SERENA

REQUIREMENTS MANAGER 4.0.1

Installation Guide

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Welcome to Serena Requirements Manager

Thank you for choosing Serena Requirements Manager, the orchestrated solution for application requirements management that brings requirements initiation, review, and approval to your end-to-end design, development, and quality process.

Serena Requirements Manager is an orchestration of Serena Dimensions RM and Serena Business Manager. As part of Serena ALM, Requirements Manager fits into an orchestrated workflow with Serena Development Manager. Optionally, it can leverage the rich reporting capabilities of Serena Dashboard. It also includes Serena Prototype Composer as a stand-alone prototyping tool.

Serena Resources

Serena provides a variety of resources to improve your product experience. See the following topics for information about how to access them:

- Verifying Platform Support [page 4]
- Obtaining Documentation [page 4]
- Product Training and Education [page 5]
- Accessing the Serena Support Community Forum [page 5]
- Contacting Technical Support [page 5]

Verifying Platform Support

For details of supported server and client platforms, third party integrations, and Serena Integrations, see the Serena Release Plan for Serena Requirements Manager at:

`http://support.serena.com/roadmap/index.aspx`

Select the relevant product and then the desired version.

TIP You can click and drag to move the timeline so that the desired version is visible.

Obtaining Documentation

For your convenience, most Requirements Manager documentation is available in both HTML Help and PDF formats. The following documentation is available:

Document	Description
Serena Requirements Manager Help	An HTML help system with information on installing, configuring, and getting started with Requirements Manager.
Serena Requirements Manager Installation and Configuration Guide	A PDF version of the installation and configuration information from the help.
Serena Requirements Manager Getting Started Guide	A PDF version of the getting started information from the help.
Serena Requirements Manager Web Services Help	An HTML help system that describes the usage of the Requirements Manager web services.
Serena Requirements Manager Web Services Reference Manual	A PDF version of the Requirements Manager web services help.

Document	Description
Readme	An HTML readme file with information on known issues and content too late for inclusion in the other documents.

To access the documentation, do any of the following:

- To launch the help, click the **Help** button in Serena ALM.

NOTE The help is hosted on a Serena server and requires internet access.

- To download or view the PDF manuals and HTML readme, click the **Demos & All Docs** button on the toolbar of the help and then click **Documentation**. The resulting page includes links to all documentation for Serena ALM, including the individual Serena products that underlie the orchestrations as well as past versions of the documentation.

TIP To jump straight to the documentation page for Requirements Manager 4.0.1, click or enter the following:

`http://help.serena.com/alm/info_center/doc_index/rqm/4.0.1/index.html`

Product Training and Education

Are you ready to get the most from Serena products? Our Training organization is ready to help you get there. We are a world-class, highly skilled team of technical instructors and course developers that create and deliver training to business, application developers, and system administrators. We offer a variety of courses that are delivered at our regional training location, on site at your location or virtually, from the most basic to the most challenging, depending on your needs.

No matter your experience level, you will get a hands-on workshop experience in which you will learn new concepts to help you succeed—with breathtaking speed. Whether you are a novice user or a self-sufficient expert, you can accomplish your goals quickly, easily, and confidently after taking courses from Serena Education. We offer a blended learning approach, so whether your preference is instructor-led, virtual, or e-learning, we have the course for you.

For more information, contact the Serena Product Training and Education Department.

Serena Product Training and Education Department:
`http://www.serena.com/services/education/`

Accessing the Serena Support Community Forum

Serena provides a forum where users can discuss questions and best practices with other Serena users and Serena employees. Harvest the power of the internet and see if others have already addressed your question. Create an account and get involved!

The Serena Support Community Forum:
`http://communities.serena.com/`

Contacting 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 for more information.

Serena Support:
`http://support.serena.com/`

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

Preparing for Installation

Installation Overview

Serena Requirements Manager requires installation of the following components:

- **Serena License Manager:** The licensing component for all the other Serena components.
- **Serena Dimensions RM:** The application for creating, editing, organizing, and reporting on requirement data. Its Oracle database is the requirements repository for Requirements Manager.
- **Serena Business Manager:** The component that enables you to create and run process applications. It can be used to manage business processes, including access to other web services and third-party applications.
- **Requirements Control:** The set of process applications (implemented on Serena Business Manager) that orchestrates the requirements workflow:

  ALM Projects: The process application to track projects through the various workflow states of planning, development, testing, and release.

  Requirements Approval: The process application to propose, review, comment on, edit, and approve/reject collections of requirements in Dimensions RM.
- **Serena Dashboard (optional):** The customizable reporting solution built on the IBI WebFocus platform.
- **Serena Prototype Composer (optional):** The application for planning, modeling and prototyping.

NOTE This Requirements Manager documentation includes information on:

- Installing Requirements Control
- Configuring the other components for use with Requirements Control

The other components have their own installation documentation, so that information is not duplicated here. However, any Requirements Manager specific considerations regarding their installation and configuration will be noted here.

Preparing for Installation

To prepare for a smooth and successful installation and configuration of the Serena Requirements Manager suite, do the following:

- If you are already running any components of the Requirements Manager suite, ensure that they are compatible with this version of Serena Requirements Manager.

  See Verifying Platform Support [page 4].
- Ensure that the systems you intend to use are compatible with this version of Serena Requirements Manager.

  See Verifying Platform Support [page 4].
- Download the appropriate versions of the installers for any of the components that you need to install or update to a compatible version.

  See the Serena Support Download site: http://support.serena.com/Download/
- Download the appropriate versions of the documentation for all of the components that you need to install, update, or configure for use with Requirements Manager.

