



SERENA[®] **DIMENSIONS[®] CM and RM**

Dimensions CM–Dimensions RM ALM Integration Guide

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Welcome to Serena Dimensions

Thank you for choosing Serena® Dimensions®, a product suite that comprises one or more of the following components:

- Serena® Dimensions® CM: a powerful process management and change control system that will revolutionize the way you develop software. Dimensions CM helps you organize, manage, and protect your software development projects on every level—from storing and tracking changes to individual files, to managing and monitoring an entire development cycle.
- Serena® Dimensions® RM: offers full requirements management and traceability throughout the development lifecycle by centralizing and organizing requirements using role base views and a user configurable requirements process.

This manual describes how to:

- Set up the Application Lifecycle Management (ALM) integration between Dimensions CM and Dimensions RM.
- Manage Dimensions RM requirements within Dimensions CM.
- Configure an IIS Server for the ALM Integration.

Before you Begin

The Dimensions CM readme contains the following information:

- What's new
- Fixed issues
- Software compatibility requirements
- Installation notes
- Known issues

The readme is available online at:

http://help.serena.com/doc_center/doc_center.html#dcmDoc

Contacting Serena Technical Support

Serena 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 Serena Support at the following web site and follow the instructions:

<http://www.serena.com/support>

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

You can use the Serena Support web page to:

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

Videos

Videos of Dimensions CM features can be viewed online at:

http://help.serena.com/doc_center/doc_center.html#dcmVid

License and Copyright Information for Third-Party Software

License and copyright information for third-party software included in this release can be found as part of the software download available at:

<http://www.serena.com/support>

Chapter 1

Setting Up an Integration Between Dimensions CM and RM

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About the Integration

The Application Lifecycle Management (ALM) integration between Serena® Dimensions® CM and Serena® Dimensions® RM lets you associate Dimensions RM requirements to Dimensions CM requests.

The ALM integration enables you to manage Dimensions RM requirements in Dimensions CM and, conversely, manage Dimensions CM requests in Dimensions RM. For example, when you add a requirement to or remove a requirement from a Dimensions RM container of type baseline or collection, Dimensions CM is notified with the relevant information; also, Dimensions RM baselines flow to Dimensions CM and Dimensions CM baselines flow to Dimensions RM.

NOTE The ALM integration itself is implemented at low level as follows (you do *not* need to access any of these APIs to actually use the ALM integration):

- Dimensions CM calls Dimensions RM Web services.
- Dimensions RM calls Dimensions CM C API and "pcms" API.

In the context of an ALM integration, you can:

- Associate Dimensions RM projects a Dimensions CM products, see "[Associating RM Projects with CM Products](#)" on page 10.
- Associate Dimensions RM containers of type baseline or collection to Dimensions CM projects/streams, see "[Associating RM Baselines or Collections with CM Projects or Streams](#)" on page 13.

Prerequisites

To set up ALM the associations, the following prerequisites must be satisfied:

- Both Dimensions CM and Dimensions RM must have been installed and both must be at compatible release levels. To see which releases are compatible, use either the Dimensions CM or Dimensions RM links below. Then select a specific release of the product. And then click **Serena Integrations** to display the list of compatible Serena product versions.
 - The Serena public Dimensions CM Supported Platforms Web site at:
<http://support.serena.com/roadmap/Product.aspx?sel=PVDIMENSIONS>
 - The Serena public Dimensions RM Supported Platforms Web site at:
<http://support.serena.com/roadmap/product.aspx?sel=RTM>
- A Dimensions CM desktop client must be installed on the Dimensions RM web server machine.
- Single Sign On (SSO): Both Dimensions CM and Dimensions RM must be configured to use SSO.
- For certain installations (see the Dimensions RM *Installation Guide*), it is recommended that Dimensions RM databases have exclusive use of their own Oracle instance. In those circumstances, if you are using Dimensions CM against an Oracle

RDBMS, you must make sure that it does not share the same Oracle instance as that used by Dimensions RM.

- Before you can begin to establish any of the Dimensions RM to Dimensions CM associations referred to below, the `rmcm.xml` configuration file on the Dimensions RM web server machine must first be edited to include the URL of the Dimensions CM server. Proceed as follows:
 - a On the Dimensions RM web server machine, navigate to:


```
<RM-Install-Directory>\conf
```
 - b Open the following configuration file in a text editor:


```
rmcm.xml
```

 This file has the following lines:


```
<project>
  <!-- CMServer url="http://localhost:8080" -->
  <CMServer url="" />
</project>
```
 - c Update the Dimensions CM URL with the correct information for the Dimensions CM server. If Dimensions CM is installed on the same machine as the Dimensions RM web server and was installed with the default port number 8080, then the commented out URL on the preceding line will be the appropriate URL.
- The following Dimensions RM to Dimensions CM associations must have been established by a Dimensions RM administrator:
 - The requisite Dimensions RM projects to one or multiple Dimensions CM products (see ["Associating RM Projects with CM Products" on page 10](#)).
 - The requisite Dimensions RM baselines or collections to one or multiple Dimensions CM projects/streams (see ["Associating RM Baselines or Collections with CM Projects or Streams" on page 13](#)).

