Values</b>	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.
<b>Allow multiple selections</b>	Allows the selection of more than one value from the list; if this box is not checked selection is limited to one.
<b>Assignment Box</b>	Only available when <b>Allow multiple selections is</b> selected and <b>Tag list is not</b> selected. Enabling this option replaces a single list with two lists which allow adding/removing entries by using  and  .

Property	Description
<b>Tag List</b>  	Attribute values are displayed as "tags". Enabling this option means that each user with write access can add an alphanumeric values, spaces permitted, to the attribute list <b>CAUTION!</b> The addition of tag entries is a schema change. If a user adds tags while the Instance Administrator, for example, has the schema definition open for change, the tags added by the user will not be saved.
<b>Show as checkbox</b>	The list attribute is displayed as checkbox or radio button. For further details, see chapter <a href="#">"Configuring a List Attribute as Check Box or Radio Button"</a> on page 439.
<b>Show not Initialized</b>	If 'Show as checkbox' is selected, you may choose to the option <b>Not Initialized</b> for a radio button or the text <b>Not Initialized</b> for a checkbox. For further details, see chapter <a href="#">"Configuring a List Attribute as Check Box or Radio Button"</a> on page 439.
<b>Color Coded Labels</b>	As shown in <a href="#">Figure 11-5, "List Attributes may be shown as a color-coded label,"</a> on page 436, list attributes may be color coded and displayed a labels.



### **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**.

### **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  .

### **Deleting List Attribute Values**

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 Select the value you want to delete.
- 3 Click the Trash can.



#### **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 (recommended)** a value means:

- The value remains visible in objects to which the value was assigned, but it can no longer 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 used this value is empty in the Edit Attributes dialog.
- The attribute value will display in result lists (e.g. reports) and in Document snapshots.
- 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 438](#).

#### ***Set a Default List Attribute Values***

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 Select the proposed default value.
- 3 Click the Check icon.

#### ***To Exclude Value Setting(s) from Raising Suspicion***

- 1 Click **Advanced...** to open the **Advanced Options** dialog.
- 2 Select the value to be excluded from raising suspicion.
- 3 Click the Suspect icon.

#### ***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 435 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.



**Attribute Settings**

Business\_Requirement

**Attributes:**

implicit

Filter...

- Analyst
- Attachment
- Description
- Estimated Effort
- Priority
- Product Manager
- Release**
- Status Log
- Title

+ New   Remove

**Display Name:** Release   **Attribute Name:** RELEASE

**Description:** Reference release

Attribute Mandatory    Attribute Editable

Force Unique Value    Display for Entry

Populate on Copy    Populate on Create And I



Change raises Suspicion

Allow multiple selections    Assignment box

**Class:** Release   **Select by:** Name

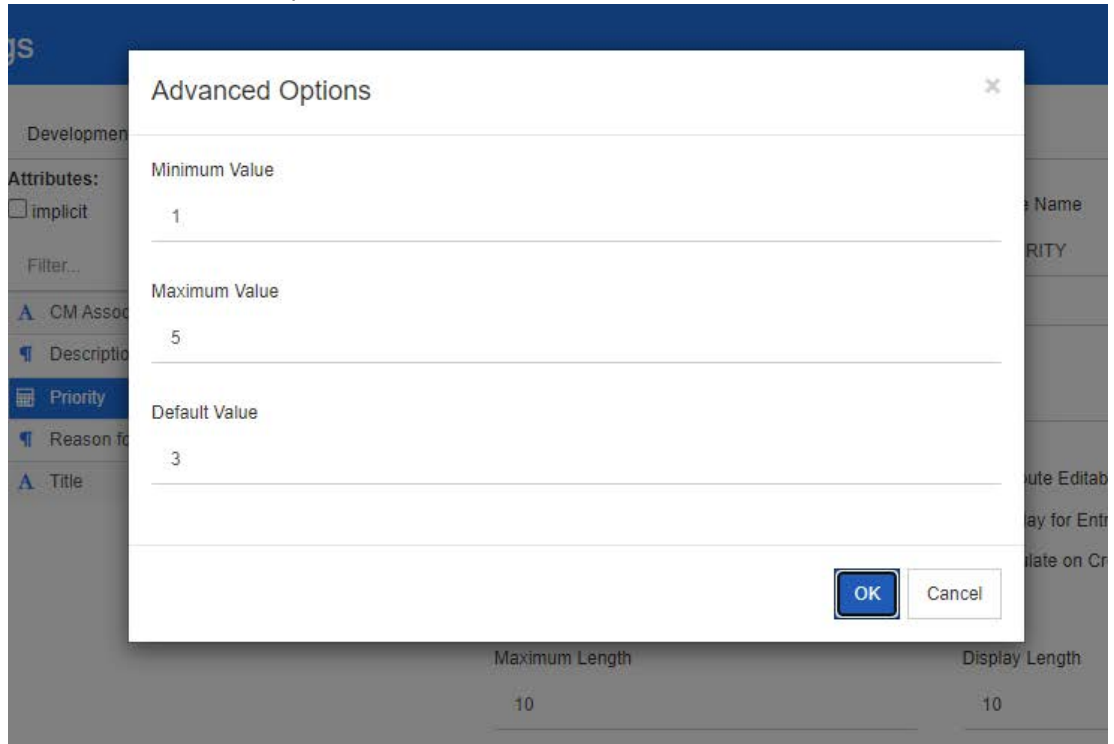
**Figure 11-6. Lookup Attribute Definition**

The properties are described in the following table:

Property	Description
<b>Class</b>	The class that relates to the current class.
<b>Select by</b>	The attribute that provides the values for the list.
<b>Allow multiple selections</b>	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.
<b>Assignment box</b>	Only available when <b>Allow multiple selections</b> 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.



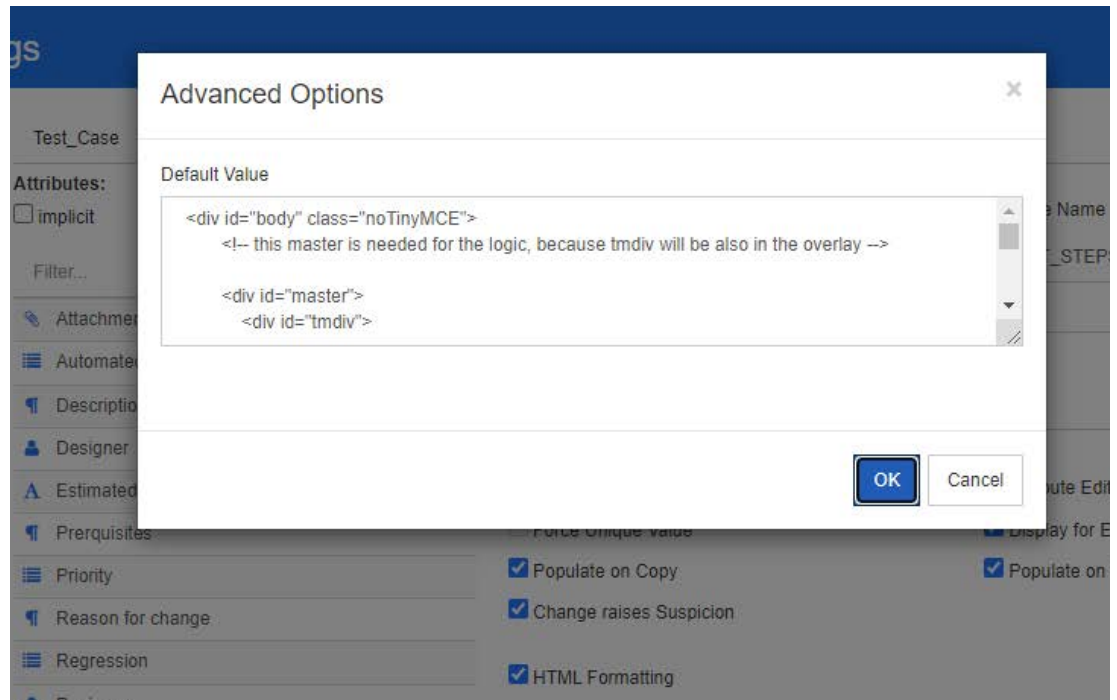
**Figure 11-7. Numeric Attribute Definition**

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.
<b>Advanced Options</b>	
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. <b>NOTE:</b> 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.
<b>Advanced Options</b>	
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"> <li>■ <b>Single:</b> The URL attribute can only hold one URL.</li> <li>■ <b>Multiple:</b> The URL attribute can hold several URLs.</li> </ul>
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 <b>Presets</b> drop-down list:</p> <ul style="list-style-type: none"> <li>■ <code>^(http[s]? ftp):\\/(.*)</code> The URL must use either the HTTP, HTTPS or FTP protocol.</li> <li>■ <code>^https:\\/\\/www\\.opentext\\.com\\/(.*)</code> The URL must use the HTTPS protocol and the server must be www.opentext.com.</li> </ul>
Limit count to	This option is only available if <b>Mode</b> is set to <b>Multiple</b> . Select this option and specify any value higher than 0 to define the maximum number of URLs the attribute can hold.
Placeholder	Specify a text to inform users about the expected format.

## User Attribute

The RM Login identifier is a system attribute used by Administrators to assign access rights through instance and group membership. This attribute is also used in the schema definition to create and populate roles, e.g., Designer, Analyst, Reviewer, Tester. All instance users, all users in a group or selected individuals may be available for role assignment.

**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 <b>All users from selected groups list</b> and users specified in the <b>Specific users</b> list can be selected.
Groups, group members and specific users	Groups selected in the <b>All users from selected groups list</b> , users who are members of the selected groups and users specified in the <b>Specific users</b> 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 implicit attribute PUID uniquely identifies each object (requirement, test case, etc.). The PUID, referred to as the Requirement ID, never changes, although many versions of the object may be created.

The screenshot shows the 'Attribute Settings' window for the 'PUID' attribute. The left sidebar contains navigation options: 'List Attributes', 'Category Values', 'Calculations', and 'Attribute Definition'. The main area is titled 'Development' and shows a list of attributes. 'PUID' is selected and highlighted in blue. The right pane shows the configuration for 'PUID':

- Attributes:**  implicit
- Display Name:** PUID
- Description:** This holds a unique identifier for the object which will no
- Options:**
  - Attribute Mandatory
  - Force Unique Value
  - Populate on Copy
  - Change raises Suspicion
- PUID Format:** DEV\_<#>
- Next:** 1

**Figure 11-9. 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. <b>NOTE:</b> 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 <b>PUID Length</b> list.

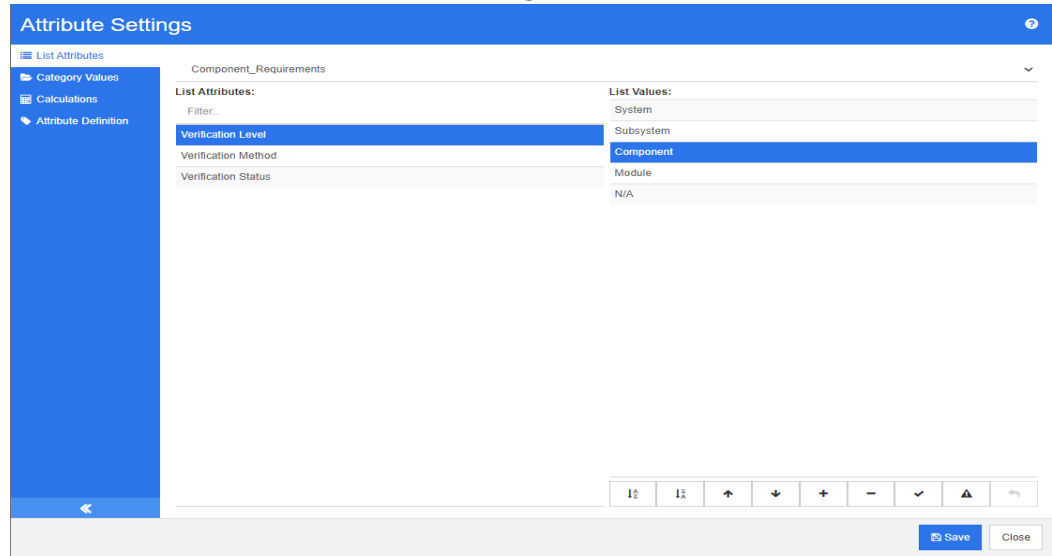


**NOTE** The PUID attribute properties are displayed only if the class is empty (no objects/requirements exist in the class).