See the Serena Support Download site: http://support.serena.com/Download/
Or the Serena ALM Documentation site: http://help.serena.com/alm/info_center/doc_index/index.html

IMPORTANT! Before installing any of the products in the Serena Requirements Manager suite, please review their respective readmes and installation and configuration guides.

Installation

Installation Order

|‹ FIRST | Installing Serena License Manager [page 8] ›

IMPORTANT! Make sure you have completed the planning and installation prerequisites before proceding with the installation. See Preparing for Installation [page 6].

The installation should proceed in the following order, unless you have the experience, knowledge, and necessity to do otherwise:

1. Installing Serena License Manager [page 8]
2. Installing Serena Business Manager [page 8]
3. Installing Serena Dimensions RM [page 9]
4. Installing Serena Requirements Control [page 9]

Installing Serena License Manager

‹ Installation Order [page 8] | Installing Serena Business Manager [page 8] ›

You must install Serena License Manager to license and run Serena Business Manager and Serena Dimensions RM. You must then apply the licenses for each product after you have installed the components of Requirements Manager.

Existing Serena License Manager Systems

If you already have an installation of Serena License Manager, you do not need to install a new system for Serena Requirements Manager. However, you do need to do the following:

- Ensure that you are running a compatible version of Serena License Manager. See Verifying Platform Support [page 4].
- After installing the rest of the products in the suite, follow the configuration instructions for applying licenses.

New Serena License Manager Systems

Follow the instructions on installing Serena License Manager in either the Serena Dimensions RM or Serena Business Manager documentation:

- *Serena Business Manager Licensing Guide*
- *Serena Dimensions CM and RM Installing the Serena License Manager*

Installing Serena Business Manager

‹ Installing Serena License Manager [page 8] | Installing Serena Dimensions RM [page 9] ›

Serena Business Manager is a required component of Serena Requirements Manager. It must be installed before you can install Serena Requirements Control.

Existing Serena Business Manager Systems

If you already have a compatible installation of Serena Business Manager, you do not need to do a new install for use in Serena Requirements Manager. However, you do need to do the following:

- Ensure that you are running a compatible version of Serena Business Manager. See Verifying Platform Support [page 4].

- If you want to use Single Sign On (SSO), you must install and enable it for Serena Business Manager, if that has not already been done. See the *Serena Business Manager Installation and Configuration Guide*.
- After installing the rest of the products in the suite, follow the post-installation configuration instructions for Serena Business Manager.

New Serena Business Manager Systems

Follow the instructions on installing Serena Business Manager in the *Serena Business Manager Installation and Configuration Guide*. Be sure to install and configure the SSO component of Serena Business Manager if you intend to use SSO with Serena Requirements Manager.

Installing Serena Dimensions RM

‹ Installing Serena Business Manager [page 8] | Installing Serena Requirements Control [page 9] ›

Serena Dimensions RM is a required component of the Serena Requirements Manager suite. See the relevant section below.

Existing Serena Dimensions RM Systems

If you already have a compatible installation of Dimensions RM, you do not need to do a new install for use in Serena Requirements Manager. However, you do need to do the following:

- Ensure that you are running a compatible version of Dimensions RM. See Verifying Platform Support [page 4].
- If you want to use Single Sign On (SSO), you must install and enable it for Dimensions RM, if that has not already been done. For information on installing the SSO component for Dimensions RM, see the *Serena Dimensions RM Installation Guide*. For information on enabling SSO for Dimensions RM, see the *Serena Dimensions RM Administrator's Guide*.
- After installing the rest of the products in the suite, follow the post-installation configuration instructions for Dimensions RM.

New Serena Dimensions RM Systems

Follow the instructions on installing Serena Dimensions RM in the *Serena Dimensions RM Installation Guide*. Be sure to install and configure the SSO component of Dimensions RM if you intend to use SSO with Serena Requirements Manager.

Installing Serena Requirements Control

‹ Installing Serena Dimensions RM [page 9] | **LAST ›|**

The Serena ALM installer installs files to the SBM installation directory path, including the Java war files and the SBM solution file for Serena Requirements Control.

IMPORTANT!

- Serena Requirements Control must be installed on the same machine as the SBM Server.
- The installer comes in two versions: **32-bit** and **64-bit**. Be sure that you have the correct version for your system.

Running the installer:

1. On the SBM Server, run the installer executable.

   You may be asked to install the **Windows Installer**, in which case:

   a. Click **Install**.

b. When asked if you want to reboot your machine, click **Yes**.

The Welcome screen of the installer appears.

2. Click **Next**.

   The License Agreement screen appears.

3. Select the option to accept the license agreement and click **Next**. The Destination Folder screen appears.

4. Accept the default destination folder, or click the **Change** button to browse to a different folder.

   IMPORTANT! The folder must share the same root folder as the SBM installation. For example, if SBM is installed to, `C:\Program Files\Serena\SBM`, then the destination folder would be, `C:\Program Files\Serena\Solutions`.

   Click **Next**. The Product selection screen appears.

5. Deselect the **Development Control** checkbox if you do **not** want to install the Agile features of Serena Development Control. If enabled, this option installs the shell and database schema for the Agile features of Development Manager. (Note that you cannot deselect Release Control. Whether or not you have access to Release Control will be determined by which process apps you select; see the *Serena ALM Installation and Configuration Guide*.)

   Click **Next**. The Custom Setup screen appears.

6. Accept the default option of a **Complete** installation, or select the **Custom** option, in which case the Custom Setup screen appears and you can select or deselect the following features to install:

   - **Agile Configuration:** Common services to enable the Serena ALM solution.
   - **ALM Foundation Services:** This must be installed on the same system as the SBM server (the default), or on a system accessible from the SBM server.