Conversely, to enable Dimensions RM users to look at Dimensions CM requests, after the above steps have been completed, a Dimensions CM user must associate Dimensions RM requirements to Dimensions CM requests.

Limitations and Recommendations

- If Dimensions RM has more than one URL (HTTP and HTTPS), Dimensions CM requests will *only* display if the RM Browser windows are using the exact URL that is registered with Dimensions CM. Dimensions CM will only accept requests from the registered URL. If HTTPS was used to set up the ALM association between Dimensions CM and Dimensions RM, then using Dimensions RM from HTTP - Dimensions CM information (requests) will not be returned to Dimensions RM.
- The user name and password of the user involved in ALM integration (for example, `dmsys`) must be the same for both Dimensions CM and Dimensions RM. The user name and password are case sensitive in these circumstances.
- Dimensions RM does *not* support connections/associations to more than one Dimensions CM server.

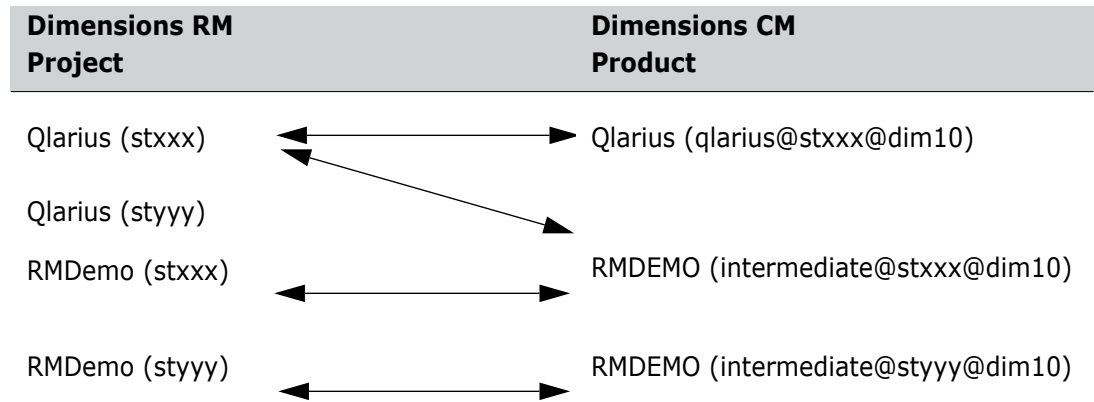
- For consistent synchronization, once a Dimensions RM project to Dimensions CM product association is established it is recommended that it never be removed.
- For consistent synchronization, once a Dimensions RM baseline or collection to Dimensions CM project or stream association is established it is recommended that it never be unassociated.
- Never delete a Dimensions CM project/stream until after all Dimensions RM baselines or collections are unassociated from the Dimensions CM project/stream. If this strategy is not followed, the Dimensions RM GUI will be incapable of removing the association and a Serena consultant will be required to repair both the Dimensions CM and Dimensions RM databases.
- To maintain process integrity, you must never delete a Dimensions RM baseline or collection that has any requirements related to Dimensions CM objects.
- The Dimensions CM-Dimensions RM ALM integration only works with Dimensions CM requests. The Issue Defect Management (IDM) integration, which utilizes the Serena Business Manager (SBM) for request management, is not currently supported with the ALM integration.
- The relationship between Dimensions CM requests and Dimensions RM requirements does not get replicated if using Dimensions Replicator.
- When a Dimensions CM request is related to a Dimensions RM requirement it is related to "the latest version of the requirement in the associated baseline or collection" until that request is actioned to a FROZEN/FINAL/OFF-NORMAL state/phase. When that occurs, the request is pinned to the current latest version of the requirement. When you action the request back again it then "floats" with the latest version again.
- You can unrelate a Dimensions RM requirement from a Dimensions CM request regardless of the state/phase of the request.
- Dimensions RM baselines are fixed—you cannot replace or update requirements in an Dimensions RM baseline. Serena recommend you only relate Dimensions RM baselines to Dimensions CM projects/streams.
- If you unrelate a Dimensions RM baseline or collection from a Dimensions CM project/stream the relationships between Dimensions CM requests and Dimensions RM requirements remain and can still be seen.

Associating RM Projects with CM Products

NOTE Beginning with Dimensions CM 2009 R1 and Dimensions RM 2009 R1, you can now associate multiple Dimensions RM projects with multiple Dimensions CM products. Additionally, the associations can even span different Dimensions CM base databases.

The first step in setting up the ALM integration between Dimensions RM and Dimensions CM is associating one or more Dimensions RM projects to one or more

Dimensions CM products. This is usually set up once by the administrator for each Dimensions RM project and each Dimensions CM product.



To perform the association you need to be a Dimensions RM administrator.