# Managing List Attribute Values

A **list attribute** provides the ability to assign a set of selectable values to an attribute. Attributes like priority and severity are often defined using list attributes, as are lists of releases or requirement sources. List attributes make input easier, while ensuring consistency.

From **Administration, Attribute Settings** select the **List Attributes** tab




- List Values, including one to make the requirement free from suspicion, can be added, and/or default settings modified - ["Adding List Values" on page 447](#).
- Delete or Remove List Values - ["Deleting List Values" on page 448](#)
- Reorder List Values - ["Ordering List Values" on page 448](#).
- Changing List Values in Existing Data - ["Changing a List Value in Existing Data" on page 449](#)

## Adding List Values

**To add a list value to an existing List Attribute, do the following:**

- 1 From the **List Attributes** tab select the Class containing the List Attribute.
- 2 Select the relevant List Attribute.
- 3 To Add a value Click **+**. This opens the **New Value Name** dialog.
  - a Enter the new value
  - b Click **OK**.
- 4 To modify the new entry or any selected list entry:
  - a Select a List Entry
  - b Click **✓** to make the selected entry the default.

- c 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.*

- 5 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 are required to replace an old/obsolete value in requirement versions, see ["Changing a List Value in Existing Data" on page 449](#).

- 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 in Existing Data

The Best Practice for changing a list value in existing data is to delete (basically mark as retired) an existing value and create a new one (see ["Deleting List Values" on page 448](#)).

However, if a change to existing data (including baselined data) is required, this section describes a method 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.

## Category List Attribute Values

To access Category Values, select **Attribute Settings** from the **Administration** menu, choose the **Category Values** tab.

From the Category Values tab the Instance Administrator may:

- Modify or Set Category List Defaults: [Default List Values in Categories](#)
- Modify or Set Category Users: [Default User Values in Categories](#)

### Default List Values in Categories

There are occasions when different categories require alternate default list values. For example, when creating a category or sub-category to manage objects associated with a new release or component, alternate defaults can be selected for all associated lists.

To access, select **Attribute Settings** from the **Administration** menu, choose the **Category Values** tab.

The default setting for most categories is to Inherit settings from the parent category, to restore inheritance to the parent see **Restore inheritance from the Parent Category**, below.

#### To define alternate list values, do the following:

- 1 In the category tree, select the **category** for which you want to assign defaults.
- 2 Select the **class** containing the list(s) to be modified.
- 3 If the box to the left of the attribute name is checked (meaning settings are inherited from the parent), clear the box.
- 4 Expand the attribute list.
- 5 Move the mouse point over the value to be used as a default value. A grey tick appears.
- 6 Click the grey tick. The tick turns blue, which indicates that this value is to be used as the default value.
- 7 Click **Save**.

#### To Restore inheritance from the Parent Category:

- 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 Check the box next to the attribute name.
- 4 Click **Save**.

### Default User Values in 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 gray 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 ▼

Calculated Attribute: Estimated Effort ▼

Formula: Sum({Functional\_Requirement.Dev Effort}) Clear

Related Class: Functional\_Requirement ▼

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 as the target of a calculation, the **Attribute Editable** setting must **not** be checked. If checked, it will not appear on the list of possible calculation targets.

For further information on creating an attribute to be used as a target of calculations, see chapter ["Attribute Definition"](#) on page 425.

The following sections describe the functionality available after selecting **Attribute Settings** from the **Administration** menu, and choosing the **Calculations** tab:

- ["Creating a Calculated Attribute" on page 452](#)
- ["Editing a Calculated Attribute" on page 452.](#)
- ["Deleting a Calculated Attribute" on page 452](#)
- All about constructing Formulas: ["About Formulas" on page 453](#)

## Creating 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 453](#).
- 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 453](#).
- 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 "[Attribute Definition](#)" on page 425.

## 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).

- 1 **To reference numeric attributes from the same class.**
  - a the **Related Class** option in the **Create** or **Edit Calculation** dialog must be clear.
  - b From the **Insert Attribute** box, select the desired attribute; click **Insert..**
  - c To insert a static number:
    - At the desired position, click into the **Formula** box and type in the number
  - d To insert an operator:
    - From the **Insert Operator** box, select the desired operator; click **Insert.**
- 2 **To reference Numeric Attributes from another class.**

To reference numeric attributes in other classes, the two classes must have a relationship (see "[Defining Relationships](#)" on page 473). Note that when using Numeric attributes from other classes, you can use aggregate functions Sum, Average, Min, and Max only.

  - a Ensure that the **Related Class** option is selected and then select the related class.
  - b From the **Insert Attribute** box, select the desired attribute; click **Insert.**
  - c To insert a function
    - From the **Insert Function** box, select the desired function; click **Insert.**
- 3 **To reference Alphanumeric or Text Attributes.**

- a The **Related Class** option in the **Create** or **Edit Calculation** dialog must be clear.
- b To insert an alphanumeric or text attribute:
  - From the **Insert Attribute** box, select the desired attribute; click **Insert**.
- c To insert static text:
  - At the desired position, click into the **Formula** box and type the text surrounded by single quotes, e.g. 'Your Text'.
- d To concatenate text:
  - From the **Insert Operator** box, select **+**; click insert.

#### 4 To reference 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. For example:

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.

- a Ensure that the **Related Class** option is selected and then select the related class.
- b From the **Calculated Attribute** box, select the attribute to receive the calculated value.
- c 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.

- d From the **Insert Function** box, select **Max** or **Min**; click Insert.



#### 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.

- e Click **Order Values**. This opens the **Order Values** dialog.
- f 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 .
- g Click **OK** to close the **Order Values** dialog.

# Defining Web Forms

Changes are being made to the management of the forms used to display the data stored in each class defined in Dimensions RM. The forms are now stored in the database, making it possible for their content to be managed and modified by the Instance Administrator - using the Forms tab in the Browser.

The **Forms** definition functionality provides the facility to make local customizations available to users for viewing, creating or modifying objects for any general class.

## Forms Sections:

For those customers who have never customized forms but simply relied on the defaults, the following is a short overview of the sections generally included in the Forms.

The Class forms are separated by section initially based on the on the class defined in Schema Definition (see "[Defining a Class](#)" on page 466). For example, the following are a few of the sections included in a **Default Form**, unused sections, although defined, will not appear on the form.

- **Workflow History (State History)** - if the class has Workflow enabled, this section is displayed at the top of the form and its contents are managed by status within the defined states and transitions.
- **Standard** - the attributes managed in the Standard section are Requirement ID, Title and Description.
- **Custom** - the custom section of a default form includes those attributes defined by the generic class definition or the Instance Administrator.

The default form also includes those essential attributes managed by the **System**, as well as Attachments, Links, History, Containers and those Sections defined based on process.

For the detail concerning web forms and their definition, please see the Section **Customizing Web Forms** in the "Dimensions RM Administrator's Guide".

The forms can be modified in the Browser, or they can be downloaded to your local system, modified there and uploaded to the database for access by the system.

For those who have never modified a form, you may choose to test this functionality using a form from one of our Sample Instances (see "[Sample Instances](#)" on page 22).

To access the Forms dialogs, please follow the instructions in "[Managing Web Forms](#)" on page 455.

## Managing Web Forms

### To access forms management:

- 1 Select Attribute Settings from the Administration menu, choose the Forms tab.

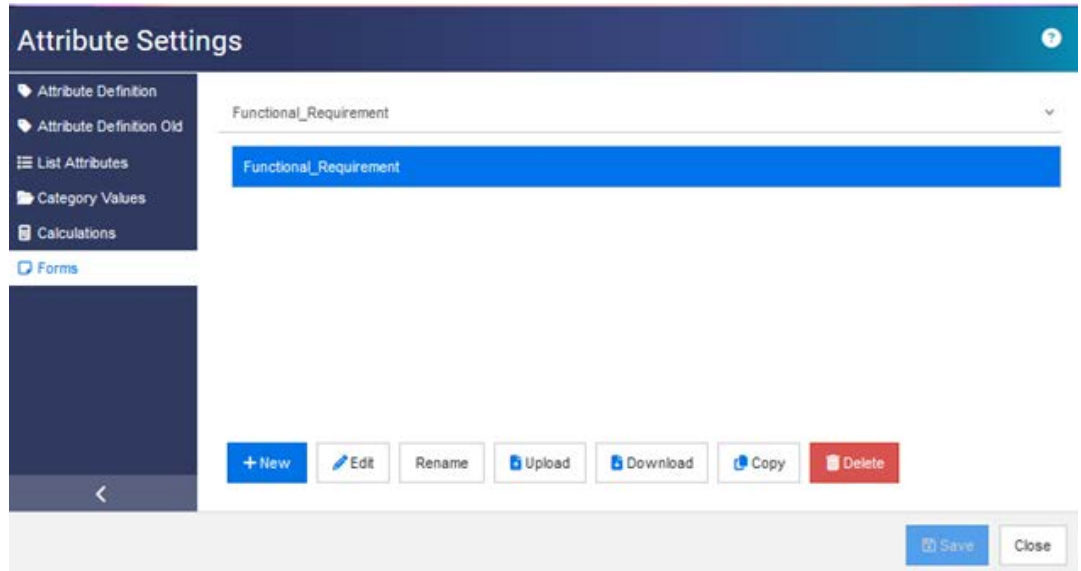
The options on this form include the following:

- a New:** Create a new custom form for the selected class. Use this to create a New form for a new class, or for a class previously relying on the default form.
- b Edit:** Open the selected form for modification in the Browser.
- c Rename:** Assign a new name to the selected custom form.

- d Download:** Download a form to a local workspace for modification.
  - e Upload:** Upload a locally modified file. Users may **Download** a form to the local work area, modify the layout based on detail instructions (see **Customizing Web Forms** in the "Dimensions RM Administrator's Guide") and then upload the modified form.
  - f Copy:** Create a copy of the selected form.
  - g Delete: Remove** the selected form.
- 2 From the drop-down, select the relevant **Class**.
  - 3 If the selected class has a customized form associated with it, as shown in [Figure 11-10, "The Forms Dialog."](#) the class name will be displayed below the class drop-down.  
If the form is displayed with a star, it is the Active form, the form the instance is using when an object from the class is opened for viewing or modification.

Business\_Requirement ★

- 4 If the selected class is relying on Dimensions RM defaults to display the attributes, in order to modify the form you must use the New option to create a custom form.
  - a Select New from the Options available. The **Add Form** dialog is raised.
  - b To base the initial form creation on the defaults, Check **Based on Default Form**, and click **OK**.
  - c To create an entirely new form, with self styled Sections, you may leave that box unchecked..