     NOTE This installs a Serena specific configuration of Tomcat to the default port of 8080, unless it already exists.

   - **Configurator SSO Support:** This allows you to connect to a Serena Single Sign On (SSO) server.
   - **Connectors:** Under this node, select from available integrations to external tools, such as Quality Center.
   - **Providers:** Framework for supporting Serena provided and third-party tools.
   - **ALM Workbench:** Serena ALM web client.
   - **ALM Process Application:** This must be installed on the same system as the SBM server.

   Click **Next**. The Configuration Details screen appears.

7. Confirm that the required integration components were found. Click **Next**. The Ready to Install the Program screen appears.

8. Click **Install**. The Installing Serena ALM screen appears. This screen includes a Status bar denoting the progress of the installation process. Once complete, the InstallShield Wizard Completed screen appears.

9. Review the installation summary. Optionally, select the **Show the Windows Installer log** to open the log in Notepad when you exit the installer.

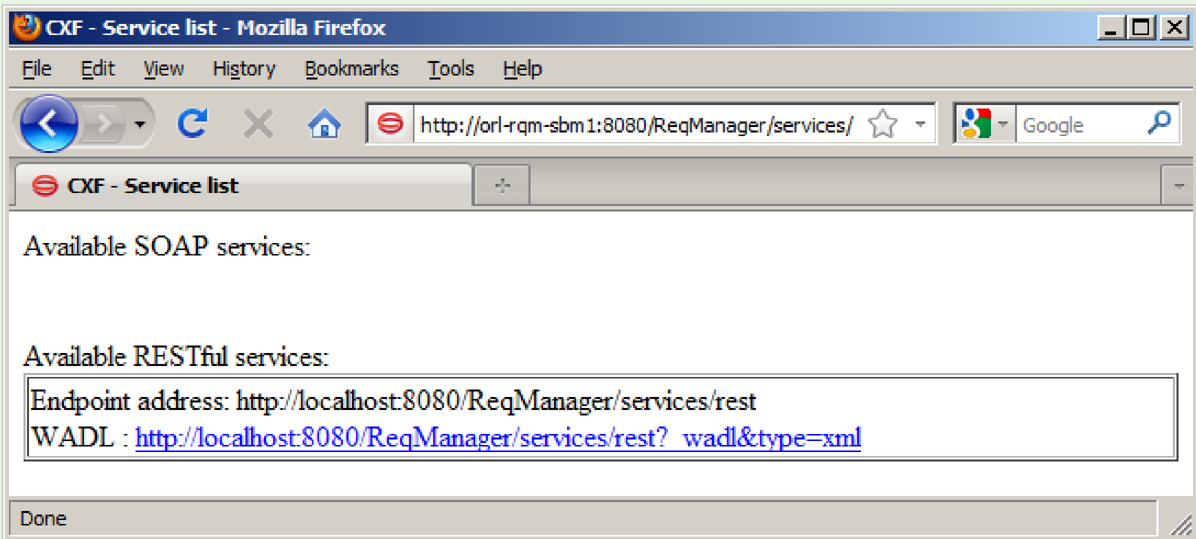
10. Click **Finish** to complete the installation and exit the installer.

    NOTE The installer will restart Tomcat.

TIP To verify that the ReqManager .war file has been successfully installed into Tomcat, enter the following in a web browser:

`http://`*`ServerName`*`:8080/ReqManager/services/`

The result should resemble the following:



Post Installation Configuration

Post Installation Overview

|‹ FIRST | Import the Solution [page 13] ›

After completing the installation steps described earlier in this document, you must complete the following post installation configuration steps:

Step	Description
1	Import the Solution [page 13] Use SBM Application Repository to import the solution for the Requirements Control process application.
2	Promote the Snapshots [page 13] Use SBM Application Repository to promote the snapshots for the Requirements Control process application.
3	Create a Service User [page 15] Use SBM Administrator Portal to create a user in SBM for use behind the scenes by the Requirements Manager suite.
4	Configure ALM Projects [page 16] Use SBM Composer to configure and deploy the ALM Projects process app.
5	Configure Requirement Approval Management [page 18] Use SBM Composer to configure and deploy the Requirement Approval Management process app.
6	Configure Endpoints [page 19] Use SBM Application Repository to point service endpoints to the desired servers.
7	Assign Roles [page 22] Use SBM Administrator Portal to assign users and/or groups to each role defined in your workflow.
8	Edit RM Server Connections [page 24] Use SBM Administrator Portal to update the RM Server Connections table with the connection information for the Dimensions RM project you will use with Requirements Management.
9	Configure Dimensions RM [page 25] Use RM Manage to configure a Dimensions RM project for use with Requirements Manager.

Step	Description
10	Development Manager Configuration [page 26] If you previously implemented Development Manager without Requirements Manager, you will have carried out the steps described in the *Serena Development Manager Installation and Configuration Guide* to disable certain elements that are required by Requirements Manager. You will therefor need to reverse those changes now in order to implement Requirements Manager.

TIP For more depth and context related to the following SBM procedures, see:

- *Serena Business Manager SBM Application Repository Guide*
- *Serena Business Manager SBM Application Administrator Guide*
- *Serena Business Manager SBM Composer Guide*

PRIVILEGE The following administrative SBM procedures must be performed by a user with the privileges necessary to deploy and undeploy applications, import solutions, and view and edit process applications. The Admin user should have these privileges by default. Use the SBM System Administrator utility to ensure that these privileges are granted to the user you will use to perform the following procedures. See the *Serena Business Manager System Administrator Guide*

Import the Solution

‹ Post Installation Overview [page 12] | Promote the Snapshots [page 13] ›

You must use the SBM Application Repository to import the Requirements Manager solution into SBM.