- 1 Start the Dimensions RM Manage utility:
Start | All Programs | Serena | Dimensions RM <version> | RM Manage
- 2 Expand the appropriate Dimensions RM database in the left hand tree.
- 3 Log in as your normal administrator user (for example, dmsys).
- 4 Select the Dimensions RM project that you want to associate to a Dimensions CM Product (for example, RMDEMO).
- 5 Select one of: File | Associate to Dimensions CM; click the **Associate to Dimensions CM** toolbar button or right-click the selected Dimensions RM

project and select **Associate to Dimensions CM...** from the context menu.

NOTE The **Associate to Dimensions CM** command is enabled if a Dimensions CM client is installed on the same computer that is running RM Manage. If the command is disabled, install the Dimensions CM client and then restart RM Manage.

Existing Associations

If there are existing associations, you will first be presented with the **Display Existing Product** associations dialog box.

Review the existing associations. If you wish to create a new association, click **New**; alternatively, if you wish to remove an association, click on the appropriate associations and click **Delete**. Proceed to [Step 6](#).

CAUTION! Unassociating a Dimensions RM project from a Dimensions CM product is a destructive action that will remove all of the relationships between Dimensions RM requirements and Dimensions CM requests.

No Existing Associations

If there are no existing associations, proceed to [Step 6](#).

- 6 A **Dimensions CM Login** dialog box appears.

NOTE To successfully log in to a Dimensions CM server, you must either be configured to log in using LDAP or log into Dimensions RM and Dimensions CM with the same user name and password.

- a Complete the dialog box as you would for a normal Dimensions CM login:
 - The Dimensions CM Server name (the hostname or IP address).
 - The Dimensions CM database name (for example, `cm_typical`).
 - The Dimensions CM database connection string (for example, `dim10`).
 - b Click **OK**.
- 7 The **Associate to Dimensions CM Product** dialog box appears, with the **Dimensions CM Server** and **Product** fields pre-populated with the hostname and a list of Dimensions CM products for the database name you specified in [Step 6](#).


NOTE If the log in to Dimensions CM fails for any reason, a "Login to Dimensions Failed" message is displayed in the **Dimensions CM Server** field. Attempt to log in again by clicking the browse button next to the **Dimensions CM Server** field—this re-opens the **Dimensions CM Login** dialog box.

Verify the RM project to CM products associations as follow:

- a In the **Product** left-hand scrolling list, select the Dimensions CM product or products that you wish to associate with the Dimensions RM project. The usual mouse selection operations apply: namely, click for a selecting a single entry, CTRL/click for selecting multiple non-contiguous entries, and click plus shift/click for selecting contiguous entries. If you wish to select all entries, click the >> button and proceed to [Step c](#).
 - b Click the > button to move your selections to the **Product** right-hand scrolling list
 - c Check the Dimensions CM products in the **Product** right-hand scrolling list. If you have inadvertently moved any products to this list that you should not have done, you can move them back to the left-hand list by clicking the < button; the << button will move all products back to the left-hand list.
 - d Click **Test** to check the URL to the Dimensions RM Web server that is pre-populated in the **Dimensions RM URL** field. The default value is:

`http://rm-server:8080/rtmBrowser`
 - e Click **Test** to check the URL to the Dimensions RM Web service that is pre-populated in the **RM Web Service URL** field. The default value is:

`http://rm-server:8080/rtmBrowser/WebServices`
- 8 Click **OK**.

The RM project and CM product are now linked. The RM project icon in the Dimensions RM Manage tree now has a small CM overlay icon: 

- 9 Exit Dimensions RM Manage.

After an association is made between a Dimensions RM project and one or more Dimensions CM products, Dimensions RM users can then associate containers with Dimensions CM projects/streams and relate requirements to Dimensions CM requests. Dimensions RM users can then display information about specific requests that are in response to requirements; and Dimensions CM users can display specific requirements that are related to their tasks.

Associating RM Baselines or Collections with CM Projects or Streams

The second step in setting up the integration between Dimensions RM and Dimensions CM is associating one or more Dimensions RM baselines or collections to one or more Dimensions CM projects/streams. Without this step, it will not be possible to link any Dimensions CM requests to Dimensions RM requirements. When you add a requirement to or remove a requirement from a container, Dimensions CM is notified with the relevant information.

NOTE Parent Dimensions RM baselines or collections cannot be associated with Dimensions CM projects/streams.

To perform the association, you need to be a Dimensions RM administrator. Provided you have those privileges:

- 1 Log into the Dimensions RM Web browser:

`http://rm-server:8080/rtmBrowser/`

You will need to:

- a Specify the Dimensions RM username (for example, `dmsys`)
- b Specify the corresponding password.
- c Specify the Dimensions RM database connection string for the database.
- d Click the down-arrow next to the **Project** field to populate it with the available Dimensions RM projects for the above choices.
- e Select the appropriate Dimensions RM project. This will, of course, have to be a project that has previously been associated to one or more Dimensions CM products.
- f Click **Login**.

NOTE If you receive an Oracle "ORA-12640: Authentication adapter initialization failed" error, proceed as follows:

- a Shut down the Dimensions CM listener and the Oracle Windows services.
- b On the database server, find the file
`%ORACLE_HOME%\NETWORK\ADMIN\sqlnet.ora`.
- c Change the entry `SQLNET.AUTHENTICAIION_SERVICES=(NTS)` to
`SQLNET.AUTHENTICAIION_SERVICES=(NONE)`.
- d Restart Oracle and the Dimensions CM listener Windows services.