**Figure 11-10. The Forms Dialog.**

- 5 To edit the form, see ["Editing Localized Forms"](#) on page 457.



## Editing Localized Forms

In the following discussion, we will demonstrate creating a new section, and adding attributes to the section. For this discussion we are using the sample instance: ALM\_DEMO.

Prior to adding a New Section to a form, you might create several new attributes to use to populate the new section. Please see ["Attribute Definition" on page 425](#).

### To Add a New Section:

- 1 Select **Attribute Settings** from the **Administration** menu, choose the **Forms** tab.
- 2 From the drop-down, select the **Class** for which the form is to be modified.  
We are modifying the form used for the **Functional\_Requirement Class** in ALM\_DEMO.
- 3 Highlight the class and click on **Edit**.  
The **Edit Form** dialog is raised.
- 4 Select Add Section, name the section Test Section.
- 5 Highlight the Section, Test Section, and click on **Add Field**.
- 6 Add Field will list all attributes available to be included in the New Section. Choose one or two attributes to include in the new section.
- 7 Click **Save** and **Close**.
- 8 Using the 'New' drop-down, create a new requirement of the Class you selected for modification.  
Locate your New Section. Use the arrows to move the Section.

## 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 84](#).



**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**.

## An Overview of the RM Schema

This section describes the functions available from the RM Browser Schema Definition dialog.



### NOTE

- We continue to move administrator functionality from the RM Manage Class Definition tool into RM Browser, but it is not all there yet. For more information, see ["Missing Features in the Instance Schema Editor"](#) on page 463.
- Schema editing functions are not available when using Internet Explorer. For editing, please use Edge, Chrome, or Firefox.

This section includes the following overview, as well as:

- Things to think about before designing the schema: ["Considerations Prior to Defining Classes"](#) on page 461.

- Accessing and Unlocking the Schema: ["Opening and Unlocking the Instance Schema" on page 464.](#)
- Pointers concerning grid setup and manipulation: ["Manipulating the Schema Grid" on page 464.](#)
- The details relating to class definition: ["Schema Class Creation" on page 465.](#)

The Schema Definition process (Class Definition from RM Manage), is the major step in defining the classes you use, controlled by a process that makes sense to the team. A new Instance 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 can be **deployed** from one instance to another. If members of the organization have developed a process using the corporate lexicon, the System Administrator can provide your new instance with a framework from which you can build your own world.

Once the instance exists, it is the responsibility of the **Instance Administrator(s)** to define each requirement **class** (type) (e.g., Business, Functional, Software, System), the attributes contained within them, their relationships to one another, as well as the processes that bind them. It is always possible to extend the Dimensions RM process, as the team becomes more familiar with the solution, its philosophy and features. Attributes can be added or hidden, relationships can be added or modified, workflow added or 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.

### ***Considerations Prior to Defining Classes***

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:

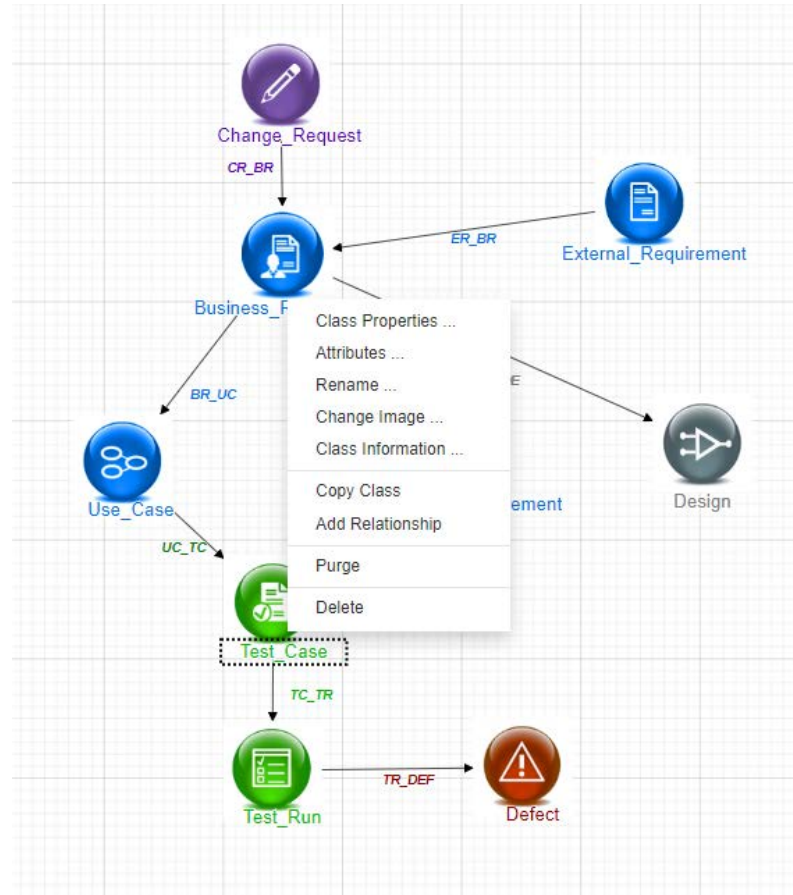
The required level of tracking among requirements, other project information, and information generated by CASE tools.

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.

The following is the Schema Definition from the ALM\_Demo sample instance (see "[Sample Instances](#)" on page 22).

These samples are a useful source of ideas, and can be used for testing, but they should not be used as a basis for a new instance schema.



## 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.

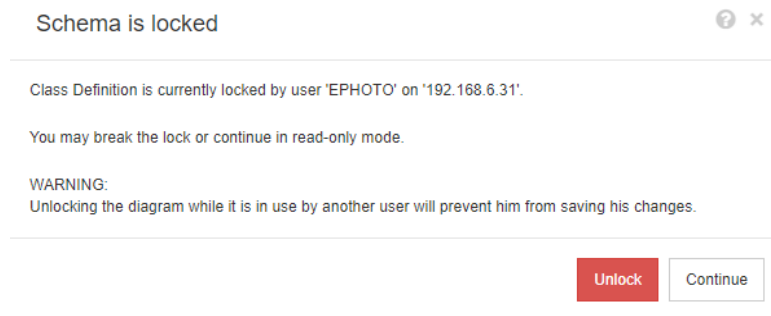
- Schema Deployment - A selected schema can be deployed using the System Administration tool RM Manage - see the Administrator's Guide.
- Copying workflows from one class to another can be done from the Class Definition tool, see "Class Definition" in the Administrator's Guide.
- Definition of Custom Class Types - It is possible, in the Browser Schema Definition tool to choose one of the several dozen available classes, to modify it to perfection, and then to save it and to copy it. To create and populate a new class type, see "Class Definition" in the Administrator's Guide.

## Accessing the Instance Schema

### Opening and Unlocking the Instance Schema

Those assigned the role of **Instance Administrator** may make schema changes using dialogs accessed from **Schema Definition** or **Attribute Settings**; both are selected the **Administration** menu. Once opened the schema will be locked, to ensure that you, and only you, are introducing changes to the instance schema.


When attempting to open a locked schema, the Schema is Locked dialog is displayed, identifying the user currently holding the lock.



**Figure 11-11. The Instance Schema is Locked**

If you are absolutely sure the user identified is **no longer** modifying the instance schema, choose **Unlock** to reset the lock and open the schema in read/write mode. Alternatively, you can choose continue to load the schema in read-only mode.

To save changes to the schema, click  in the toolbar.

To reload the instance schema, click  in the toolbar.

### Saving the Instance Schema

When making schema changes it is best practice to make the change, save the schema and exit.

To save the instance schema, click  in the toolbar.

### Reloading the Instance Schema

To reload the instance schema, click  in the toolbar.

## Manipulating 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.

## 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 similar names. This will make the transition easier.

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, as well as classes for use cases, releases, test cases, sprints and stories. Each of these include a set of attributes considered useful to get you started, but almost all (exceptions noted below) are available for consideration, modification and adoption. For all classes Dimensions RM automatically stores the information necessary to determine "who did what and when."

As work continues, it is always possible to add attributes to a defined class, attributes to assist with reporting or searching as the pool of requirements grows and needs expand.

The following classes are predefined and for internal use only.



**CAUTION!**

The **Poll** class is for internal use only and must not be modified.

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.



**CAUTION!**

The **Comment** class, used for discussion concerning database objects, is for internal use only. Do **not** modify or rename any of the following attributes in the Comment class:

- Comment
- Subject

You may add attributes to the comment class.

If you are unfamiliar with the editing functions on the Schema, please review ["Manipulating the Schema Grid" on page 464](#).

To add a class, and to access all related functions, see ["Defining a Class" on page 466](#).

## Defining a 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.

Many types have been defined, with a starter set of attributes. If you are not sure, pick a type, save it, create data and see if it suits the needs. You can add or remove attributes or delete the class and try another.

- 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, 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 501

- 4 Click **OK** to add the class with the specified name to the instance schema.
- 5 Click  to save the instance schema.

*To complete the Class definition, right click on the new class.*

The menu lists the following actions, all are useful, but those important to the initial setup are listed in **Bold**:

**Assign a title and description:** "[Class Properties: Properties Tab](#)" on page 467.

The **Color and Font** used for the Schema Display: "[Class Properties: Style Tab](#)" on page 468

**Group Permissions** for the Class can be modified: "[Class Properties: Security Tab](#)" on page 468.

**Define Class Attributes:** "[Attribute Definition](#)" on page 425.

**The Class can be renamed:** "[Renaming a Class](#)" on page 469

**The Icon can be changed:** "[Changing a Class Image](#)" on page 470.

Class Information Listed: "[Class Information](#)" on page 470.

**Copy a class from one that exists:** "[Copying a Class](#)" on page 470.

**Add Relationships to a new or existing Class:** "[Defining Relationships](#)" on page 473.

**Starting Fresh, Clearing the Content:** There may be times when you want to remove all that has been gathered and start fresh: "[Purging Class Data](#)" on page 471.

**Remove a Class from the Schema:** "[Deleting a Class](#)" on page 471.

**Exporting all or part of the Schema Configuration:** "[Export Schema Configuration](#)" on page 471.

### ***Class Properties: Properties Tab***

Right-click on the class, Choose **Class Properties, Properties** Tab to Specify a Class Description, attributes, and 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.

**Default PUID Attribute:** The PUID (Persistent Unique ID) is used by RM to manage requirements such that change is maintained against objects uniquely identified. The Attribute defaults to the Display Name assigned to the PUID.

**Enable Workflow:** Checkbox to enable workflow for a class. See chapter "[Creating or Editing a Workflow](#)" on page 484

**Auto-size Attributes on Form:** Checking this option supports a more structured 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*.

**Hidden Class:** This is a setting reserved for special classes created within Dimensions RM and used to manage RM controlled data. An example of this type of class is **Test Run Steps**.

The objects in the class **Test Run Steps** are generated as part of test management to capture test verification information; changes cannot be made outside of the test execution. This class is never directly available to users for input or modification.

**Create Parent Category:** This setting is available only when creating the Product and Project classes. It is most effective in managing basis applications (e.g., Products) within a clear structure, with the variants clearly identified under Projects.

### ***Class Properties: Style Tab***

Right-click on the class, Choose **Class Properties, Style** Tab to change the **Color and Font on the schema display**. To change the image on the Class Icon see "[Changing a Class Image](#)" on page 470.

Screen shots of the schema definition are often used in internal process documentation. When a schema contains many classes, it is possible to modify font size and color as indicators to show 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**.

The Label containing the Class Name can be modified in one or all of the following ways:

Font - a selection of fonts are available from the menu.

Font Size - Increase or decrease the size.