Importing the solution:

1. Log in to the SBM Application Repository (Select Start | Serena | Serena Business Manager | SBM Application Repository).
2. Select the **Solutions** tab. The solutions available for import are listed in the top pane.
3. Click the **Import** button next to the **ALM_Solution_Pack**. A message appears listing the process apps you are about to import.
4. Click **OK**.

Promote the Snapshots

‹ Import the Solution [page 13] | Create a Service User [page 15] ›

You must use the SBM Application Repository to promote the process application snapshots contained in the solution into an SBM environment.

NOTE If you do not already have a target environment ready to receive these snapshots, you must create one before proceeding with the following procedure. See the *Serena Business Manager SBM Application Repository Guide*.

Promoting the snapshots:

1. Click **Solutions** in the navigation pane.
2. Select the Requirements Manager solution and click **Open Snapshots**. The list of snapshots contained in the solution appears. Examine the following table to see which snapshots are required for your implementation:

Snapshots Required for Implementations				
Snapshot	**RQM**	**DVM**	**RLM**	**Notes**
Vault Request		+RLM	x	
RLM AUX	x	x	x	
Release Train		+RLM	x	
Application Release		+RLM	x	
Release Package		+RLM	x	
Deployment		+RLM	x	
Release Template		+RLM	x	
Environment		+RLM	x	
Dev Control Orchestrations	+DVM	x		1, 2, 3
Dev Tasks		x		
Dev Change Requests	+DVM	x		2, 3
ALM Projects	x	x		
Products and Components	x	x		
Dev Packages		x		
Quality Center Connector		x		
Global Process App		x		
Requirements Approval Management	x	x		
RM to RQM Connector	x	+RQM		

NOTES:

1. You must create the ReleaseRequestService endpoint before promoting this snapshot. See Creating the ReleaseRequestService Endpoint [page 15].
2. ALM Projects must be promoted before these snapshots because they depened upon the DVMUtilService endpoint that is created by ALM Projects.
3. You must manually select the DVMUtilService endpoint when promoting these snapshots.

LEGEND:

RQM = Requirements Manager

DVM = Development Manager

RLM = Release Manager

x = required

+*???* = required for integration with *???*

3. Select one of the process app snapshots and click **Promote**. The Summary page appears.
4. Click on the **Destination** field. The Destination page appears.
5. Select the desired environment and click **Next**. The Entities page appears.
6. Select the **Merge conflicts** option and click **Next**.
7. The Mapping page appears. Click **Done**.
8. The Summary page appears. Click **Promote**.

NOTE Make sure that **Verify endpoints before continuing** is NOT selected.

9. Repeat the above steps, starting with Step-3, for each snapshot in the solution.

Creating the ReleaseRequestService Endpoint

NOTE This procedure applies only in the case of **Note 1** in the Snapshots Required for Implementations table above.

Creating ReleaseRequestService endpoint:

1. Look at the List Services tab in ALM Configurator and note the URL for the ReleaseRequestService endpoint.

   TIP To open the ALM Configurator:

   `http://HostName:8080/alm`

2. Navigate to SBM App Repository | Environments | Default Environment | Endpoint.
3. Create the ReleaseRequestService endpoint using the URL you noted above and selecting **Security Token** as the authentication type.

Create a Service User

‹ Promote the Snapshots [page 13] | Configure ALM Projects [page 16] ›

You must create a user in SBM for use behind the scenes by the Requirements Manager suite.

TIP For more depth and context related to the following SBM procedures, see the *Serena Business Manager SBM Application Administrator Guide*.

NOTE The specifics of this procedure vary depending on whether you are implementing Requirements Manager alone or along with Development Manager. Be sure to follow only the steps appropriate to your scenario, as noted below.

To create the service user:

1. Log in to the SBM Administrator Portal and open the Users view.
2. Add a new user with the following properties:
   - **Login ID:** By default, the process apps expect this to be **serviceuser**, but you can specify any value you like.

     NOTE Make a note of the value you set here. You will need it in subsequent procedures.

   - **Password:** By default, the process apps expect this to be **serviceuserpassword**, but you can specify any value you like.

     NOTE Make a note of the value you set here. You will need it in subsequent procedures.

   - **Product Access:** Set this to **API/Script**.
   - **System Privileges:** Set this to **All**.
3. Assign the new user the **Administrator** roles for:
   - ALM Projects

- Dev Change Requests

  NOTE Only if installing both Requirements Manager and Development Manager.

- Dev Packages

  NOTE Only if installing both Requirements Manager and Development Manager.

- Dev Tasks

  NOTE Only if installing both Requirements Manager and Development Manager.

- RQM

TIP

1. Select the **Roles** tab.
2. Select the desired project in the **Projects** area.
3. In the bottom pane, select the desired role and the checkbox under the user.

4. On the Membership page, add the user to the **Everyone** group.
5. Save your changes.

Configure ALM Projects

‹ Create a Service User [page 15] | Configure Requirement Approval Management [page 18] ›

You must configure and deploy the ALM Projects process app with SBM Composer.

TIP For more depth and context related to the following SBM procedures, see the *Serena Business Manager SBM Composer Guide*.

NOTE The specifics of this procedure vary depending on whether you are implementing Requirements Manager alone or along with Development Manager. Be sure to follow only the steps appropriate to your scenario, as noted below.