- 2 Click Containers on the navigation bar and select Manage Containers. The Manage Containers dialog box appears.
- 3 Select the baseline or collection you would like to link to a Dimensions CM project/stream and click the **Associate Project** link on the left.

NOTE After a Dimensions RM project/stream has been associated to a Dimensions CM product, the **Associate Project** link appears but is disabled. The link is only enabled if the following conditions are satisfied:

- You logged in using LDAP or you logged in to both Dimensions RM and Dimensions CM with the same user name and password.
- You are successfully logged in to a Dimensions CM server during the Dimensions RM login.
- The Dimensions RM Web server has the Dimensions CM client installed on it.
- The administrator has assigned you the "Link Requirement to Dimensions Project" and "Associate to a Dimensions Project" permissions.

If the first three conditions are not satisfied, "<Error connecting to Dimensions>" is displayed in the **Dimensions CM Project** column.

For more information about the administrative task, see the *Serena Dimensions RM Administrator's Guide*.

The **Associate CM Project** dialog box appears.

- 4 Select a Dimensions CM product in the scrolling **Products** list.

The left-hand **Projects** scrolling list will be populated with all the Dimensions CM projects/streams available for association with the previously selected Dimensions RM baseline or collection.

Proceed to establish the Dimensions CM projects/streams to Dimensions RM baseline or collection associations as follow:

- a In the **Projects** left-hand scrolling list, select the Dimensions CM project/stream or projects/streams that you wish to associate with the Dimensions RM baseline or collection. The usual mouse selection operations apply; namely, click for a selecting a single entry, CTRL/click for selecting multiple non-contiguous entries, and click plus shift/click for selecting contiguous entries. If you wish to select all entries, click the >> button and proceed to [Step c](#).
- b Click the > button to move your selections to the **Projects** right-hand scrolling list
- c Check the Dimensions CM projects/streams in the **Projects** right-hand scrolling list. If you have inadvertently moved any projects/streams to this list that you should not have done, you can move them back to the left-hand list by clicking the < button; the << button will move all projects/streams back to the left-hand list.
- d Click **OK** to create the associations.

The **Associate CM Project** dialog box appears again with the new associations displayed in the **Dimensions CM Projects/Baselines** column.

- 5 Repeat [Step 3](#) to [Step 4](#) for further associations.
- 6 To disassociate one or more Dimensions CM projects/streams from a Dimensions RM baseline or collection:
 - a Repeat [Step 3](#).
 - b In [Step 4](#), move the appropriate Dimensions CM projects/streams from the right-hand **Projects** scrolling list in the **Associate CM Project** dialog box using the < or << buttons.
 - c Click **OK** to remove the associations.
 - d The **Associate CM Project** dialog box appears again with the old associations removed from the **Dimensions CM Projects/Baselines** column.

- 7 Click **Close** and log out of the Dimensions RM Web browser.
- 8 The associated Dimensions RM containers and Dimensions CM projects/streams are now linked.

Linking CM Requests to RM Requirements

Once Dimensions RM projects are associated to the Dimensions CM products and Dimensions RM containers are associated to Dimensions CM projects/streams, it is possible to link Dimensions CM requests to Dimensions RM requirements.

The linking of Dimensions RM requirements and Dimensions CM is done in the Dimensions CM clients, either the desktop client or the web client. In the appropriate Dimensions CM client, you can now link a request in a Dimensions CM project/stream to a Dimensions RM requirement that exists in a container (one that is linked to that Dimensions CM project/stream). This is possible by performing any of the various ways of linking items together in the Dimensions CM clients.

For details on requirement operations in Dimensions CM, see "[Managing Dimensions RM Requirements in CM](#)" on page 17.

Integrating RM and CM in a Replicated Environment

NOTE Dimensions CM Replicator is installed as part of a standard Dimensions CM installation; however, it requires additional licensing in order to be utilized.

Currently Dimensions RM does not have the capability to replicate Dimensions RM requirements from one repository to another; however, by carefully coordinating Dimensions CM requests, you can still fully track the fulfillment of requirements in a replicated Dimensions CM environment.

To track work on requirements across replicated Dimensions CM servers:

- 1 Install Dimensions CM and Dimensions RM as described in their respective installation guides, and set up the Dimensions CM environment as described in Replication chapters in the *Dimensions CM System Administration Guide*.
- 2 For each requirement on the master Dimensions CM server, create a request, and relate it to the requirement.
- 3 As needed, create related child requests for these requests and replicate them to the other subordinate Dimensions CM sites. As work is completed on the child requests at the subordinate sites, history will be tracked by the parent requests on the master server provided Replicator is run. You can continue to review the requirements associated with the parent requests, allowing you to display detailed implementation history for each requirement.

Chapter 2

Managing Dimensions RM Requirements in CM

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Prerequisites

To be able to manage Serena® Dimensions® RM requirements in Serena® Dimensions® CM, the ALM integration must be set up as described in "[Setting Up an Integration Between Dimensions CM and RM](#)" on page 7.