Color - Click into the current color to raise the color bar.

Style - Choose from: Bold, Italic, Underline and/or Strikeout.

### ***Class Properties: Security Tab***

#### ***Setting Group Permissions on the Class***

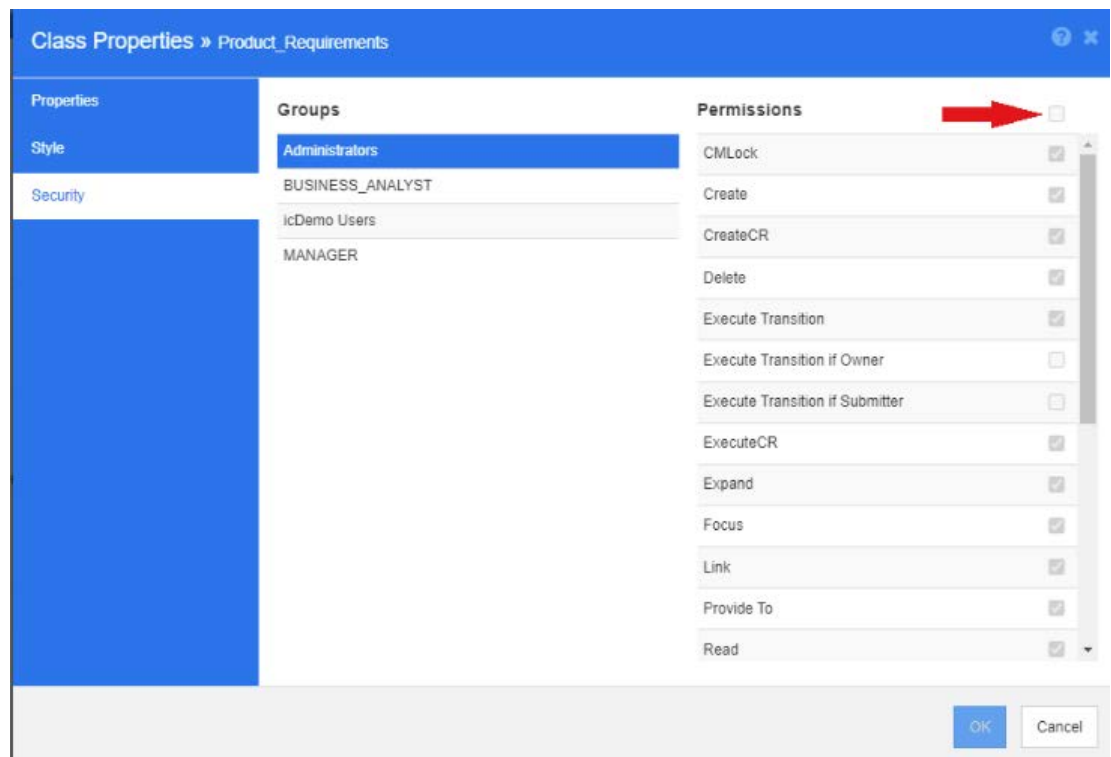
In Dimensions RM users are defined and assigned to groups. The assignment of group permissions can be specified for each group within each class, or more generally by group with permissions applied across classes. The choice, once again, depends on process.

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 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 408.



### Attribute Settings

Attribute Settings may be accessed directly from the Class on the Schema, right click on a class and select Attributes.

Attribute Settings are also available through Attribute Settings from the Administration menu. For complete documentation concerning **Attribute Settings** See "[Attribute Definition](#)" on page 425.

### 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.

The class name must follow the conventions specified in chapter "[Naming Conventions for Classes](#)" on page 501

## 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 446.

### To Copy (Duplicate) 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.  
The class name must follow the conventions specified in chapter "[Naming Conventions for Classes](#)" on page 501
- 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.

## 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.



**CAUTION!** Purging data permanently removes the objects from the instance.

### 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.
- 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.

## Export Schema Configuration

This function exports all or part of the RM Schema; the exported file can be saved as HTML, JSON or as a plain text file.

To access the **Export Schema Configuration** function select **Schema Definition** from the **Administration** menu to open the Instance schema. If there are issues opening the schema, see ["Opening and Unlocking the Instance Schema" on page 464](#).

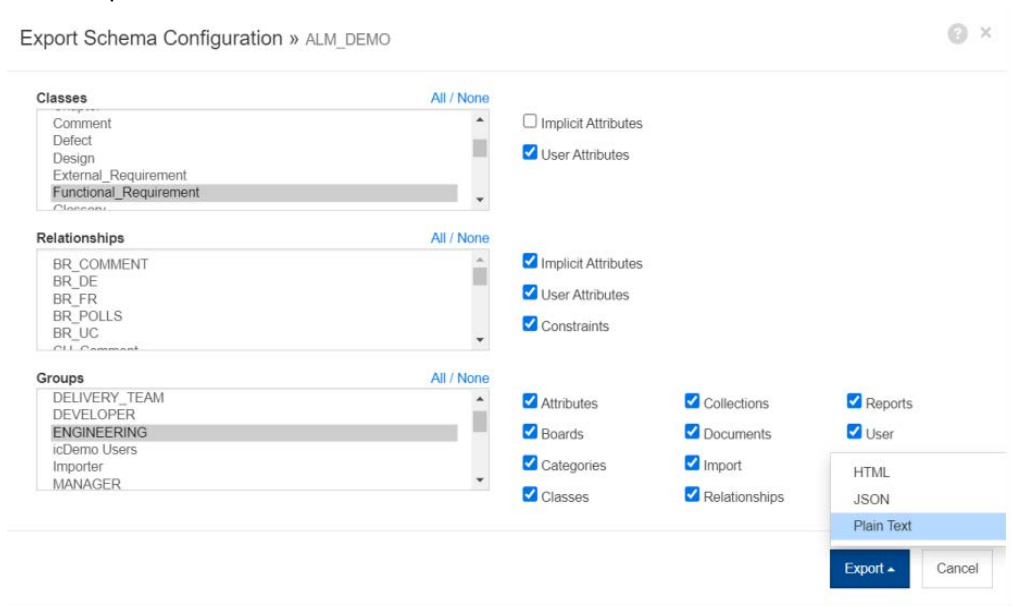
From the open Instance Schema, click-on the **Export** function from the top menu bar.

- The output from this export is based on selected **Classes, Relationships** and/or **Groups**.
- For selected **Classes** and **Relationships** the user may choose to report on Implicit (system) Attributes, User Attributes or both.

- For selected **Groups** permissions may be selected by Action Set, e.g. permissions associated with Attributes, Collections, reports, etc.
- The output type, which can be saved as HTML, JSON or Plain Text (txt), is selected from the menu on the **Export** button

For example, given the selection of:

- Functional Requirement Class, User Attributes only
- Nothing selected from Relationships
- Engineering Group, Action Set: All Checked
- Output Plain Text



**Figure 11-12. Select Class(es), Relationships and Groups output Plain Text.**

The results include for each Attribute in the selected class, all settings, and for each Group selected all permissions. The sample below shows the settings for the Attribute **Dev Effort** and the group permissions for the **Report** Actions.



Numeric Attribute 'Dev Effort'	
Description	Estimated development effort
used in release planning.	
Attribute Name	DEV_EFFORT
Attribute Mandatory	False
Attribute Editable	True
Populate on Copy	True
Populate on Create And Link	True
Force Unique Value	False
Display for Entry	True
Change raises Suspicion	False
Maximum Length	10
Display Length	10
Minimum Value	<none>
Maximum Value	<none>
Default Value	<none>
Reports	
Create	True
Create Public	True
Read	True
Remove	False
Rename	True
Update	True

## Defining 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 relationship to the Schema Definition diagram creates the connection between two classes that allows links to be created between objects of those class types. Creating links between, for example, a change request and the requirements derived from it and continuing to link through to test cases and defects, supports the traceability necessary to good requirement management process.

Relationships, like classes, become part of the schema diagram, they have properties, including constraints, and attributes.

### Adding a New Relationship

Relationships can be added from the **New** menu in schema definition, as well as with a right-click on the class. The benefit of using the latter method is that the source is clear and you need only to click on the target to complete the connection.




#### CAUTION!

- The relationship name must follow the conventions specified in chapter "[Naming Conventions for Relationships](#)" on page 502
- Do not create a relationship from any class to a Chapter class.

To create a relationship, execute these steps:

- 1 Right-click on the Class intended as the **Source (primary class)** of the relationship.
- 2 Select **Add Relationship** from the menu.
- 3 Click into the Class intended as the **Target (secondary class)** of the relationship; this opens the **Add Relationship** dialog.
- 4 Enter a unique name for the relationship, consistent with local conventions. For example, some teams choose to use standard abbreviations with the link direction: BRtoFR.

- 5 Click **OK** to add the relationship to your instance schema.
- 6 The Instance Schema must be saved before continuing .

To complete the **Relationship** definition, right click on the Relationship line and choose from the menu. All Actions are useful, but only the first is important to a new definition.

- **Title, Description, Cardinality, Transfer Rules:** [Relationship Properties: Properties Tab](#).
- The Color and Font used for the Schema Display: "[Relationship Properties: Style Tab](#)" on page 476
- Relationship constraints can be added or modified: "[Relationship Properties: Constraints Tab](#)" on page 476
- Group Permissions for the Class can be modified: "[Relationship Properties: Security Tab](#)" on page 477.
- Define Relationship Attributes: "[Relationship Attributes](#)" on page 478.
- The Relationship can be renamed: "[Renaming a Relationship](#)" on page 479.
- The Source and Target of the Relationship can be changed: "[Reversing a Relationship](#)" on page 479.
- A Relationship can be deleted: "[Deleting a Relationship](#)" on page 479..
- Relationship data may be purged: "[Purging Relationship Data](#)" on page 479

### **Relationship Properties: Properties Tab**

Right-click on the relationship line and select **Relationship Properties** from the menu.

Change the relationship name, if desired, and edit the text in the description box.

#### **Cardinality**

Cardinality controls 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.

Limited cardinality is applied between the Classes Test Case and Test Run. There may be only one Test Run for each Test Case, the cardinality for the secondary class, Test Run, is the digit 1.

See also "Apply only for current Version" ("[Apply only for current Version](#)" on page 475) in Transfer Rules.

#### **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 limit the attributes that trigger a change see attribute setting <b>Change Raises Suspicion</b> in chapter " <a href="#">Attribute Properties</a> " on page 427.
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 suspect.
Mark Secondary as Suspect on removal from container	When the primary object is removed from a document or collection, the secondary is marked as suspect.
Populate Attributes on Create and Link	<p>Identically named attributes will be pre-populated when using <b>Create New &amp; Link</b> executed from the Actions pane or from the Link section of an open object..</p> <p>To be applied, this option requires that both this Relationship Property be enabled as well as the Attribute Property "<b>Populate on Create and Link</b>" (see chapter "<a href="#">Attribute Properties</a>" on page 427).</p> <p>This allows for selected classes to be prepopulated based on selected relationships.</p>
Apply only for current Version	This option is related to <b>Cardinality</b> and just comes into effect if the primary Cardinality has a numeric value. If it is enabled, only primary objects with status <b>Current</b> 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.

Rule Type	Description
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 <b>Change Raises Suspicion</b> in chapter " <a href="#">Attribute Properties</a> " on page 427.
Mark Primary as Suspect on Link deletion or undeletion	When the link between the primary object and the secondary object is deleted or undeleted, the primary object is marked as suspect.
Mark Primary as Suspect on removal from container	When the secondary object is removed from a document or collection, the primary is marked as 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 " <a href="#">Attribute Properties</a> " on page 427).
Apply only for current Version	This option is related to <b>Cardinality</b> and just comes into effect if the secondary Cardinality has a numeric value. If it is enabled, only secondary objects with status <b>Current</b> are considered. If it is disabled, all versions of the secondary object are considered.