Configuring and deploying ALM Projects:

1. Log in to SBM Composer and open the ALM Projects process app in the repository.

   NOTE If prompted, choose to **Overwrite** the version in local cache with the version from the repository.

2. Set the value of **serviceUser** and **serviceUserPassword**:
   a. In the All Items tree, select **Event without Reply** under **ALM Projects** | **Orchestration Links**.
   b. In the Event without Reply tab, find the section: **Additional data to send with event**.
   c. Set the values of **serviceUser** and **serviceUserPassword** to match those of the user you created for Create a Service User [page 15].

3. Specify the Dimensions RM server information for the getRMCollections service:
   a. Select **Project Submit Form** under **ALM Projects** | **Forms**.
   b. Select the REST grid widget **getRMCollections**.
   c. Select **Query** in the Property Editor.
   d. Change the value of the following to match those used on your Dimensions RM server:
      - dbName
      - project
      - username
      - password
      - server
      - port

      NOTE Ensure that **designMode** = `false`.

      IMPORTANT! If integrating with Dimensions RM 12.1, or newer, clear all of the values *except* for: **designMode** and **documentID**.
   e. Repeat the above steps, starting with Step-b, for the **Project Update Form**.
4. Hide the Development Manager data:

   NOTE Skip this sub-procedure if you are implementing both Requirements Manager and Development Manager.

   a. Select **Project Base State Form With Child Transitions** from under **ALM Projects** | **Forms**.
   b. Select **Actions**.
   c. Enable the **Hide DVM data** action.
   d. Repeat the above steps for:
      - Project Base State Form Without Child Transitions
      - Project Submit Form
      - Project Update Form
5. Deploy **ALM Projects**.

Configure Requirement Approval Management

‹ Configure ALM Projects [page 16] | Configure Endpoints [page 19] ›

You must configure and deploy the Requirement Approval Management process app with SBM Composer.

TIP For more depth and context related to the following SBM procedures, see the *Serena Business Manager SBM Composer Guide*.

NOTE The specifics of this procedure vary depending on whether you are implementing Requirements Manager alone or along with Development Manager. Be sure to follow only the steps appropriate to your scenario, as noted below.

Configuring and deploying Requirement Approval Management:

1. Log in to SBM Composer and open the Requirement Approval Management process app in the repository.

   NOTE If prompted, choose to **Overwrite** the version in local cache with the version from the repository.

2. Set the value of **serviceUser** and **serviceUserPassword**:

   a. In the All Items tree, select **Event without Reply** under **Requirement Approval Management** | **Orchestration Links**.

   b. In the Event without Reply tab, find the section: **Additional data to send with event**.

   c. Set the values of **serviceUser** and **serviceUserPassword** to match those of the user you created for Create a Service User [page 15].

3. Specify the Dimensions RM server information for the getRMDocuments and getRMSnapshots services:

   a. Select **RA Submit Transition Form's** under **Requirement Approval Management** | **Forms**.

   b. Select the REST grid widget **getRMDocuments**.

   c. Select **Query** in the Property Editor.

   d. Change the value of the following to match those used on your Dimensions RM server:

- dbName
- project
- username
- password
- server
- port

NOTE Ensure that **designMode** = `false`.

IMPORTANT! If integrating with Dimensions RM 12.1, or newer, clear all of the values *except* for: **designMode** and **documentID**.

e. Repeat the above steps, starting with Step-b, for the **getRMSnapshots** service.

4. Hide the Development Manager data:

NOTE Skip this sub-procedure if you are implementing both Requirements Manager and Development Manager.

a. Select **Approval Process** from under **Requirement Approval Management** | **Application Workflows**.

b. Select **General**.

c. Disable the **Distribute** transition.

5. Deploy **Requirement Approval Management**.

Configure Endpoints

‹ Configure Requirement Approval Management [page 18] | Assign Roles [page 22] ›

You must configure the service endpoints and deploy the changes with SBM Application Repository.

TIP For more depth and context related to the following SBM procedures, see the *Serena Business Manager SBM Application Repository Guide*.

Configuring and deploying endpoints:

1. Log in to Serena Application Repository and select the appropriate environment.
2. Select the **Endpoints** tab.
3. Select **rtmService** and click **Edit**. The Edit Endpoint dialog appears.
4. Edit the server and port information in the **URL** field to specify your Dimensions RM server, depending upon the version of Dimensions RM you are using:

- **RM 11.2.*X*:**

  `http://`*`RM_Server`*`/rtmservices/mod_gsoap.dll?rtmService`

- **RM 12.*X*:**

  `http://`*`RM_Server`*`:`*`Port`*`/rtmBrowser/WebServices`

> **IMPORTANT!** Starting with Dimensions RM 12.1, the URL string has changed to the following format:
>
> `http://`*`RM_Server`*`:8080/rtmBrowser/WebServices`
>
> Also, see Editing connections.xml [page 20] below.

5. Test the connection then click **OK** to close the dialog.
6. If needed, edit the end points for:
   - getRMCollections
   - getRMDocuments
   - getRMSnapshots

> **NOTE** These REST services should be installed to the same server as SBM, so the default value of `localhost8080` should work, unless you configured SBM to use a different port.

7. Deploy **RM to RQM Connector.**

> **IMPORTANT!** Ensure that you are deploying the original endpoint and not a duplicate. Duplicates will have an underscore and number appended to the end (rtmService**_2**).

> **NOTE** If you edited the endpoints of the **getRM** REST services, you must also deploy **ALM Projects** and **Requirement Approval Management**.

   a. Select the **rtmService** Source Endpoint from the Current Mappings table of the Mappings page.
   b. Click **Choose Destination Endpoint**. The Destination Endpoints dialog appears.
   c. Select **rtmService**.
   d. Click **Done** on the Mappings page.