CM Requests and RM Requirements

Requirement Development

One of the first steps in every project is the specification of requirements. Tracking these requirements across different organizations and understanding the impact that various requirements have on cost, schedule, and time-to-market can have a dramatic effect on project success.

Dimensions RM stores requirements in a database. The requirements for a project can come from various sources, such as customers, management, marketing, quality assurance (QA), support, and field personnel. The requirements can be entered directly into Dimensions RM, or imported from a Microsoft® Word document, plain text document, comma separated value (CSV) file, or XML document (.xml) file. You synchronize Word documents or text documents with the database as requirements evolve.

You can also import requirements from other tools, such as Serena® Business Manager (formerly known as Serena® Business Mashups and TeamTrack), IBM® Rational® Software Modeler, HP Quality Center, and Microsoft® Project. For more information about the integration of Dimensions RM with these products, see the Dimensions RM documentation set.

Requirement Versioning

Dimensions RM requirements are objects that may evolve. In a Dimensions RM container (baseline, collection, document, or snapshot), updates may be made to a requirement, which essentially creates new versions of the requirement.

Because of this behavior, Dimensions CM prevents the display of the latest version of a requirement when the change request enters certain lifecycle phases (or statuses). For example, when a request is closed, it no longer makes sense for the related requirements to evolve; in this example case, the relationships must be fixed to the specific versions available at the time the request was closed (actioned to its final lifecycle state). This "fixing" of relationships mean that, once a request has been closed, the related requirements no longer reflect the latest versions in the containers.

Fixing takes place when a request enters the following phases/statuses:

- Final Status/Phase.
- Frozen Phase (but only when CM Rules are enabled).
- Off-Normal Status.

When a change request is actioned back to a normal lifecycle status, these relationships are "unfixed"; that is, the latest versions are once more shown as related to the request.

Action Request Changes

Beginning with Dimensions CM 10.1.3, the Action Request (AC) command (see the *Command-Line Reference*) and the associated desktop client and web client functionality have been changed as follows:

- When a request enters a final/frozen/off-normal phase, all relationships representing an evolving requirement are replaced with the latest `ObjectId` for that object in the originating collection (that is, the collection specified when the requirement and request were related).
- When a change leaves the frozen phase, then all "fixed" requirement relationships are replaced with evolving requirements.

IMPORTANT! When requirements are changed using the Dimensions RM "Update" function, the changes will be shown against Dimensions CM requests that are frozen/closed/off-normal; however, changes made using the Dimensions RM "Replace" function will *not* be shown against Dimensions CM request that are frozen/closed/off-normal.

Using Requirements in Dimensions CM


In Dimensions CM you can do the following:

- View the requirements associated with a project/stream.
- Relate requests to requirements.
- Relate baselines to requirements.
- Notify users of changes to associated requirements using the `dmemail` utility.
- Start a Dimensions RM session.



Requirement Operations in Dimensions CM

Purpose Use these operations when you wish to edit the details, attributes, or relationships of a requirement in Dimensions CM, notify users of changes to associated requirements, or to invoke Requirements Management using Dimensions RM.

Web client **To select requirements:**

- 1** In the navigation area of the My Current Project tab or My Current Stream tab, expand the Catalog node and select the Requirements node:  Requirements

The requirements that are related to the project/stream appear in the content area.

To view the requirements in a container of requirements, expand the Requirements node and click the appropriate node, for example, a collection node:  or a baseline node: 

- 2** In the content area, select one or more requirements.

See also "[Dimensions CM Web Client Select Requirement Wizard \(Page 1 of 2\)](#)" on page 25 and "[Dimensions CM Web Client Select Requirement Wizard \(Page 2 of 2\)](#)" on page 26 when selecting requirements to relate to selected requests.

To edit the details of a requirement:

PRIVILEGES To edit requirements requires the following privilege: "Perform Requirement Related Operation" (PRODUCT_REQUIREMENTMAN).


1 Select a requirement in the content area.

2 Click the Open button:  or click the requirement name.

The Dimensions RM Browser window Edit Attributes dialog box appears (through the Dimensions RM integration). Consult the associated online help or Dimensions RM documentation for details on how to edit the attributes using this dialog box.

3 When you have finished, exit to return to the Dimensions CM web client.

To relate a requirement to an existing request:


1 On the My Current Project tab or My Current Stream tab, expand the Catalog node and select a requirement, click the Relate button: .

2 In the Relate dialog box, enter the existing request in the **Relate to** field, or use the browse button to select it.

3 Click **OK**.

NOTE When creating a baseline, you can also scope it by Requirement rather than Request. See "Creating a baseline that contains requests and requirements:" on page 23.

To create a new request to relate to a selected requirement:

1 On the My Current Project tab or My Current Stream tab, expand the Catalog node and select a requirement. Click the New Request button  and select a request type.

2 In the New Request dialog box, enter the new request details in the relevant fields in the General and Attributes tabs. The **Related requirement(s)** field will, of course, be pre-populated with the selected requirement.


