SERENA

SERENA®
Development Manager 4.0

Installation and Configuration Guide

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Table of Contents

Welcome to Serena Development Manager

Thank you for choosing Development Manager to plan and control your development.

Serena® Development Manager (Powered by Serena Business Manager) enables you to plan, control, and automate all your development processes from definition to quality assurance and release approval with start-to-finish traceability and end-to-end visibility across distributed environments.

Audience and Scope   This document is intended for personnel who participate in the processes of managing development using Serena Development Manager.

Before You Begin   See the Readme for the latest updates and known issues.

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 at the following URL 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.

Platform Support

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

<http://support.serena.com/Roadmap/Product.aspx?sel=DEV_MANAGER>

From the Products list, select Development Manager, then click on the 4.0 release. From here you can display supported platforms and integrations.

Demonstrations

Demonstrations of Serena product features can be viewed at the following public Web site:

<http://courseware.serena.com>

Guide to Serena Development Manager Documentation

The Serena Development Manager documentation set includes the following manuals and tutorials.

Manual or Tutorial	Description
Serena Development Manager Installation and Configuration Guide	Describes how to install and configure the Serena Development Manager suite of products. (PDF manual)
Serena Development Manager Getting Started Guide	Gives an overview of Serena Development manager (PDF manual).
Serena Development Manager Connector for HP Quality Center / ALM	Describes how to configure and use the Development Manager web services that interact with HP Quality Center.
Serena Development Manager Web Services Reference	Provides Information on the web services provided for Development Manager.
Development Manager Connector for HP Quality Center Web Service Reference	Provides Information on the web services provided for the QC connector for Development Manager.
Serena Development Manager Readme	Provides information about platform requirements and known issues for Development Manager.

The following installation and configuration manuals are referenced in this document.

Manual or Tutorial	Description
Serena Business Manager Readme	Provides information about platform requirements and known issues for Serena Business Manager.
Serena Business Manager Installation and Configuration Guide	Provides information on installing SBM and creating a database. Database and Web server configuration information is also provided. (PDF manual)
Serena Business Manager Composer Guide	Provides details on using SBM Composer to create the tables, fields, workflows, orchestrations, and other design elements comprised in process apps. Information about saving, versioning, importing, and exporting process apps is also provided. This document is intended for individuals who want to design and maintain process apps. (PDF manual)
Serena Business Manager Application Administrator Guide	Provides information on using Application Administrator to deploy process apps to runtime environments and to promote configured applications from one environment to another. (PDF manual)
Serena Business Manager System Administrator Guide	Provides information on configuring and administering the SBM Application Engine. Instructions for managing projects, user accounts, system settings, and authentication are included. (PDF manual)

Manual or Tutorial	Description
Serena Business Manager Licensing Guide	Explains how to manage licenses for Serena Business Manager. License types are discussed, along with instructions for installing and using the Serena License Manager. This guide is intended for administrators who will install and implement Serena Business Manager. (PDF manual)
Serena Business Manager User's Guide	Provides information about the SBM User Workspace and is intended for end users. Instructions on using the SBM User Workspace, including the robust reporting feature in SBM, are included. To ease the process of providing a copy for every user in your system, the Serena Business Manager User's Guide is provided in PDF and can be accessed from the Product Information tab of the About page in the SBM User Workspace. (PDF manual)
Serena Dimensions CM Installation Guides for Windows and *for UNIX*	Describes how install and configure Dimensions CM for the respective platforms. (PDF manuals)
Serena Dimensions CM Administrator's Guide	Describes how to administer the Dimensions CM tool. (PDF manual)
Serena Dimensions CM and RM Installing the Serena License Manager	Describes installing the Windows version of SLM. (PDF manual)
Serena Dimensions CM User's Guide	A user guide to the Dimensions CM Client Tools. (PDF manual)
Serena Dimensions CM Process Modeling Guide	Describes how to configure the process model using the Administration Console. (PDF manual)
Serena ChangeMan ZMF Administrator's Guide	Describes ChangeMan ZMF features and functions with instructions for choosing options and configuring global and application administration parameters.
Serena ChangeMan ZMF Installation Guide	Provides step-by-step instructions for initial installation of ChangeMan ZMF. Assumes that no prior version is installed or that the installation will overlay the existing version.
SER10TY User's Guide	Gives instructions for applying licenses to enable ChangeMan ZMF and its selectable options.
Serena Business Manager Connector for HP Quality Center Implementation Guide	Describes how to configure and use the SBM connector for HP Quality Center. (PDF manual)
Serena Requirements Manager Installation Guide	Describes how to install and configure Serena Requirements Manager. (PDF manual)
Serena Requirements Manager Getting Started Guide	Gives an overview of Serena Requirements Manager. (PDF manual)
Serena Release Manager Installation and Configuration Guide	Describes how to install and configure Serena Release Manager. (PDF manual)

Manual or Tutorial	Description
Serena Release Manager Getting Started Guide	Gives an overview of Serena Release Manager. (PDF manual)
Serena ALM Dashboard Installation and Configuration Guide	Describes how to install and configure the Serena ALM Dashboard reporting tool. (PDF manual)

Access the documentation and tutorials for the Serena Development Manager suite through the Serena Help server at http://help.serena.com/alm/info_center/doc_index/dvm/4.0/index.html.

Accessing the Documentation

You can access all documentation and tutorials for the current release of the Serena Development Manager suite through the Serena Development Manager Help system.

When you click the **Help** link in Serena Development Control, the Serena Development Manager online Help appears. You can navigate the contents, search, and view the glossary for information on installing, configuring, and using the product. You can view and download Serena Development Manager readme files and PDFs for all supported releases from the **Demos and All Doc** page.

Development Manager Licensing

Serena® Development Manager Full Named User. Each Serena Development Manager Full Named User license includes one SBM Named User and one Serena Dimensions CM Named User license.

Serena® Development Manager Full Concurrent User. Each Serena Development Manager Full Concurrent User license includes one SBM Concurrent User license and one Dimensions CM Concurrent User license.

Serena® Development Manager Full Seat. Each Serena Development Manager Full Seat license includes one (1) SBM Seat and one (1) Dimensions CM Named User license.

Serena® Development Manager Control Named User. Each Serena Development Manager Control Named User license includes one SBM Named User license and Development Control process applications..

Serena® Development Manager Control Concurrent User. Each Serena Development Manager Control Concurrent User license includes one (1) SBM Concurrent User license and Development Control process applications.

Serena® Development Manager Control Seat. Each Serena Development Manager Control Seat includes one (1) SBM Seat and Development Control process applications.

Chapter 1

Installation Prerequisites and Planning

This chapter tells you what you need to do before installing Serena Development Manager. To help you plan, it provides an installation checklist for gathering the required information before you start your installation.

Start Here

This document provides you with information to help streamline and simplify the Serena Development Manager installation.

What is Serena Development Manager?

Serena Development Manager is a component of the Serena Application Lifecycle Management (ALM) product line. Serena Development Manager enables you to control your key software development efforts, track source code changes, define application projects, manage source code testing, and release approvals.

It consists of:

■ **Serena®** Business Manager **(**SBM) a product that enables you to create process applications that pull and manage information and work-tracking items from different sources. It can be used to manage business processes, including access to other Web services and third-party applications.

■ **Serena Development Control**, the component of Serena Development Manager that integrates SBM with the other products in the suite.

It will also include one or more the following optional components:

■ **Serena®** Dimensions® CM, a software source control, configuration and management tool. This is the developer's primary tool. It enables you to manage your source versions and builds for Development Manager.

■ **Serena®** ChangeMan® ZMF is a comprehensive and fully integrated solution for Software Change Management systems in z/OS environments. It provides reliable and streamlined implementation of software changes from development into production. ChangeMan ZMF manages and automates the application life cycle, protects the integrity of the code migration process, and results in higher quality delivered code to any test environment and to the production environment.

■ **Serena SBM Connector for HP Quality Center / ALM**, a set of web services that is used in orchestration applications. This Orchestrated workflow also uses SBM and QC Connector web services. It enables you to use HP Quality Center / ALM for defects and to test issues.

You may also be installing the following components of the Serena ALM Suite in conjunction with Serena Development Manager:

■ **Serena Requirements Manager,** A Serena Orchestrated ALM Product that enables you to manage and approve requirements that are then used to generate development change requests in Development Manager.

■ **Serena Release Manager,** a Serena Orchestrated ALM Product that enables you to plan, manage, and automate the deployment of applications into test, pre-production, and production environments across mainframe and distributed systems with start-to-finish traceability and end-to-end visibility.

■ **Serena Dashboard**, a reporting tool that enables you to produce comprehensive graphs, metrics, and views of your ALM processes from different data sources. It provides a set of out-of-box graphs and metrics and enables you to customize them or create your own.

For an overview of using Serena Development Manager, see the *Getting Started Guide*.

About Configuration Management Providers

Serena® Orchestrated ALM providers are products that integrate, or interface, with the orchestrations to provide access to information that you want to include as part of your solution.

Serena Development Manager provides you with a choice of Configuration Management tools for managing dev tasks and dev packages. These are:

- Serena Dimensions CM

- Serena ChangeMan ZMF

You can use one or the other, or both of these.

Installation Overview

This guide takes you through the installation, from pre-installation requirements to post-installation configuration. This section gives an overview of what you need to do to carry out the installation of Serena Development Manager.

There are a number of different possible scenarios, depending on whether you are upgrading an existing version of Serena Development Manager, and whether you will be also using Serena Requirements Manager. These situations require different configuration steps to be carried out. These are described in .

The steps in a new installation of Development Manager are as follows:

1   Install Serena License Manager, which manages the licenses for Serena Development Control and Serena Dimensions CM.

2   Install Serena Business Manager, which is the platform on which Serena Development Control runs.

3   Install one or more Configuration Management Providers. These can be:

- Dimensions CM, which enables you to control your source code for development tasks and baselines for development packages.

- ChangeMan ZMF which enables you to control your source code for development tasks (but not development packages).

4   Install Serena Development Control, which enables you to plan and control your development changes. This also installs the Serena Connect for HP Quality Center, which enables you to optionally use HP Quality Center.

You may also be installing Serena Requirements Manager and/or Serena Release Manager when you run the Serena ALM Suite installer. For details of installing these products, see the *Serena Requirements Manager Installation Guide* and the *Serena Release Manager Installation and Configuration Guide*.

5   Optionally, if you wish to use HP Quality Center:

   a   If not already installed, install HP Quality Center, which enables you to track defects and monitor quality testing.

> **b** Download and install the Quality Center modules on the SBM Server. For details, see Installing and Registering Quality Center Modules in the *Development Manager Connector for HP Quality Center / ALM Implementation Guide*.

6 Optionally, if you want to use the Serena Dashboard for reporting purposes, install the components for the Serena Dashboard. For details see the *Serena Dashboard Installation and Configuration Guide.*

Preparing for the Installation

For a smooth and successful installation and configuration of the Serena Development Manager suite, prepare by gathering the information specified in the following sections.

- "Software Compatibility Requirements" on page 14
- "Database Requirements" on page 15
- "System Requirements" on page 16
- "Installation Planning Checklists" on page 16
- "Installation Planning for SBM Connector for HP Quality Center / ALM Integration" on page 16
- "Installing and Configuring the Serena Dashboard" on page 17

Before installing any of the products in the Serena Development Manager suite, please see their respective installation and configuration guides.

Software Compatibility Requirements

Supported Products and Versions

Supported versions of the products in the Serena Development Manager suite are specified in the Serena Release Plan in the product roadmap located at:

http://support.serena.com/roadmap/Product.aspx?sel=DEV_MANAGER_4.0

Before beginning the installation, make sure you have the correct versions of the software to install along with the documentation for those versions.

IMPORTANT! Development Manager requires SSO to be enabled.

Preparing for Serena Product Installation

Before you install the Serena Development Manager suite of products, make sure you have completed the prerequisites as follows:

- **Serena Business Manager**

  Before you install Serena Business Manager, please see the "Pre-installation Checklist" section of the *Serena Business Manager Installation and Configuration Guide*.

- **Serena Development Control**

You must complete the installation for Serena Business Manager before beginning the installation for Serena Development Control.

If you are installing the Development Manager Connector for HP Quality Center, you will need to install:

• HP Quality Center, version 10 or later

• The Quality Center modules. For details, see Installing and Registering Quality Center Modules in the Development Manager Connector for HP Quality Center / ALM Implementation Guide

■ **Dimensions CM**

If you are using Dimensions CM as a Configuration Management provider, Development Manager R4.0 requires Serena Dimensions CM.

NOTE If upgrading from an earlier version of Dimensions CM, you may need to carry out some changes to the process model. Please contact Serena Support for details.

■ **ChangeMan ZMF**

If you are using ChangeMan ZMF as a Configuration Management provider, Development Manager R4.0 requires Serena ChangeMan ZMF.

■ **Serena License Manager**

You need to install Serena License Manager to license and run Serena Business Manager and Dimensions CM. See "Installing Serena License Manager" on page 20.

■ **Common Supporting Files**

The installer for Serena Development Control automatically installs additional supporting software, such as a common Tomcat Web server.

Database Requirements

Before beginning the installation, you must have database systems installed and ready as follows:

■ **Serena Business Manager**

Serena Business Manager requires one of the following databases: Oracle or SQL Server. For details of required versions see the Supported Platforms tab at:

http://support.serena.com/roadmap/
product.aspx?sel=TEAMTRACK_10.1.1.2

■ **Serena Dimensions CM**

Dimensions CM requires one of the following databases: Serena-Supplied Runtime, Oracle, or SQL Server. For details of required versions see the Supported Platforms tab at:

http://support.serena.com/roadmap/
Product.aspx?sel=PVDIMENSIONS_12.2.1.1

System Requirements

This section includes references to the system requirements for each of the products installed as part of the Development Manager suite.

You should determine your organization's specific needs using the detailed documentation for SBM, Dimensions CM, and Quality Center as follows:

Product	System Requirements Location
Serena Business Manager	"Hardware Requirements" in *Serena Business Manager Installation and Configuration Guide*
Serena Development Manager	The Serena Business Manager requirements above address the requirements for Serena Development Control.
Serena Dimensions CM	- See the Dimensions CM Release Plan page for the supported version. - See the Dimensions CM Readme
Serena ChangeMan ZMF	"System Requirements" in Serena ChangeMan ZMF Installation Guide.
Quality Center	Ensure that you are running a supported version of Quality Centre, as indicated in the Serena Releas Plan. See *"Supported Products and Versions" on page 14.*

Installation Planning Checklists

Checklists and prerequisites worksheets for the installation and configuration are provided in the Serena Business Manager and Dimensions CM installation documentation. These include port numbers, IP addresses and hostnames of various servers, and DB names and information.

Installation Planning for SBM Connector for HP Quality Center / ALM Integration

For pre-requisites for the Quality Center integration, see the *Development Manager Connector for HP Quality Center / ALM Implementation Guide.* For HP Quality Center ALM consult your product documentation.

If you are using the Development Manager Connect for Quality Center, you will need to have HP Quality Center installed, and download and install the Quality Center modules on the SBM Server before running the Development Control Installer. For details, see Installing and Registering Quality Center Modules in the *Development Manager Connector for HP Quality Center / ALM Implementation Guide.* There are also some post-installation steps you will need to carry out.

Installing and Configuring Serena Requirements Manager

Serena Requirements Manager is a separately licensed option. For pre-requisites, installation and configuration details, see the *Serena Requirements Manager Installation Guide.*

Installing and Configuring Serena Release Manager

Serena Release Manager is a separately licensed option. For pre-requisites, installation and configuration details, see the *Serena Release Manager Installation and Configuration Guide.*

Installing and Configuring the Serena Dashboard

The Serena Dashboard is a separately licensed option. For pre-requisites, installation and configuration details, see the *Serena Dashboard Installation and Configuration Guide.*

Chapter 2
Installation

This chapter leads you through an installation of all of the components of Serena Development Manager.

Installation Order

Make sure you have completed your planning and performed the installation prerequisites documented in the preceding chapter.

Use the installation checklist and worksheets to help guide you through the installation processes.

The installation should proceed in the following order given unless you have the experience and necessity to do otherwise.

Installing Serena License Manager

You must install Serena License Manager to license and run Serena Business Manager and Dimensions CM. You apply the licenses for all of the products installed for the Serena Development Manager suite as part of the post-installation configuration. See .

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 Development Manager. You do need to do the following:

- Ensure that you are running a supported version of Serena License Manager as indicated in the Serena Development Manager Readme.

- After installing the rest of the products in the suite, follow the post-installation configuration instructions for applying licenses.

⚠ **CAUTION!** Do not attempt to adapt the existing SBM Process apps to use with Serena Development Manager. You should use the process apps supplied with Serena Development Control.

Please continue to .

New Serena License Manager Systems

Follow the instructions on installing Serena License Manager in either the Dimensions CM or Serena Business Manager documentation.

Documentation References

Complete documentation on installing Serena License Manager is in the following documents:

- *Serena Business Manager Licensing Guide*

- *Serena Dimensions CM and RM Installing the Serena License Manager*

Installing Serena Business Manager

Serena Business Manager must be installed before you can install Serena Development Control.

Existing Serena Business Manager Systems

If you already have an installation of Serena Business Manager to which you plan to add Serena Development Control, you do not need to install a new system for Serena Development Manager. You do need to do the following:

- Ensure that you are running a supported version of SBM as indicated in the Serena Development Manager Readme.

- If you have installed the Development Manager sample data with a previous version of SBM, it is advisable to remove it before upgrading. See "Removing the Sample Data from an Existing Installation" on page 74.

- After installing the rest of the products in the suite, follow the post-installation configuration instructions for SBM.

Please continue to "Installing Serena Development Control" on page 22.

New Serena Business Manager Systems

Before you install Serena Business Manager, please see the "Pre-installation Checklist" section of the *Serena Business Manager Installation and Configuration Guide*.

Documentation References

Complete documentation on installing Serena Business Manager is in the *Serena Business Manager Installation and Configuration Guide*.

Installing Dimensions CM

Existing Dimensions CM Systems

If you already have an installation of Dimensions CM that you plan to use as the Serena Dimensions CM, you do not need to install a new system for Serena Development Manager.

This version of Serena Development Manager requires Dimensions CM 12.2 or later in order for Dimensions CM to provide the correct process model. It is possible to upgrade a Dimensions CM 12.1 installation to 12.2, but you will need to carry out some changes to the process model. Please contact Serena Support for details.

You do need to do the following:

- Ensure that you are running a supported version of Dimensions CM as indicated in the Serena Development Manager Readme.

- If you have installed the Development Manager sample data with a previous version of Dimensions CM, it is advisable to remove it before upgrading. See "Removing the Sample Data from an Existing Installation" on page 74.

- If you want to use Single Sign On (SSO) you will need to make sure it is enabled for Dimensions CM. For configuring SSO if not already enabled, see *Dimensions CM Support for SSO* in the *Dimensions CM Administrator's Guide*.

- After installing the rest of the products in the suite, follow the post-installation configuration instructions for Dimensions CM.

New Dimensions CM Systems

Before you install Dimensions CM, please see the "Fresh Installation Checklist" section of the *Dimensions CM Installation Guide for Windows* or the *Dimensions CM Installation Guide for Unix*.

If you want to use Single Sign On (SSO) you should install SBM and the SSO server and then enable SSO during the installation of Dimensions CM to point Dimensions CM to the SSO server.

Documentation References

- Complete documentation on installing Dimensions CM is in the *Dimensions CM Installation Guide for Windows* and the *Dimensions CM Installation Guide for Unix*.

- Complete documentation on configuring SSO is in the *Dimensions CM Administrator's Guide* in "Dimensions CM Support for SSO".

Installing ChangeMan ZMF

ChangeMan ZMF can optionally be used as the Configuration Management tool for your development tasks.

Documentation References

Complete documentation on installing ChangeMan ZMF is in the ChangeMan ZMF Installation Guide.

Installing Serena Development Control

The Serena ALM Suite installer copies necessary files to the SBM installation directory path. The files copied include the Java war files and the SBM solution file. Serena Development Control needs to be installed on the machine where the SBM Server is installed in order to import the solution file. It is recommended for performance reasons, however, that the Development Manager web services be installed on the server where Dimensions CM is installed.

Before Running the Installer

Before running the ALM Suite installer to install Development manager, please read the following sections. Also please read the sections:

- "Installation Issues" on page 113

- "Upgrading Issues" on page 117

Upgrading

If you are upgrading from an existing version of Development Manager, you will need to uninstall it before installing this version.

If you have installed the sample data for SBM or Dimensions CM, you will need to remove these databases before running the installer for Development Manager 4.0. See "Removing the Sample Data from an Existing Installation" on page 74.

You will also need to perform some of the configuration steps after running the installer. These are described in the configuration section. For details, see "Upgrading an existing installation of Development Manager to 4.0" on page 31.

HP Quality Center

If you are using the Development Manager Connect for Quality Center, you will need to have HP Quality Center installed, and download and install the Quality Center modules on the SBM Server before running the ALM Suite Installer. For details, see Installing and Registering Quality Center Modules in the *Development Manager Connector for HP Quality Center / ALM Implementation Guide*. There are also some post-installation steps you will need to carry out.

You will also need to select a custom install and select the Quality Center Connector, as this option is not selected by default.

Remote Desktop Installation

When installing Development Control via Remote Desktop access to a Windows 2003 system, installation may fail if you include the Connector to Quality Center option. To avoid this issue, run Remote Desktop in Console or Administration mode by running one of the following commands:

```
mstsc /admin
```

or

```
mstsc /console
```

Specifying Configurator SSO Support in the ALM Installer

It is advisable to only select the option Configurator SSO Support and configure the SSO details on the first occasion that you run the ALM Suite Installer. When you run the installer on subsequent occasions, you should choose a custom install and deselect this option. If you configure these details more than once, SSO may not function correctly

Also you should not use *localhost* for the server name but specify the name of the actual server.

Running the Installer

To install Serena Development Control:

1   On the SBM Server, run the Serena ALM installer executable, `ALM.exe` or `ALM 64-bit.exe` depending on your server type.

You may be asked to install Windows Installer 4.5, in which case:

a   Click **Install**.

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

The Serena ALM Welcome page appears.

2   Click Next.

The License page appears.

3   Confirm and click Next.

The Destination Folder page appears.

4   Accept or change the destination folder. This should be the location where SBM is installed. For example if SBM is installed in `C:\Program Files\Serena\SBM`, it should be:

`C:\Program Files\Serena\Solutions\`

5   Click Next.

The Setup Type page appears.

> **NOTE** Specifying Configurator SSO Support in ALM Installer:
>
> It is advisable to only select the option Configurator SSO Support and configure the SSO details on the first occasion that you run the ALM Suite Installer. When you run the installer on subsequent occasions, you should choose a custom install and deselect this option. If you configure these details more than once, SSO may not function correctly
>
> Also you should not use localhost for the server name but specify the name of the actual server.

If you want to change any of the options to be installed:

a   Select Custom.

    b Click Next.
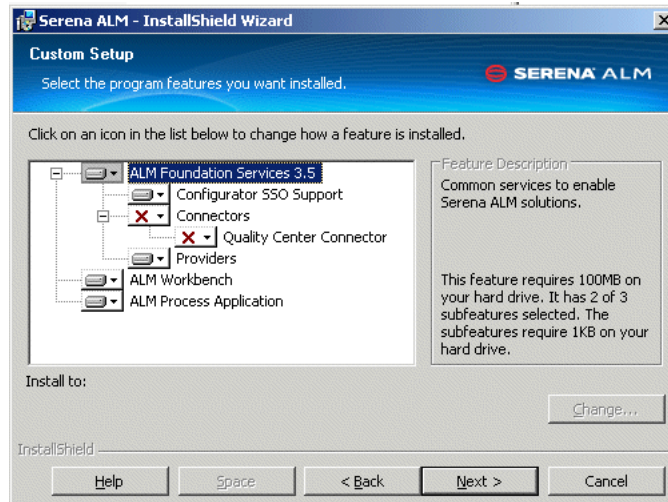
    c On the Custom Setup page, select or deselect the required item(s).

6 Click Next.

7 The Configuration Details page appears..
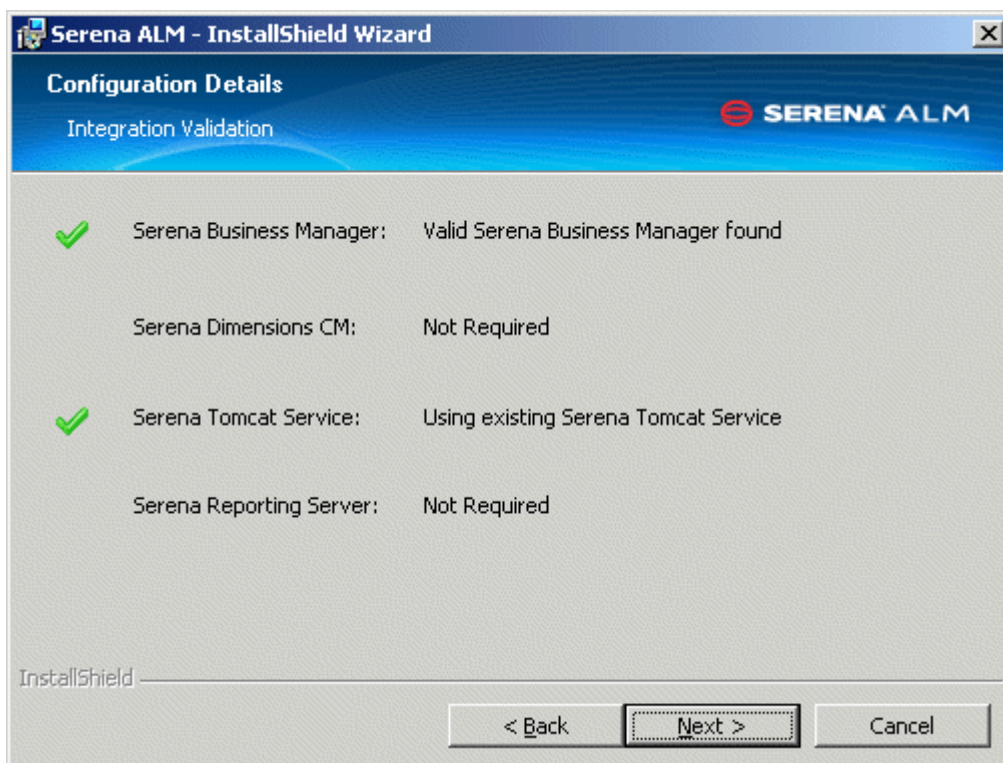
The installer checks whether a valid version of SBM and the Serena common Tomcat Web server are installed. It installs Tomcat if needed.