8. On the Summary page, examine the list of endpoints for duplicates and delete any duplicates you find. A duplicate will have an underscore and number appended to its name. For example:
   - **rtmService**
     is the original
   - **rtmService_2**
     is a duplicate

Editing connections.xml

You must edit the connections.xml file as described below.

To edit the connections.xml file:

1. Open the following file in a text editor:

`Install_Dir\tomcat\X.X\webapps\ReqManager\web-inf\classes\connections.xml`

2. Edit the value of the **endpoint** tag as follows, depending upon the version of Dimensions RM you are using:

   - **RM 11.2.*X*:**

     `http://RM_Server/rtmservices/mod_gsoap.dll?rtmService`

   - **RM 12.*X*:**

     `http://RM_Server:Port/rtmBrowser/WebServices`

3. Ensure that the other values are correct, or edit them as needed. The following image shows the name of the values in the file:

```
<Connection>
 <RMConnection>
  <endpoint>http://RM_MACHINE:8080/rtmBrowser/WebServices</endpoint>
  <project>RMDEMO</project> <!—Project in RM -->
  <dbName>OALM</dbName> <!—RM db -->
  <user>serviceuser</user> <!—RM user -->
  <password>serviceuserpassword</password> <!—RM user password -->
 </RMConnection>
 <SBMConnection>
        <sbmServer>localhost</sbmServer> <!—SBM Host -->
        <sbmPort>80</sbmPort> <!—SBM Port (IIS) -->
        <sbmUser>serviceuser</sbmUser> <!—SBM User, recommended to use same
login as RM user -->
        <sbmPassword>serviceuserpassword</sbmPassword> <!—SBM User' password,
recommended to use same password as RM user's password -->
 </SBMConnection>
</Connection>
```

The following image shows a completed example of the file:

```
<Connection>
  <RMConnection>
    <endpoint>http://mg-rqm-orcl1:8080/rtmBrowser/WebServices</endpoint>
    <project>RMDEMO</project>
    <dbName>OALM</dbName>
    <user>serviceuser</user>
    <password>serviceuserpassword</password>
  </RMConnection>
  <SBMConnection>
        <sbmServer>localhost</sbmServer>
        <sbmPort>80</sbmPort>
        <sbmUser>serviceuser</sbmUser>
        <sbmPassword>serviceuserpassword</sbmPassword>
  </SBMConnection>
</Connection>
```

Assign Roles

‹ Configure Endpoints [page 19] | Edit RM Server Connections [page 24] ›

You must assign at least one user or group to each role in each application with the SBM Administrator Portal.

TIP To facilitate initial testing and troubleshooting, you may want to temporarily assign all roles to a single administrative user.

TIP For more depth and context related to the following SBM procedures, see the *Serena Business Manager SBM Application Administrator Guide*.

NOTE The specifics of this procedure vary depending on whether you are implementing Requirements Manager alone or along with Development Manager. Be sure to follow only the steps appropriate to your scenario, as noted below.

The Roles by Project

The following tables list the default roles for each project.

NOTE The roles listed here are the defaults. However, your implementation may be customized to use others. In either case, you must assign at least one user or group to each role that is defined in your workflow.

You must assign the following roles for ALM Projects:

Roles for ALM Projects	
Role	**Description**
Administrator	
Build Engineer	
Build Manager	
Business Analyst	
Development Engineer	
Development Manager	
Product Owner	
Project Manager	**NOTE** Users fulfilling the role of Project Manager in ALM Projects must also have at least the Viewers role in Requirements Approval Management.
Release Engineer	
Release Manager	
QA Engineer	
QA Manager	
User	

TIP If you have installed the Development Manager sample data, you may wish to assign roles via the predefined user groups that are based on the ALM Project roles.

You must assign the following roles for Requirement Approval Management:

Roles for Requirement Approval Management	
Role	**Description**
Administrators	
Approvers	Can be assigned Approval Ballots with which they can comment or vote whether to accept or reject the associated Requirements Approval.
Business Analysts	Can create Requirements Approvals, assign Approval Ballots, and comment on and Approve or Disapprove Requirements Approvals.
Dev Managers	
QA Managers	
Viewers	Can view Requirements Approvals, Approval Ballots, and Distribution tickets, but cannot participate in the comment and approval process.

PRIVILEGE

- For information on the privileges enabled for each role, see Roles and Privileges.
- All users must have the Submit, Update, and View privileges for the ALM_USER_SETTINGS auxiliary table.

The Role Assignment Procedure

Complete the following procedure for the projects that are relevant to your usage scenario.

TIP Roles can be assigned to users or groups. They can be assigned from the Users, Groups, or Project details view. See the *Serena Business Manager SBM Application Administrator Guide*.

To create users and assign roles:

1. Log in to the SBM Administrator Portal and click **Users**.
2. Create new users as needed.
3. Assign users for each role in each project (see tables above):
   a. Select the **Roles** tab.
   b. Select the desired project in the **Projects** area.

      NOTE For Requirement Approval Management, select the top-level project (**RQM**), rather than the individual sub-projects under it.

   c. In the bottom pane, select the desired role and the checkbox under the user.
4. Disable the **User** role for the **Everyone** group in the following projects:

   NOTE Skip this step if you are implementing both Requirements Manager and Development Manager.

   - Dev Change Requests Project
   - Dev Tasks Project
   - Dev Package Project
5. Save your changes.

Edit RM Server Connections

‹ Assign Roles [page 22] | Configure Dimensions RM [page 25] ›

You must edit the connection data for the RM Server Connections with the SBM Administrator Portal.