3 Click **OK**.

NOTE When creating a baseline, you can also scope it by Requirement rather than Request. See "Creating a baseline that contains requests and requirements:" on page 20.

Creating a baseline that contains requests and requirements:

If your items are used in builds, once requirements have been linked to requests and the work for those requests has been completed, a baseline should be created for all the items before they are used in the build. You will want to create the baseline using the requirements that were worked on for this build and project milestone. The creation of this baseline ensures the specific version of requirements, requests, and items are associated. The creation of this baseline in Dimensions CM also creates a baseline in Dimensions RM with the same name that contains the requirements that were linked or associated to the requests. The baseline in Dimensions RM will be associated with the Dimensions CM baseline that was created.

1 To create a baseline in Dimensions CM that contains the requests and requirements, you must first create the Request Baseline Template in the Dimensions CM Administration Console. This must be done before attempting to create the baseline in Dimensions CM.

- 2 On the My Current Project tab, expand the Catalog node and select a requirement. Click the New Baseline button:  .
- 3 In the New Baseline dialog box, enter the new request details in the relevant fields in the General and Attributes tabs.

When creating the baseline in Dimensions CM, you need to specify the requirements to use for the baseline. This is done through the General tab. Click the **Requirement** radio button and then enter the requirement PUIDs that will be part of the baseline (the PUID numbers can be browsed). A PUID is just a unique identifier of a requirement in Dimensions RM.

- 4 Click **OK**.

When the action is complete, a baseline in Dimensions CM and a baseline in Dimensions RM are created. The baseline in Dimensions CM will contain all objects (items, requests, and requirements) and the baseline in Dimensions RM will contain the requirements.

Notifying Dimensions CM users of changes to associated Dimensions RM requirements:

PRIVILEGES E-mail notification of changes to associated Dimensions RM requirements requires the following to be applicable:

- 1 For all users who wish to receive notifications, the administrator must have previously set up through the Administration Console:
 - a An e-mail subscription to the event 'Someone has made a change to a Requirement related to a Request pending for me'.
 - b The granting of the product-level privilege: "Perform Requirement Related Operation" (PRODUCT_REQUIREMENTMAN).
- 2 The subscribing, privileged Dimensions CM users must have pending requests that are related to requirements.

It is possible to use the Dimensions CM e-mail notification utility `dmemail` (see the "Managing Notification E-Mail" appendix in the *Process Configuration Guide*) to notify users of changes to associated Dimensions RM requirements. For example: when requirements are added to or removed from a collection; when collections are associated or unassociated from a Dimensions CM project/stream; or when requirements (contained in an associated collection) are updated or replaced.

In addition to the administrator setting up e-mail subscriptions and privileges, he or she must have edited the following configuration files:

- `email_config.dat`

This configuration file (located in `%DM_ROOT%\dfs` (Windows) or `$DM_ROOT/dfs` (UNIX)) contains settings specific to `dmemail` and its entries are discussed in the "Managing Notification E-Mail" appendix in the *Process Configuration Guide*. However, when dealing with associated Dimensions RM requirements, some settings need to be added to the section concerned with databases for `dmemail` to process, for example:


```
host = <Dimensions CM_host_name>
dmuser = <Dimensions CM_System_Administrator_User_ID>
```

By default, `<Dimensions CM_System_Administrator_User_ID>` will be `dmsys`.

- dm.cfg

This configuration file (located in %DM_ROOT% (Windows) or \$DM_ROOT (UNIX)) must have been edited to schedule dmemail. This is discussed in the "Managing Notification E-Mail" appendix in the *Process Configuration Guide*.

To start a Dimensions RM session:

- 1 On the Items tab, Projects/Streams tab, or Baselines tab, click the **More** button:  and select **Requirements ...**


The Dimensions RM Browser window main window appears (accessed through the Dimensions RM integration). Consult the associated online help or Dimensions RM book for details on how to use Dimensions RM.


- 2 When you have finished, close the Dimensions RM main window to return to the Dimensions web client.

Desktop client

To select requirements:

NOTE When displaying requirements in the desktop client, descriptions that were entered in HTML in Dimensions RM do not display correctly in desktop client.

- 1 In the My Current Project or My Current Stream window, expand the Catalog node and select the Requirements node  Requirements

To view the requirements in a container of requirements, expand the Requirements node and click the appropriate node, for example, a collection:  or a baseline:



- 2 In the content window, select one or more requirements.

To edit the details of a Requirement:

PRIVILEGES To edit requirements requires the following privilege: "Perform Requirement Related Operation" (PRODUCT_REQUIREMENTMAN).

- 1 Select a requirement in the content area.
- 2 Right-click the requirement name and select **Open** or double-click the requirement name.

The Dimensions RM Browser window **Edit Attributes** dialog box appears (through the Dimensions RM integration). Consult the associated online help or Dimensions RM book for details on how to edit the attributes using this dialog box.

- 3 When you have finished, exit to return to the Dimensions CM desktop client.

To relate a requirement to an existing request:

- 1 Select a requirement.
- 2 Right-click the requirement and select **Relate/Unrelate**.

The **Manage Relationships** dialog box appears.