8 Click Next.

If you have selected this option, the Serena Single Sign On page appears.

9 Enter the details for the server to use for SSO, and change the port number if required.

10 The *Ready to Install* page appears.

11 Click **Install**.

A page appears informing you files are being copied.

If you have chosen to install the Quality Centre connector, after a short time, a *Welcome to the InstallShield Wizard for Serena Connector for HP Quality Centre* appears.

a Click Next.

b Accept the License agreement and click Next.

c Select the version of SBM that you have installed.

```
┌─Installed SBM Version──────────┐
│                                │
│  ○  SBM 2009 R3 or earlier     │
│                                │
│  ○  SBM 2009 R4                │
│                                │
│  ⦿  SBM 10.1 or later          │
│                                │
└────────────────────────────────┘
```
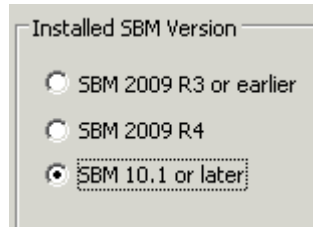
d Click Next.

e On the *Ready to Install Program* page, click **Install**.

f Some files are copied and then an InstallShield Wizard Completed page appears.

g Click Finish.

12 The Installation Summary page appears.
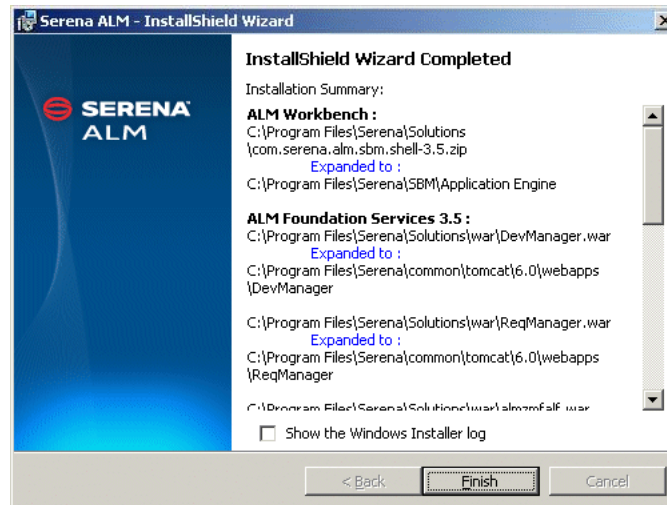
13 This informs you what components have been installed and their location.

14 Click Finish.

The installer does the following:

■ Copies the various `.war` files for Serena ALM to the `webapps` folder for the Tomcat Web server and restarts Tomcat

■ Copies the ALM Solution pack solution file to the `solutions` folder for the Serena Common JBoss.

To check that DevManager is installed into Tomcat, enter the URL:

```
http://<servername>:8080/alm/config/alm
```

in a web browser.
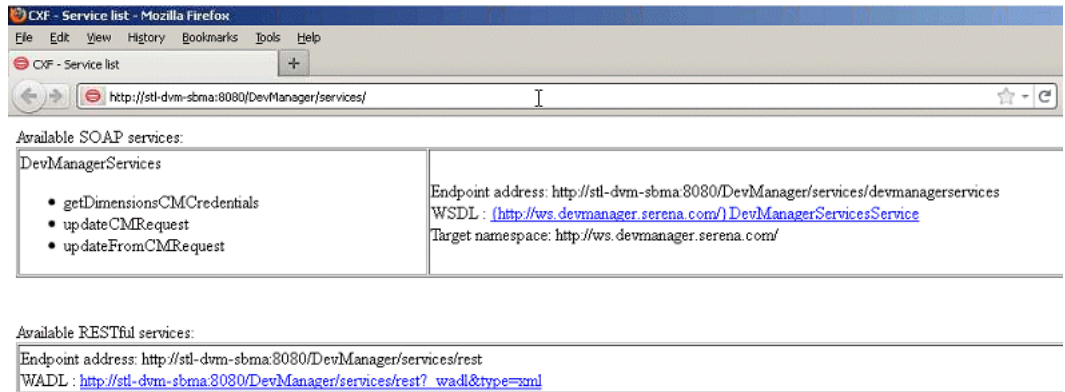
Chapter 3

Development Manager System Configuration

This chapter tells you how to configure your system after you have completed installing all of the products in the Serena Development Manager suite. This enables the communication between the products within Serena Development Manager.

System Configuration Overview

Overview of Configuration Steps

The steps that need to be performed to configure Serena Development Control can be summarized as follows:

Preliminary Steps

■ Install the UI shell files. See "Importing the Files for the UI Shell" on page 33.

■ Apply Licenses. For details, see "Applying Licenses" on page 34.

Import and Promote the Snapshots

You will need to import the solution file and promote and deploy the process apps. If you are upgrading, you will need to undeploy the previous versions. For details, see "Importing and Promoting the Snapshots" on page 35. The steps include:

■ Import the Solution File in SBM Application Administrator. For details, see "Importing and Promoting the Serena ALM Snapshots" on page 35.

■ Promote the snapshots. For details, see "Promoting the Snapshots" on page 40.

■ Deploy the process apps. For details, see "Deploying the Process Apps" on page 45

Set Privileges

You need to create the users required for Development Manager and make sure they have the necessary roles. The steps, which are described in "Creating Users and Assigning Privileges" on page 48, include:

■ Create the "service" user that connects SBM and the other components used in the orchestration. For details, see "Creating the Service User" on page 48.

■ Create the users for the roles in the Development Manager workflows and make sure all roles in the projects are assigned to at least one user. For details, see "Creating and Assigning the Users" on page 49.

Configure Connections

■ You will need to configure the connections to the various components you will be using with Development Manager. For details see "Configuring Connections" on page 53.

Configure the Process Applications

■ Update the Endpoints for the environment. See "Updating the Endpoints" on page 66.

■ If necessary, update the connection details. See "Updating the Connection Details in the Workflows" on page 68.

■ If you are not using the default port number for the web services, perform the steps described in "Updating the Port Numbers for the Web Services" on page 71.

■ If you are using ZMF as a configuration management provider, perform the steps described in "Configuring the ChangeMan ZMF Web Page Widgets" on page 73.

- Republish the changes you have made, see "Republish the Process Apps" on page 74.

Configure Dimensions CM

If you are using Dimensions CM as a Configuration Management provider, carry out the steps described in Chapter 4, "Configuring Dimensions CM" on page 85, which include:

Configure ChangeMan ZMF

If you are using ChangeMan ZMF as a Configuration Management provider, carry out the steps described in Chapter 5, "Configuring ChangeMan ZMF" on page 95.

Configure HP Quality Center

If you will be using HP Quality Center to track defects and monitor quality testing, perform the steps described in the *Development Manager Connector for HP Quality Center / ALM Implementation Guide.*

Installation and Upgrade Scenarios

There are a number of scenarios for how you might want to install and configure Development Manager 4.0 depending on whether you are upgrading and whether you are also using Requirements Manger.

See the following sections according to whether you are upgrading of performing a clean install:

- "Upgrading an existing installation of Development Manager to 4.0" on page 31

- "Performing a new installation of Development Manager 4.0" on page 32

See the following sections according to how you will be using Development Manager:

- "Installing Development Manager and Requirements Manager at the Same Time" on page 32

- "Installing Development Manager Without Installing Requirements Manager" on page 32

- "Installing Requirements Manager without installing Development Manager" on page 32

- "Configuring Development Manager when you Have Previously Installed a Stand-alone Version of Requirements Manager." on page 32

- "Configuring Requirements Manager when you Have Previously Installed a Stand-alone Version of Development Manager 4.0." on page 33

These sections give a high-level view of which steps to carry out for each of these scenarios.

Upgrading an existing installation of Development Manager to 4.0

If you are upgrading from an existing installation of Development Manager, you will need to uninstall it before running the installer. Also, if you have installed the sample data for SBM or Dimensions CM, you will need to remove these databases before running the installer for Development Manager 4.0. See "Removing the Sample Data from an Existing Installation" on page 74.

You will then need to carry out the configuration steps described in the sections below, taking note of the section "Which Process Apps Should I Promote and Deploy?" on page 39:

- "Importing the Files for the UI Shell" on page 33

- "Import and Promote the Snapshots" on page 30

  You will need to be aware of the issues "Create Dev CR Button not Appearing After Upgrade" on page 117, and "Error Promoting Dev Change Requests Snapshot (DEF217760)" on page 118.

- "Configure the Process Applications" on page 30

Performing a new installation of Development Manager 4.0

After carrying out the installation, carry out the steps described in "Overview of Configuration Steps" on page 30 below, taking note of the section "Which Process Apps Should I Promote and Deploy?" on page 39. Then, depending on whether or not you are using Requirements Manager, see the corresponding section below:

- Installing Development Manager and Requirements Manager at the Same Time

  or

- Installing Development Manager Without Installing Requirements Manager

Installing Development Manager and Requirements Manager at the Same Time

After performing the steps above for either Performing a new installation of Development Manager 4.0 or Upgrading an existing installation of Development Manager to 4.0, you will also need to consult the *Serena Requirements Manager Installation and Configuration Guide* for details on configuring Requirements Manager.

Installing Development Manager Without Installing Requirements Manager

After performing the steps above for either Performing a new installation of Development Manager 4.0 or Upgrading an existing installation of Development Manager to 4.0, you will then need to carry out the steps described in "Configuring a Stand-Alone Development Manager Installation" on page 75.

Installing Requirements Manager without installing Development Manager

For details, see the *Serena Requirements Manager Installation and Configuration Guide.*

Configuring Development Manager when you Have Previously Installed a Stand-alone Version of Requirements Manager.

You will need to promote and deploy the additional process apps for Development Manager:

- Dev Control Orchestrations

- Dev Tasks

- Dev Change Requests

- Dev Packages

- Quality Center Connector (if you are using Quality Center)

- Global Process App (eval)

- RLM_AUX

See "Importing and Promoting the Snapshots" on page 35 for details.

You will then need to perform any necessary configuration steps described in:

- "Creating Users and Assigning Privileges" on page 48

- "Configuring the Process Applications" on page 65

- "Removing the Sample Data from an Existing Installation" on page 74

Then you will need to perform the steps described in "Adapting an Existing Stand-alone Requirements Manager Installation for use with Development Manager" on page 81.

Configuring Requirements Manager when you Have Previously Installed a Stand-alone Version of Development Manager 4.0.

For details of configuring Requirements Manager, see the *Serena Requirements Manager Installation and Configuration Guide.*

Preliminary Configuration Steps

Serena Development Control is a a collection of process applications that run in SBM. Before you can use Serena Development Control, you must configure it as documented in this section.

Importing the Files for the UI Shell

The installer includes some files that provide enhancements to the SBM-based UI to provide a common user-friendly look and feel for the Serena ALM suite of products. You will need to add them to the database by performing the following steps.

> **NOTE** These steps need to be performed before you promote the snapshots so that SBM will promote and deploy the correct template files.

Importing the UI Shell Files

1 Stop the Serena Common JBoss and IIS:

    a Open SBM Configurator: Serena | Serena Business Manager | SBM Configurator

b Select the **Manage Services** tab on the left
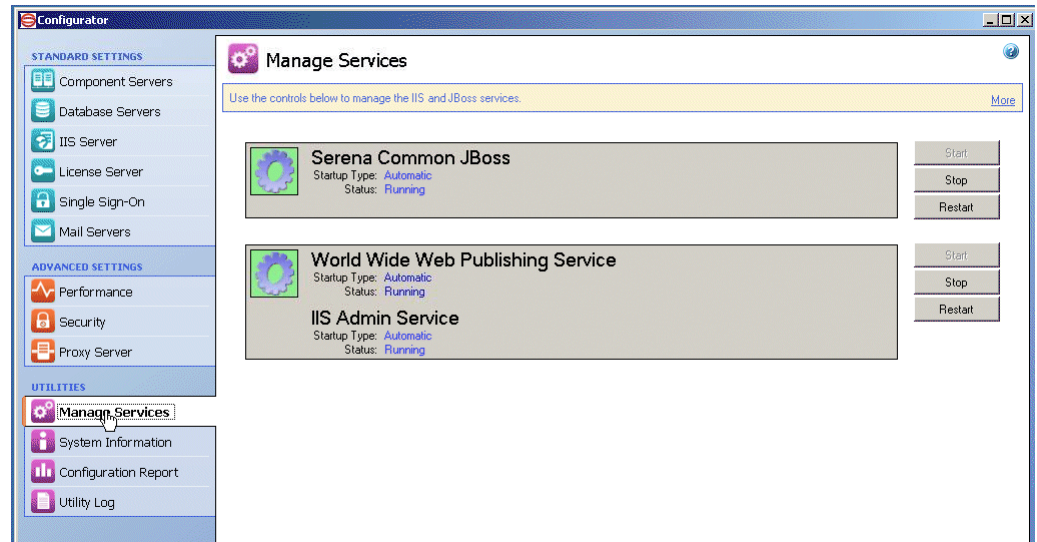
c Click the **Stop** buttons for Serena Common JBoss and IIS.

2 Update database with the new images and settings:

a Open SBM system Administrator.

b Select **File** | **Put Files Into Database.**
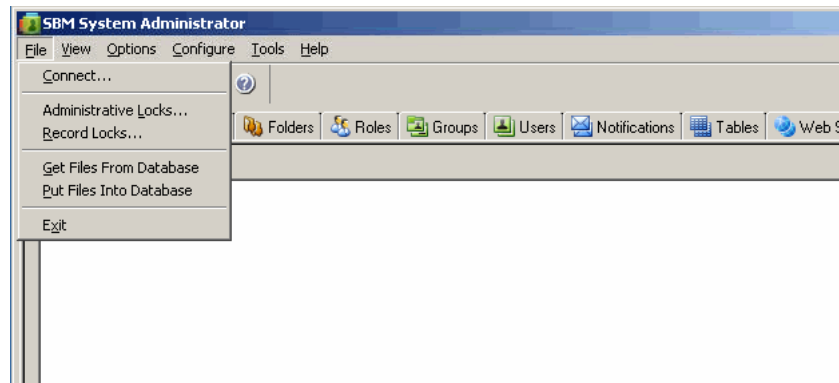
c Click **OK** in the dialog box.

The files and templates are imported.

3 Start the Serena Common JBoss and IIS:

Open SBM Configurator, Select **Manage Services**, and click the **Start** buttons for Serena Common JBoss and IIS.

Applying Licenses

Before you can use the Serena products in a production environment, you must apply licensing. If you are evaluating the products, temporary licensing is available.

Use the following methods to apply licenses for the Serena Development Manager suite of products.

- **Serena Development Control**: Use Serena License Manager to apply licenses for Serena Development Control.

■ **Serena Dimensions CM**: Use Serena License Manager to apply licenses for Serena Dimensions CM.

Documentation References

■ Complete documentation on applying licenses for Serena Development Control, an SBM process app, is in the *Serena Business Manager Installation and Configuration Guide*.

■ Complete documentation on applying licenses for Serena Dimensions CM is in the *Serena Dimensions CM Administrator's Guide* in "Administering Your Licenses and the License Server".

Importing and Promoting the Snapshots

Checking the Admin User Privileges

In order to carry out these tasks, you need to check that the user you are using for the administrative tasks has the necessary permissions to deploy and undeploy applications, import solutions, view and edit process applications. Use the SBM System Administrator to ensure that these privileges are granted. The Admin user should have these privileges by default. For details, see the *Serena Business Manager System Administrator Guide*

Importing and Promoting the Serena ALM Snapshots

The Serena ALM suite of Application is packaged as an SBM solution file which includes the following:

■ Runtime configuration information

■ Reports

■ Notifications

■ Auxiliary table information

The following procedures are documented here to help you through the Development Manager-specific configuration process. For detailed documentation on promoting process apps, see the *Serena Business Manager Application Administrator Guide.*

> **NOTE** The procedures here that are carried out in SBM are described in relation to SMB 2009 R4.03. In SBM 10.1 the Application Administrator is now called the Application Repository. The steps however, will be much the same.

To use the application, you must import the solution to SBM as follows:

1 Open SBM Application Administrator:

Select Start | Serena | Serena Business Manager | SBM Application Administrator

2 Enter your login details.

3 Click **Solutions** in the navigation pane under **Deployment**.

The solution pack is listed.
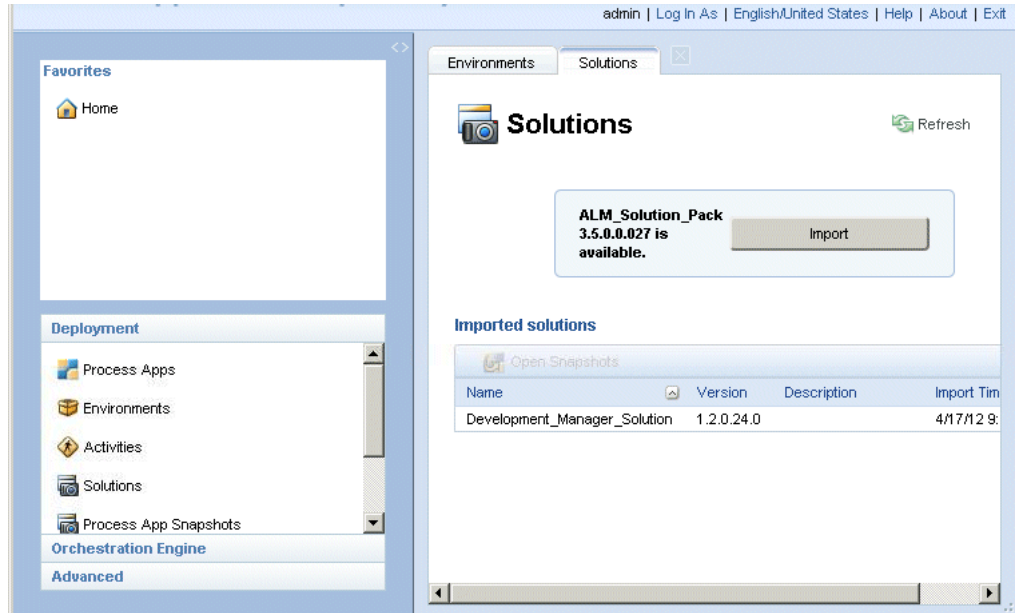
4 Click the **Import** button to import the solution file and extract the solution's snapshots and process apps.
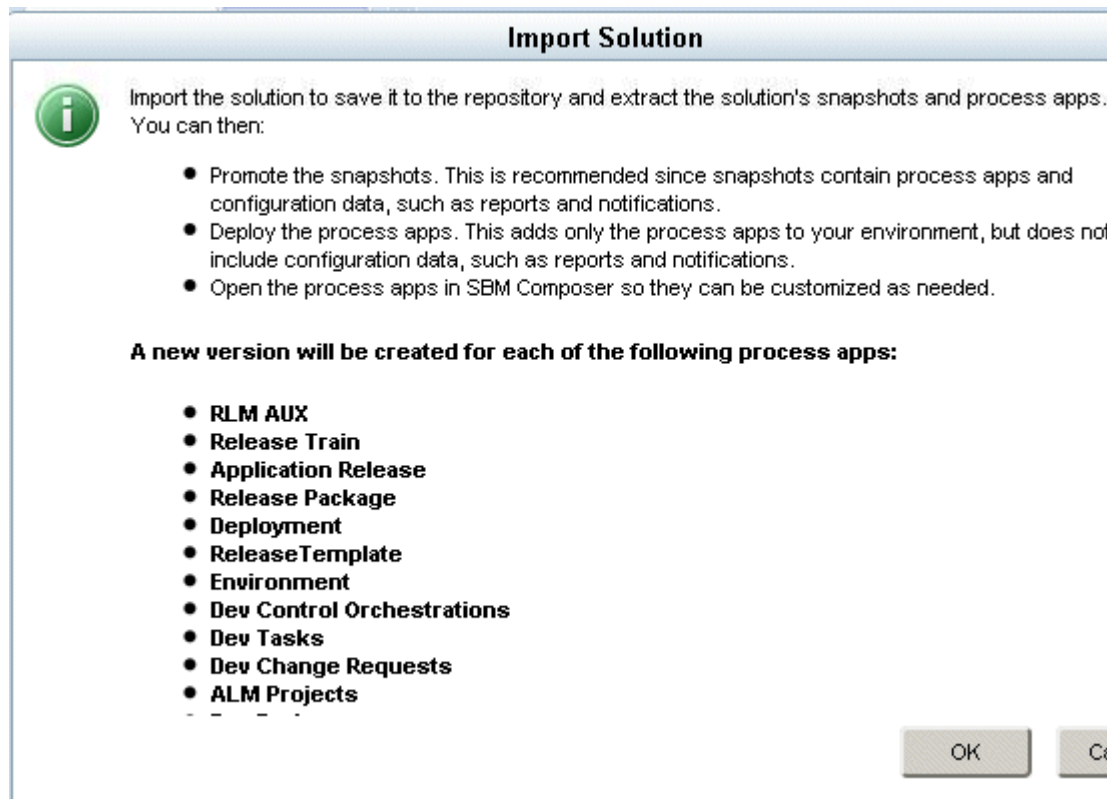
An Import Solution dialog box appears, explaining which snapshots and process apps will be imported with the solution.

5 Click OK.

Selecting the name of the solution and clicking **Open Snapshots** shows all the
process app snapshots for Serena ALM:
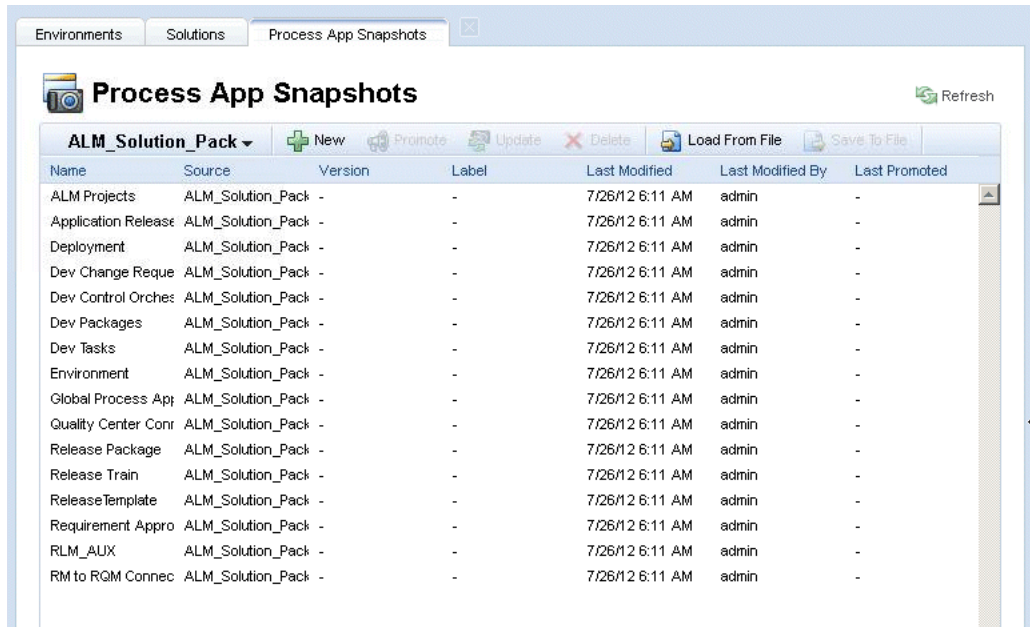
Creating a Default Environment

You will need to create an environment for your Serena Development Control process
application unless you are promoting it into an existing environment. If you wish to use an
existing environment, you can skip this section.

After you create the environment, you must set up a BPEL engine and SBM event
manager for that environment.

To create the default environment:

1   From the SBM Application Administrator navigation pane, click Environments.

2   Click New above the list.

The New Environment dialog appears.

3   Fill out the form for the new environment as follows:

a   Enter a name and description.

b   For Composer, select **Enable Development Deployment**.

c   Under Application Engine Server, enter a name and description.

d   In the URL, change the server to *localhost* and specify the port number for the
server. For example:

```
http://localhost:80/gsoap/gsoap_ssl.dll?sbminternalservices72
```

4   Click Test Connection to test the connection.

5   Click OK to save the environment.

To set up the target servers, the BPEL engine and the event manager:

1 Select the new default environment and then select the Target Servers tab.

2 Click New.

3 The New Target Server dialog appears.

4 Fill out the form as follows:

    a In the Type field, select BPEL Server (JBPM).

    b Name the server, for example: DVM BPEL Server.

    c Enter the URL using *localhost* as the hostname.

       Port 8085 is the default, unless you specified a different port in the Configurator for your JBOSS server.