TIP For more depth and context related to the following SBM procedures, see the *Serena Business Manager SBM Application Administrator Guide*.

To edit the RM Server Connections:

1. Log in to the SBM Administrator Portal and open **ALM Projects**.
2. Click **Search** and select **Manage Data**.
3. Select the **RM Server Connections** table.
4. Edit the following to match your Dimensions RM server:
   - Project Name
   - Database Name

- RM User ID
- RM User Password

Configure Dimensions RM

‹ Edit RM Server Connections [page 24] | Development Manager Configuration [page 26] ›

You must configure a Dimensions RM project for use with Serena Requirements Manager using RM Manage.

TIP For more depth and context related to the following Dimensions RM procedures, see the *Serena Dimensions RM Administrator's Guide*.

Configure the Service User

You must create a Dimensions RM user with the same user name and password as the service user you created in SBM (see Create a Service User [page 15]).

To configure the service user:

1. Launch RM Manager and select the desired database.
2. Select **View** | **Users**.
3. Click the top of the **Users** tree.
4. Select **File** | **New User**.
5. Enter the same user name you specified in SBM as the Requirements Manager service user and press **Enter**.
6. On the Group Membership tab, assign the user to the Administrators group.
7. On the Password tab, enter the same password you specified in SBM for the Requirements Manager service user.
8. Deselect the **User Must Change Password at Next Logon** checkbox.
9. Select the **Password Never Expires** checkbox.
10. Click **Accept Changes**.
11. Select **View** | **Projects** and select the desired project.
12. Select the Group Assignment tab.
13. Add the user to the project.

Configure Common Users

Create users in Dimensions RM that match the user names and passwords for the users you assigned the Business Analyst and Dev Manager roles in SBM, as well as any other users that should be able to view the contents of a Dimensions RM document snapshot from within Requirements Manager.

NOTE This is not necessary if you have a shared LDAP implementation for SBM and Dimensions RM.

Configure Document Title Field Length

You must set the maximum length of the document title field to be compatible with the value used in Requirements Manager.

To configure the title length:

1. Log in to RM Manage as the service user you created above and select the desired project.
2. Select **File** | **Define Project Schema**.
3. Double-click on the **Chapter** object.
4. On the Attributes tab, double-click on the **Title** attribute.
5. On the Alphanumeric tab, set the **Maximum Length** field to **80**.
6. Optionally, increase the value of **Display Length**.
7. Click **OK** on the dialogs.
8. Exit Class Definition and save changes.

Development Manager Configuration

‹ Configure Dimensions RM [page 25] | **LAST ›|**

If you have configured an installation of Development Manager that does not include Requirements Manager, you will have carried out the steps described in the *Serena Development Manager Installation and Configuration Guide* to disable certain elements that are required by Requirements Manager. You will therefor need to reverse those changes now in order to implement Requirements Manager.

IMPORTANT! Do NOT perform these procedures unless you are configuring a new installation of Requirements Manager to work with a pre-existing implementation of Development Manager.

Unhiding the Requirements Manager-Related Forms

1. Open SBM Composer.
2. Open a process app, for example Dev Change Requests.
3. Select **Visual Design**.
4. Under Forms, select **Change Request Base State Form**.
5. Select **Actions** in the Property Editor.
6. Uncheck the **Enabled** check box for **Hide RQM Data**.
7. Repeat Step-4 thru Step-6 for:
   - Change Requests Submit Form
   - Change Requests Update Form
8. Repeat Step-2 thru Step-6 for:
   - ALM Projects:
     - Project Submit Form
     - Project Update Form
9. Deploy the Process Apps after completing the above steps.

Adding Requirements Manager-Related Columns to Report Definitions

1. Open SBM Composer.

2. In SBM Composer, open a process app, for example Dev Change Requests.
3. Select **Report Definitions**.
4. Select **CRs associated to this Project**.
5. Add the column **Associated Requirements** by dragging it onto the form.
6. Repeat the above steps for:
   - CRs Associated to this Dev Package
   - View.All
   - View.Closed
   - View.In Development
   - View.In Test
   - View.Mine
   - View.Waiting to Start
7. Deploy the Process Apps after completing the above steps.

Adding Requirements Manager-Related Columns to Reports

1. Open the SBM User Workspace by entering the following in a web browser:

   `http://`*`HostName`*`/tmtrack/tmtrack.dll?`
2. Log in as Admin.
3. Select the **Dev Change Requests Project**.
4. Select **Reports**.
5. Click **Find Reports**.
6. Click the **Search** button.
7. Click the **Edit** button for **CR(s) associated to this Dev Package**.
8. Add the column **Associated Requirements**.
9. Repeat the above steps for:
   - CR(s) associated to this Project
   - Dev CR.View.All
   - Dev CR.View.Closed
   - Dev CR.View.In Development
   - Dev CR.View.In Test
   - Dev CR.View.Mine
   - Dev CR.View.Waiting to Start

Adding the Viewers Role to the Requirements Manager Project

1. Log into SBM Administrator by entering the following URL in a browser:

   `http://`*`HostName`*`/tmtrack/tmtrack.dll?shell=alm`

2. On the toolbar, click the name of the logged-in user, and select **Administrator Portal** from the resulting drop-down menu.
3. Select **Groups**.
4. Select *Everyone*, and click **Details**.
5. Select **Roles** in the left pane.
6. In the Projects pane, select **RQM** under **Project Name**.
7. In the lower pane, select **Viewers** and enable it.
8. Click **Save**.