NOTE When creating a baseline, you can also scope it by Requirement rather than Request. See "Creating a baseline that contains requests and requirements:" on page 23.

To create a new request to relate to a selected requirement:

- 1 Select a requirement.
- 2 Right-click the requirement and select **New Request**. The **New request** dialog box appears.
- 3 In the **New request** dialog box, enter the new request details in the relevant fields in the General, Relationship, Attributes, and Attachments tabs. The **Related requirements** field on the Relationships tab will be pre-populated with the selected requirement.

NOTE When creating a baseline, you can also scope it by Requirement rather than Request. See ["Creating a baseline that contains requests and requirements:"](#) on page 23.

Creating a baseline that contains requests and requirements:

If your items are used in builds, once requirements have been linked to requests and the work for those requests has been completed, a baseline should be created for all the items before they are used in the build. You will want to create the baseline using the requirements that were worked on for this build and project milestone. The creation of this baseline ensures the specific version of requirements, requests, and items are associated. The creation of this baseline in Dimensions CM also creates a baseline in Dimensions RM with the same name that contains the requirements that were linked or associated to the requests. The baseline in Dimensions RM will be associated with the Dimensions CM baseline that was created.

- 1 To create a baseline in Dimensions CM that contains the requests and requirements, you must first create the Request Baseline Template in the Dimensions CM Administration Console. This must be done before attempting to create the baseline in Dimensions CM.
- 2 Select a requirement.
- 3 Right-click the requirement and select **New Baseline**. The New Baseline dialog box appears.
- 4 In the New Baseline dialog box, enter the new baseline details in the relevant fields in the General, Attributes, and Relationship tabs.

When creating the baseline in Dimensions CM, you need to specify the requirements to use for the baseline. This is done through the Relationships tab. Click the **Requirement** radio button and then enter the requirement PUIDs that will be part of the baseline (the PUID numbers can be browsed). A PUID is just a unique identifier of a requirement in Dimensions RM.
- 5 The **Requirements** field on the Relationships tab will, of course, be pre-populated with the selected requirement.
- 6 Click **OK**.

When the action is complete, a baseline in Dimensions CM and a baseline in Dimensions RM are created. The baseline in Dimensions CM will contain all objects (items, requests, and requirements) and the baseline in Dimensions RM will contain the requirements.

Notifying Dimensions CM users of changes to associated Dimensions RM requirements:

PRIVILEGES E-mail notification of changes to associated Dimensions RM requirements requires the following to be applicable:

- 1** For all users who wish to receive notifications, the administrator must have previously set up through the Administration Console:
 - a** An e-mail subscription to the event 'Someone has made a change to a Requirement related to a Request pending for me'.
 - b** The granting of the product-level privilege: "Perform Requirement Related Operation" (PRODUCT_REQUIREMENTMAN).
- 2** The subscribing, privileged Dimensions CM users must have pending requests that are related to requirements.

It is possible to use the Dimensions CM e-mail notification utility `dmemail` (see the "Managing Notification E-Mail" appendix in the *Process Configuration Guide*) to notify users of changes to associated Dimensions RM requirements. For example: when requirements are added to or removed from a collection; when collections are associated or unassociated from a Dimensions CM project/stream; or when requirements (contained in an associated collection) are updated or replaced.

In addition to the administrator setting up e-mail subscriptions and privileges, he or she must have edited the following configuration files:

- `email_config.dat`

This configuration file (located in `%DM_ROOT%\dfs` (Windows) or `$DM_ROOT/dfs` (UNIX)) contains settings specific to `dmemail` and its entries are discussed in the "Managing Notification E-Mail" appendix in the *Process Configuration Guide*. However, when dealing with associated Dimensions RM requirements, some settings that are specific to Dimensions RM need to be added to the section concerned with databases for `dmemail` to process, for example:

```
host = <Dimensions CM_host_name>
dmuser = <Dimensions CM_System_Administrator_User_ID>
```

By default, `<Dimensions CM_System_Administrator_User_ID>` will be `dmsys`.

- `dm.cfg`

This configuration file (located in `%DM_ROOT%` (Windows) or `$DM_ROOT` (UNIX)) must have been edited to schedule `dmemail`. This is discussed in the "Managing Notification E-Mail" appendix in the *Process Configuration Guide*.

To start a Dimensions RM session:

- 1** Select Tools | Requirements Management.

The Dimensions RM Browser window main window appears (accessed through the Dimensions RM integration). Consult the associated online help or Dimensions RM books for details on how to use Dimensions RM.

- 2** When you have finished, close the Dimensions RM main window to return to the Dimensions CM desktop client.

Dimensions CM Web Client Select Requirement Wizard (Page 1 of 2)

Use this wizard to select requirements when relating them to currently selected requests.

Use the first page of the wizard to set the filtering criteria for the requirements you wish to list. You can specify that only requirements matching the specified criteria are to be shown.

See [Dimensions CM Web Client Select Requirement Wizard \(Page 2 of 2\)](#) for selecting the requirements from the resulting list.