### **Relationship Properties: Style Tab**

Right-click on the relationship line, select **Relationship Properties** from the menu and choose the Style Tab.

It is possible to change the font, size, color and style, as well as the color and width of the relationship line.

### **Relationship Properties: Constraints Tab**

Relationship constraints allow rules to be created that govern the creation of links between objects of the primary and secondary class.

Depending on the type of rules necessary for the process defined, it is also possible, if using Workflow, to define workflow transitions to force relationships before an object is transitioned, see "[Editing Workflows](#)" on page 483.

#### **To add a constraint:**

- 1 Click **OR** or **AND** in the **Attribute Constraints** area to specify the type of logical relationship you are about to specify.
  - OR: If one of the constraints matches, the link will be created.
  - AND: If all of the constraints match, the link will be created.

- 2 Click the  to Add a new Constraint.

A new row is added to the table and the **Class** and **Attribute** menus are populated based on the relationship you selected. Click on these cells to select first the class, and then the attribute values from a drop-down menu.

- 3 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.

Examples:

- \*UNIX would **include** any value ending with UNIX, e.g. HP-UNIX
- \*UNIX\* would **include** any value that contains UNIX, e.g. HP-UNIX, HP-UNIX-11, UNIX-11
- UNIX\* would **include** any value starting with UNIX, e.g UNIX-11
- **Not Like** The attribute **must not** include the value as part of a larger string. When using **Not Like**, you would include one or more asterisks (\*) as wild cards to indicate where the value fits into the larger attribute string.

Examples:

- \*UNIX would **exclude** any value ending with UNIX, e.g HP-UNIX
- \*UNIX\* would **exclude** any value that contains UNIX, e.g. HP-UNIX, HP-UNIX-11, UNIX-11
- UNIX\* would **exclude** any value starting with UNIX, e.g UNIX-11

- 4 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** or **Not Like** constraint, use asterisks as wild cards.

- 5 **apply on link creation only:** Select this option to limit the constraint to when a link is being created.
- 6 Click **OK**.

**To delete a constraint,** Click on the **Trashcan** at the end of the row.

**To change an existing constraint rule,** Click the cell to be changed and modify the value.

### **Relationship Properties: Security Tab**

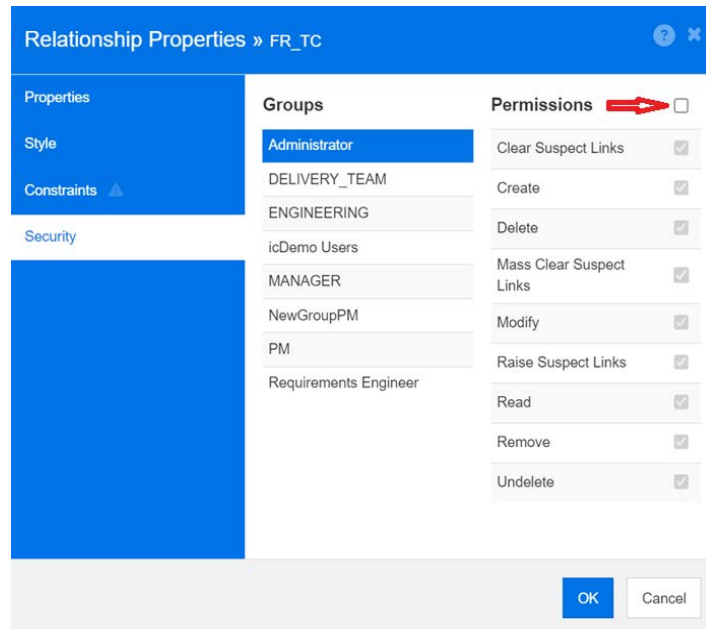
#### **Setting Group Permissions on the Relationship**

In Dimensions RM users are defined and assigned to groups. The assignment of group permissions can be specified for each group within each relationship, or more generally by group with permissions applied across relationships. The choice, once again, depends on process.

Should all groups be able to **Mass Clear Suspect Links**? Perhaps that is something that only designated power users should be able to do. Or all permissions may be checked for certain classes, e.g., testing related classes for the QA group.

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 for all.



### **Relationship Attributes**

Relationships, like all Class objects, are history controlled. Relationships are defined with a set of implicit objects defined to track the current version, who created it and when. The solution ensures that a relationship contained in a baseline is modified only with the addition of a new version, while the baselined object remains immutable.

User attributes may be added to relationships for storing information beyond that controlled by the implicit attributes.

To add attributes to a relationship:

- Right-click on the relationship line and choose **Attributes**,
- **or** use the Attribute Settings function from the Administration menu, and choose **Show Relationships** from the bottom of the class list. Choose the relevant relationship from the list.

For details see "[Attribute Definition](#)" on page 425.


## 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.



**CAUTION!** The relationship name must follow the conventions specified in chapter "Naming Conventions for Relationships" on page 502

### 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.
- 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.

## 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.

## 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.

## Creating Product and Project Classes

The **Product Class** provides a method for managing all artifacts associated with a release, application or component.

The **Product** class is used to support both **Agile** development, and application branching.

The **Project** classes are created, primarily, in support of branching.

**Agile:** Requires the **Product** class. The Product *ePhoto - iPhone App* is included in the sample instance AGILE\_RMDEMO, and presents an example of Agile development using Dimensions RM. To create Products for use with Agile see ["Adding Agile Products" on page 390](#).

**Branching:** Requires **Product** and **Project** classes. In the RMDemo sample instance a Product CloudPhoto has been created, in conjunction with the Project CloudPhoto, demonstrates branching functions. To create Products for use with Branching see ["Creating Product and Project Classes for Branching" on page 480](#).

**Requirement to Product Assignment:** Requires the **Product** class (without branching). To create Products for use without Branching see ["Creating Product or Project Classes without Branching" on page 481](#).


**Requirement to Project Assignment:** Requires the **Project** class (without branching). To create Projects for use without Branching see ["Creating Product and Project Classes for Branching" on page 480](#).

### Creating Product and Project Classes for Branching

If you are unfamiliar with the creation of new classes, detail Instructions can be found in ["Schema Class Creation" on page 465](#).

- 1 Select Schema Definition from the Administration menu to open the Instance schema. For details, see ["Opening and Unlocking the Instance Schema" on page 464](#).
- 2 From the desired location on the schema grid, right click and select Add Class.
- 3 From the menu, select **Product**.
- 4 The Class Name will default to the class type, we recommend that you accept the name: **Product**.
- 5 Save the Schema.
- 6 Right-click on the Product Class and choose Class Properties, Check the box next to the Option **Create Parent category**



- 7 Repeat Steps 2-6, selecting **Project** rather than Product.
- 8 Click  to save the schema definition.

The special Classes **Product** and **Project** should now be listed and be selectable in the Category tree. They look like categories - but provide much more functionality. The Product Class entries that will be defined under Products and Projects are typically assigned special icons; you may also consider using a different color to clearly differentiate these products and projects from standard categories. Please see ["Adding a Category Icon" on page 416](#).

Within this special Product Category, the team will create entries from the Product class.

### **Creating Product or Project Classes without Branching**

- 1 Open the instance schema (see chapter ["Opening and Unlocking the Instance Schema" on page 464](#)).
- 2 **To create the Product class:**
  - a Add a class based on the **Product** type (see chapter ["Defining a Class" on page 466](#)) 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 Class" on page 466](#)) 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 make the following modifications, because the short name is not required when creating a product or project:
  - a In the **Attributes Definition** dialog (see chapter ["Attribute Definition" on page 425](#)), 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**

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.



#### **CAUTION!**

The class name must follow the conventions specified in chapter ["Naming Conventions for Classes" on page 501](#)


The relationship name must follow the conventions specified in chapter ["Naming Conventions for Relationships" on page 502](#)

#### **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.
- 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.
  - c** Enter a unique name for the relationship that should describe the data you intend to associate with the relationship.
  - d** Click **OK** to add the relationship to your instance schema.
  - e** To open the **Define Relationship** dialog:

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.
  - f** Ensure, that for **Primary** and **Secondary**, the option **Transfer to Child** is selected.

- g Click **OK**.
- 6 Click  to save the instance schema.

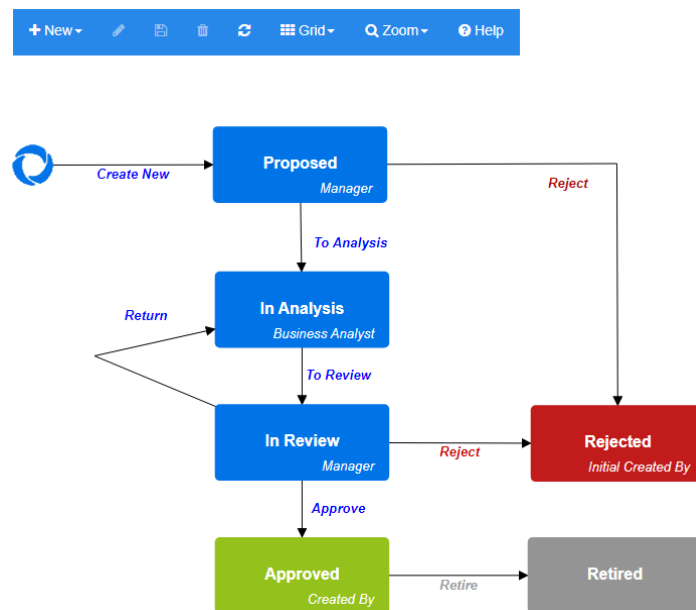
## Editing Workflows

In Dimensions RM workflows are defined to ensure that requirement objects and containers (documents, collections, etc.) meet a defined set of criteria before they reach an approved state. Workflow allows users to track progress, as well as to control the approval process. Constraints may be placed on specific attributes and/or relationships.

For example, a functional requirement may not be transitioned from Draft to a Review State unless it contains a title, a description, a verification method, a relationship to a change request or business requirement, and a user or group responsible for review.

Workflows are typically defined by the requirements team, and implemented by the tool administrator using the Schema Definition tool.

Sample



**Figure 11-13. Workflow for class Product\_Requirements**

This section contains the following:

- "Creating or Editing a Workflow" on page 484
- "Workflow States" on page 484
- "Workflow Transitions" on page 487
- "Deleting a Workflow" on page 494
- "Using Containers with Workflows" on page 494

## Creating or Editing a Workflow

Workflows are created for a class. It is not possible to create one workflow which handles several classes, although workflows can be copied from one class to another using the the Class Definition tool from RM Manage (See *Copying a Workflow to another Class* in the Administrator's Guide).


### 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.

### To create a workflow, follow these steps:

- 1 Select **Schema Definition** from the **Administration** menu.
- 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.
- 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

### To add a Workflow State:

**Select State** from the **New** menu, click at the desired location on the canvas.

**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:

**Double-click** the state you want to rename or right-click and select **Rename**

**Enter** the new state Name

**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.

From the Properties Dialog you can change:

["Workflow State Property Settings" on page 485](#)

["Workflow State Style Settings" on page 485](#)

["Workflow State Transitions Settings" on page 485](#)

["Workflow State Form Settings" on page 485](#)

["Workflow State Security Settings" on page 486](#)

## 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:

**Select a transition** and click  or  to change the order.

## 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><b>NOTE</b> 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.
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 404.