Troubleshooting

This section describes symptoms of installation and configuration problems and how to correct or avoid them.

NOTE This is not a list of "Known Issues" or "Workarounds" (see the Readme for that), but rather an aide to troubleshooting common configuration issues.

ERROR: "Please Contact Your Administrator" Message Appears on Forms

If you experience a problem where the message *Please Contact Your Administrator* keeps appearing on various forms, it is likely that a report that is being used in an embedded report widget is missing. This will cause the error to appear, and not be cleared for a period of time, thus appearing on other pages. The solution is to make sure all reports exist and that the widgets are properly calling them.

To check that the reports are set up correctly:

1. In the user environment view an item (almproj, ram, etc).
2. View each tab that has an embedded report.
   - If you see the report showing data, or even if you just see the columns and there is no data, then that report is setup correctly
   - If the report is not there and it says something like: *This report may be deleted* or *You do not have permissions to see this report* or any other error message, then the report has not been set up correctly.

To create a report with a reference name:

1. Go to the process application (in the SBM user environment) where the report lives (For example, if the report is **All CR's in a Project** then you want the **CR** tab.)
2. Click **Reports** in the bottom left.
3. Click on **Browse application reports**.
4. Find the name of the missing report. For example, for CR's associated to a Project look for "CRs associated to this project".
5. Click **Edit**.
6. Click **Save As**.
7. Copy and paste the reference name from the comment into the **Reference Name** field.

8. Give the report a unique name. For example, change "CRs" to "CR(s)".
9. Save the report.

PROBLEM: Project Manager in ALM Project Cannot See Requirements or Transition Requirements Approval Management Workflows

Users fulfilling the role of Project Manager in ALM Projects must also have at least the Viewers role in Requirements Approval Management.

For information on assigning roles, see Assign Roles [page 22].

PROBLEM: User Cannot View Requirements Associated to ALM Project or Dev CR

All users who need to view requirements must have at least the Viewers role in Requirements Approval Management.

For information on assigning roles, see Assign Roles [page 22].

PROBLEM: RM to RQM Connector Process App Fails

Possible causes include:

- Service account user not having all System privileges
- Service account user not residing in the Administrators role in the Requirement Approval Management Process App
- Invalid RM credentials in the aux table RM Server Connections records

See Create a Service User [page 15] and Edit RM Server Connections [page 24].

PROBLEM: Requirements Approval Failed to Link to a Dimensions RM Requirements Document Version (Snapshot).

If communication with the Dimensions RM server is lost during the creation of a Requirements Approval (after retrieving the list, but before clicking OK), the Requirements Approval will be created without an association to a requirements document.

ERROR: "ALF SSO Gatekeeper error has occurred: Error obtaining security token"

If when attempting to log on to the Serena ALM Configurator, you receive the error:

```
ALF SSO Gatekeeper error has occurred: Error obtaining security token.
Detail
Validation of WS-Federation token failed with code 40:Token issuer not allowed.
```

You will need to update your SSO STS certificates by carrying out the following steps:

On the server where SBM is installed:

If you are using SBM 10.1 to 10.1.1.3:

1. Start SBM Configurator and navigate to Security | SSO Trust Keys | STS.
2. Use the **Generate Keypair** button to regenerate the STS certificate.

3. Use the **Export Certificate** button to export the newly generated certificate to a `.pem` file (for example to `C:\Temp\sts.pem`).
4. Click **Apply** to apply the changes.

If you are using SBM 10.1.1.4:

1. Start SBM Configurator and navigate to Security | Secure SBM | Trust Keys | STS.
2. Under **Actions**, select **Generate Keypair** to regenerate the STS certificate.
3. Under **Actions**, select **Export Certificate** to export the newly generated certificate. Save this as a `.pem` file (for example to `C:\Temp\sts.pem`).
4. Click **Apply** to apply the changes.

On each machine where the Serena Common Tomcat is installed:

1. Stop Tomcat.
2. Copy the `sts.pem` file to that machine (for example to `C:\Temp\sts.pem`).
3. Under the folder where the common Tomcat is installed, for example:

   ```
   C:\Program Files\Serena\Common Tools\tomcat\6.0\...
   C:\Program Files\Common\tomcat\6.0\...
   C:\Program Files\Serena\Dimensions 12.2\Common Tools\tomcat\6.0
   ```

   Navigate to `\alfssogatekeeper\conf` and make a backup of the `truststore.jks` file.
4. Under the Common Tools or Common folder, Navigate to `\jre\6.0\bin`.
5. Delete the existing STS certificate, for example using the following command:

   ```
   keytool -delete -keystore "C:\Program Files\Serena\Common
       Tools\tomcat\6.0\alfssogatekeeper\conf\truststore.jks -alias sts
   ```

   Enter the default password *changeit* when prompted.
6. Import the certificate from the `C:\Temp\sts.pem` file into `truststore.jks`, for example by using the following command:

   ```
   keytool -import -keystore "C:\Program Files\Serena\Common
       Tools\tomcat\6.0\alfssogatekeeper\conf\truststore.jks -file
       "C:\temp\sts.pem" -alias sts
   ```

   After entering the password, when prompted with *Trust this certificate? [no]:*, reply **Y**.
7. Restart Tomcat.

If this is the Dimensions CM Server, also do the following:

1. Stop the Dimensions Listener service.
2. Create a backup of:

   ```
   C:\Program Files\Serena\Dimensions 12.2\CM\dfs\sts.pem
   ```
3. Copy the file `C:\Temp\sts.pem` to `C:\Program Files\Serena\Dimensions 12.2\CM\dfs\sts.pem`.
4. Restart the Dimensions Listener service.