Select Requirement Wizard - First Page

Field	Description	Rules and Guidelines
ID	Type the requirement puid.	<p>The requirement specification comprises:</p> <pre><class_name>.<puid>;objID</pre> <p>For example:</p> <pre>Marketing_Requirement.MRTK000024;4</pre> <p>You can use wildcards in this field:</p> <ul style="list-style-type: none"> Use an asterisk (*) or percent sign (%) to match any number of characters. For example, d*g matches dog or drag or dreaming.
Status	Type the requirement status. For example, Replaced or Current.	You can use wildcards in this field.
Class	Type the requirement class name.	<p>The requirement specification comprises:</p> <pre><class_name>.<puid>;objID</pre> <p>For example:</p> <pre>Marketing_Requirement.MRTK000024;4</pre> <p>You can use wildcards in this field.</p>

Field	Description	Rules and Guidelines
Object ID	Type the requirement Object ID.	The requirement specification comprises: <code><class_name>.<puid>;objID</code> For example: <code>Marketing_Requirement.MRTK000024;4</code> You cannot use wildcards in this field.
Title	Type the requirement title.	You can use wildcards in this field.
Description	Type the requirement description.	You can use wildcards in this field.
Next	Click to move to the second page of the wizard.	

Dimensions CM Web Client Select Requirement Wizard (Page 2 of 2)

Use this wizard to select requirements.

The second page of the wizard displays the requirements that match the criteria you entered on the first page of the wizard. From these results, you select requirements, which you then see in the dialog box from which you originally launched the wizard.

Some operations allow only a single requirement to be selected. These operations display radio buttons, rather than check boxes, in the first column.

Select Requirement Wizard - Second Page

Field	Description	Rules and Guidelines
Select check boxes	Select the Requirements.	
Container Name	The container name.	Display only. Existing relationships will not have a container name associated with them.
Class	The requirement class.	Display only.
ID	The requirement ID.	Display only.
Object ID	The requirement object ID.	Display only.
Title	The requirement title	
RM Project	The associated Dimensions RM project.	Display only.
RM Database	The associated Dimensions RM database.	Display only.

Field	Description	Rules and Guidelines
RM URL	The associated RM Browser URL.	Display only.
Container Type	The type of container (baseline, collection, document, or snapshot).	Display only.
Status	The status of the requirement.	Display only.
Originator	The Dimensions RM user who originator of the requirement.	Display only.
Create date	The date this requirement was created.	Display only.
Update date	The date of the last change to this requirement.	Display only.
Back	Click to return to the first page of the wizard.	
Finish	Click to save your selection.	

Chapter 3

Configuring an IIS Server for ALM Integration

In this Chapter

Configuring an IIS Server for ALM Integration

30

Configuring an IIS Server for ALM Integration

If you are in a highly secure Serena® Dimensions® CM plus Serena® Dimensions® RM environment that utilizes a Microsoft® IIS server, you should configure that IIS server for the ALM integration. Perform the procedures in this chapter on the server where you have IIS running.

IMPORTANT! The IUSR account needs access to the Dimensions CM installation directory. Normally, the Dimensions CM tool manager account is `dmsys`, unless you created your own account and named it something else. This procedure assumes that the tool manager account is `dmsys`.

Configuring Dimensions RM

To configure the IIS server for Dimensions RM:

- 1 In Windows Explorer, select the Dimensions RM "root" folder. By default, this will be:
`C:\Program Files\Serena\Dimensions <version>\RM`
- 2 Right-click and select **Properties | Security**.
- 3 Click **Add**.
- 4 Add `dmsys` to the list of groups and users.
- 5 Select the user `dmsys` and check **Allow** for the **Read & Execute** and **Write** check boxes in **Permissions for dmsys**.
- 6 Click **Advance**.
- 7 The **Advanced Security Settings for RM** dialog box appears with the **Permissions** tab selected. Proceed as follows:
 - a Select the `dmsys` user.
 - b Check both check boxes at the bottom of the dialog box.
 - c Click **Apply**.
 - d Once the security updates have completed, click **OK** and **OK** to exit the dialog boxes.
- 8 Reboot the IIS server.

Configuring Dimensions CM

To configure the IIS server for Dimensions CM:

- 1 In Windows Explorer, select the Dimensions RM "root" folder. By default, this will be:
`C:\Program Files\Serena\Dimensions <version>\CM`
- 2 Right-click and select **Properties | Security**.
- 3 Click **Add**.
- 4 Add the IUSR account (`<serverName>\IUSR_<serverName>`) to the list of groups and users.

- 5 Select the user <serverName>\IUSR_<serverName> and check **Allow** for the **Read & Execute** and **Write** check boxes in **Permissions for <serverName>\IUSR_<serverName>**.
- 6 Click **Advance**.
- 7 The **Advanced Security Settings for CM** dialog box appears with the Permissions tab selected. Proceed as follows:
 - a Select the <serverName>\IUSR_<serverName> user.
 - b Check both check boxes at the bottom of the dialog box.
 - c Click **Apply**.
 - d Once the security updates have completed, click **OK** and **OK** to exit the dialog boxes.
- 8 Reboot the IIS server.

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