> 💡 **TIP** Above the URL field, click **View Examples** and select from the examples. In the URL field, change the hostname and port.

    d Click **Test Connection** to test the connection.
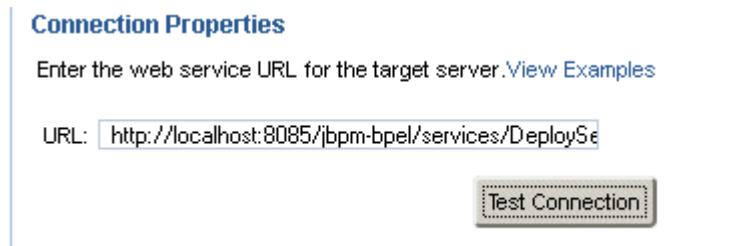
    e Click OK.

5 Repeat Step 2 to Step 4 above for SBM Event Manager, with Type set to System Event Manager.
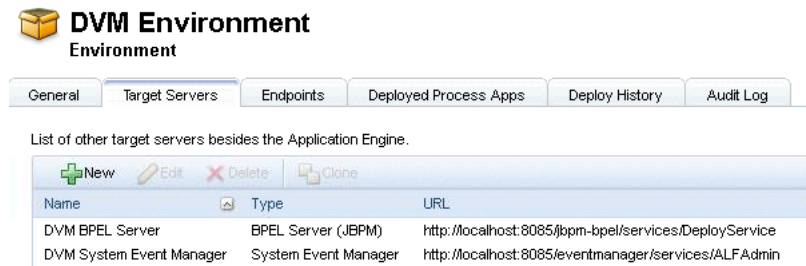
Which Process Apps Should I Promote and Deploy?

The following sections describe how to promote and deploy the required process apps for the implementation of Development Manager and/or Requirements Manager that you will be using. Note that promoting differs from deployment because it transfers environment-specific data such as roles, assignments, reports etc. For details of promoting and deploying, see the SBM Application Repository Guide.

Because there are shared process apps between Requirements Manager, Release Manager, and Development Manager, you will not necessarily promote and deploy all of the process app snapshots contained in the solution file. The table below indicates which ones are required for your combination of the orchestrations.

Snapshot Name	Requirements Manager	Development Manager	Release Manager	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		
Dev Packages		X		
Quality Center Connector		X		
Global Process App		X		
Requirements Approval Management	X	X		
RM to RQM Connector	X	+RQM		

NOTES:

X = Required

+RLM = Required for integration with Release Manager

+RQM = Required for integration with Requirements Manager

+DVM = Required for integration with Development Manager

1 You must create the ReleaseRequestService endpoint before promoting this snapshot. See Creating the ReleaseRequestService Endpoint. See "Creating the ReleaseRequestService Endpoint" on page 43.

2 ALM Projects must be promoted before these snapshots because they depend upon the DVMUtilService endpoint that is created by ALM Projects.

3 You must manually select the DVMUtilService endpoint when promoting these snapshots.

Consult the *Requirements Manager Installation Guide* and the *Release Manager Installation and Configuration Guide*for information about configuring these applications.

Promoting the Snapshots

You must promote each of the eight snapshots.

NOTES

You should promote ALM Projects first, because it creates the DVMUtilService endpoint that is required for Dev Control Orchestrations and Dev Change Requests.

When promoting Dev Control Orchestrations and Dev Change Requests DVMUtilService endpoint is not selected by default, so it is necessary to select it on the Mappings page. See Step 7 on page 42.

To promote a snapshot:

1 Click Solutions in the navigation pane.

2 Select the solution and click Open Snapshots.

The list of snapshots appears.

3 Select a process app and click Promote.

The Summary page appears.

4   Click on the Destinations field.
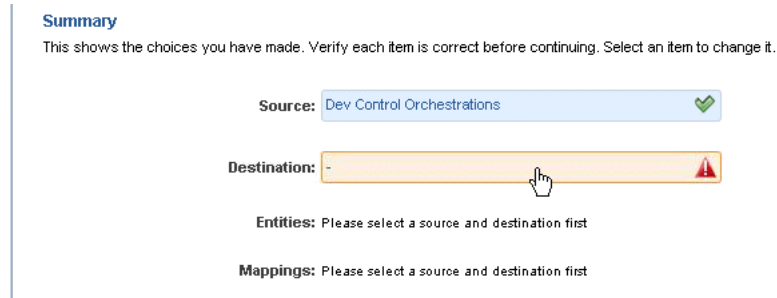
The Destinations page appears.

5   Select the environment you created above.

6   Click Next.

The Entities page appears.

- Make sure the option **Merge Conflicts** is selected.
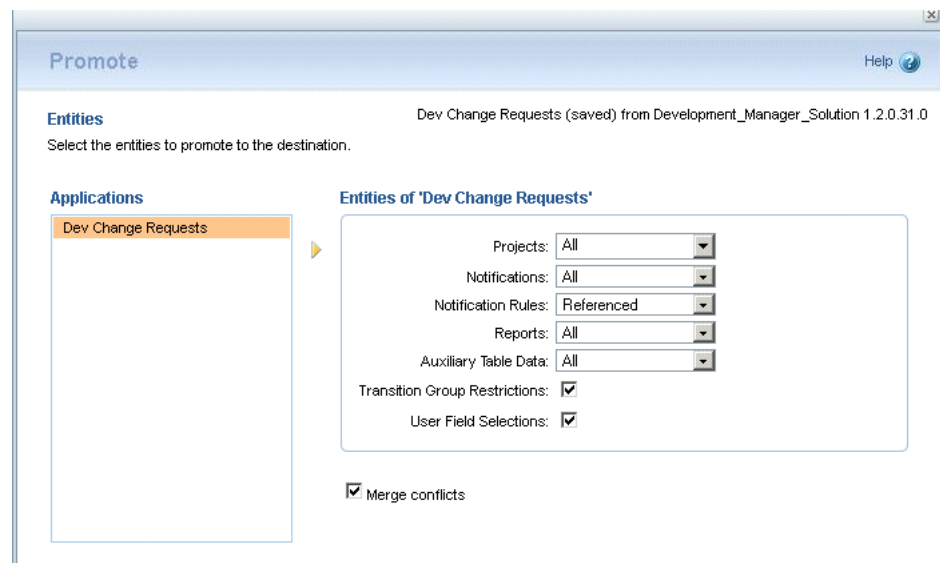
- For the *Dev Change Request* process app, if you are upgrading a previous version of Development Manager:

  This has a predefined project that is created as an example. This project could cause a conflict during promotion, so if you do not need this project, or the promotion fails because of this project, you should select **None** for **Projects** for this process app. For details, see "Error Promoting Dev Change Requests Snapshot (DEF217760)" on page 118.

- For the *Global Process App (eval)* only, select:

  Groups: None

Users: None

7 Click Next.

The Mapping page appears.

> **NOTE** For the Dev Control Orchestrations snapshot, make sure the correct endpoint is selected if you have already installed Requirements Manager:
>
> **a** Click the **Choose Destination Endpoints** button.
>
> **b** Select rtmService (not rtmService_2)

> **NOTE** Some endpoints may be missing and need to be selected. See the issue "Missing Endpoints (DEF221077, DEF225893)" on page 125.

8 Click Done.

The Summary page appears.

Note: Make sure **Verify endpoints before continuing** is **not** checked.

9 Click **Promote**.

The Promotion Started page appears.

10 Click Show Activities or View Log to see the results.

> **NOTE** When promoting the process apps, you may see Unable to create field warning messages. For example:
>
> ```
> WARN -- Unable to create field 'alm_Originating Baseline' in
>     table 'Dev Packages' because relational table 'Related Vault
>     Baselines' is not defined.
> ```
>
> Such messages will not affect the success of the promotions or the functioning of Development Manager, and can be ignored.

11 Repeat Step 3 thru Step 10 for each snapshot.

Creating the ReleaseRequestService Endpoint

Creating ReleaseRequestService endpoint:

12 Open the ALM Configurator and select the **List Services** tab.

13 Note the URL for the ReleaseRequestService endpoint.

14 Open SBM Application Repository and navigate to Environments | <Your Environment> | Endpoint.

15 Create the `ReleaseRequestService` endpoint using the URL you noted above and selecting **Security Token** for **Authentication**.

Deploying the Process Apps

IMPORTANT! When deploying the process apps you need to do so in the following order:

1 Global Process App (eval)

2 Requirements Approval Management (if you are using Requirements Manager)

3 ALM Projects

4 Dev Change Requests

5 Dev Tasks

6 Dev Package

7 Dev Control Orchestrations

8 Quality Center Connector (if you are using HP Quality Center)

9 RM to RQM Connector (if you are using Requirements Manager)

10 Release Train (if you are using Release Manager)

11 Application Release (if you are using Release Manager)

12 Release Package (if you are using Release Manager)

13 Deployment (if you are using Release Manager)

14 Environment (if you are using Release Manager)

15 ReleaseTemplate (if you are using Release Manager)

16 RLM_AUX

17 Vault_Request (if you are using Release Manager)

If you receive an error when deploying a process app it is likely that it contains references to another process app that needs to be deployed before it.

NOTES If you are installing a stand-alone version of Development Manager (you are not using Requirements Manager) perform the steps described in "Hiding the Requirements Manager-related Forms" on page 76 and "Removing Requirements Manager-related Columns from Report Definitions" on page 77

To deploy a process app:

1 Open SBM Composer

2 Open the Process App.

3   Click the Deploy button on the toolbar.
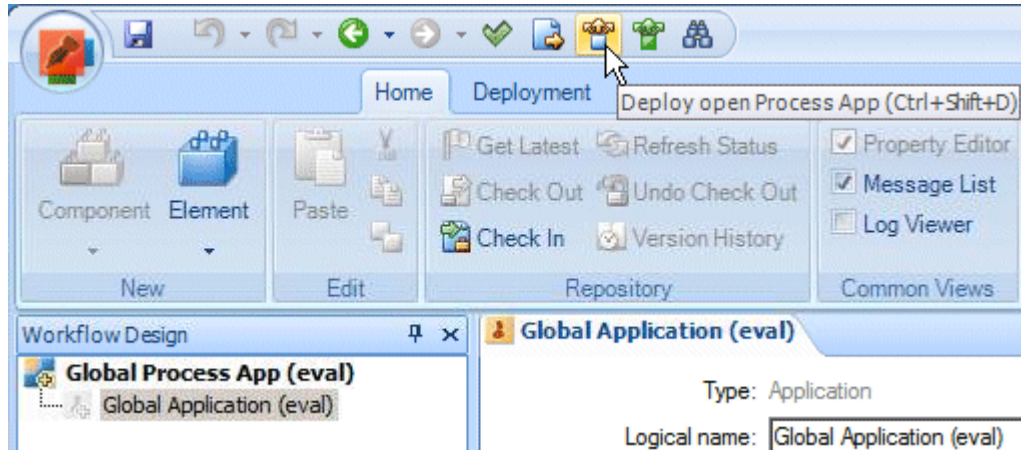
You may receive a message informing you that certain process apps need to be deployed first.
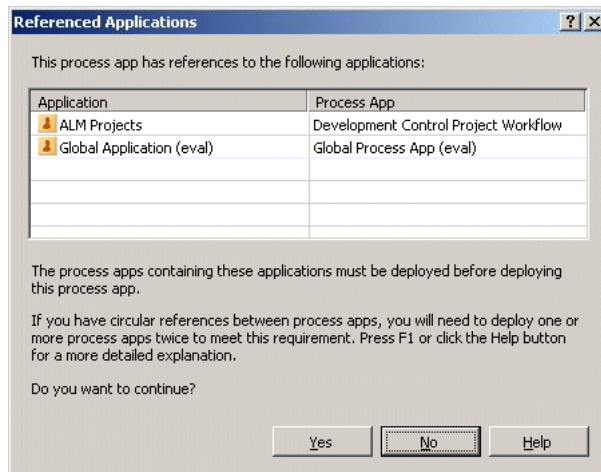
If you have already deployed the applications mentioned, click **Yes**.

4   In the Deploy Process App menu, select the environment you created above
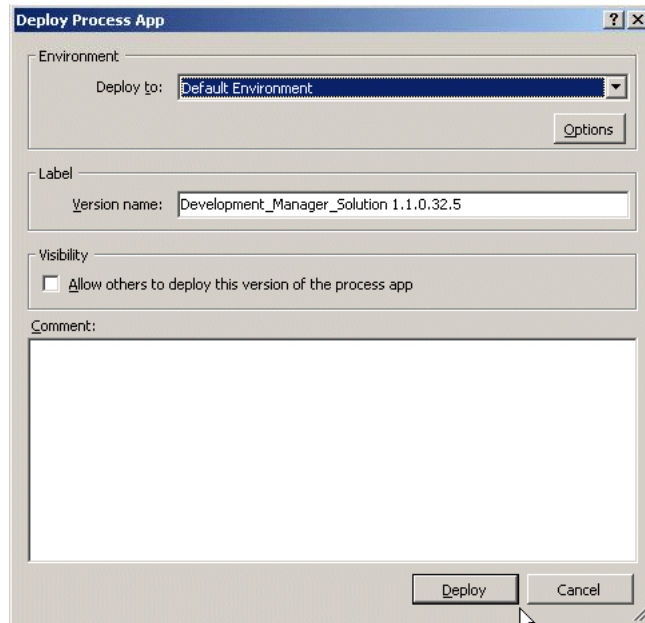
5   Click Deploy.

6   To view the status of the deployment, see the message list.
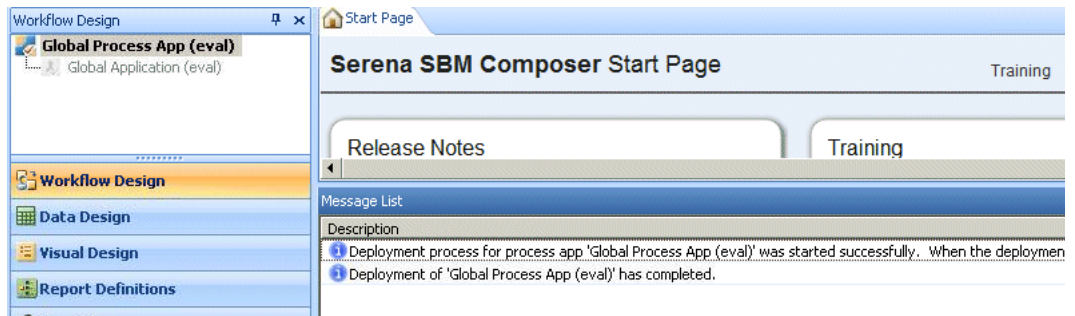
You can also use the Deploy and Quick Deploy buttons on the toolbar.
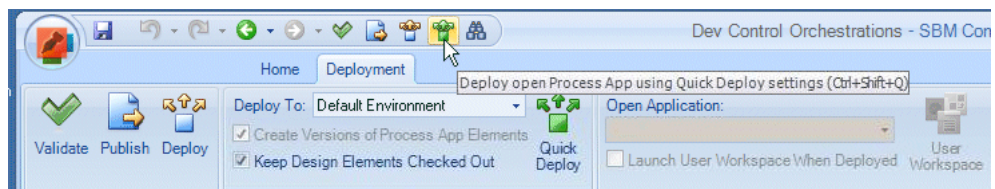
7   Check in the elements of the process app by right-clicking it and selecting **Check In**. Click OK in the Check In dialog box.

For further details of working with process apps, see the SBM Composer Guide.

Creating Users and Assigning Privileges

You need to create users and assign any necessary privileges on the SBM server. You will also need to create and assign the necessary users in Dimensions CM and/or ChangeMan ZMF. These steps are covered in "Configuring Dimensions CM" on page 85 and "Configuring ChangeMan ZMF" on page 95.

Logging into the SBM Administrator Portal

To log into the SBM Administrator Portal:

1   Enter the following URL in a browser:

   `http://<hostname>/tmtrack/tmtrack.dll?shell=alm`

2   Click the arrow next to your user name at the top right of the UI, and select **Administration Portal**
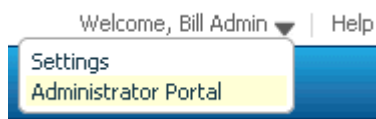
Creating the Service User

You must create and assign a specific user as owner for the login credentials for the Development Manager orchestrations that connect SBM to Dimensions CM or ChangeMan ZMF. This user needs to be created in SBM and also exist in Dimensions CM and/or ZMF.

By default, the orchestrations in Development Manager are configured to use *serviceuser as the user, and serviceuserpassword* as the password.

To create the sevice user:

1   Log into the Administrator Portal.

2   Click **Users** in the main window.

3   Add a new user specifying the following properties:

   ■   **Login ID**: The default used by the process apps is *serviceuser*. You can specify a different user name, in which case you will need to update this in the process apps.

   ■   **Password**: The default used by the process apps is *serviceuserpassword*. You can specify a different password, in which case you will need to update this in the process apps.

   ■   **Product Access**: Set this to *Managed Administrator*.

   ■   **System Privileges**: Set this to *All*.

4   Select **Roles**.

5   For each project:

   a   Select the desired project in the Projects area.

b In the bottom pane, select the desired role Administrator and the checkbox under the user.

Do this for:

- ALM Projects
- Dev Change Requests
- Dev Packages
- Dev Tasks
- RQM

6 Select **Membership** and add the user to the *Everyone* group.

7 Save your changes.

You need to give the service user all privileges to the Serena Development Manager objects, such as projects, reports, and tables.

1 Select the service user.

2 Select Edit.

3 On the Privileges tab, select the Table tab and select all privileges for the following tables:

- Baselines
- Quality Connector
- Requirements
- RM Server Connections

4 On the Administration tab, select the tables tab, and select all privileges for the tables.

5 Select the System tab below.

6 Select **Global Administration** and click OK.

Creating and Assigning the Users

Each role in each application must have at least one user assigned to it for the applications to function. To make the initial checking of the configuration of Development Manager more straightforward, you can assign these roles to a single administrative user, such as Bill Admin. The projects are:

- Dev Tasks Project
- ALM Projects
- Dev Change Requests Project
- Dev Package Project

For the example scenarios you need to set up the following users and assign the corresponding roles in each of the projects for which those roles exist:

- Mira: Project Manager

- Matt: Business Analyst

- Kaci: Product Owner

- Josh: Development Manager

- Emma: Development Engineer

- Amy: Build Manager

- Alexander: Build Engineer

- Dinesh: QA Manager

- Ashley: QA Engineer

- Dave: Release Manager

- Oscar: Release Engineer

- serviceuser: Administrator

For example, You would carry out the following steps for user Josh:

1 Log into SBM Administrator as an administrative user who has privileges to update usersby entering the following URL in a browser

    http://<hostname>/tmtrack/tmtrack.dll?shell=alm

2 Click the arrow next to your user name at the top right of the UI, and select **Administrator Portal**
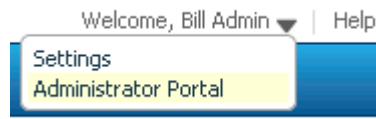
3 Click **Users** in the main window.

4 Click Add, and enter the details for the user, selecting the option **Regular User**.:

5 Click **Save**.

6 Double-click the name of the user.

7 Select **Roles**.

8 Double-click *Base Project*.

9 Select a project and select the required role in the list below. For example for Josh the Development Manager, select Development Manager.
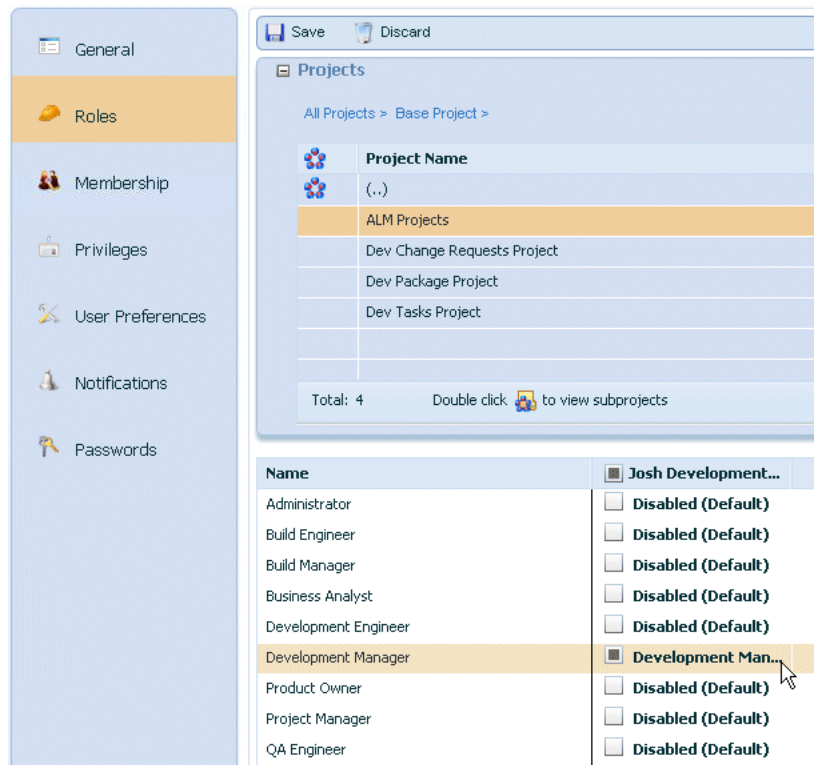
Also select the *User* role.

10 Repeat the previous step for each of the projects where the role is listed.

11 Click **Save**.

Setting Privileges for the ALM_USER_SETTINGS Table

All users that will use ALM Suite UI need to have privileges for ALM_USER_SETTINGS auxiliary table.

1 Under Groups, select the Everyone group.

2 Select Tables, and select the ALM_USER_SETTINGS table.

3 Select Submit, Update and View under Grant Privileges.
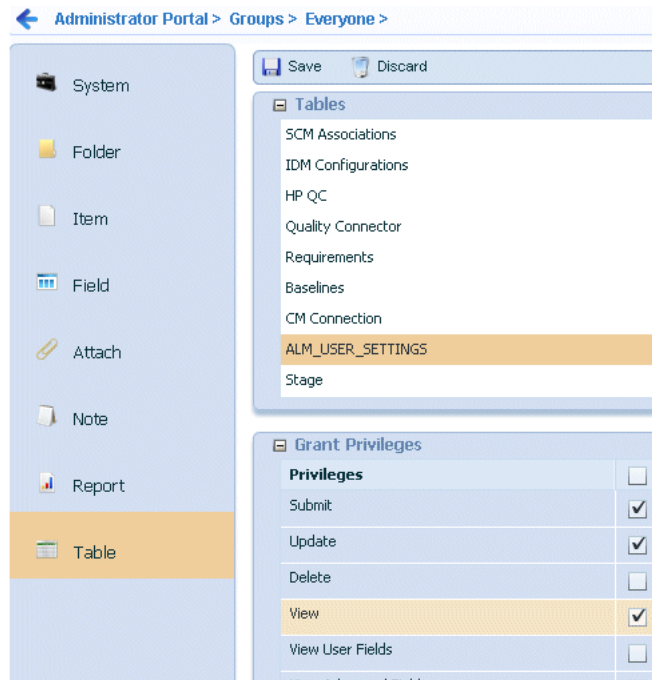
Documentation References

- Complete documentation on promoting process apps in SBM is in the *Serena Business Manager Application Administrator Guide* in "Promoting Process Apps".

- Complete documentation on managing roles in SBM is in the *Serena Business Manager System Administrator Guide* in "Managing User Accounts".

Configuring Connections

Serena Orchestrated ALM uses a group of properties files that determine which products the orchestration will use, and which objects they will provide. Various objects in the Serena Orchestrated ALM workflows can be synchronized with objects in a participating product such as Dimensions CM or ChangeMan ZMF. For example a Development Task can be synchronized with requests in Dimensions CM or a ZMF package.

These files are located in the Serena Orchestrated ALM common Tomcat Web server `classes` folder. For example:

```
C:\Program Files\Serena\common\tomcat\6.0\webapps\alm\WEB-
INF\classes
```

The properties files include:

- **Connection properties files**: These define how the orchestration connects with each product that takes part in the orchestration.

- **Providers properties file**: This file defines which providers are used for the various objects used in the orchestration. It contains an entry for each object in Serena Orchestrated ALM that points to the properties file for the provider to be used.

- **A provider properties file for each provider**. These specify filtering criteria that determine which objects in the provider product are used for each object in the Serena Orchestrated ALM workflow.

To configure your orchestration for Serena Development Manager, you need to:

- Define the correct connections to the required products and their servers. You can do this using the Serena ALM Configurator. For details,see:

  - "Configuring Access to the Serena ALM Configurator" on page 54

  - "Invoking the Serena ALM Configurator" on page 55

  - "Entering Information in the Serena ALM Configurator" on page 55

  - "ALF Client Connection Information" on page 56

  - "Dimensions CM Client Connection Information" on page 57

  - "ZMF Client Connection Information" on page 58

- Edit the Providers properties file to specify each provider you are using. For details, see:

  - "Telling Development Manager Which Providers to Use" on page 59

- Optionally, in each provider properties file, specify the criteria for the objects in each provider to be used. For an out-of-the-box implementation of Serena Orchestrated ALM these files should already contain the correct details. However, You may need to set your selection criteria based on your organization's change management practices. For details, see:

  - "Designating the Details for Each Provider" on page 60

Using the Serena ALM Configurator

The Serena ALM Configurator provides a graphical interface in which you configure the connections to servers that participate in your Serena Orchestrated ALM solution. You can run the Serena ALM Configurator anytime after initial configuration to re-configure your implementation.

If you run the Serena ALM Configurator, the client connection properties files are configured through your entries in the Configurator forms. Properties files with names that are suffixed `-connection.properties` are configured through the Configurator. Other files must be manually configured.

Configuring Access to the Serena ALM Configurator

Before anyone can log into the Serena ALM Configurator, you must add user IDs to the authorized list in the `rlm.properties` file. Typically this list would include only your Serena Orchestrated ALM administrators or users with similar roles.