### **Deleting a Workflow State**

A state can only be deleted if no requirement is within that state.

To delete a state, follow these steps:

**Select the state** you want to delete.

Press the **Delete** key or right-click the state and select **Delete** from the shortcut menu.

**Confirm.**


## Workflow Transitions

Workflow transitions provide a mechanism to promote or transition object from one state to another. For example, from Draft

### 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.

An "angled" transition arrow (e.g. a 90° angle) can be added 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.  <b>NOTE</b> 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.

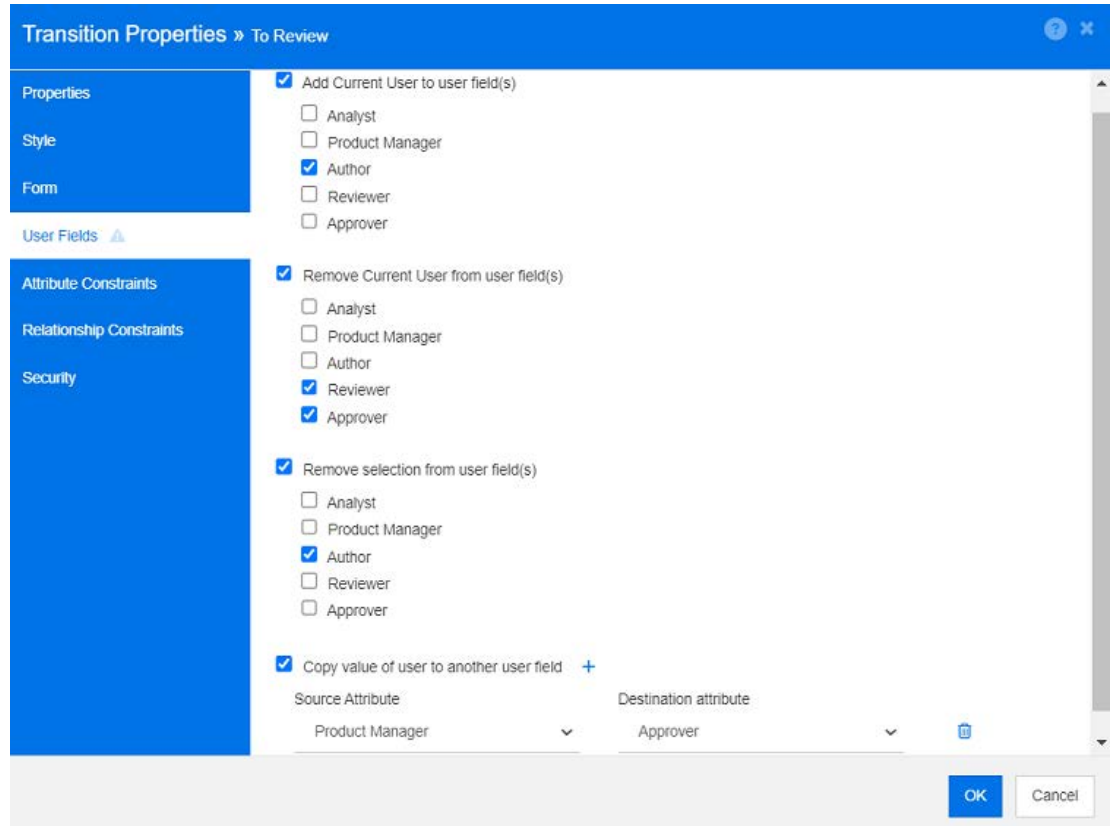
User Fields allow the team to remove or to assign users to various roles during transitions. For example, the author, the person responsible for writing a requirement and submitting it for review is removed from the set of people available as Reviewer or Approver.

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 11-14. 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.

- 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, use asterisks as wild cards.

**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.

- 4 The **Auto** cell is a Yes-No check-box:




**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.

**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.

- 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, use asterisks as wild cards.

**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.
- 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).
  - 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

Workflows are defined for classes, but can be applied to containers. To define a workflow that will be used to track the progress of containers (documents, collections, and baselines), you must first create a class to which the workflow will be assigned. The **Workflow\_Container** class is available to address that need.

For collections or documents an approval process can be defined such that, for example, a document can be submitted for review, approved by reviewers and then baselined and submitted to stakeholders.

**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 ["Attribute Definition" on page 425](#).
- 7 Add a workflow to the *WorkFlow\_Container* class as described in chapter ["Creating or Editing a Workflow" on page 484](#).

Once the workflow has been defined for the `Workflow_Container` class, it will be available for assignment when creating or editing the properties for a document or collection.

## Administrative Tools

The following functions are available from the Administrative Tools menu accessible from the RM Browser Administration drop-down for members of the System Administrator Group. For details, see ["About Administration" on page 400](#) for details.

The Administrative Tools menu includes:

- Certificate Update:
  - Updating the Open Text Common Tomcat Server certificate. For details see ["Updating the Tomcat Certificate" on page 496](#).
  - Updating the SSO Certificates. For details see ["Updating the SSO Certificates" on page 497](#).
- Manage Services - Allows System Administrators to manage Dimensions RM related services. For details see ["Managing RM Services" on page 498](#)
- Process Log - Status for Dimensions RM services. For details see ["RM Process Log" on page 498](#)
- Log Files - Access for review and/or download all Dimensions RM log files. For details see ["Accessing Log Files" on page 499](#)
- Administrative Audit - Provides access to administrative level changes, including user related changes, categories, and schema. For details see ["Accessing Administrative Audit" on page 499](#)

## Updating the Tomcat Certificate

The following describes how to update the certificates for Open Text Common Tomcat used for HTTPS connections. As Open Text Common Tomcat always has certificates installed, this function can be used for the initial certificate setup of your server.

To update the Open Text Common Tomcat server certificate:



**IMPORTANT!** Before you begin, ensure that all prerequisites are met (see ["Tomcat Certificate Prerequisites" on page 496](#)).

Access to Certificate Update, available through the Administrative Tools menu, requires System Administrator access. Please see ["About Administration" on page 400](#) for details.

- 1 From the **Administration** menu, select **Administrative Tools**, accessible from the RM Browser Administration drop-down for members of the System Administrator Group.
- 2 Choose **Certificate Update**.
- 3 Click **Browse...** to open the file upload dialog.
- 4 Select the PFX file with the certificate and click **Open**.
- 5 Enter the password for the PFX file into the Certificate Password box.
- 6 Click **Retrieve Alias** to read the certificate alias from the PFX file.
- 7 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.

- 8 Click **Update Certificate** to start the certificate update.



### NOTE

- This update will include a restart of Tomcat, which will interrupt work for Dimensions RM users, or users of any other web application running on Open Text Common Tomcat.
- Should the certificate update fail, the previous certificate is restored.

- 9 Click **OK** to confirm the warning message.
- 10 Wait until the **Certificate Update** dialog reports completion of the update process.

### **Tomcat Certificate Prerequisites**

All of the following prerequisites must be met to successfully import the certificates:

Your Dimensions RM server uses an **unmodified Open Text 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 Open Text 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

The following chapter describes how to update the SSO certificates 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



**IMPORTANT!** Before you begin, ensure that the following prerequisites are met.

Access to Certificate Update, available through the Administrative Tools menu, requires System Administrator access. Please see ["About Administration" on page 400](#) for details.

- SSO has been enabled.
- Your Dimensions RM server uses an unmodified Open Text 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 Open Text Common Tomcat are informed that the server is down for some minutes and they cannot work on that server for that time.

### To update the SSO server certificate:

- 1 From the **Administration** menu, select **Administrative Tools**.
- 2 Select **SSO Certificate Update** from the navigation pane.
- 3 For **Gatekeeper Certificate**, click **Browse...** to open the file upload dialog.
- 4 Select the gatekeeper certificate file in CER format and click **Open**.
- 5 For **STS Certificate**, click **Browse...** to open the file upload dialog.
- 6 Select the STS certificate file in PEM format and click **Open**.
- 7 For **Federation Server Certificate**, click **Browse...** to open the file upload dialog.

- 8 Select the federation server certificate file in CER format and click **Open**.
- 9 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 Open Text Common Tomcat.
- The update process will take a while as Tomcat will be restarted in the process.

- 10 Click **OK** to confirm the warning message.
- 11 Wait until the **SSO Certificate Update** dialog reports completion of the update process.

## Managing RM Services

The **Manage Services** function allows System Administrators to manage Dimensions RM related services, provided that Tomcat and Dimensions RM server are installed on the same machine.

To access System Administrator access.

**To manage RM services, do the following:**

- 1 From the **Administration** menu, select **Administrative Tools**, accessible from the RM Browser Administration drop-down for members of the System Administrator Group. See "[About Administration](#)" on page 400 for details concerning access.
- 2 Select **Manage Services** from the navigation pane.

## RM Process Log

The **Process Log** shows the start time of Dimensions RM services, including the Open Text Common Tomcat, statistics, the 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**, accessible from the RM Browser Administration drop-down for members of the System Administrator Group. See "[About Administration](#)" on page 400 for details concerning access.
- 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**.
- 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**.
- 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.

## Accessing Administrative Audit

The Administrative Audit dialog provides Systems Administrators with a tool to list Administration tasks by all or selected Actions, performed by all or selected Users, between defined dates.

**To execute the Dimensions RM Administrative Audit:**

- 1 From the **Administration** menu, select **Administrative Tools**.
- 2 In the left pane, select **Administrative Audit**.

- 3 The report start and end dates will default to the current date.  
Input a date to **Show Activity Since**, to change the start date.  
Input a date to **Show Activity Till**, to change the end date.
- 4 Use the **All Actions** drop-down to report on a single Action.
- 5 Use the **All Users** drop-down to report on a single user.
- 6 Use the **Export** button to export the report.

## Schema Related Naming Conventions

Instances - ["Naming Conventions for Instances" on page 500](#)

Classes - ["Naming Conventions for Classes" on page 501](#)

Attribute Display Names - ["Naming Conventions for Attribute Display Names" on page 501](#)

Attribute Names - ["Naming Conventions for Attribute Names" on page 501](#)

Relationships - ["Naming Conventions for Relationships" on page 502](#)

Workflow States - ["Naming Conventions for Workflow States" on page 502](#)

Workflow Transitions - ["Naming Conventions for Workflow Transitions" on page 502](#).



**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 502](#)).

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 502](#)).

## 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 502](#)).

## 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 502](#)).

## 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 502](#)).

## 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

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# Script Syntax

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## 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 <a href="#">"Comparing Text" on page 514</a> .
Date	INITIALIZED, NOT INITIALIZED, =, !=, <, >, <=, >=	For further information, see chapter <a href="#">"Comparing Dates" on page 516</a> .
File Attachment		Not supported
Group	INITIALIZED, NOT INITIALIZED, IN, NOT IN, =, !=, <, >, <=, >=	For further information, see chapter <a href="#">"Comparing Text" on page 514</a> .
List	INITIALIZED, NOT INITIALIZED, IN, NOT IN, =, !=, <, >, <=, >=	For further information, see chapter <a href="#">"Comparing Text" on page 514</a> .
Numeric	INITIALIZED, NOT INITIALIZED, IN, NOT IN, =, !=, <, >, <=, >=	For further information, see chapter <a href="#">"Comparing Numbers" on page 514</a> .
Text	INITIALIZED, NOT INITIALIZED, IN, NOT IN, =, !=, <, >, <=, >=	For further information, see chapter <a href="#">"Comparing Text" on page 514</a> .