To update the authorized list of users:

1 Navigate to the Serena Development Manager common Tomcat Web server `classes` folder. For example:

    C:\Program Files\Serena\common\tomcat\6.0\webapps\alm\WEB-INF\classes

2 Open the `rlm.properties` file.

3 Set the properties for the connection as follows:

```
alm.config.service.authdUsers=<list of user IDs>
```

where `<list of user IDs>` is a list of Serena Development Manager (SBM) user IDs delimited by commas. For example:

```
alm.config.service.authdUsers=admin,almadmin
```

4 Restart the Serena common Tomcat service.

Invoking the Serena ALM Configurator

You should have received a Serena ALM Configurator URL, username, and password from your Serena Development Manager administrator.

To invoke and log in to Serena ALM Configurator:

1 Enter the Serena ALM Configurator URL you received from your Serena Development Manager administrator. It will look similar to the following:

```
http://almhost:8080/alm
```

The login dialog box appears unless you are already logged in on a shared single sign-on client.

2 Enter your username and password and then click Log In.

Upon successful login, your Serena ALM Configurator appears as shown in the following figure.
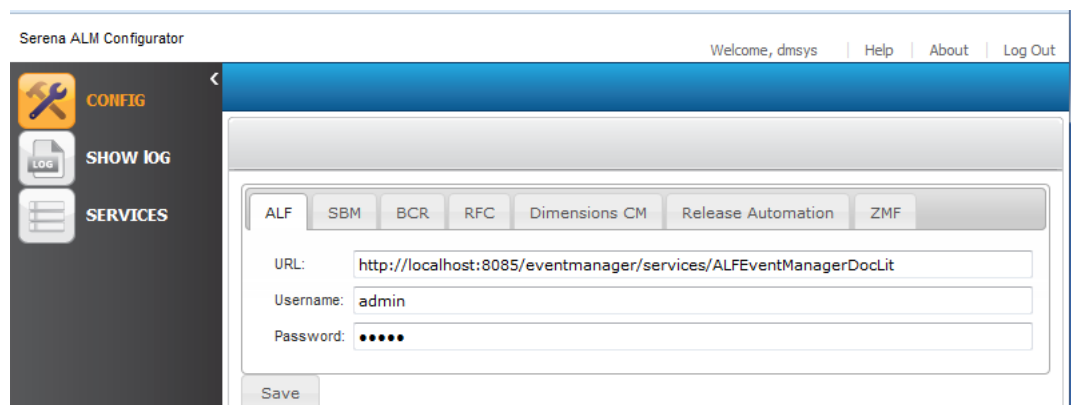
Entering Information in the Serena ALM Configurator

You can use the Serena ALM Configurator to configure the client connections.

To add or update the client connection properties:

1 In the Serena ALM Configurator, select the **CONFIG** page.

2 Enter the connection information in the forms for each of the following tabs:

- **ALF**: Application Lifecycle Foundation for communication between systems

- **SBM**: Serena Business Manager for the core system as well as deployment change request (DCR) or other provider

- **Dimensions CM**: Release vault, and optionally DCR provider

■ **ZMF**: ChangeMan ZMF: Release vault and DU provider

The information is saved in separate files in the Serena Development Manager common Tomcat Web server `classes` folder.

3 Restart the Serena common Tomcat service.

ALF Client Connection Information

Specify the connection to Application Lifecycle Framework (ALF), which is used to communicate with Serena Orchestrated ALM.

> **NOTE** Dimensions CM and ChangeMan ZMF have ALF connection information stored in other files as they use different mechanisms to communicate through ALF.

To update the ALF client connection information:

1 On the **ALF** tab, make sure the variables are set to the correct connection information for your installation of the SBM event manager as follows:

Parameter	Value
`ALF_EVENTMANAGERURL`	URL to the SBM server where the ALF event manager Web services are installed, in the form of: `http://<hostname>:<port>/eventmanager/services/ALFEventManagerDocLit`
`AE_USERID`	User ID with access to the appropriate SBM projects and tables controlled by Serena Development Manager. This user ID must exist in SBM.
`AE_PASSWORD`	Password for the SBM user ID.

Example

`alf-client-connection.properties`

```
ALF_EVENTMANAGERURL = http://sbmhost:8085/eventmanager/services/ALFEventManagerDocLit
AE_USERID = almadmin

AE_PASSWORD = almadmin_test
```

SBM Application Connection Information

Specify the instance of SBM you are using to connect to SBM and the service username and password.

> **IMPORTANT!** The `sbm-client-connection.properties` file must have valid connection information to enable the creation of objects in Serena Development Control. If this connection is not configured properly, you will receive a `checkuniquness` error.

To update the SBM connection information:

1 On the **SBM** tab, make sure the variables are set to the correct connection information for your installation of SBM as follows:

Parameter	Value
SBM_APPWS_URL	URL to the SBM server that provides the DCRs, in the form of: `http://<hostname>:80/gsoap/gsoap_ssl.dll?sbmappservices72`
sbm.service.user	User ID with access to the appropriate SBM projects and tables controlled by Serena Development Manager. This user ID must exist in SBM.
sbm.service.password	Password for the SBM user ID.

Example

This example gives Serena Development Manager the URL to connect to the SBM application server on the local host at port 80.

> sbm-client-connection.properties

```
SBM_APPWS_URL = http://localhost:80/gsoap/gsoap_ssl.dll?sbmappservices72
sbm.service.user = serviceuser
sbm.service.password = serviceuserpassword
```

Dimensions CM Client Connection Information

Specify the connection to Dimensions CM if it is used as a provider for your Development Tasks or Dev Change Packages.

To update the Dimensions CM client connection information:

1   On the **Dimensions** tab, make sure the variables are set to the correct connection information for your installation of Dimensions CM as follows:

Parameter	Value

DIM_WS_URL	URL to the server where the Dimensions CM Web services are installed, in the form of:
	`http://<hostname>:<port>/dmwebservices2/services/`
	`        dmwebservices/`

DIM_DBNAME	The Dimensions CM base database name to which you want to connect.
DIM_DBCONN	The Dimensions CM network instance to which you want to connect.
DIM_SERVER	Hostname where the Dimensions CM server is running.
DIM_SERVICEUSER	User ID with access to the appropriate Dimensions CM objects controlled by Serena Development Manager. This user ID must exist in SBM and Dimensions CM.
DIM_SERVICEUSERPASSWORD	Password for the service user ID.

Example

dm-client-connection.properties

```
DIM_WS_URL = http://dimcm_host:8080/dmwebservices2/services/dmwebservices/
DIM_DBNAME = cm_typical
DIM_DBCONN = Dim12
DIM_SERVER = dimcm_host
DIM_SERVICEUSER = SERVICEUSER
DIM_SERVICEUSERPASSWORD = serviceuserpassword
```

ZMF Client Connection Information

Specify the connection to ChangeMan ZMF if it is used as a provider for your Development Tasks.

To update the ChangeMan ZMF connection information:

1 On the **ZMF** tab, make sure the variables are set to the correct connection information for your installation of ZMF as follows:

Parameter	Value

ZMF_WS_URL	URL to the ALM server where the ALMZMF Web services are installed, in the form of:
	
	`http://<hostname>:<port>/almzmf/services/`
	`     ZMFPackageServices/`

ZMF_SERVER_HOSTADDRESS	Hostname or IP address for the z/OS mainframe server where the ZMF started task, or ZMF application, is running.
ZMF_SERVER_HOSTPORT	Port number for the z/OS mainframe server.
ZMF_SERVER_PROXYID	Mandatory proxy user ID used to log into the z/OS mainframe server on behalf of a SBM user to ZMF. See "Configuring a Proxy User ID" on page 105.
ZMF_SERVER_PROXY_PASSWORD	Password for the proxy user ID.
SERNET_HTTPSERVER	URL to the z/OS mainframe SERNET HTTP server instance, in the form of: `http://<hostname>:<port>` This is required to populate the ZMF UI widgets in Development Manager. See "Configuring the SERNET HTTP Server" on page 97.

Example

zmf-client-connection.properties

```
ZMF_WS_URL = http://almhost:8080/almzmf/services/ZMFPackageServices/
ZMF_SERVER_HOSTADDRESS    = zmf_host
ZMF_SERVER_HOSTPORT       = 5035
ZMF_SERVER_PROXYID        = ALMMAN
ZMF_SERVER_PROXY_PASSWORD = ALMPWD1
SERNET_HTTPSERVER = http://zmf_host:5083
```

Telling Development Manager Which Providers to Use

After you have defined the login information for the providers in the appropriate properties files as described above, you need to tell Serena Orchestrated ALM which providers you want to use by specifying their properties file names in the provider properties file.

You can select one or more providers for each of the types of objects.

To specify the providers:

1 Navigate to the Serena Development Manager common Tomcat Web server `classes` folder. For example:

`C:\Program Files\Serena\common\tomcat\6.0\webapps\alm\WEB-INF\classes`

2 Open the `providers.properties` file.

Set appropriate provider keys variable to the provider value or values that you want Serena Development Manager to use. This is the name of the properties file (without the extension) corresponding to the provider you are using. For Development Manager these will normally be one or both of:

■ `dm_qlarius.properties`

■ `zmf_packages.properties`

> **IMPORTANT!** If you do not want to use one or more of the provider types, simply leave the provider key value blank. Do NOT comment it out or delete it, or Serena Development Manager will no longer function properly.

Example

This example shows providers selected for each of the object types, RFCs, BCRs, DCRs (requests), and DUs. The bold text indicates the specific provider key for deployment units.

> `providers.properties`

```
# requests provider keys
requests.providers.keys=sbm_issues, dm_qlarius

# vault provider keys
vault.providers.keys=dm_qlarius, rlmzmf_packages, dvmzmf_packages

# rfc provider keys
rfc.providers.keys=itsm

# bcr provider keys
bcr.providers.keys=bcr
```

For example, in the preceding example,

> `requests.providers.keys = sbm_issues, dm_qlarius`

> > tells Serena Development Manager to use the `sbm_issues.properties` file and the `dm_qlarius.properties` file for Development Change Requests

Designating the Details for Each Provider

You should specify the details for each Dev Task provider in a separate properties file for each instance. This keeps the details separate from the selection, and helps with maintenance and security. By default

To designate details for each Dev Task provider:

1   Navigate to the Serena Development Manager common Tomcat Web server `classes` folder. For example:

    `C:\Program Files\Serena\common\tomcat\6.0\webapps\alm\WEB-INF\classes`

2   Open one of your provider properties files. For example:

    ■ `dm_qlarius.properties`

    ■ `dvmzmf_packages.properties`

3   Specify the details in the properties file, leaving entries blank that you do not want to specify. Do NOT delete or mark entries as comments, as that may cause the provider communication to fail.

    The details are unique for each properties file, and variables and parameters are defined in the implementation for the provider. See the example following this procedure.

4   After updating the provider properties files, restart the Serena common Tomcat service.

Designating Dimensions CM Request Selection Criteria

Set the Dimensions CM provider details for deployment units, or baselines, using the example `dm_qlarius.properties` file or a custom Dimensions CM provider properties file.

Example

This example sets the values needed to retrieve development change requests and vault baselines from the Dimensions CM sample database, which has sample data based on a fictitious company called Qlarius.

dm_qlarius.properties

```
# requests provider definitions
requests.provider.name = DIM_QLARIUS
requests.provider.description = Dimensions Requests Provider for QLARIUS product

# vault provider definitions
vault.provider.name = DIM_QLARIUS
vault.provider.description = Dimensions Vault Provider for QLARIUS product

# filter requests by statuses
FILTER_REQUEST_BY_STATUSES = IN QA,IN PROGRESS,UNDER WORK,IN TEST

# filter vault baselines by statuses
FILTER_VAULT_BASELINES_BY_STATUSES = CREATED


#
VAULT_TARGET_PRODUCT = VAULT
#
VALT_DML_STAGE = LIVE
```

The text following the keys, `requests.provider.name` and `vault.provider.name`, is documentary, and is also used in the related UI report search filter. In this example, DIM_QLARIUS describes the database from which the requests are being retrieved. The actual connection to the Dimensions CM database is defined in the `dm_client_connections.properties` file. See .

This example tells Dimensions CM to return only requests and deployment units in a specified list of statuses.

Designating ChangeMan ZMF Package Selection Criteria

If you plan to use ChangeMan ZMF to process change packages as your development tasks, you must specify the selection criteria for the change packages. Set the ChangeMan ZMF provider details for change packages, using the example `dvmzmf_packages.properties` file or a custom ZMF provider properties file. The default settings in the `dvmzmf_packages.properties` file are the settings you should normally use.

Set the properties for the ZMF filters as follows:

Parameter	Value
`vault.dvm.zmf.provider.name`	Vault provider name. Default value = DVMZMF_PACKAGES
`vault.dvm.zmf.provider.description`	Vault provider description. Default value = `ChangeMan Vault Baseline Provider for ZMF packages`
`FILTER_ZMF_PACKAGES_IN_FROZEN_STATUS`	Setting this to Y will list all packages that are in FRZ and DEV status. Setting this value to N will list only packages that are in DEV status. Default value = N

Parameter	Value
`FILTER_ZMF_PACKAGES_BY_WORKREQNO`	Setting this to Y will list only packages that have an empty or null work request number value. Default value = Y **NOTE** If you want to update the ZMF change package work request number value with the associated Serena Development Manager deployment unit's SBM item ID, you should set this value to Y. See `RELATE_DVM_DT_ITEMID_TO_ZMF_PACKAGE_WORKREQNO` below. **NOTE** Be aware of the issue "It is Possible to Relate a ZMF Change Package to Multiple Dev Tasks (DEF224772)" on page 123.
`FILTER_PLANNED_PERMANENT_ZMF_PACKAGES`	Include change packages with package type planned permanent. (Values Y or N) This should be set to Y. Default value = Y
`FILTER_PLANNED_TEMPORARY_ZMF_PACKAGES`	Include change packages with package type planned temporary. (Values Y or N) Default value = N
`FILTER_UNPLANNED_PERMANENT_ZMF_PACKAGES`	Include change packages with package type unplanned permanent. (Values Y or N) Default value = N
`FILTER_UNPLANNED_TEMPORARY_ZMF_PACKAGES`	Include change packages with package type unplanned temporary. (Values Y or N) Default value = N
`FILTER_SIMPLE_ZMF_PACKAGES`	Include change packages with the level of simple. (Values Y or N). Default value = Y
`FILTER_PARTICIPATING_ZMF_PACKAGES`	Include change packages with the level of participating. (Values Y or N) Default value = N
`FILTER_ZMF_PACKAGES_BY_PROMOTION_LEVEL`	Include change packages with this promotion level and above. The last promotion level must be *greater than or equal to* the promotion level filter. For example, if you have the following promotion levels in ZMF, setting this value to 10 returns change packages in these promotion levels: 10 – INT Integration Test 20 – UAT User Acceptance Test 30 – PAT Production Acceptance Test Default value = `blank`
`FILTER_ZMF_PACKAGES_BY_AUDIT_LEVEL`	Include audit return code. The audit return code must be *less than or equal to* the audit level filter. Default value = `blank`

Parameter	Value
RELATE_DVM_DT_ITEMID_TO_ZMF_PACKAGE_WORKREQNO	Choose whether to fill in the ZMF change package work request number with the development change request value from Serena Development Manager. (Values Y or N) Default value = Y **Note:** Whatever the setting is for this parameter, you will need to make sure that the value of: RELATE_RLM_DU_ITEMID_TO_ZMF_PACKAGE_WORKREQNO in the rlmzmf_packages.properties file is set to the opposite value if you are using both providers, otherwise they will overwrite each-other's values in this field. For example, if RELATE_DVM_DT_ITEMID_TO_ZMF_PACKAGE_WORKREQNO = Y then set RELATE_RLM_DU_ITEMID_TO_ZMF_PACKAGE_WORKREQNO = N
RELATE_DVM_DT_INSTALL_DATE_TO_ZMF_PACKAGE_INSTALL_DATE	Choose whether to fill in the ZMF change package installation date with the development task date from Serena Development Manager. (Values Y or N) Default value = Y

Example

This example sets the values needed to retrieve change packages related to dev tasks from a ChangeMan ZMF sample system.

dvmzmf_packages.properties

```
# Vault provider name and description for DVM.
vault.dvm.zmf.provider.name = DVMZMF_PACKAGES
vault.dvm.zmf.provider.description = ChangeMan Vault Baseline Provider for ZMF packages

# Include ZMF change packages in DEV and FRZ statuses (Y/N). Set this to Y to list packages that are in FRZ
     and DEV statuses. Set this value to N to list only packages that are in DEV status.
FILTER_ZMF_PACKAGES_IN_FROZEN_STATUS = N

# Retrieve only ZMF change packages that have an empty or null work request numbers (Y/N). Use in conjunction
     with RELATE_DVM_ITEMID_TO_ZMF_PACKAGE_WORKREQNO.
FILTER_ZMF_PACKAGES_BY_WORKREQNO = Y

# Include ZMF change packages with designated package types (Y/N).
FILTER_PLANNED_PERMANENT_ZMF_PACKAGES = Y
FILTER_PLANNED_TEMPORARY_ZMF_PACKAGES = N
FILTER_UNPLANNED_PERMANENT_ZMF_PACKAGES = N
FILTER_UNPLANNED_TEMPORARY_ZMF_PACKAGES = N

# Include ZMF change packages with designated package levels (Y/N).
FILTER_SIMPLE_ZMF_PACKAGES = Y
FILTER_PARTICIPATING_ZMF_PACKAGES = N

# Include ZMF change packages with this promotion level and above. The last promotion level must be greater
     than or equal to the designated promotion level value.
FILTER_ZMF_PACKAGES_BY_PROMOTION_LEVEL =

# Include ZMF change packages with this audit return code or below. The audit return code must be less than
     or equal to the designated audit level value.

FILTER_ZMF_PACKAGES_BY_AUDIT_LEVEL  =

# Fill in the ZMF change package work request number with the Release Manager deployment unit\u2019s SBM item
     ID.
RELATE_DVM_DT_ITEMID_TO_ZMF_PACKAGE_WORKREQNO = Y

# Fill in the ZMF change package installation date with the development task install date from Development
     Manager.
RELATE_DVM_DT_INSTALL_DATE_TO_ZMF_PACKAGE_INSTALL_DATE = Y
```

The text following the keys, deploy.units.provider.name, is documentary, and is also used in the related UI report search filter. In this example, ZMF_PACKAGES simply describes the kind of data being retrieved. The actual connection to the ChangeMan ZMF system is defined in the zmf-client-connection.properties file. See "ZMF Client Connection Information" on page 58.

This example tells ChangeMan ZMF to return only deployment units, or change packages, that are in FRZ status, have a blank work request number, are in promotion level 10 or above, and have passed audit with a return code of 04 or less. The relationship filters are set so that the work request number and installation dates will be updated in ChangeMan ZMF based on information stored in Serena Development Manager.

You should set your selection criteria based on your organization's release management practices related to ChangeMan ZMF.

Configuring the Process Applications

This section describes how to configure an out-of-the-box default example. The details may be different depending on how you are customizing Development Manager for your processes. When you are updating the process apps you need to check out the elements you are updating, and check them back in and deploy the process apps after making the updates.

IMPORTANT! When deploying the process apps you need to do so in the following order:

1 Global Process App (eval)

2 Requirements Approval Management (if you are using Requirements Manager)

3 ALM Projects

4 Dev Change Requests

5 Dev Tasks

6 Dev Package

7 Dev Control Orchestrations

8 Quality Center Connector (if you are using HP Quality Center)

9 RM to RQM Connector (if you are using Requirements Manager)

10 Release Train (if you are using Release Manager)

11 Application Release (if you are using Release Manager)

12 Release Package (if you are using Release Manager)

13 Deployment (if you are using Release Manager)

14 Environment (if you are using Release Manager)

15 ReleaseTemplate (if you are using Release Manager)

16 RLM_AUX

17 Vault_Request (if you are using Release Manager)

If you receive an error when deploying a process app it is likely that it contains references to another process app that needs to be deployed before it.

> ⚠️ **CAUTION!** If you deploy a process app that contains a Web service, and the defining `.wsdl` file contains an incorrect service location for the environment to which you deployed, you need to edit the endpoint in Application Repository to point to the correct service location and then redeploy the process app so the changes can take effect. (You may also want to get the latest changes back to SBM Composer.)
>
> If you then clone the environment and deploy the same process app to the cloned environment using default settings, the new deployment will not use the existing endpoints that you edited; it will instead create new endpoints with similar names. These new endpoints will contain the service location from the defining `.wsdl` file, so you need to edit them (as you did in the original environment) to point to the correct service location for the Web service. (Alternatively, you can edit the deployment in the **Deploy Options** dialog box in SBM Composer to use the correct endpoints and delete the duplicate ones.) In either case, you need to redeploy the process app to the cloned environment so these changes can take effect.

Updating the Endpoints

Some endpoints may need to be changed to reference the server name and port number you are using. Also, SOAP services that use RESTgrid widgets need to be updated to use Security Token authentication, so that SSO is used for these widgets.

> **NOTE** Some other endpoints may need to be updated. See the issue "Missing Endpoints (DEF221077, DEF225893)" on page 125.

1 From the SBM Application Administrator navigation pane, click Environments.

2 Select the environment you used for the promotions.

3 Select the Endpoints tab.

1 Select `aewebservices71` and click the Edit button.

IMPORTANT! Ensure that you are deploying the original endpoint and not a duplicate. Duplicates will have an underscore and number appended to the end (for example rtmService_2)

2 Change the server and port information in the URL field to specify your SBM server.

3 In the **Authentication** field, select **Security Token**.

4 Click **OK**.

5 Repeat the same steps for

- sbmadminservices72

- sbmappservices72

- qcbug (if you are using Quality Center)

Deploy the Process Apps

Whenever you update an endpoint, you need to deploy the corresponding process apps. These are:

- aewebservices71:

  • Dev Control Orchestrations

  • Dev Change Requests

  • Dev Tasks

  • Dev Packages

- ReleaseRequestService:

  • Dev Control Orchestrations

- DVMUtilService:

  • Dev Control Orchestrations

- Dev Change Requests

■ qcbug:

- QC Connector

Updating the Connection Details in the Workflows

The connection details for SBM in various places in the process apps may need to be updated to reference the server and login credentials that you will be using.

The existing settings are:

■ User name: serviceuser

■ Password: serviceuserpassword

■ Host or Sever name: *localhost*, or blank (defaults to *localhost*)

The values that you will need to enter are the user name and password for the connection user if these are different, and the name of the SBM server if this is not *localhost*.

You need to update the Event without Reply orchestration links and some of the orchestration workflows.

To update the Orchestration Links

1 Open SBM Composer.

2 Open a process app, for example ALM Projects.

3 Under **Orchestration Links**, select **Event without Reply**.
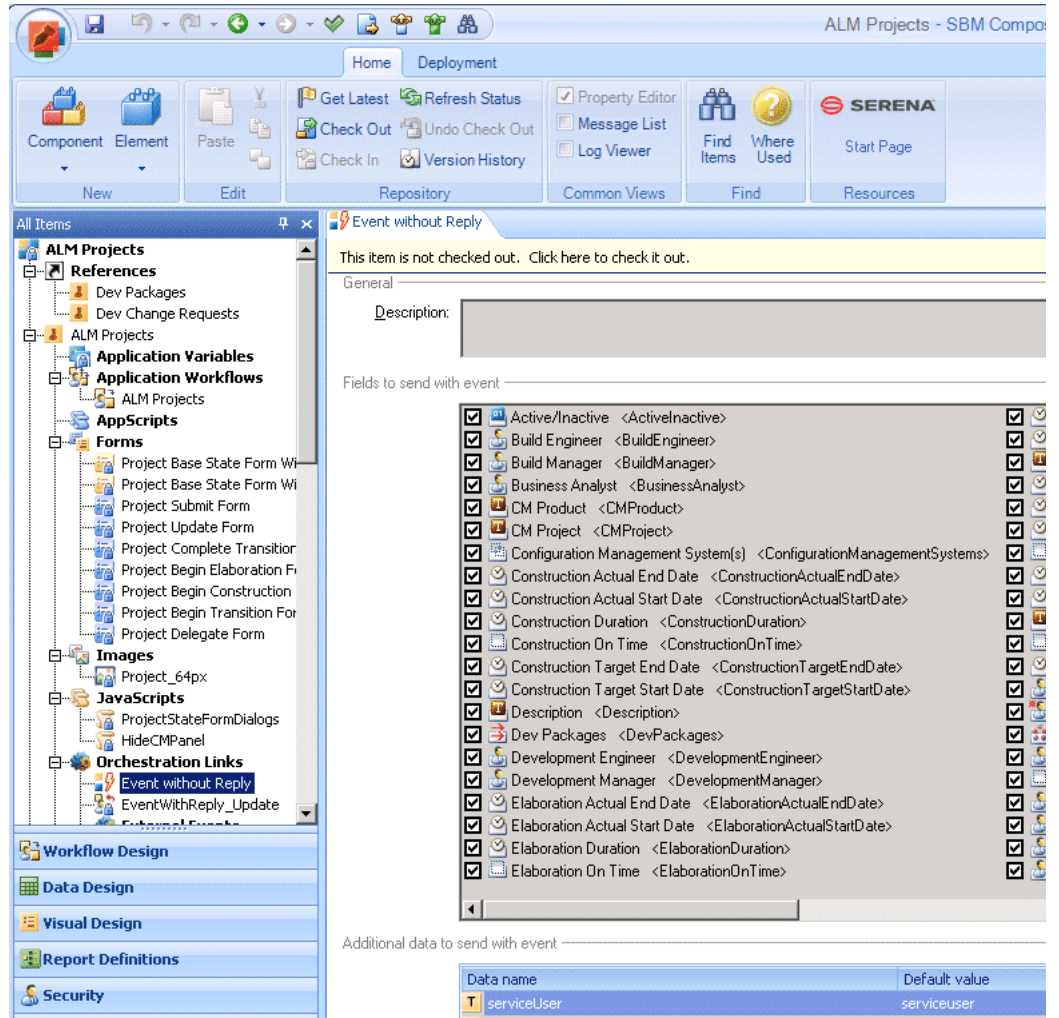
4 Edit the Additional data to send with event to change the **serviceUser** and **serviceUserPassword** to the values you are using

5 Repeat this for each of the orchestration workflows in each process app where there are connection details and each *Event without Reply* orchestration link that is present. Note that the fields appearing may be different for different workflows.

To update the Orchestration Workflows:

The orchestration workflows that may need updating are:

- Dev Control Orchestrations Process App
  - CM_BuildComplete

- Quality Center Connector
  - Create_DVM_Issue
  - Update_DVM_Issue

1 Open the Dev Control Orchestrations process app.

2 Under **Orchestration Workflows**, select *CM_BuildComplete*

3   Select **Data Mapping** in the Property Editor.

4   Under SBMAuth are fields for the authentication details for the SBM server
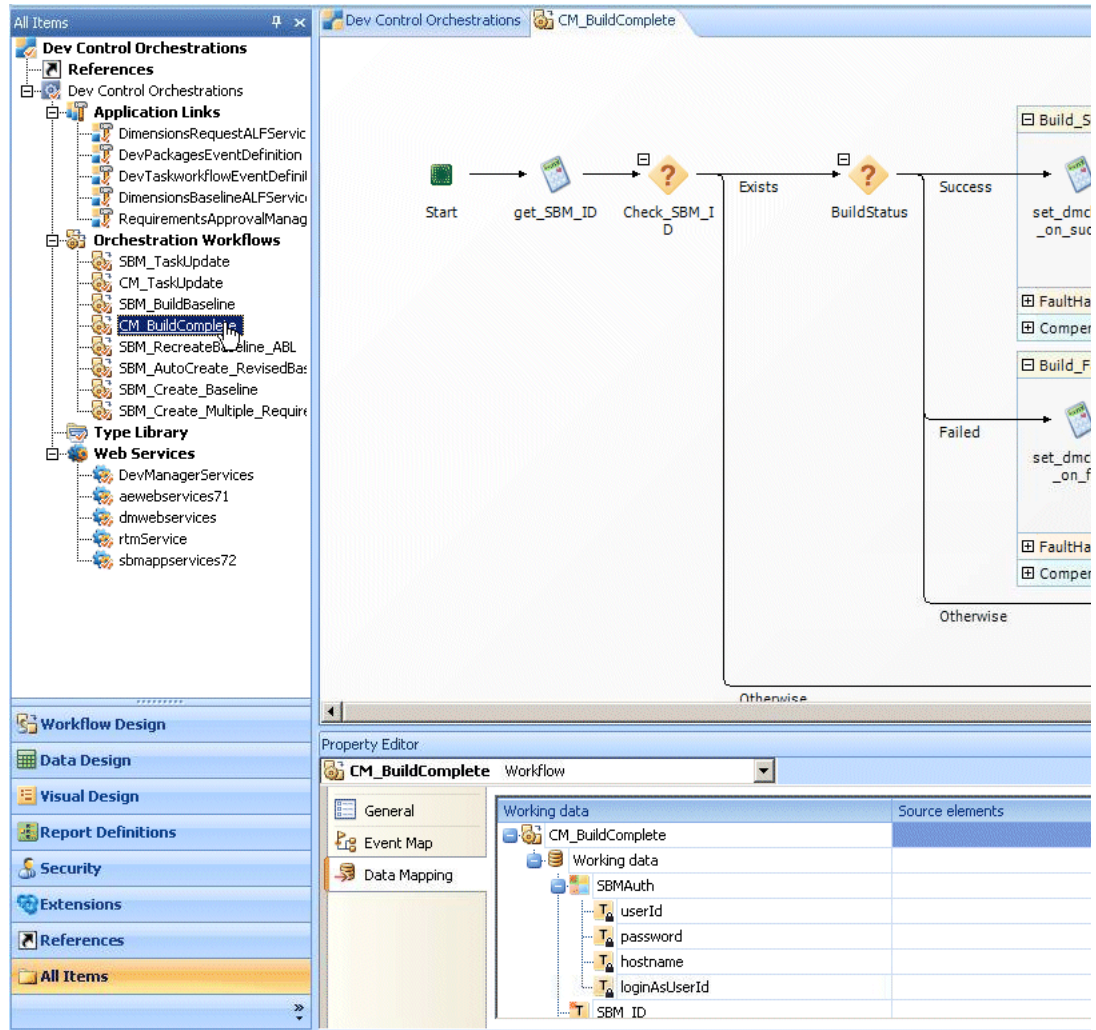
5   Under SBMAuth, change the default values to the actual server name (if not localhost) and user credentials you will be using:

- **userId**: The connection user. if not serviceuser

- **password**: The password for the connection user

- **hostname**: The name of the SBM server. (If this is blank, localhost will be assumed.)

6   Open the Quality Center Connector process app.

7 Under **Orchestration Workflows**, select *Create_DVM_Issue*.
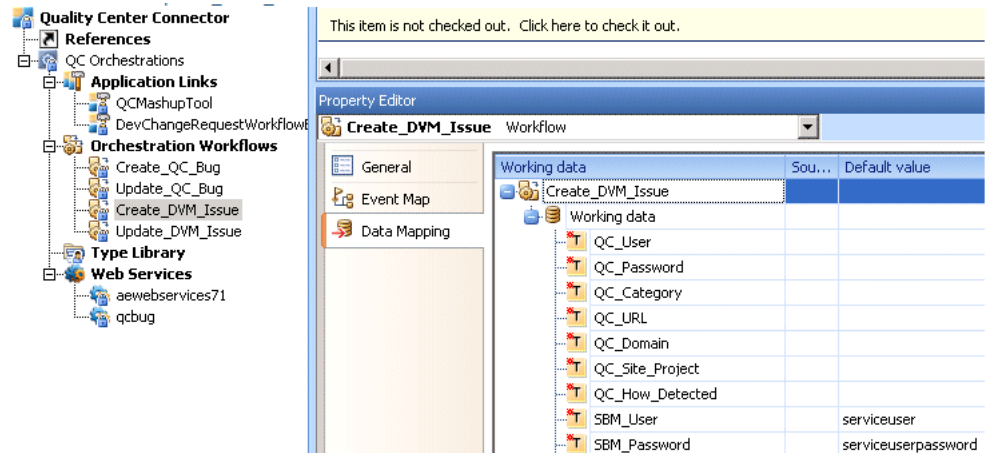
8 Update the values for **SBM_User**, and **SBM_Password** to the values for the connection user.

9 Repeat this for the *Update DVM_Issue* orchestration workflow.

Deploy each process app when you have completed the updates.

Updating the Port Numbers for the Web Services

In the *Dev Control Orchestrations* process app, the port number is set to the default of 8080 for the following web services:

- VaultService

- DVMUtilService

- ReleaseRequestService

If you are using a different port number, you will need to change this:

1 In SBM Composer, open the *Dev Control Orchestrations* process app.

2 Select **All Items**.

3 Expand the **Web Services** node.

4 Check out the web services:

- VaultService

- DVMUtilService

- ReleaseRequestService

5   Select a web service, such as VaultService.
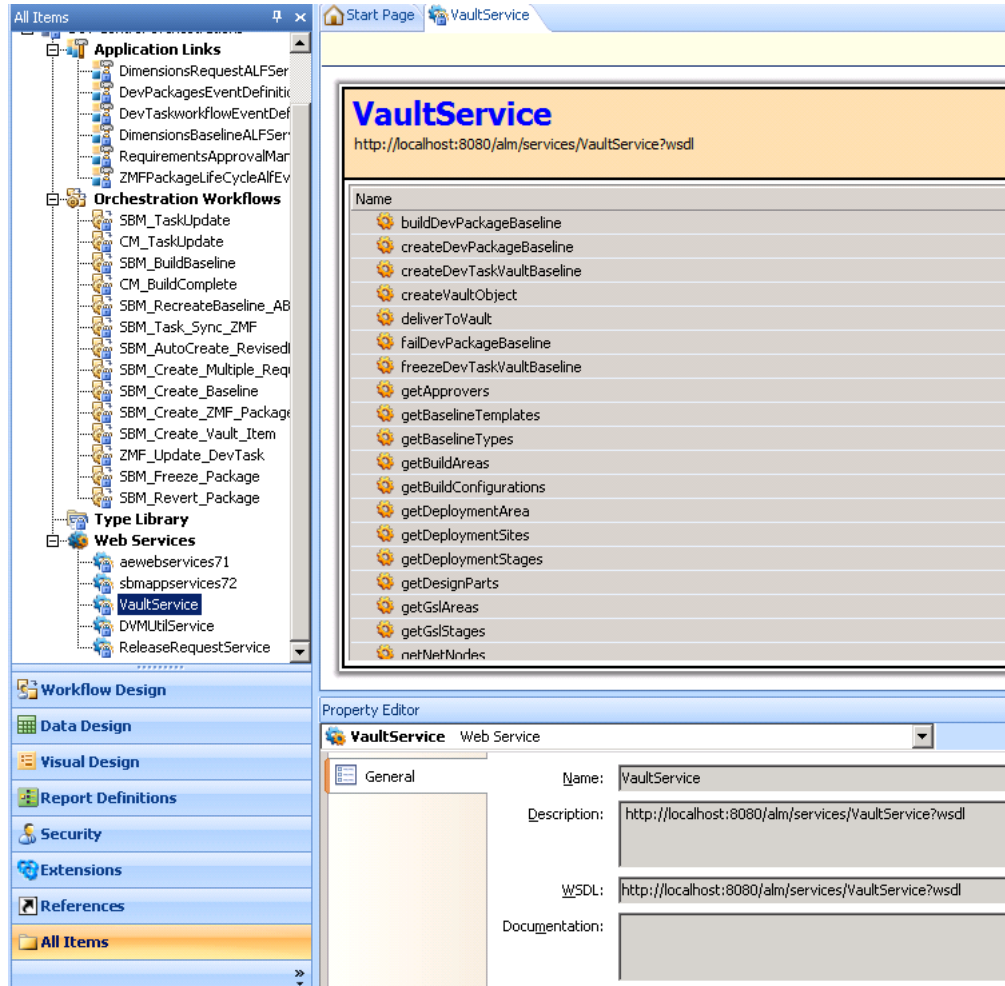
6   Click the **Reimport** button to the right of the **WSDL** field.

A **Web Service Configuration** dialog box appears. There will be error messages if the port number is incorrect.

7   In the **WSDL** field, update the port number to the one you are using.

8   Click the browse button to the right of the **WSDL** field.

This will populate the text field with messages.
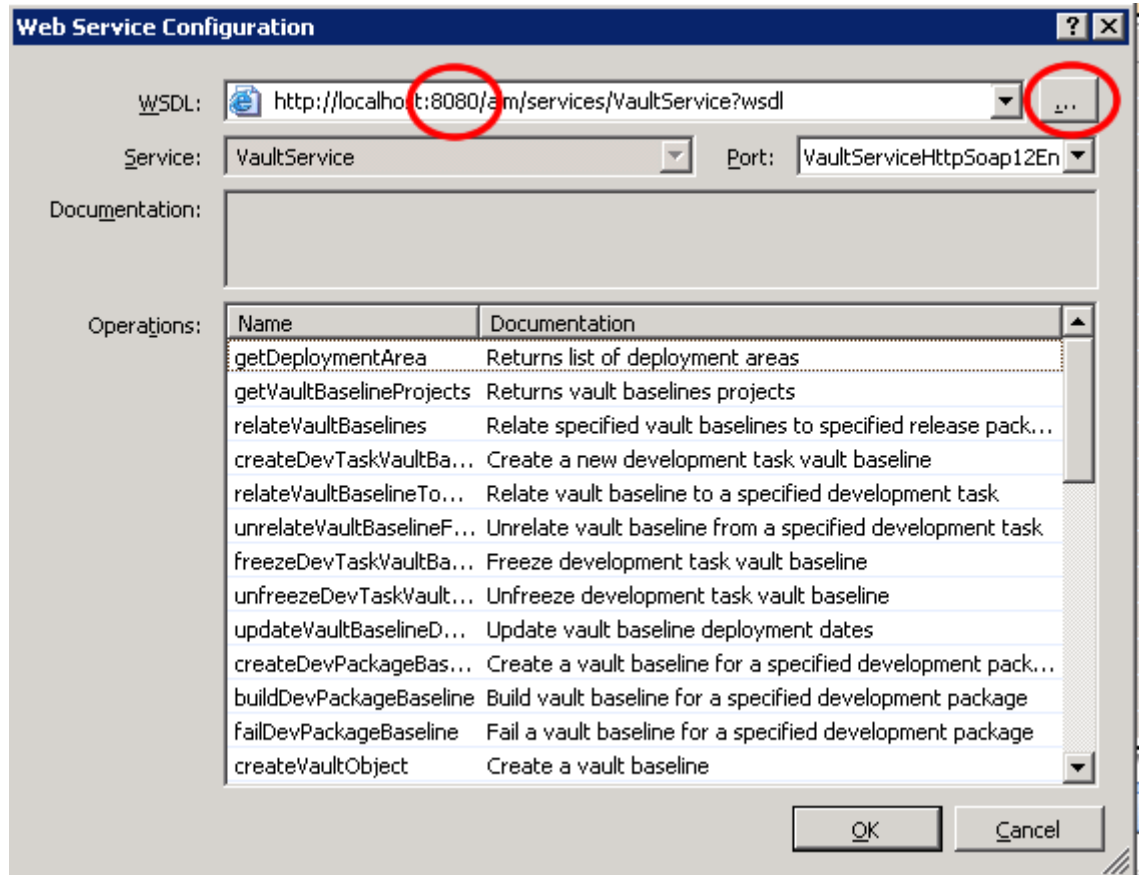
9 Click **OK** to save the details.

10 Repeat this for the other two web services.

11 Check in the elements and redeploy the process app.

Configuring the ChangeMan ZMF Web Page Widgets

If you are using ChangeMan ZMF as a provider for dev tasks, you must configure the hostname for the SBM server in the Dev Tasks state form widgets that display ZMF change package information, otherwise, the ZMF information will not appear because the value `localhost` will only work if you are running the browser on the SBM machine itself.

Change the forms in the SBM Composer as shown.

To update the hostname in the ZMF form widgets:

1 In SBM Composer, open the **Dev Tasks** process app from the **Repository**. Choose **Overwrite** if prompted.

2 In **Visual Design**, check out and update the `Task Base State Form` form as follows:

a Select the form and then select the *Configuration Management* tab.

     b For each of the sub-tabs, General, Description, AuditReport, Sites, Instructions, Components, and User Info, select the Web page widget, for example, `GeneralInfoWebPageWidget`.

     c In the Property Editor, in the URL for the widget, change `localhost` to your SBM server hostname.
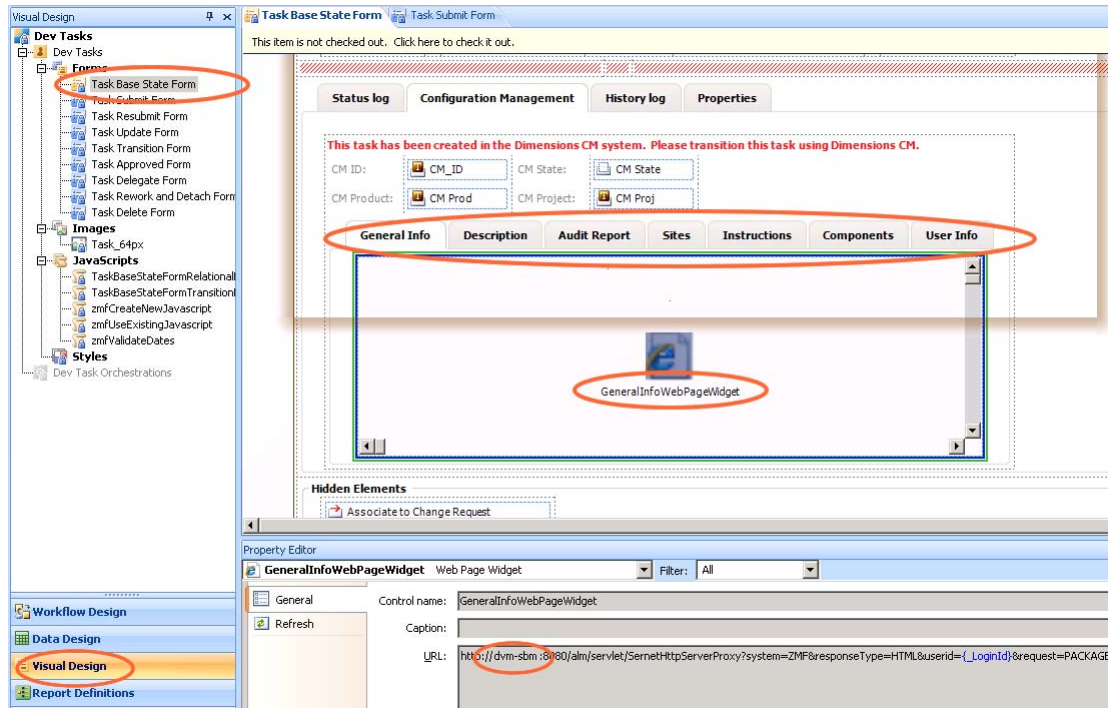
3 Save and check in the forms.

> **TIP** If you are not using ChangeMan ZMF in your implementation, consider hiding the ZMF-specific form elements using SBM Composer.

Republish the Process Apps

Make sure you check in, redeploy and republish any changes you have made to each of the process applications you have changed.

Removing the Sample Data from an Existing Installation

If you have previously installed the sample data for SBM or Dimensions CM, you will need to remove these databases, or create new databases to install them into, before running the installer for Development Manager 4.0. Carry out the steps below according to the database server you are using.

Removing the SBM Sample Data

Oracle:

Run the command:

>>sqlplus system/manager@SBM

Then in the command window, remove the database using the command:

```
remove user dvm_sample:
DROP USER dvm_sample cascade;
DROP USER dvm_demo_rept cascade;
```

Before doing this, make sure the user dvm_sample is not connected.

MSSQL:

1   Using any tool, connect to the database as "sa"

For example you can use "Microsoft SQL Server Management studio"

2   Remove the sample database, for example dvm_sample

Removing the Dimensions CM sample data

Run the command:

>>DMDBA system/manager@DIM10

Where system is the admin database user, manager is the password, and DIM10 is the database where the sample data is installed.

Then in the command window, remove the database using the command:

SYSTEM> DLDB dvm_demo

Type YES when asked.

Configuring a Stand-Alone Development Manager Installation

If you are configuring an installation of Development Manager that does not include Requirements Manager, you need to make some changes to the process apps to exclude the Requirements Manager components from the SBM user workspace. These changes consist of:

■   Hiding a number of Requirements Manager-related forms by enabling the rule Hide Requirements Manager data. These forms are:

   ■   Dev Change Requests:

      •   Change Request Base State Form

      •   Change Requests Submit Form

      •   Change Requests Update Form

   ■   ALM Projects:

- • Project Submit Form

- • Project Update Form

- ■ Removing the Requirements Manager-related columns from certain report definitions. These reports are:

  - ■ Dev Change Requests:

    - • CRs associated to this Project

    - • CRs associated to this Dev Package

    - • 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

- ■ Removing the Requirements Manager-related columns from the above reports in the SBM workspace.

- ■ Removing the Viewers Role from the Requirements Manager Project.

Hiding 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   Click the Enabled check box for Hide RQM Data.
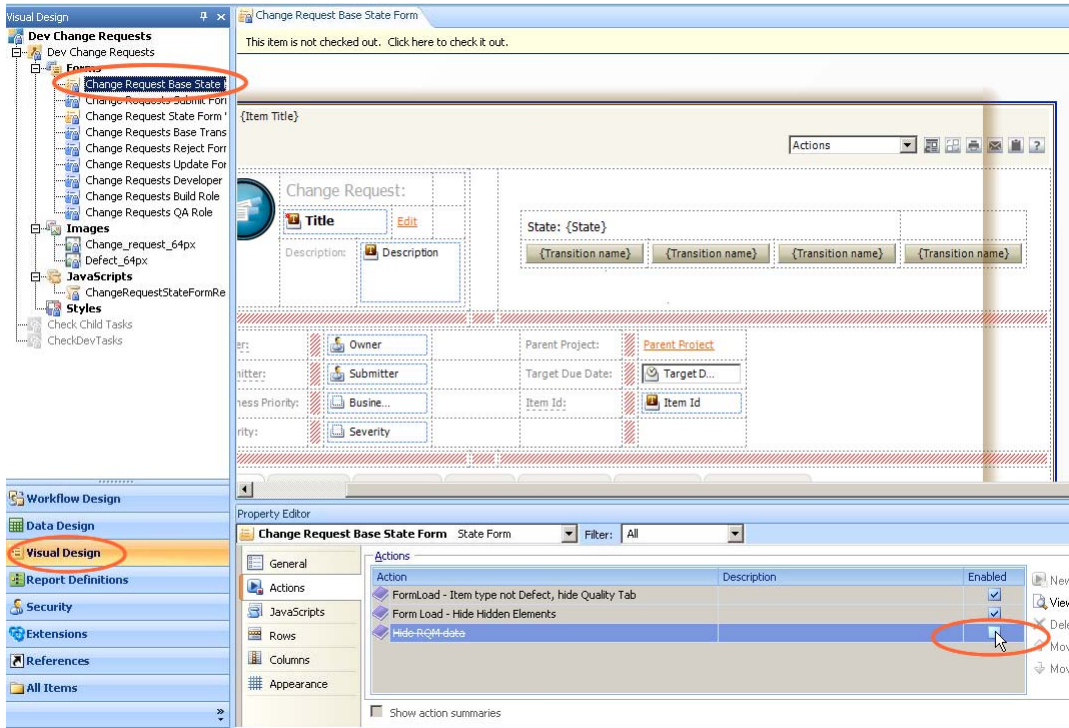
7   Repeat Step 4 thru Step 6 for:

- Change Requests Submit Form

- Change Requests Update Form

8   Repeat Step 2 thru Step 6 for:

- ALM Projects:

   • Project Submit Form

   • Project Update Form

Deploy the Process Apps after completing these steps.

Removing Requirements Manager-related Columns from Report Definitions

1   Open SBM Composer.

2   In SBM Composer, open the Dev Change Requests process app.

3   Select **Report Definitions**.

4   *Select CRs associated to this Project*.

5   Right click the column *Associated Requirements*, and select **Delete**.
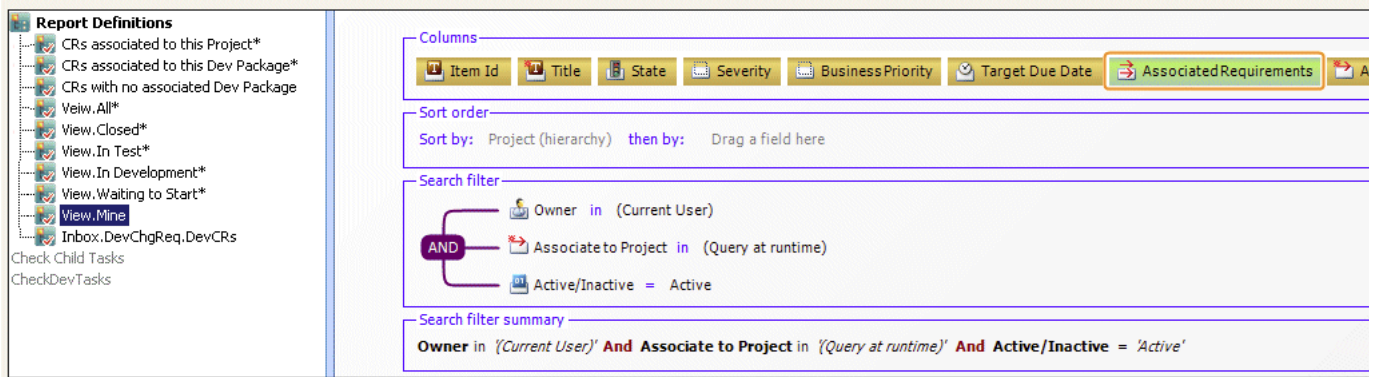
6   Repeat the above steps for:

■   *CRs Associated to this Dev Package.*

■   *View.All*

■   *View.Closed*

■   *View.In Development*

■   *View.In Test*

■   *View.Mine*

■   *View.Waiting to Start*

Deploy the Process Apps after completing these steps.