## Comparing Numbers

Operator	Description
INITIALIZED	The attribute contains a value. <b>Example:</b> TEST_ATTRIBUTE INITIALIZED
NOT INITIALIZED	The attribute contains no value. <b>Example:</b> TEST_ATTRIBUTE NOT INITIALIZED
=	The attribute value must be identical with the specified value. <b>Example:</b> TEST_ATTRIBUTE = 5
!=	The attribute value must <b>not</b> be identical with the specified value. <b>Example:</b> TEST_ATTRIBUTE != 5
<	The attribute value must be less than the specified value. <b>Example:</b> TEST_ATTRIBUTE < 5
>	The attribute value must be larger than the specified value. <b>Example:</b> TEST_ATTRIBUTE > 5
<=	The attribute value must be less or identical with the specified value. <b>Example:</b> TEST_ATTRIBUTE <= 5
>=	The attribute value must be larger or identical with the specified value. <b>Example:</b> TEST_ATTRIBUTE >= 5
IN	The attribute value must be identical to one of those provided <b>Example:</b> TEST_ATTRIBUTE IN (3, 4, 5)
NOT IN	The attribute value must <b>not</b> be identical to one of those provided <b>Example:</b> 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. <b>Example:</b> TEST_ATTRIBUTE INITIALIZED
NOT INITIALIZED	The attribute contains no value. <b>Example:</b> TEST_ATTRIBUTE NOT INITIALIZED
=	The attribute value must be identical with the specified value. <b>Example:</b> TEST_ATTRIBUTE = 'Test' The example returns REQ1.

Operator	Description
!=	The attribute value must <b>not</b> be identical with the specified value. <b>Example:</b> TEST_ATTRIBUTE != 'Test' The example returns REQ2.
<	The attribute value must be less than the specified value. <b>Example:</b> TEST_ATTRIBUTE < 'test' The example returns REQ1.
>	The attribute value must be larger than the specified value. <b>Example:</b> TEST_ATTRIBUTE > 'Test' The example returns REQ2.
<=	The attribute value must be less or identical with the specified value. <b>Example:</b> TEST_ATTRIBUTE <= 'test' The example returns REQ1 and REQ2.
>=	The attribute value must be larger or identical with the specified value. <b>Example:</b> TEST_ATTRIBUTE >= 'Test' The example returns REQ1 and REQ2.
IN	The attribute value must be identical to one of those provided <b>Example:</b> TEST_ATTRIBUTE IN ('Test', 'test') The example returns REQ1 and REQ2.
NOT IN	The attribute value must <b>not</b> be identical to one of those provided <b>Example:</b> 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><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• TEST_ATTRIBUTE LIKE 'Business*' <ul style="list-style-type: none"> <li>The value must start with the word "Business".</li> </ul> </li> <li>• TEST_ATTRIBUTE LIKE '*business.'</li> <li>The value must end with "business.".</li> <li>• TEST_ATTRIBUTE LIKE ~'*business*' <ul style="list-style-type: none"> <li>The value must contain the word "business".</li> </ul> </li> </ul> <p>* or %: A wildcard for any set of characters. _: A wildcard for a single character.</p>
NOT LIKE	<p>The attribute value must <b>not</b> match the specified search pattern. Note that the text casing is relevant.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• TEST_ATTRIBUTE NOT LIKE 'Business*' <ul style="list-style-type: none"> <li>The value must not start with the word "Business".</li> </ul> </li> <li>• TEST_ATTRIBUTE NOT LIKE '* business.'</li> <li>The value must not end with "business.".</li> <li>• TEST_ATTRIBUTE NOT LIKE ~'*business*' <ul style="list-style-type: none"> <li>The value must not contain the word "business".</li> </ul> </li> </ul> <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><b>Example:</b> TEST_ATTRIBUTE INITIALIZED</p>
NOT INITIALIZED	<p>The attribute contains no value.</p> <p><b>Example:</b> TEST_ATTRIBUTE NOT INITIALIZED</p>
=	<p>The attribute value must be identical with the specified value.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>■ TEST_ATTRIBUTE = '01-SEP-2015'</li> <li>■ TEST_ATTRIBUTE = '01-SEP-2015@01:02:03'</li> </ul>

Operator	Description
!=	<p>The attribute value must <b>not</b> be identical with the specified value.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>■ TEST_ATTRIBUTE != '01-SEP-2015' Any date which is not September 1<sup>st</sup>, 2015 matches this criterion, e.g. August 30<sup>th</sup>, 2015; December 31<sup>st</sup>, 2014 or September 2<sup>nd</sup>, 2015.</li> <li>■ TEST_ATTRIBUTE != '01-SEP-2015@01:02:03' Any which is not September 1<sup>st</sup>, 2015 at 01:02:03 matches this criterion, e.g. August 30<sup>th</sup>, 2015 at 12:05:45; September 1<sup>st</sup>, 2015 at 01:02:02 or September 2<sup>nd</sup>, 2015 at 02:03:04.</li> </ul>
<	<p>The attribute value must be less than the specified value.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>■ TEST_ATTRIBUTE &lt; '01-SEP-2015' Any date before September 1<sup>st</sup>, 2015 matches this criterion, e.g. August 30<sup>th</sup>, 2015 or December 31<sup>st</sup>, 2014.</li> <li>■ TEST_ATTRIBUTE &lt; '01-SEP-2015@01:02:03' Any date before September 1<sup>st</sup>, 2015 at 01:02:03 matches this criterion, e.g. August 30<sup>th</sup>, 2015 at 12:05:45 or September 1<sup>st</sup>, 2015 at 01:02:02.</li> </ul>
>	<p>The attribute value must be larger than the specified value.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>■ TEST_ATTRIBUTE &gt; '01-SEP-2015' Any date after September 1<sup>st</sup>, 2015 matches this criterion, e.g. September 2<sup>nd</sup>, 2015 or January 1<sup>st</sup>, 2016.</li> <li>■ TEST_ATTRIBUTE &gt; '01-SEP-2015@01:02:03' Any date after September 1<sup>st</sup>, 2015 at 01:02:03 matches this criterion, e.g. September 2<sup>nd</sup>, 2015 at 12:05:45 or September 1<sup>st</sup>, 2015 at 01:02:04.</li> </ul>
<=	<p>The attribute value must be less or identical with the specified value.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>■ TEST_ATTRIBUTE &lt;= '01-SEP-2015' The date must be September 1<sup>st</sup>, 2015 or before to match this criterion, e.g. August 30<sup>th</sup>, 2015 or December 31<sup>st</sup>, 2014.</li> <li>■ TEST_ATTRIBUTE &lt;= '01-SEP-2015@01:02:03' The date must be September 1<sup>st</sup>, 2015 at 01:02:03 or before to match this criterion, e.g. August 30<sup>th</sup>, 2015 at 12:05:45 or September 1<sup>st</sup>, 2015 at 01:02:02.</li> </ul>

Operator	Description
>=	<p>The attribute value must be larger or identical with the specified value.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>TEST_ATTRIBUTE &gt; '01-SEP-2015' The date must be September 1<sup>st</sup>, 2015 or after to match this criterion, e.g. September 2<sup>nd</sup>, 2015 or January 1<sup>st</sup>, 2016.</li> <li>TEST_ATTRIBUTE &gt; '01-SEP-2015@01:02:03' The date must be September 1<sup>st</sup>, 2015 at 01:02:03 or after to match this criterion, e.g. September 2<sup>nd</sup>, 2015 at 12:05:45 or September 1<sup>st</sup>, 2015 at 01:02:04.</li> </ul>
LIKE	<p>The attribute value must match the specified search pattern.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>TEST_ATTRIBUTE LIKE ~'17-*-2015' The date must be 17th of any month in 2015.</li> <li>TEST_ATTRIBUTE LIKE ~'*-SEP-2015' The date must be any day in September 2015.</li> <li>TEST_ATTRIBUTE LIKE ~'*-SEP-%' The date must be any day in September of any year.</li> <li>TEST_ATTRIBUTE LIKE '01-SEP-2015@*' The date must be September 1<sup>st</sup>, 2015; the time is irrelevant.</li> </ul> <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 <b>not</b> match the specified search pattern.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>TEST_ATTRIBUTE NOT LIKE ~'17-*-2015' The date must not be 17th of any month in 2015.</li> <li>TEST_ATTRIBUTE NOT LIKE ~'*-SEP-2015' The date must not be any day in September 2015.</li> <li>TEST_ATTRIBUTE NOT LIKE ~'*-SEP-*' The date must not be any day in September of any year.</li> <li>TEST_ATTRIBUTE NOT LIKE '01-SEP-2015@%' The date must not be September 1<sup>st</sup>, 2015.</li> </ul> <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.

### **Special Constraint**

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

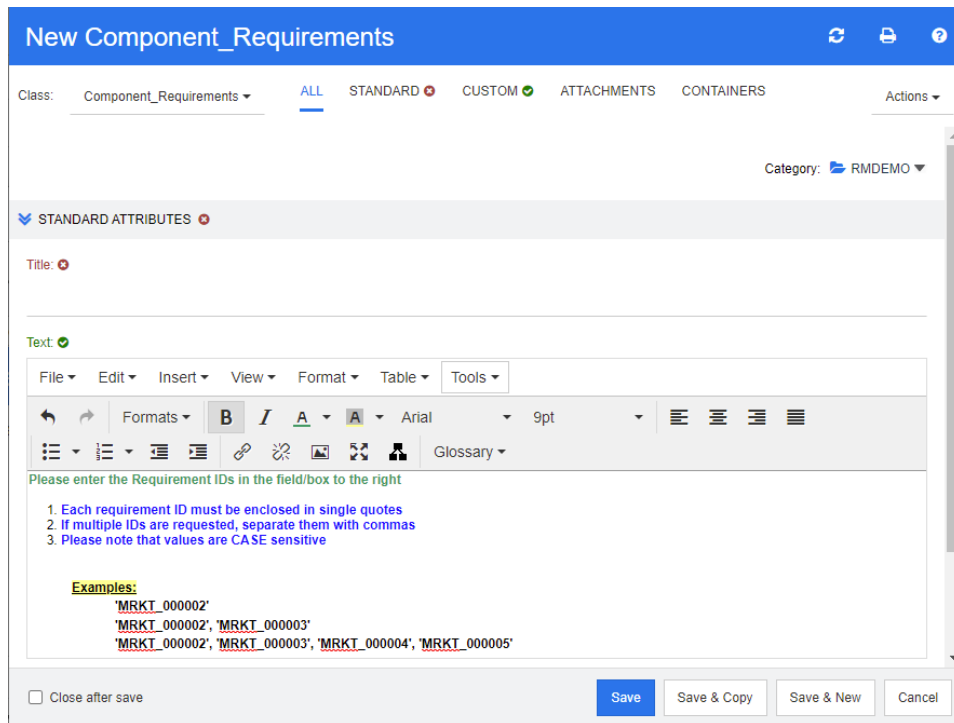
Using Rich Text in a query prompt can provide extra information to the user. For example, the following is a standard query prompting for a Marketing Requirement ID:

This is the layout we want to achieve:

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 <Rqmt_ID>PUID <Title>TITLE from Marketing_Requirements where PUID 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 PUID calculate all count[Row Count:]PUID
```

**15** Click **Save and Run**.



# Glossary

---

<b>Accept</b>	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."
<b>accepted</b>	Current Status of a change request that was accepted.
<b>access rights</b>	The full set of permissions granted a user based on the combination of Category, Group and User.
<b>Administrator</b>	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 <a href="#">System Administrator</a> .
<b>alias</b>	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.
<b>alphanumeric attribute</b>	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.
<b>alphabetic sort</b>	A simple alphabetical sort. Contrast with <a href="#">numeric sort</a> . Alphabetical sort ignores character case (e.g. abc is identical to ABC).
<b>attribute</b>	Information that is logically associated with a class of information to further specify the information content. See also <a href="#">class attribute</a> , <a href="#">evaluated attribute</a> , <a href="#">implicit attribute</a> , <a href="#">relationship attribute</a> , <a href="#">user-defined attribute</a> .
<b>attribute constraint</b>	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 <a href="#">primary object</a> .
<b>attribute type</b>	The nature or data type of an attribute: e.g. alphanumeric string, free text field, or date.
<b>audit trail</b>	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.
<b>auto link</b>	A utility that lets you create or break links between objects of the primary and secondary class in the selected relationship.
<b>Baseline</b>	A stable, unchangeable set of requirements. Baselining a collection or the requirement content in a document, ensures that the baselined set will never change.
<b>baseline lock</b>	A lock on a specific version of an item that indicates that the version is part of a baseline and thus cannot be modified.

<b>category</b>	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.
<b>cardinality rule</b>	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.
<b>change request</b>	A proposal to change one or more requirement attributes.
<b>child collection</b>	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.
<b>child document</b>	<p>A child document inherits its layout from a <a href="#">parent document</a>. Changes to the parent document can be propagated immediately to any related child document.</p> <p>In a child document, any parts inherited from the parent document are read-only and cannot be modified.</p>
<b>child object</b>	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.
<b>class</b>	A structure for holding related types of information (attributes). After classes are defined, requirements are entered into the class.
<b>class attribute</b>	A property of a class, as defined by the instance administrator, that provides additional process and release related detail.
<b>class definition diagram</b>	See <a href="#">Schema Definition diagram</a>
<b>Class Definition</b>	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 <a href="#">Schema Definition</a> .
<b>CM Lock</b>	Configuration Management Lock. A security feature that makes objects read-only and stops them from being updated. You can lock requirements, collections, and documents.
<b>collection</b>	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 <a href="#">Baseline</a> .
<b>collection linkability</b>	An occurrence of the association defined by a relationship between collections.
<b>compliance check</b>	A process in which Dimensions RM searches the database and produces a report specifying which objects do not contain links across a defined relationship.

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<b>compliance report</b>	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.
<b>Container</b>	Container is the term applied to the various labeled sets of requirements: <a href="#">collection</a> , <a href="#">Baseline</a> , <a href="#">Document</a> , or <a href="#">Snapshot</a> . Containers are not restricted by requirement types and may span the entire instance.
<b>CSV import</b>	A utility that lets you import data from a comma separated value file into the Dimensions RM instance database.
<b>current</b>	Current Status of a requirement that is the most recent or current version.
<b>Current Status</b>	A special implicit attribute that identifies the state of a requirement.
<b>cyclic relationship</b>	Relationship in which the relationship points from one class back to the same class. This relationship is created in order to break a single requirement (primary) into related subrequirements (secondary).
<b>database</b>	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).
<b>date attribute</b>	A user-defined attribute type that stores values that are based on user-defined date formats.
<b>Delete</b>	A command that changes the Current Status of a requirement to "deleted," but leaves the requirement in the instance.
<b>deleted</b>	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."
<b>derivation</b>	The analysis process in which an object is changed or translated into a form suitable for lower-level analysis and design.
<b>derived object</b>	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.
<b>Dimensions RM</b>	A suite of multi-user, configurable tools that support the capture, management, traceability and documentation of systems engineering information.
<b>Dimensions RM third-party integrator</b>	Person responsible for using the API functions to integrate third-party tools with Dimensions RM.
<b>Doctool</b>	A Dimensions RM tool that interprets a documentation script and generates an on-screen report.

<b>Document</b>	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.
<b>Document View</b>	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 <a href="#">Requirements</a> .
<b>ECP</b>	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.
<b>e-mail notification</b>	A feature that lets you register interest in certain types of changes within the instance data and to receive electronic notices of those changes.
<b>evaluated attribute</b>	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.
<b>expanding</b>	A process in which a single parent object is edited to produce one or more child objects.
<b>export template</b>	Custom Templates may be defined by the Instance Administrator to define the format, including headers and footers, of documents exported from Dimensions RM. These templates were previously referred to as Publish Templates.
<b>export utility</b>	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.
<b>file attachment attribute</b>	A user-defined attribute type that can hold a single file or multiple files. File attachments can be accessed through RM Browser.
<b>flowdown</b>	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.
<b>focusing</b>	A process in which two or more parent objects are edited to produce a single child object.
<b>form</b>	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.
<b>form view</b>	A view that displays requirements one at a time. From the form view you can edit requirement attributes.
<b>genealogical links</b>	Links between parent objects and child objects, or between parent collections and child collections.

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<b>generic links</b>	Links that must span a relationship.
<b>grid view</b>	A view that lets you view multiple requirements in a table-like list. The column headings represent attributes of the requirements.
<b>group</b>	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.
<b>group attribute</b>	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.
<b>immediate child</b>	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.
<b>immediate parent</b>	The object that was used to create the currently selected object. Parent objects never have a status of "current."
<b>immediate relationship</b>	A relationship that refers to the immediate predecessor or successor of an object. Contrast with <i>source relationship</i> .
<b>implicit attribute</b>	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> .
<b>import utility</b>	A utility that can be used to restore an instance or database from backup.
<b>instance</b>	A Dimensions RM work area where information is created and maintained.
<b>instance administrator</b>	Users with this role may perform all administrator functions within the boundary of the assigned instance.
<b>lifecycle</b>	The phases of an instance from its initial requirements specification through its implementation.
<b>link</b>	An instance of a relationship. You can link two requirements together if a relationship between their corresponding classes is defined.
<b>list attribute</b>	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.
<b>lock manager</b>	A Dimensions RM tool used to lock and unlock Dimensions RM database elements such as source documents, tools, objects, and collections.

<b>lowest level child</b>	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.
<b>mandatory attribute</b>	An attribute for which users must specify values. Contrast with <i>optional attribute</i> .
<b>NOT_PRIMARY_IN</b>	A relationship operator that is used to identify requirements that can be at the origin of a link, but do not.
<b>NOT_SECONDARY_IN</b>	A relationship operator that is used to identify requirements that can be at the termination of a link, but do not.
<b>numeric attribute</b>	A user-defined attribute type that holds numeric values, such as reference numbers. The numbers can include decimal points.
<b>numeric sort</b>	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 <i>alphabetic sort</i> .
<b>object</b>	Synonymous with <i>requirement</i> .
<b>Object Editor</b>	A Dimensions RM dialog used to modify attributes and edit, focus, and expand class information.
<b>OLE</b>	Object Linking and Embedding. A technology for transferring and sharing information among applications.
<b>optional attribute</b>	An attribute for which you can use the default values or leave blank. Contrast with <i>mandatory attribute</i> .
<b>ORACLE_HOME</b>	The logical pathname of the file system or network location of your Oracle installation.
<b>parent collection</b>	A collection that links child collections. Parent collections cannot be linked directly to an object.
<b>parent document</b>	A document created with the intention of managing a common structure and content that is inherited by each child created based on the parent. See " <a href="#">About Documents</a> " on page 108.
<b>parent object</b>	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.
<b>pending change request</b>	A change request that has not yet been accepted or rejected. A pending change request has a Current Status of "proposed."
<b>Permissions</b>	The rights to execute actions assigned by group.

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<b>polling</b>	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.
<b>primary class</b>	The first class in a direct relationship between two classes. For example, in the relationship <i>Is_Testing_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_Testing_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 <i>secondary class</i> .
<b>PRIMARY_IN</b>	A relationship operator that is used to identify requirements that are at the origin of a link.
<b>primary object</b>	An instance of a primary class to which objects are linked.
<b>project</b>	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 " <a href="#">Branching and Merging Requirements</a> " on page 241).
<b>proposed</b>	Current Status of a requirement for which a change request has been made to either change the current requirement or create a new requirement.
<b>provide</b>	The act of branching is to share a requirement with another project or product, providing access to change while maintaining a common history
<b>pseudonym</b>	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 <i>alias</i> .
<b>publish template</b>	The publish templates are used by many export functions and are now referred to as <i>export template</i> .
<b>PUID</b>	Persistent Unique Identifier. An intrinsic attribute, referred to in some dialogs and reports as the Requirement ID.
<b>query</b>	A script, expressed in terms of the instance schema, that you use to retrieve selected requirements.
<b>Quick Search</b>	A feature of the Requirements View in RM Browser that lets you quickly create a query to see the content of any category.
<b>Reject</b>	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."
<b>rejected</b>	Current Status of a change request that has been rejected.
<b>relationship</b>	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 <i>link</i> .

<b>relationship attribute</b>	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 <a href="#">cardinality rule</a> .
<b>relationship rule</b>	Circumstances under which links between objects will be permitted. See also <a href="#">cardinality rule</a> .
<b>remove</b>	A command that physically removes a requirement from an instance. Only requirements with a status of "current" can be removed.
<b>replaced</b>	Current Status of a requirement that has been replaced by a newer version. See also <a href="#">Save</a> .
<b>resource category</b>	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.
<b>requirement</b>	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.
<b>Requirements View</b>	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 <a href="#">Document View</a> .
<b>RM Browser</b>	A Dimensions RM tool that provides Web access to a core set of Dimensions RM functions.
<b>RM Import</b>	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.
<b>RM Import Designer</b>	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.
<b>RM Manage</b>	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.
<b>RTM_HOME</b>	A logical name for the file system location of Dimensions RM programs and data.



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<b>Save</b>	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".
<b>Schema Definition</b>	<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>
<b>Schema Definition diagram</b>	A graphical representation of the information classes that exist within an instance, along with the relationships between the classes.
<b>script</b>	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.
<b>script generator wizard</b>	A Dimensions RM wizard that provides a graphical interface allowing the user to specify the contents of a given report.
<b>secondary class</b>	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> .
<b>SECONDARY_IN</b>	A relationship operator that is used to identify requirements that are at the termination of a link.
<b>Snapshot</b>	A frozen version of the document content (requirements and text) typically created prior to distributing a document for review. A <a href="#">Baseline</a> may be created in conjunction with the snapshot.
<b>source document</b>	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.
<b>source relationship</b>	A relationship that refers to the original object in a chain of versions. Contrast with <i>immediate relationship</i> .
<b>suspect link</b>	A link that becomes questionable after one of the requirements in the link changes. The change could render other requirements questionable, or "suspect."
<b>System Administrator</b>	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., <a href="#">RM Manage</a> ).
<b>tablespace</b>	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.

<b>template</b>	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.
<b>text attribute</b>	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.
<b>transactions</b>	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.
<b>traceability</b>	The process of making explicit links between requirements and other entities. Traceability lets you trace the evolution of an instance.
<b>Traceability View</b>	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 <a href="#">Document View</a> , <a href="#">Requirements</a>
<b>type</b>	A definition of the basic properties of a set of instances of a class, relationship, or attribute.
<b>Undelete</b>	A command that changes a the Current Status of a requirement from "deleted" to "current."
<b>Update</b>	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.
<b>user</b>	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.
<b>user attribute</b>	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.
<b>user-defined attribute</b>	An attribute that you can create for use in a specific class. See also <a href="#">alphanumeric attribute</a> , <a href="#">date attribute</a> , <a href="#">file attachment attribute</a> , <a href="#">group attribute</a> , <a href="#">list attribute</a> , <a href="#">numeric attribute</a> , <a href="#">text attribute</a> , <a href="#">user attribute</a> . Contrast with <a href="#">implicit attribute</a> .

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