Removing Requirements Manager-related Columns from Reports

1   Open the SBM User Workspace by entering:

`http://<hostname>/tmtrack/tmtrack.dll?`

In a Web browser

2   Log in as Admin.

3   Select the Dev Change Requests Project.

4   Select **Reports**.

5   Click **Find Reports**.

6   Click the **Search** button.
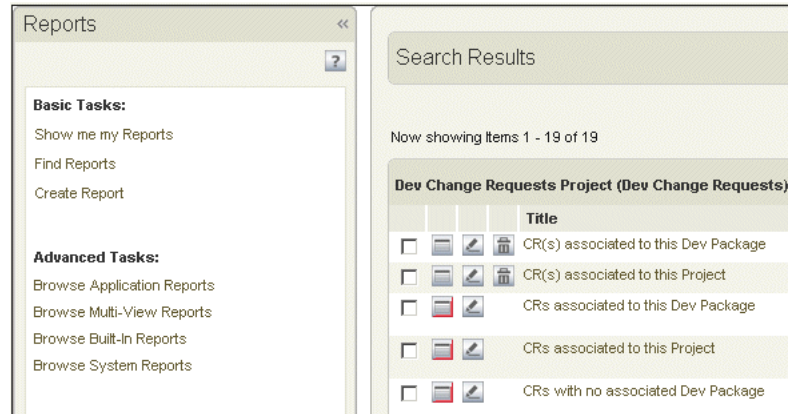
7   Click the Edit button for *CR(s) associated to this Dev Package.*

8   Remove the column *Associated Requirements.*
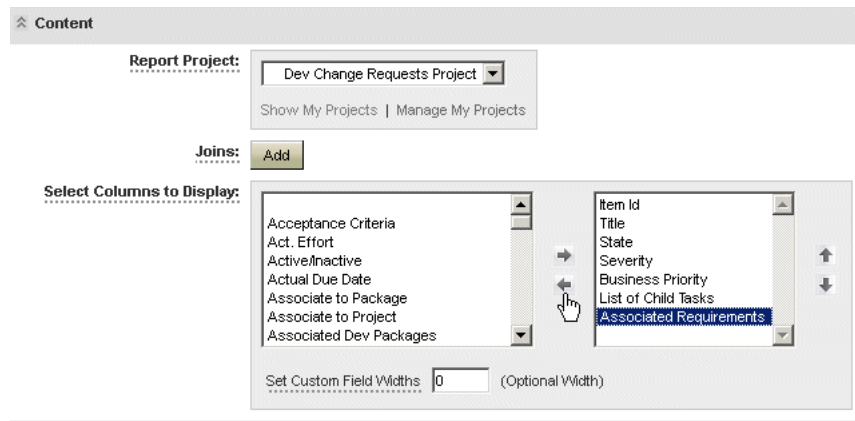
9   Repeat these steps for the reports:

- *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*

Removing the Viewers Role from 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 Click the Administrator button in the toolbar
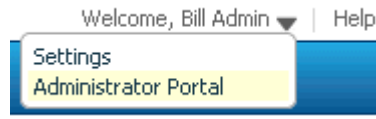
3 Select **Groups**.

4 Select *Everyone* and click **Details**.
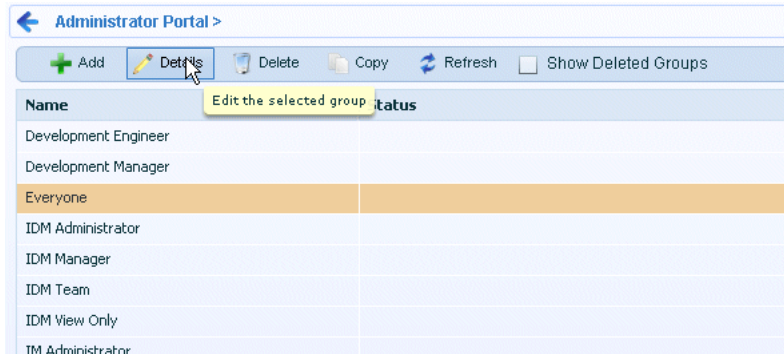
5 Select Roles.

6 Under Projects, select RQM.
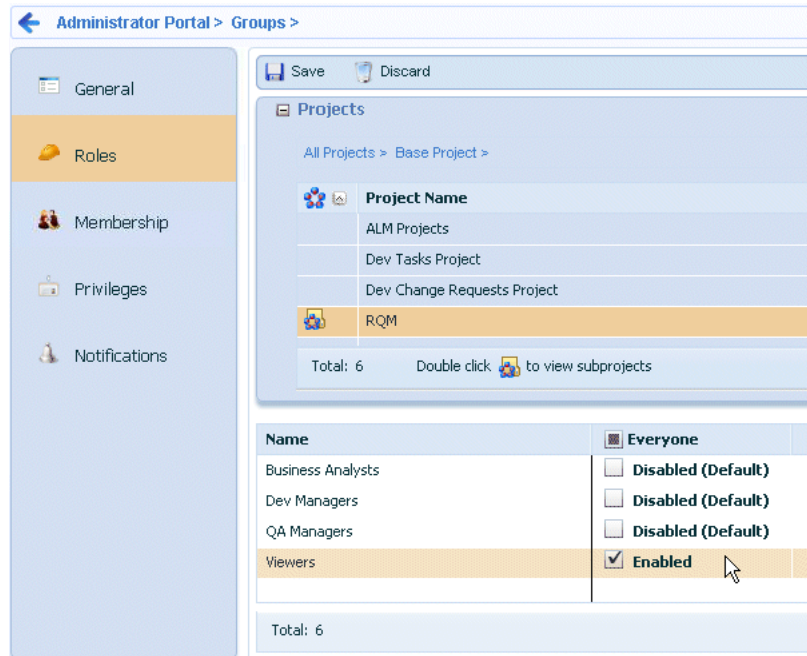
7 Select the *Viewers* role and uncheck **Enabled**.

8 Click **Save**.

Adapting an Existing Stand-alone Requirements Manager Installation for use with Development Manager

If you have configured an installation of Requirements Manager that did not include Development Manager, you will have previously carried out the steps described in the *Serena Requirements Manager Installation and Configuration Guide* to hide certain Development Manager features from the SBM user workspace. You will therefor need to reverse those changes in order to include the Requirements Manager components in an integration between Development Manager and Requirements Manager. You will also need to update the endpoint for the rtmService in the Dev Control Orchestrations process app.

You will need to make the following changes to the process apps:

- Dev Control Orchestrations process app:

  • Update the endpoint for the rtmService for the Dimensions RM server details.

- ALM Projects process app:

  Disable the rule *Hide DVM data* for the following forms:

    • Project Base State Form With Child Transitions

    • Project Base State Form Without Child Transitions

    • Project Submit Form

    • Project Update Form

- Requirement Approval Management process app:

  • Approval Process: Enable the *Distribute* transition.

Setting the Correct Endpoint for rtmService

After you have completed Installing and configuring Requirements Manager you need to edit the endpoint for rtmService in the RM to RQM Connector process app and redeploy it.

1 Open SBM Application Repository

2 Select **Process Apps** on the left.

3 Select the RM to RQM Connector process app and click the **Deploy** button

4 Click in the Destination field.

5 Select the environment and click Next.

6 On the Mappings page, click the **Choose Destination Endpoint** button to choose the correct endpoint (not rtmService_2).

Unhiding the Development Manager-related Forms

1 Open SBM Composer.

2 Open the ALM Projects process app.

3   Select Visual Design.

4   Under Forms, select *Project Base State Form With Child Transitions*.

5   Select **Actions** in the Property Editor.

6   Uncheck the Enabled check box for *Hide DVM Data*.

7   Repeat this for:

- Project Base State Form Without Child Transitions
- Project Submit Form
- Project Update Form

8   Deploy the process app after completing these steps.

Enabling the Distribute transition for the Approval Process Application Workflow

1   Open SBM Composer.

2   Open the *Requirement Approval Management* process app.

3   Select the *Approval Process* application workflow.

4   Select the *Distribute* transition.

5   Set **Status** to Enabled.
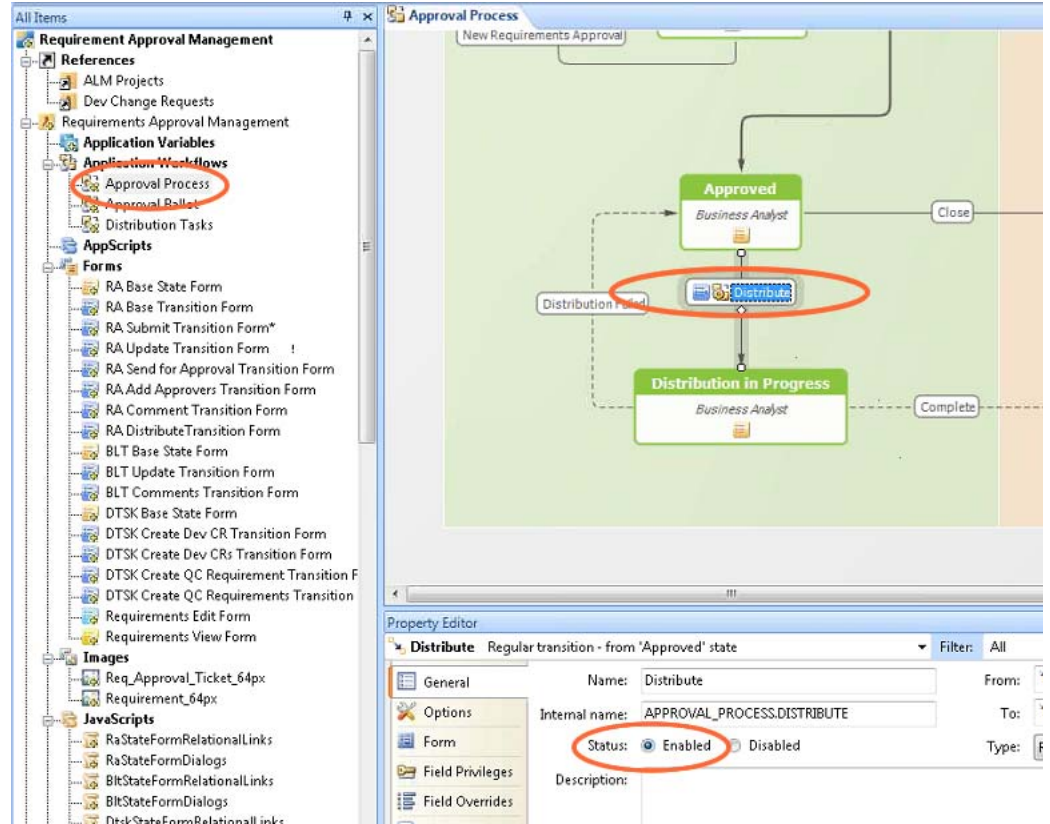
6 Deploy the process app after completing these steps.

Chapter 4

Configuring Dimensions CM

This chapter leads you through an installation of all of the components of Serena Development Manager.

Configuring the Dimensions CM Server

So that Serena Development Control can get the information from Serena Dimensions CM, you must configure the information for your specific environment.

Configuring Dimensions CM for ALF Events

So that Serena Development Control can receive information from Serena Dimensions CM, you must update the Dimensions CM configuration settings with the necessary Application Lifecycle Framework (ALF) server information.

This is connecting SBM with Dimensions CM through ALF. Serena Development Control will get the information through SBM.

To update the Dimensions CM configuration ALF event settings:

1	On the Dimensions CM server, navigate to the Dimensions CM installation directory. For example:

```
..\Program Files\Serena\Dimensions 12.2\CM
```

2	Update the `dm.cfg` file to add or update ALF variables as follows:

```
########################################
# ALF Events Configuration
########################################
DM_ALF_ENDPOINT http://<SBM_server>:<port#>/eventmanager/
    services/ALFEventManager
DM_ALF_EVENT_CONFIG %DM_DFS%alf_events_config.xml
DM_ALF_PRODUCT_INSTANCE DimensionsUnderOrchestratedApps
```

`where`

■	DM_ALF_ENDPOINT is pointing to the correct SBM server and port number and ALF Event Manager

Example

dm.cfg entry:

```
#######################################
# ALF Events Configuration
#######################################
DM_ALF_ENDPOINT http://sbmhost:8085/eventmanager/services/
    ALFEventManager
DM_ALF_EVENT_CONFIG %DM_DFS%alf_events_config.xml
DM_ALF_PRODUCT_INSTANCE DimensionsUnderOrchestratedApps
```

Updating the ALF Events Configuration Settings

So that Serena Development Control can receive information from Serena
Dimensions CM, you must update the ALF configuration settings with the necessary
information.

To update the Dimensions CM configuration settings:

1   Navigate to the Dimensions CM installation directory. For example:

   ..\Program Files\Dimensions\12.1\CM\dfs

2   Update the ALF_EVENTS_CONFIG.XML file to specify your Dimensions CM database
       name, and project name.

Example

ALF_EVENTS_CONFIG.XML

```
   <!--      Specify a specific database-->
 <Database>
    <!--      Example database name specification
    <base_database_id>@<server>-<db_connection>
    (using the wildcard character "*")-->
            <Name>CM_TYPICAL@*-Dim10</Name>
    <!--Specify one or more projects-->
    <Projects>
     <!--Specify a specific  project-->
     <Project
        <!-- Example project name specification
        <project-spec> - <product-id>:<project-id>
        (using the wildcard character "*")-->
            <Name>QLARIUS:*</Name>
      <!--Specify one or more object classes-->
      <Objects>
<!-- Specify a specific object class -->
```

After completing these changes, restart the Serena Dimensions Listener service.

Assign Build Engineer Role

In the default application, members of the Build team need to have the role of BUILD ENGINEER assigned. The Build Manager, AMY, and the Development Engineer EMMA need to be authorised to be delegated the role BUILD ENGINEER with Capability SECONDARY in Dimensions CM.

To do this:

1 Open the Dimensions CM Administration Console as a member of the Administration group, for example dmsys:

In a browser, enter for example the URL

```
http://dvm_cmserver:8080/adminconsole
```

2 Under **Users and Roles**, select **Role assignments | By user**
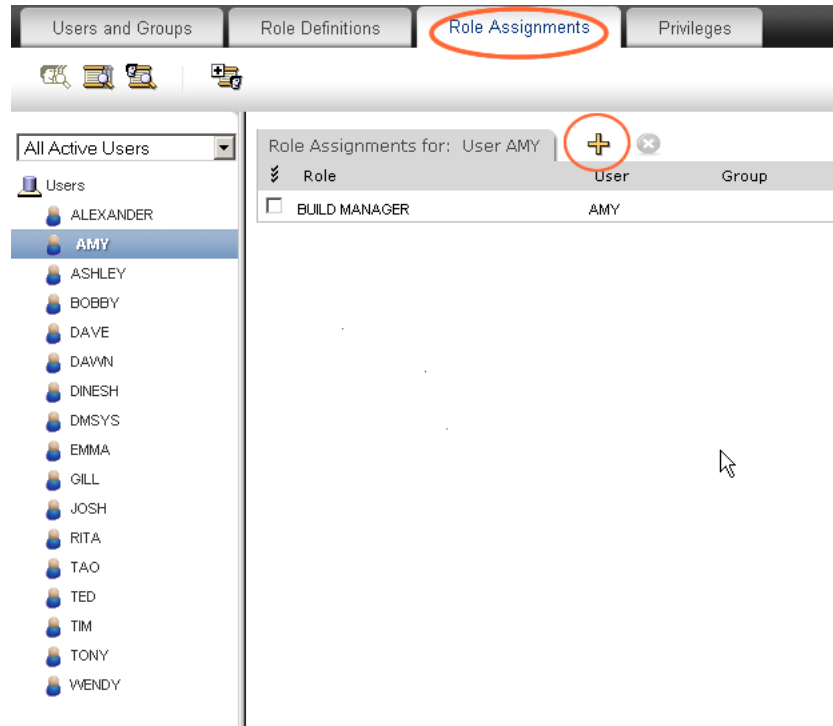
3 Select the user and select the Add button
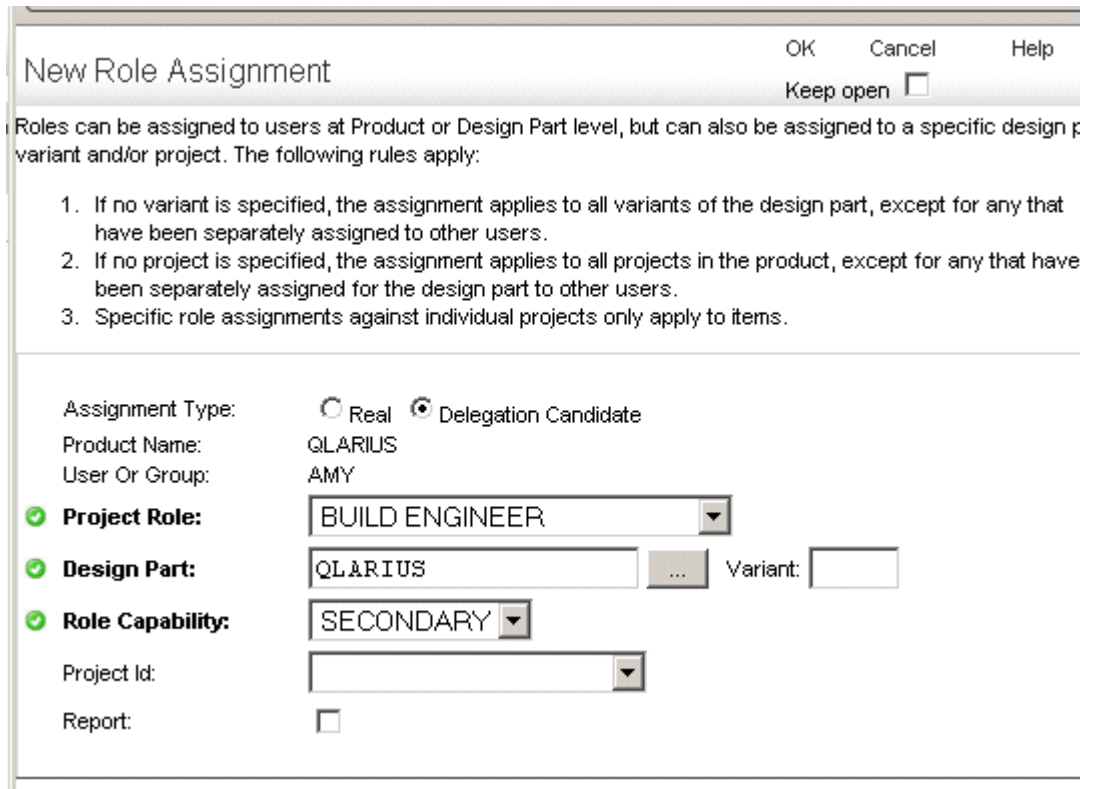
4 Set the following values:

- **Assignment Type**: Delegation Candidate.

- **Project Role**: BUILD ENGINEER

- **Design Part**: The top level design part for the project, for example QLARIUS

- **Role Capability:** Secondary

5 Click **OK**.

Assign Development Engineer Role as Delegation Candidate

In the default application, the Development Engineer, for example Emma, needs to be authorised to be delegated the role DEVELOPMENT ENGINEER with Capability SECONDARY.

To do this:

1 Open the Dimensions CM Administration Console as a member of the Administration group.

2 Under **Users and Roles**, select **Role assignments** | **By user**

3 Select the user and select the **Add** button

4 Set the following values:

- **Assignment Type**: Delegation Candidate.

- **Project Role**: DEVELOPMENT ENGINEER

- **Design Part**: The top level design part for the project, for example QLARIUS

- **Role Capability:** Secondary

5 Click **OK**.

Assign Development Engineer Role to TASK Lifecycle Transitions

The transitions in the TASK lifecycle in Dimensions CM to *Complete* and *Closed* need to have DEVELOPMENT ENGINEER assigned as a Pending role.

1 Under Configuration Object Management, select Lifecycles.

2 Select LC_TASK.

3 Click the Edit button
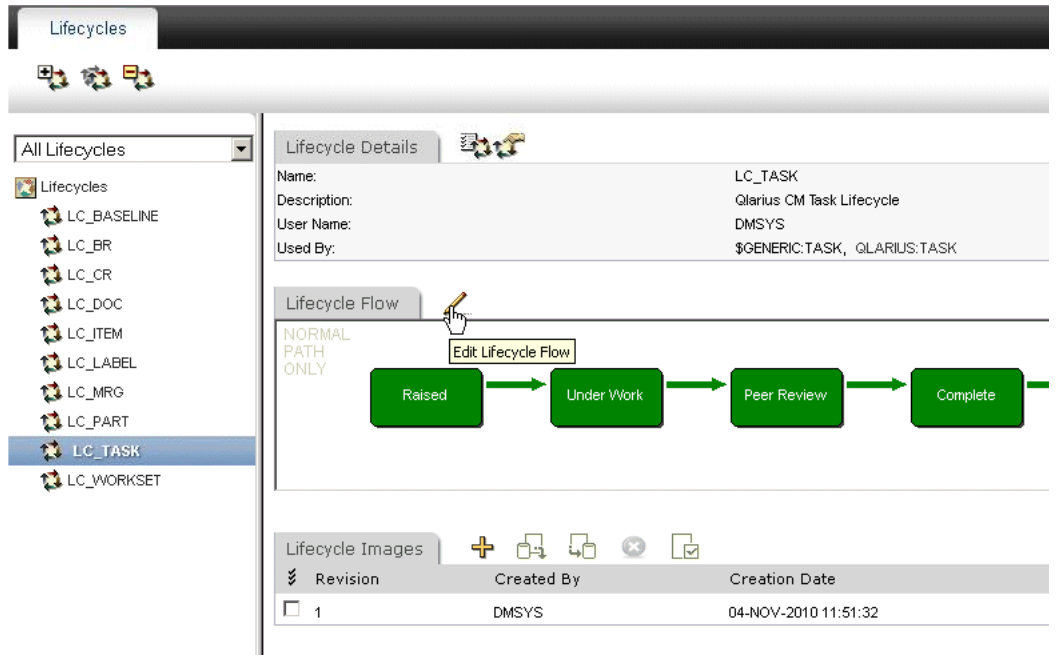
4 Select the Complete state and select the transition arrow from Peer review to Complete
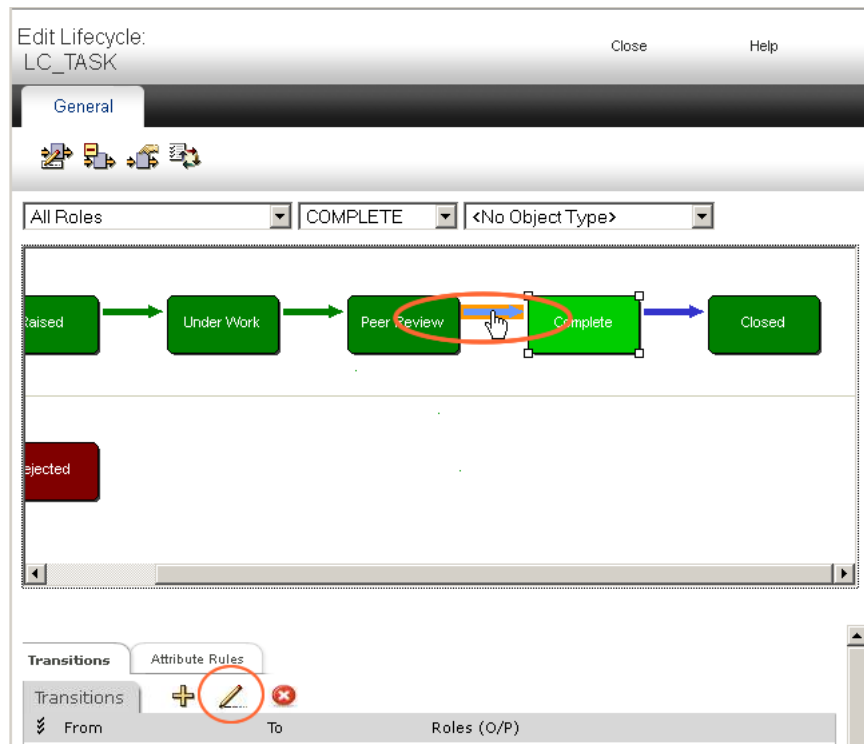
5 Click the Edit button on the Transitions tab.

6 Select DEVELOPMENT ENGINEER and select the Pending check box

7 Click OK.

8 Select the the transition arrow from Complete to Closed

9 Click the Edit button on the Transitions tab.

10 Select DEVELOPMENT ENGINEER and select the Pending check box

11   Click OK.

Setting Privileges for the Service User

The user that you are using in the process apps to connect with Dimensions CM, by default *serviceuser* needs to exist on the Dimensions CM server, and have the necessary roles and privileges to work with Development Manager.

1   Open the Administration Console.

2   Select Users and Groups.

3   If the user does not exist, Click the Add button on the toolbar, and create a user with a name corresponding to the service user.

4 Select the service user.
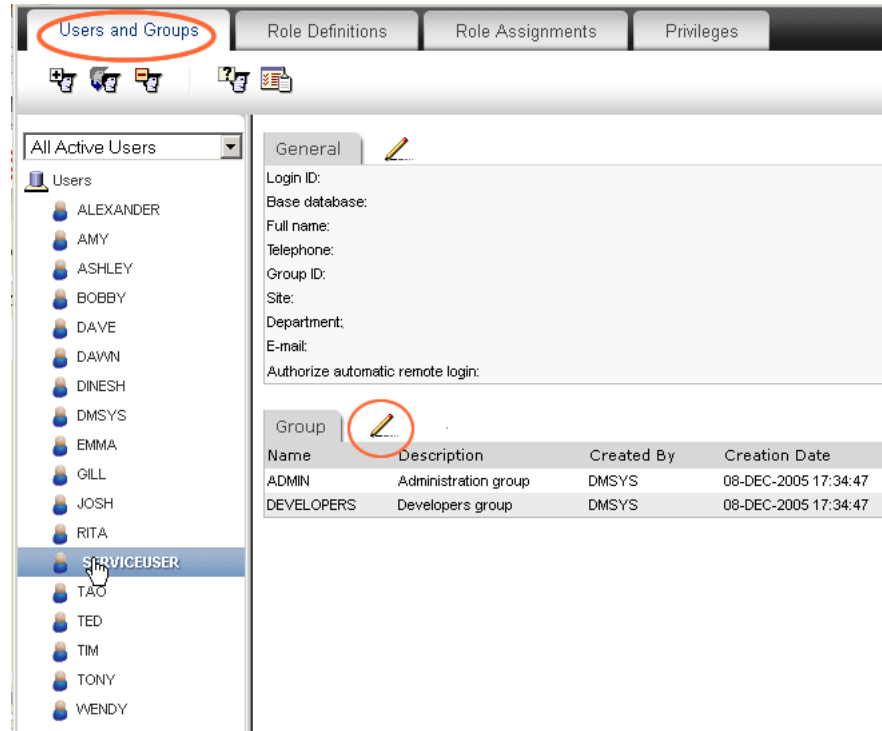
5 Click the Edit button and in the Edit User dialog, add the groups ADMIN and DEVELOPERS.

6 Click the Role Assignments Tab.

7 Click the Users button on the toolbar.

8 Select the user, for example SERVICEUSER.

9 Click the Add button.

10 Add the same role assignments as are assigned for user DMSYS.

Chapter 5
Configuring ChangeMan ZMF

This chapter describes the configuration of ChangeMan ZMF on the mainframe and on the Serena Development Managerserver.

Configuring ZMF Communication on the Mainframe

You must configure ChangeMan ZMF communication on the z/OS mainframe as follows:

- Configure the NTFYURL; this is the URL Serena Development Manager uses to send information to SERNET through the server.

- Configure the SERNET HTTP server; this is the server Serena Development Manager uses to populate the UI widgets with ZMF information.

- Configure a proxy user ID for each mainframe host, or LPAR, that Serena Development Manager uses to log in to ChangeMan ZMF.

- Configure TSO user IDs that match the SBM user IDs.

- Configure approvers for each promotion level to be used with Serena Development Manager.

For details, see the following:

- "Configuring the Notification URL" on page 96

- "Configuring the SERNET HTTP Server" on page 97

- "Configuring a Proxy User ID" on page 105

- "Configuring TSO User IDs and Permissions" on page 106

- "Configuring Approvers" on page 106

Configuring the Notification URL

You must give ChangeMan ZMF a way to tell Serena Development Manager when ChangeMan ZMF has completed a requested task. Since information from ZMF is sent through ALF and SERNET, you must configure the notification URL parameter for the SERNET started task on z/OS.

The NTFYURL parameter is a keyword option used with the SERNET started task. This parameter is required for notifying Serena Development Manager when an ALF event is emitted from ChangeMan ZMF.

There are three different ways of passing the NTFYURL parameter to SERNET.

Whichever method you choose to pass this parameter, it must be specified as follows:

```
NTFYURL='hostname:port/almzmfalf/services/ZMFALFEventRouter'
```

where *hostname* is the server name where Serena Development Manager Web Services are installed and *port* is the port number for that server.

This parameter is case-sensitive; the non-variable text must be entered exactly as shown. Be sure to include the quotes around the variable string.

Example

```
NTFYURL='alm_host:8080/almzmfalf/services/ZMFALFEventRouter'
```

> ⚠ **CAUTION!** If your site is a DP site, you must specify the same hostname and port for the DP site and the P site. If not, the P site will continue to wake up looking for work and will fill up the JESMSGLG (JES message log).

Documentation References

- Complete documentation on passing parameters to SERNET is in the *Passing Parameters to SERNET* in the *Serena ChangeMan ZMF Installation Guide*.

Configuring the SERNET HTTP Server

The ChangeMan ZMF UI widget for Serena Development Manager is populated using a native mainframe HTTP server, `SERSERVC`, that runs under SERNET

> ℹ **IMPORTANT!**
>
> - For the UI widgets to populate the forms with information from ZMF, the ZMF forms must be updated so that the widgets point to the correct hostname. See "Configuring the ChangeMan ZMF Web Page Widgets" on page 73.
>
> - The URL to this server is specified in the `zmf-client-connection.properties` file, which can be updated using the Serena ALM Configurator. See "ZMF Client Connection Information" on page 58.

To support communications with Serena Development Manager, ChangeMan ZMF users require `SERSERVC`, a native mainframe HTTP server than runs under SERNET. `SERSERVC` is written in REXX and runs under IBM's Unix System Services (USS) on the host. It supports UTF-8 character encoding only.

Documentation References

- Documentation on passing parameters to SERNET is in the *Passing Parameters to SERNET* in the *Serena ChangeMan ZMF Installation Guide*.

SERSERVC Prerequisites

SERSERVC has the following general requirements:

- A dedicated TCP/IP port ID must be assigned to the HTTP server.

- A version of ChangeMan ZMF that supports Serena Development Manager must be installed.

    Refer to the Serena product <u>software compatibility matrix</u> for information on versions of ChangeMan ZMF that integrate with Serena Development Manager.

> **NOTE** SERSERVC works with versions of ChangeMan ZMF that may not be certified to work with Serena Development Manager and may be installed independently of Serena Development Manager.

SERNET User ID

To run the `SERSERVC` HTTP server under z/OS Unix System Services (USS), SERNET requires a RACF userid with the following features:

- *OMVS segment*   Establish this segment to manage USS privileges in RACF.

- *User privileges*   In the OMVS segment assigned to the SERNET user ID, set the Unix user ID number to a value that will give SERNET the highest user privilege level allowable in your shop. Superuser privileges (that is, `UID(0)`) are not required.

- *Unix home directory*   Assign a home directory in the OMVS segment for the user ID. By convention, the home directory path name takes the form

    /u/*userid*

    where *userid* is the SERNET user ID you assign in RACF.

    In the examples below, we will use a SERNET user ID of `sernet` and a Unix home directory path name of `/u/sernet`.

> **PRIVILEGES** Serena recommends that SERNET be assigned the same user ID as the ChangeMan ZMF started task class.

Verifying SERNET User ID Privileges

If you are already using TCP/IP for communications with ChangeMan ZMF, SERNET will already have a user ID with an OMVS segment assigned. For example, you may use SERNET to communicate with ChangeMan ZDD or use the ChangeMan ZMF Load Balancing Option (LBO). However, user privileges and/or a Unix home directory may not be established.

To verify privileges for an existing SERNET user ID:

1 Find the current SERNET user ID.

   a Use SDSF to examine a running ChangeMan ZMF task or the JESMSGLG of the job output from a previous execution of ChangeMan ZMF.

   b At the top of the message log, usually next to the message

```
$HASP373 STARTED
```

find message `IEF695I`. This message includes an `ASSIGNED` message line that identifies the SERNET user ID.

2 Retrieve the OMVS segment for the SERNET user ID.

    a At the TSO command line, issue the following command:

    `LU` *userid* `OMVS`

    where *userid* is the SERNET user ID found above, such as *sernet*.

    b If no OMVS segment is returned, ask your systems programmer or security administrator to add one. (See "SERNET User ID" for required privileges.)

    c If an OMVS segment exists for the user ID, verify that the `UID` is set to zero and note the Unix home directory (for example, `/u/sernet`). If either are missing, ask your security administrator to add it to the OMVS segment.

PRIVILEGES

- UID(0) is not required for the HTTP server.

- UID(0) is recommended but not required for the SERNET server. The SERNET server already runs as APF-authorized. The server must have read, execute, and write privileges to the HFS file system, and in particular, anything that starts with the home directory of the server's user ID.

Installing SERSERVC

To install SERSERVC perform the following steps.

SERSERVC Runtime Directory

1 Create the SERSERVC runtime directory with a path name of the form

`/u/`*userid*`/serservc`

where *userid* is your actual SERNET user ID. (In our examples, this is *sernet*.)

    a Select ISPF option `3.17` to invoke the UNIX directory list utility.

    b In the **Pathname** field of the **z/OS Unix Directory List Utility** panel, type the SERNET home directory path (for example, `/u/sernet`). Leave the **Option==>** prompt blank to request a display of directory contents and press Enter.

    The directory list for the SERNET home directory displays.

    c In the **Unix Directory List** panel for the SERNET home directory, type the **N (New)** line command at the root level of the file hierarchy. The **Filename** for this level is listed as a single period (`.`) and the **Type** is "Directory" (`Dir`).

For example:

```
 Menu  Utilities  View  Options  Help
SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
                         z/OS UNIX Directory List          Row 1 to 5 of 51

Pathname . : /u/sernet

Command  Filename        Message          Type Permission Audit  Ext  Fmat
--------------------------------------------------------------------------
___n____ .                                Dir  rwxrwxrwx  fff---
_____ ..                               Dir  --x--x--x  fff---
_____ codepage                         Dir  rwxrwxrwx  fff---
_____ dd                               Dir  rwxrwxrwx  fff---
_____ howdy.java                       File rwx------  fff--- --s- ----

Command ===>                                             Scroll ===> PAGE
 F1=Help    F2=Split   F3=Exit    F4=Expand F5=Rfind  F7=Up      F8=Down
 F9=Swap    F10=Left   F11=Right  F12=Cancel
```

Press Enter.

d When the **Create New z/OS UNIX File** window displays, create a new directory
called serservc with permission level 755. Required field values are:

- **Pathname**   Give the full path name for the new directory serservc.
  For example: /u/sernet/serservc

- **Permissions**   Type 755 to assign read, write, and execute permissions
  over the directory to the directory owner, the owner's
  security group, and all others.

- **File Type**   Type 1 to identify the new data object as a directory.

For example:

```
ISRUULNW              Create New z/OS UNIX File
Command ===>

Pathname . . . . /u/sernet/serservc                              +

Permissions . . 755  (Octal)

Link . . . . . .                                                 +

                                     Options
File Type . . . 1  1. Directory            Set sticky bit
                   2. Regular file          Copy...
                   3. FIFO                  Edit...
                   4. Symbolic Link
                   5. External Link
                   6. Hard Link
```

Press Enter and then exit the utility with PF3.

> **NOTE** The creation of the UNIX directory /u/*userid*/serservc must be done by a
> user with the proper authority, such as a systems programmer. Some user IDs may
> not have access to ISPF 3.17.

SERSERVC Runtime JCL

2 Copy the sample runtime JCL module SERSERVC to your actual installation PROCLIB. Member SERSERVC resides in the CNTL library where you unloaded the ChangeMan ZMF SERCOMC installation libraries.

3 Customize the runtime JCL for SERSERVC.

The following model SERSERVC JCL segment is supplied for your reference when making these changes. The actual downloaded JCL may vary from this example.

```
//SERSERVC PROC OUTC=H,                                * CLASS
//               PORT=6657,                            * PORT
//               PATH='/u/sernet/serservc',            * PATH
//               PROCLIB='USER.PROCLIB'                * PROCLIB
//*===========================================================*
//*            JCL TO EXECUTE SERSERVC SDSF SERVER            *
//*===========================================================*
//SERSERVC EXEC PGM=BPXBATCH,
//          PARM='sh &PATH./serserv &PORT'
//*
//SYSEXEC  DD  PATH='&PATH/'
//SYSPRINT DD  SYSOUT=&OUTC
//SYSTSPRT DD  SYSOUT=&OUTC
//STDOUT   DD  PATH='&PATH./stdout',
//             PATHOPTS=(OWRONLY,OCREAT,OTRUNC),
//             PATHMODE=SIRWXU
//STDERR   DD  PATH='&PATH./stderr',
//             PATHOPTS=(OWRONLY,OCREAT,OTRUNC),
//             PATHMODE=SIRWXU
//MSGLOG   DD  PATH='&PATH./msglog'
//STDENV   DD  DUMMY
//*===========================================================*
```

a For the **PORT** parameter, change the sample port number to the actual IP port assigned for the exclusive use of the SERSERVC HTTP server.

b In the **PATH** parameter, replace the sample home directory, /u/sernet, with the actual Unix home directory you created for SERNET.

⚠️ **CAUTION!** The home directory is the top-level directory for SERNET. Do not change the name of the serservc subdirectory in this path.

c For the **PROCLIB** parameter, replace the sample value USER.PROCLIB with the name of your actual installation PROCLIB.

SERSERVI Install Job

4 Customize the JCL for the SERSERVI install job. Member SERSERVI resides in the CNTL library where you unloaded the ChangeMan ZMF SERCOMC installation libraries.

The following sample SERSERVI JCL segment is supplied for your reference when making these changes. The actual downloaded JCL may vary from this example.

```
//jobcard  JOB ,'USS JOB',CLASS=A,
//         NOTIFY=userid
//*
//STEP1    EXEC PGM=IKJEFT01,DYNAMNBR=200,COND=EVEN
//SYSTSPRT DD  SYSOUT=*
//HFSOUT   DD  PATH='/u/sernet/serservc/stdout',
//             PATHOPTS=(OWRONLY,OCREAT,OTRUNC),
//             PATHMODE=(SIRWXU,SIRWXG,SIRWXO)
```

```
//HFSERR   DD  PATH='/u/sernet/serservc/stderr',
//              PATHOPTS=(OWRONLY,OCREAT,OTRUNC),
//              PATHMODE=(SIRWXU,SIRWXG,SIRWXO)
//EMPTY    DD  *
/*
//NEWLOG   DD  PATH='/u/sernet/serservc/msglog',
//              PATHOPTS=(OWRONLY,OCREAT,OTRUNC),
//              PATHMODE=(SIRWXU,SIRWXG,SIRWXO)
//NEWHDR   DD  PATH='/u/sernet/serservc/headers',
//              PATHOPTS=(OWRONLY,OCREAT,OTRUNC),
//              PATHMODE=(SIRWXU,SIRWXG,SIRWXO)
//MSGARCH  DD  *
******** ******** SerServ *----------------- Archive Restart ---*
/*
//NEWSRV   DD  PATH='/u/sernet/serservc/serserv',
//              PATHOPTS=(OWRONLY,OCREAT,OTRUNC),
//              PATHMODE=(SIRWXU,SIRWXG,SIRWXO)
//NEWTSK   DD  PATH='/u/sernet/serservc/sertask',
//              PATHOPTS=(OWRONLY,OCREAT,OTRUNC),
//              PATHMODE=(SIRWXU,SIRWXG,SIRWXO)
//SERSERV  DD  DISP=SHR,DSN=CMNPRD.CMN.SE56.#000031.REX(SERSERV)
//SERTASK  DD  DISP=SHR,DSN=CMNPRD.CMN.SE56.#000031.REX(SERTASK)
//SERCMD   DD  DISP=SHR,DSN=CMNPRD.CMN.SE56.#000031.CLS(SERCMD)
//NEWCMD   DD  DISP=SHR,DSN=USER.SYS1.CLIST(SERCMD)
//SERVA    DD  DISP=SHR,DSN=USER.PROCLIB(SERSERVA)
//SERVP    DD  DISP=SHR,DSN=USER.PROCLIB(SERSERVP)
//SYSPRINT DD  SYSOUT=*
. . .
```

a Copy the SERSERVI JCL sample to a work library for editing.

b Edit the job card as needed.

c In each occurrence of the **PATH** parameter that is supplied to various job steps in this job, change the sample home directory name, /u/sernet, to the actual name of the Unix home directory you defined for SERNET.

⚠ **CAUTION!** The home directory is the top-level directory for SERNET. Do not change the name of the serservc subdirectory or any lower-level directories or files in the **PATH** parameter value.

d For jobs SERSERV and SERTASK, change the dataset names in the sample DD statements to point to the CEXEC library where you unloaded the ChangeMan ZMF SERCOMC installation libraries.

e For the SERCMD job, change the dataset name in the sample DD statement to point to the CLIST library where you unloaded the ChangeMan ZMF SERCOMC installation libraries.

f For the NEWCMD job, change the CLIST library in the sample DD statement to point to the actual REXX execution library where SERSERVC will reside at runtime.

💡 **TIP** This may be either a SYSEXEC or SYSPROC library, depending on your installation standards. Run ISRDDN from TSO if you are uncertain about how your REXX execution libraries are handled.

g In the SERVA and SERVP sample DD statements, change the name of the library containing members SERSERVA and SERSERVP from USER.PROCLIB to your actual installation PROCLIB dataset name.

5 Run SERSERVI.

This job installs the HTTP server software in the REXX execution library where it will reside at runtime.

SERCMD Server Control Routine **6** Modify REXX EXEC module SERCMD to use the actual IP address and port number assigned to SERSERVC.

SERCMD is copied to the actual REXX execution library where SERSERVC resides by the SERSERVI install job.

Verifying the Installation of SERSERVC

To verify the installation of SERSERVC, do the following:

1 Start the server by issuing the /S (Start) console command in SDSF:

/S SERSERVC

2 Ping SERSERVC locally to verify that it is operational.

   a At the TSO command line, enter:

    SERCMD PING

   b You should receive the response **ok**.

3 Ping SERSERVC from a Web browser to verify network connectivity.

   a From any Web browser, type

      http://*ip:port*/?PING

   where

     ip   is the IP address assigned to the LPAR where SERNET resides

     port   is the port number assigned to the exclusive use of SERSERVC

   b You should receive the response **ok**.

SERSERVC Runtime Considerations

Runtime considerations for SERSERVC include the following startup, shutdown, and timing synchronization issues.

Startup and Shutdown

Console Commands The SERSERVC HTTP server can be started and stopped using standard console commands in SDSF. To start the server, enter:

```
/S SERSERVC
```

The server can be stopped (cancelled) from SDSF at any time. To stop the server, enter:

```
/C SERSERVC
```

IPL Startup   However, `SERSERVC` is designed for high availability. When testing is complete, consider adding `SERSERVC` to the list of started tasks that are brought up at IPL time.

Orderly Shutdown   It does no harm to cancel `SERSERVC` with a console command, but orderly shutdown is the preferred method. To initiate an orderly shutdown of the server, type

```
SERCMD SHUTDOWN
```

at the TSO command line. You should receive the response **ok**.

During an orderly shutdown, `SERSERVC` copies its message log (`msglog`), error log (`stderr`), and standard output (`stdout`) to SYSOUT * before terminating execution.

Network Synchronization

`SERSERVC` requires the local network time to be synchronized with server time on the host. Time zone differences of an integer number of hours are acceptable. However, the minutes and seconds (mm:ss) on the local network clock may not differ by more than 59 seconds from the minutes and seconds on the host clock.

Verifying Host Clock Time   To verify that local network time is synchronized with server time on the host, do the following:

1   From a Web browser running on the local network, type

```
http://ip:port/?TIME
```

where

ip   is the IP address assigned to the LPAR where SERNET resides

port   is the port number assigned to the exclusive use of `SERSERVC`

2   You should receive the response **hh:mm:ss**, which is the time on the mainframe where `SERSERVC` is running.

3   Discard the hours and compare the minutes and seconds on the host with the minutes and seconds reported on your local network. If a difference greater than 59 seconds is found, your local network time must be synchronized to the host.

The mainframe time is considered correct because its clock is built in at manufacture and cannot be changed.

Running Multiple Instances of SERSERVC

You can run multiple instances of SERSERVC if needed. For example, you may want to run a development HTTP server and a production HTTP server. Each instance must have its own directory and a unique port.

To run another instance of the HTTP server:

■   Follow the installation instructions in "Installing SERSERVC" on page 99, substituting another name for this instance, such as SERSERVD, in place of SERSERVC.

- Specify a different directory and port for this instance according to your company's installation standards.

Here are examples of JCL segments for a production system and a development system.

Production SERSERVC example:

```
//SERSERVC JOB MSGLEVEL=1
//STARTING EXEC SERSERVC
XXSERSERVC PROC OUTC=H,                          * CLASS
XX             PORT=8188,                         * PORT
XX             PATH='/u/serstart/serservc',       * PATH
XX             PROCLIB='USER.PROCLIB'             * PROCLIB
```

Development SERSERVC example:

```
//SERSERVD JOB MSGLEVEL=1
//STARTING EXEC SERSERVD
XXSERSERVD PROC OUTC=H,                          * CLASS
XX             PORT=6157,                         * PORT
XX             PATH='/u/sernet/serservc',         * PATH
XX             PROCLIB='USER.PROCLIB'             * PROCLIB
```

Configuring a Proxy User ID

A proxy user ID, or trusted user ID, is required for each ChangeMan ZMF host server, or LPAR. You specify these in the `zmf-client-connection.properties` configuration file when you configure ZMF communication on the Serena Development Manager server.

The purpose of the trusted user ID is to allow users to automatically access ChangeMan ZMF through Serena Development Manager without logging on. The trusted ChangeMan ZMF user ID connects to the host server on behalf of the user.

Consider an example where a user wants to freeze a release unit. The orchestration invoked for the Freeze function requires access to the ChangeMan ZMF host server. The user's TSO user ID is on his SBM contact record and is associated with the trusted user ID; however, there is no password stored in the user's contact record. The trusted user ID (which does have a password) logs on to the ChangeMan ZMF host server on behalf of the user. The trusted user ID impersonates the user, but does not have access to other resources (such as performing ChangeMan ZMF functions). The authority levels of the user are in effect for the transaction.

The trusted user ID can be any SAF-defined user ID. No specific attributes are required. It is not necessary that this user ID be allowed to access TSO. This user ID must be given READ (or higher) access to the "trusted resource". The trusted resource is a SAF resource, by default SERENA.SERNET.AUTHUSR in the FACILITY class. The resource and class are user-modifiable by changing the names in the SERLCSEC CSECT, which is delivered as source code with ChangeMan ZMF. This CSECT is used for customizing a variety of security-related functions.

NOTE It is not necessary to alter SERLCSEC to support Serena Development Manager in the default fashion, as the latest version is already coded for the above resource name and class. Be sure to use the latest version of this CSECT. If you have previously modified it, you will need to re-apply your customizations.

IMPORTANT! The Serena Development Manager *trusted resource* is not related to the RACF user ID TRUSTED attribute.

Configuring TSO User IDs and Permissions

All Serena Development Manager users should have a TSO user ID with the appropriate permissions. A user may not have needed a TSO user ID prior to using Serena Development Manager; however, when using Serena Development Manager, the user may initiate a transition in a workflow that orchestrates an action in ChangeMan ZMF (such as transitioning a change package) which requires that his user ID be passed to ChangeMan ZMF.

These user IDs must have access to every resource required by ChangeMan ZMF functions that Serena Development Manager uses.

NOTE Serena Development Manager extracts the SBM user ID from the SSO certificate and uses it when invoking the ZMF Web services. The `loginAsUserID` sent to ZMF through the ZMF XML services is the SBM user ID.

Configuring Approvers

You must configure approvers in ZMF as needed to initiate the installation and baselining of change packages.

For example, if you configure just one approver, once the approval is given by the approver, the change package will go into 'APR" status and the installation will be initiated. The Serena Development Manager ZMF approval deployment task will go into "In Progress" state and will wait for the ZMF package to be installed and baselined. After the ZMF package goes into "BAS" status, the Serena Development Manager ZMF approval deployment task will go into "Complete" state.

An example of how a release engineer might specify approval deployment tasks for the default release stages of Serena Development Manager is given in the *Serena Release Manager Getting Started Guide* in "Creating Approval Deployment Tasks".

NOTE In ChangeMan ZMF, specify approvers on the Planned Approvals panel in option A.A.5. Approvers must have approval authority.

Configuring ZMF Communication in Development Manager

You must configure ChangeMan ZMF properties on the Serena Development Manager server so that Serena Development Manager can connect to and communicate with ChangeMan ZMF. To do this, you must do the following:

- Specify the connection information. You do this through the Serena ALM Configurator **ZMF** page.

- Specify ALF event manager information for ChangeMan ZMF in the Serena Development Manager common Tomcat Web server `webapps\almzmfalf\WEB-INF\conf` folder `alfzmf_resource.properties` file.

- Specify other ZMF client-specific information in the Serena Development Manager common Tomcat Web server `classes` folder `zmf-client.properties` file.

Related Topics

- "Specifying ALF Event Manager Connection Information for ZMF" on page 107

- "Specifying Client-Specific Information for ChangeMan ZMF" on page 108

- "ZMF Client Connection Information" on page 58

Specifying ALF Event Manager Connection Information for ZMF

So that Serena Development Manager can receive information from ChangeMan ZMF through the ALF event manager, you must update the ALF event properties file used by the ZMF integration with sign-on credentials SBM uses for the connection.

NTFYURL sends information to the ALF event service URL, which then sends the events to the ALF event manager. The user ID and password of the SBM user that initiated the event must have access to all the SBM Serena Development Manager objects and must also be a valid user ID in ChangeMan ZMF.

To update the ZMF ALF connection information:

1   Navigate to the Serena Development Manager common Tomcat Web server `webapps\almzmfalf\WEB-INF\conf` folder. For example:

    `C:\Program Files\Serena\common\tomcat\6.0\webapps\almzmfalf\WEB-INF\conf`

2   Open the `zmfalf_resource.properties` file.

3   Set the `AE_USERID` and `AE_PASSWORD` variables with the user ID and password of your Serena Development Manager administrative user.

4 Set the properties for the connection to the ALF event manager as follows:

Parameter	Value
`ALF_EVENTMANAGERURL`	URL to the SBM server where the ALF event manager Web services are installed, in the form of: `http://<hostname>:<port>/eventmanager/services/ALFEventManager`
`AE_USERID`	User ID with access to the appropriate SBM projects and tables and ZMF applications controlled by Serena Development Manager. This user ID must exist in both SBM and ZMF.
`AE_PASSWORD`	Password for the SBM user ID.
`AE_VERSION`	Version of SBM. This is for documentary purposes only.

5 Restart Tomcat.

Example

> `zmfalf_resource.properties`

```
# Property resource bundle file for Axi2 ZMF Service
# Used to configure Axis2 ZMF Service system properties.

ALF_EVENTMANAGERURL = http://sbmhost:8085/eventmanager/services/ALFEventManager

# The AE userid must have access to the appropriate SBM projects/tables and it must also
      have access to ZMF applications controlled by RLM.
AE_USERID = almadmin
AE_PASSWORD = almadmin_test
AE_VERSION = SBM 2009 R3
```

Specifying Client-Specific Information for ChangeMan ZMF

So that Serena Development Manager knows which status to expect for successful and failed responses from ChangeMan ZMF, you must specify this information in the appropriate properties file.

To specify the ZMF response status information:

1 Navigate to the Serena Development Manager common Tomcat Web server `classes` folder. For example:

> `C:\Program Files\Serena\common\tomcat\6.0\webapps\alm\WEB-INF\classes`

2 Open the `zmf-client.properties` file.

3 Set the properties for the connection as follows:

Parameter	Value
`JOB_STATE_SUCCESS`	State that indicates success.
`JOB_STATE_FAILURE`	State that indicates failure.

4 Restart the Serena common Tomcat service.

Example

This example sets the values needed to connect to ChangeMan ZMF.

`zmf-client.properties`

```
# Specify ZMF promotion success and failed state.
JOB_STATE_SUCCESS = Completed
JOB_STATE_FAILED  = Failed
```

Configuring Objects in ChangeMan ZMF

Serena Development Manager uses several objects that your ChangeMan ZMF administrators configure as part of the ongoing use of ChangeMan ZMF in addition to some that must be configured specifically to support Serena Development Manager.

Objects that you will ordinarily already have set up as part of your normal administration and use of ChangeMan ZMF are as follows:

- Applications (Projects)

- Sites (Environments)

- Change Packages

- Approver lists

- Promotion levels

- Audit return code rules

What Can You Change?

You can change any of the above information in ChangeMan ZMF, but not in Serena Development Manager. The only things that change in ZMF should be a result of ZMF vault and approval deployment tasks initiated by deploying a release package in Serena Development Manager.

What is the Impact?

If you update information in ZMF for the change packages for which you have initiated the installation from Serena Development Manager, you may impact the result in Serena Development Manager.

How Do You Change It?

ChangeMan ZMF administrators should change ZMF objects in ZMF according to the ZMF documentation.

Documentation References

- Complete documentation on configuring ZMF objects is in the *Serena ChangeMan ZMF Administrator Guide*.

Chapter 6

Troubleshooting

This chapter describes common problems that you may encounter when installing, configuring, or using Serena Development Manager.

Overview

The following section describes a number of issues you may encounter when installing, configuring, or using Serena Development Manager. These are:

Installation Issues

- "Specifying Configurator SSO Support in ALM Installer (DEF221902)" on page 113

- "QC Connector Does not Install when Using Remote Desktop (DEF213757)" on page 113

- "Error Obtaining Security Token (DEF224185)" on page 113

Upgrading Issues

- "Reports not Updated on Upgrade (DEF221885)" on page 117

- "Create Dev CR Button not Appearing After Upgrade" on page 117

- "Error Promoting Dev Change Requests Snapshot (DEF217760)" on page 118

- "Promoting Snapshots Fails after Upgrade to DVM 4.0 (DEF216946)" on page 118

- "Installation Interrupted Error on Upgrade when an Already Installed Component is deselected (DEF212478)" on page 119

Development Control Issues

- "Automatic Transition of Dev Change Request not Occurring when Child Tasks Complete (DEF226280)" on page 120

- "Dev Task not Updating after Associated Request is Actioned" on page 121

- "Unexpected Error Appears when Editing an ALM Project with a Child Dev CR (DEF226496)" on page 121

- "Error Occurs when Selecting an Existing ZMF Change Package with Correct Install Date (DEF226545)" on page 121

- ""Please Contact Your Administrator" Message Appears on Forms (DEF216549)" on page 122

- "It is Possible to Relate a ZMF Change Package to Multiple Dev Tasks (DEF224772)" on page 123

- "Baseline Link in Dev Package not Functioning (DEF226085)" on page 123

- "Admin User Does not have Group Privileges for SBM Sample Data for SBM 10.1" on page 123

- "Actioning a Task in Dimensions CM to Complete Does not Transition the Task in SBM to Complete." on page 124

Configuration Issues

- "Error When Deploying Process Apps" on page 124

- "Missing Endpoints (DEF221077, DEF225893)" on page 125

- "Parent CR Dev Complete rule invalid (DEF226370)" on page 126

- "Warnings When Promoting Process Apps" on page 128

Installation Issues

Specifying Configurator SSO Support in ALM Installer (DEF221902)

It is advisable to only select the option **Configurator SSO Support** and configure the SSO details on the first occasion that you run the ALM Suite Installer. When you run the installer on subsequent occasions, you should deselect this option. If you configure these details more than once, SSO may not function correctly.

Also you should not use *localhost* for the server name, but specify the name of the actual server.

QC Connector Does not Install when Using Remote Desktop (DEF213757)

When installing Development Control via Remote Desktop access to a Windows 2003 system, installation may fail if you include the Connector to Quality Center option. To avoid this issue, run Remote Desktop in Console or Administration mode by running one of the following commands:

```
mstsc /admin
```

or

```
mstsc /console
```

Error Obtaining Security Token (DEF224185)

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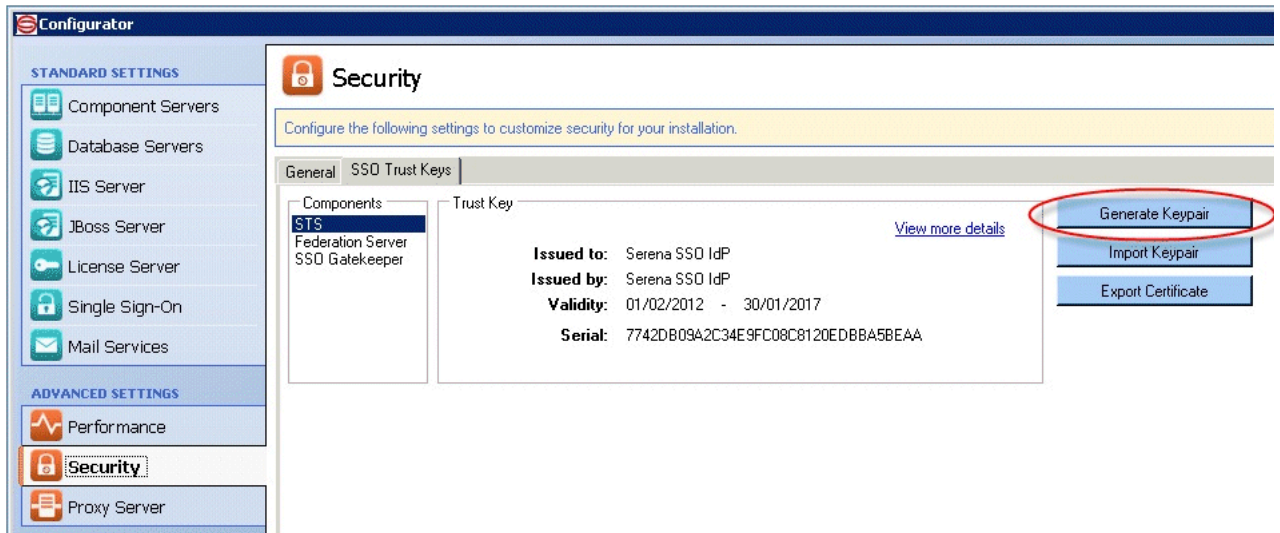
3   Use the **Export Certificate** button to export the newly generated certificate to a .pem file (for example to `C:\Temp\sts.pem`).

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
```

4 Navigate to

```
\alfssogatekeeper\conf
```

and make a backup of the `truststore.jks` file.

5 Under the Common Tools or Common folder, Navigate to

```
\jre\6.0\bin.
```

6 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.

7 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**.

8   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.

Upgrading Issues

Reports not Updated on Upgrade (DEF221885)

Some reports for Release 4.0, that have been updated from the previous release, do not override the previous versions that are referenced in the process apps after performing an upgrade. These are:

Process Application	Report name	Reference Name
Dev Change Request	CR(s) associated to this Dev Package	CR4DP
Dev Change Request	CR(s) associated to this Project	CR4Proj
Development Packages	Dev Package(s) associated with this Project	DP4Proj
Dev Tasks	Task(s) associated with this CR	Task4CR
Dev Tasks	CM Task(s) associated with this Dev Package	Task4DP

To resolve this issue, perform **one** of the following actions:

■ Before promoting the process apps, delete the five reports. The new versions of the reports will appear in the list after promotion.

■ After promoting the process apps, edit the five old versions of the reports to remove or change the reference name (this will remove the link to the old reports in the process apps). Then edit the five new reports (that will be displayed in the Web UI in red) and set the correct reference names as shown above.

■ After promoting the process apps, create your own reports and specify the reference names shown above to link the reports to the process apps.

ZMF Dev Tasks are shown in Dimensions CM Dev Package (DEF224942)

If you have a project that has both Dimensions CM and ZMF selected as providers, there is a problem whereby ZMF dev tasks are displayed on the Associated Tasks tab of the Dev Package view if you have upgraded from a previous version of Development Manager.

The solution to this problem is to delete the report "Task(s) associated to this dev package" from the Dev Tasks application before promoting the Release 4.0 process apps.

Create Dev CR Button not Appearing After Upgrade

There is a problem where, after upgrading to DVM 4.0 from a previous version, the **Create Dev CR** button does not appear on the Change Requests tab for an ALM project. This can be remedied by using the following steps:

1 Open SBM Composer.

2 Deploy the *Dev Change Requests* process app.

3 Deploy the *ALM Projects* process app.

Error Promoting Dev Change Requests Snapshot (DEF217760)

On promoting the Dev Change Requests snapshot after upgrading to DVM 4.0 from a
previous version, the promotion may fail with the following error appearing in the log file:

```
Import: Incoming project already exists at this level. Name: 'Dev
    Change Requests Project', Existing UUID: '60b85e4d-b11a-47c8-
    9f2c-66674945a733
```

The solution is to select None for Projects on the Entities page of the Promote wizard.
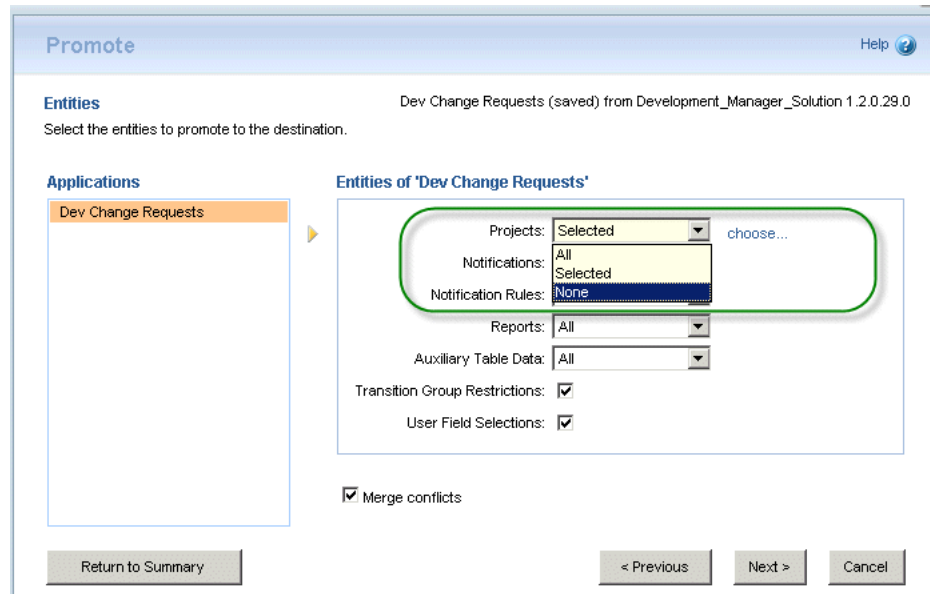
Promoting Snapshots Fails after Upgrade to DVM 4.0 (DEF216946)

When performing an upgrade to Development Manager 4.0, promoting snapshots may fail
with an error in the log file such as:

```
ERROR -- Cannot deploy BPEL definition for process model alf/
    9c629f6d-0686-41d5-a41a-1c079ba973fa/ - 500: could not execute
    query. ORA-00923: FROM keyword not found where expected.
Failed to complete the deployment to server "Default BPEL Server" at
    4/23/12 12:18 PM.
```

The following steps should resolve the problem:

1 Open SBM Configurator.

2 Restart the Serena Common JBOSS service.

3 Do one of the following:

- If you are using SBM 10.1 or later:

  Make sure that the file:

  ```
  C:\Program
      Files\Serena\SBM\Common\jboss405\server\default\log\sbm_oe_he
      alth.log
  ```

  Doesn't contain any errors.

■ If you are using SBM 10.1.1.1:

a Select Diagnostics

b Click the **Diagnostic Tests** button.

c Select **Orchestration Engine complex health test**.

d Click the **Run Selected Tests** button.
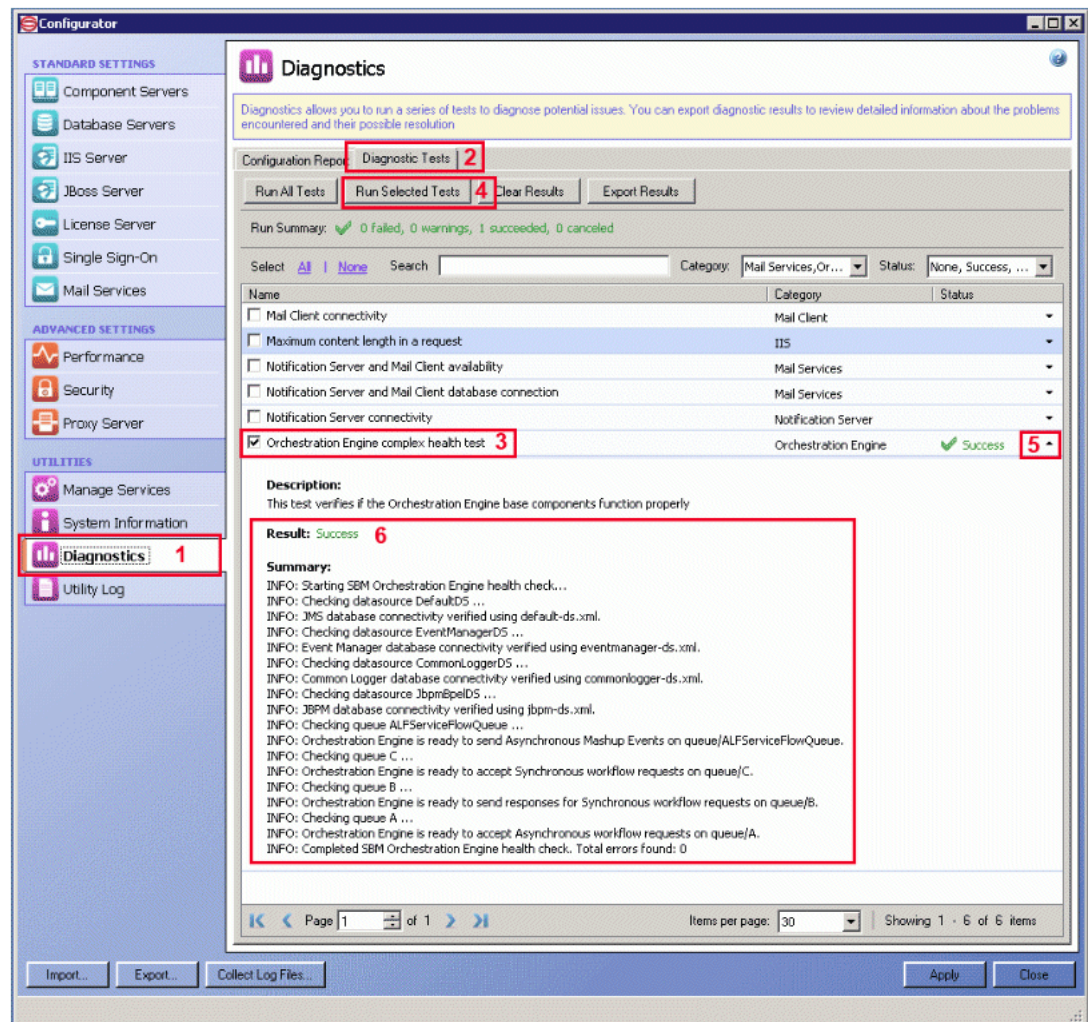
4 If there are errors found from either of the above, stop and restart Serena Common JBOSS.

5 Promote the snapshots.

Installation Interrupted Error on Upgrade when an Already Installed Component is deselected (DEF212478)

If upgrading an installation and deselecting an option that was previously installed, the installer fails. You will need to run the installer without deselecting an already installed component.

Upgrading of the QCC Connector

If you have updated your version of SBM since the last time you installed the Serena Connector for Quality Center, you must uninstall the existing version of the QC Connector before running the installer for Serena ALM 4.0.

This is because the QC Connector is installed against a specific version of SBM. If the SBM version entered during the install of the QC Connector as part of ALM 4.0 does not match that entered during the original installation of the QC Connector, the upgrade does not take place.

Development Control Issues

Automatic Transition of Dev Change Request not Occurring when Child Tasks Complete (DEF226280)

There is a problem when using MSSQL on an SBM Server where an automatic transition to Development Complete is not occurring for dev change requests when the child dev tasks are all complete.

To remedy this, it is necessary to perform an update on the MSSQL SBM sample database:

1   In SBM Configurator, stop the Serena Common JBOSS and IIS services. (you may find it necessary to stop IIS twice.)

2   Ensure that ALLOW_SNAPSHOT_ISOLATION and READ_COMMITTED_SNAPSHOT are disabled (at least one of the values equals 0) by performing the following SQL command:

```
SELECT
   snapshot_isolation_state,
   is_read_committed_snapshot_on
FROM sys.databases
   WHERE name= '<SBM_DATABASE_NAME>'
```

Where <SBM_DATABASE_NAME> is the name of the SBM database.

3   Check whether there are active connections to the SBM database. (If your SBM database is not returned in the list it means that there are no connections.)

```
SELECT
   DB_NAME(dbid) as DBName,
   COUNT(dbid) as NumberOfConnections,
   loginame as LoginName
FROM sys.sysprocesses
   WHERE dbid > 0 and DB_NAME(dbid) not in ( 'master', 'tempdb')
GROUP BY dbid, loginame
```

If there are any connections, close them:

```
USE master
GO
ALTER DATABASE sample SET OFFLINE WITH ROLLBACK IMMEDIATE
ALTER DATABASE sample SET ONLINE
```

4   Apply the following sql statement:

```
ALTER DATABASE sample SET ALLOW_SNAPSHOT_ISOLATION ON
ALTER DATABASE sample SET READ_COMMITTED_SNAPSHOT ON WITH NO_WAIT
```

5   Ensure that ALLOW_SNAPSHOT_ISOLATION and READ_COMMITTED_SNAPSHOT are enabled (both values equal 1):

```
SELECT
   snapshot_isolation_state,
   is_read_committed_snapshot_on
FROM sys.databases
   WHERE name= '<SBM_DATABASE_NAME>'
```

Where <SBM_DATABASE_NAME> is the name of the SBM database.

6   In SBM Configurator, restart the Serena Common JBOSS and IIS services.

Dev Task not Updating after Associated Request is Actioned

If you encounter a problem where a request has been actioned in Dimensions CM but the corresponding dev task in SBM has not been transitioned, it is likely that the user involved needs to be assigned the role DEVELOPMENT ENGINEER with Capability SECONDARY.

To do this:

1   Open the Dimensions CM Administration Console as a member of the Administration group.

2   Under **Users and Roles**, select **Role assignments** | **By user**

3   Select the user and select the **Add** button

4   Set the following values:

- **Assignment Type**: Delegation Candidate.

- **Project Role**: DEVELOPMENT ENGINEER

- **Design Part**: The top level design part for the project, for example QLARIUS

- **Role Capability:** Secondary

5   Click **OK**.

Unexpected Error Appears when Editing an ALM Project with a Child Dev CR (DEF226496)

If you have an ALM Project with a child dev change request, and you click the **Edit** button, a web service error may occur. This can be remedied by creating a child dev task for the associated dev change request and then performing the edit.

Error Occurs when Selecting an Existing ZMF Change Package with Correct Install Date (DEF226545)

There is a problem when creating a dev task having previously selected the **Create a new ChangeMan ZMF package for this task** checkbox, and Set **From Install Date/ Time** to the current date. If you subsequently uncheck the **Create a new ChangeMan ZMF package for this task** checkbox, select an existing ZMF change package, and click **OK** you will receive an error.

```
One or more fields are invalid.
From Install Time must be in the future!
```

To remedy this, after clicking on **Attach ZMF package**,

1   Remove the contents of the **From Install Date/Time** field in the *Create a new "ChangeMan ZMF package for this task* form.

2   Select the **Use an existing ChangeMan ZMF package for this task** checkbox.

"Please Contact Your Administrator" Message Appears on Forms (DEF216549)

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 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,devcr,devpack,tasks,ram,etc)

2   View each tab that has an embedded report.

-   If you see the report showing data, or even it 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*, *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 report that is missing.

5   (For example for *CR's associated to a Project* look for "CRs associated to this project")

6   Click the **Edit** button.

7   Click **Save As**.

8   Copy and paste the reference name from the comment into the **Reference Name** field.

9   Give the report a unique name (for example, change "CRs" to "CR(s)")

10 Save the report.

It is Possible to Relate a ZMF Change Package to Multiple Dev Tasks (DEF224772)

In the `dvmzmf_packages.properties` file, it is possible to change the following variables from the default values of **Y** to the following:

```
FILTER_ZMF_PACKAGES_BY_WORKREQNO = N
RELATE_DVM_DT_ITEMID_TO_ZMF_PACKAGE_WORKREQNO = N
```

If you have done this, it becomes possible to relate the same ZMF Change Package to more than one Dev Task, as no error message is displayed when this happens. The intended behavior for the out-of-the-box workflows is that there is a one-to-one relationship between a ZMF ChangePackage and a Dev Task in Development Manager.

Baseline Link in Dev Package not Functioning (DEF226085)

When clicking the URL link to a baseline from the Baselines tab of a dev package, an error may occur stating *There were one or more problems with the requested link* and the baseline is not displayed.

This problem is caused by duplicate entries in the `gatekeeper-core-config.xml` that occur when selecting the option to configure SSO support on multiple upgrades/ installations.

To remedy the problem:

1   On the Dimensions CM server, Locate the file `gatekeeper-core-config.xml` in the Serena Common Tomcat installation, for example:

```
C:\Program Files\Serena\Dimensions 12.2\Common Tools
     \tomcat\6.0\alfssogatekeeper\conf\gatekeeper-core-config.xml
```

In this file there should be entries for three types of parameter: SecurityTokenService, SecurityTokenServiceExternal, and FederationServerURL, for example:

```
<parameter name="SecurityTokenService"
     Type="xsd:anyURI">http://sbmservername:8085/TokenService/
     services/Trust</parameter>
...
...
<parameter name="SecurityTokenServiceExternal"
     Type="xsd:anyURI">http://sbmservername:8085/TokenService/
     services/Trust</parameter>
...
...
<parameter name="FederationServerURL"
     Type="xsd:anyURI">http://sbmservername:8085/ALFSSOLogin/login</
     parameter>
```

2   If there are multiple entries for each of these parameters, delete the duplicate entries, leaving only the currently valid one for each.

Admin User Does not have Group Privileges for SBM Sample Data for SBM 10.1

When using SBM 10.1, the Admin user for the SBM sample database does not have access to any groups in the Web Administrator. The solution to this is to create a user with

Remote Administration privileges, and use this user to grant the privileges for the groups for the Admin user.

1 Open SBM System Administrator and select the Users tab.

2 Add a new User as a Managed Administrator.

3 On the Privileges tab, make sure Remote Administration is selected.

4 Save the details and log out.

5 Log in as the user you created above.

6 On the Users tab, select the Amin user and select Edit.

7 Select Administration and select Groups.

8 Select all the groups and click OK.

Actioning a Task in Dimensions CM to Complete Does not Transition the Task in SBM to Complete.

When actioning a task request from Peer Review to Complete in Dimensions CM and delegating the Development Engineer role (for example to user Amy) the corresponding task in SBM is not transitioned to Complete in SBM.

To remedy this, the transition in the TASK lifecycle in Dimensions CM needs to have DEVELOPMENT ENGINEER assigned as a Pending role. For details, see "Assign Development Engineer Role to TASK Lifecycle Transitions" on page 89.

Configuration Issues

Error When Deploying Process Apps

If you receive an error in SBM Composer when deploying a process app:

```
Unexpected exception during DefinitionUtilities.ExportDefinition
```

It is likely that the process app contains references to another process app that needs to be deployed before it. The process apps need to be deployed in the order specified below:

1 Global Process App (eval)

2 Requirements Approval Management (if you are using Requirements Manager)

3 ALM Projects

4 Dev Change Requests

5 Dev Tasks

6 Dev Package

7 Dev Control Orchestrations

8 Quality Center Connector (if you are using HP Quality Center)

9 RM to RQM Connector (if you are using Requirements Manager)

10 Release Train (if you are using Release Manager)

11 Application Release (if you are using Release Manager)

12 Release Package (if you are using Release Manager)

13 Deployment (if you are using Release Manager)

14 Environment (if you are using Release Manager)

15 ReleaseTemplate (if you are using Release Manager)

16 RLM_AUX

17 Vault_Request (if you are using Release Manager)

Missing Endpoints (DEF221077, DEF225893)

There is a problem whereby when you are promoting the Serena ALM snapshots, some of the endpoints are not set up correctly. This means that the default endpoint is not automatically selected when you promote the process apps, and the server name is not set correctly. These endpoints are:

- DVMUtilService,

- RLMUtilService,

- ReleaseRequestService

To remedy this:

When promoting each process app:

On the *Current Mappings* page, if the field under the **Destination** column is not set to an endpoint:

1 Select any Source that does not have a Destination Endpoint and click the **Choose Destination Endpoint** button.

2 Select the endpoint from the list.

If the Destination Endpoint has not yet been defined for the selected Source, click **Create a new endpoint**. You will need to do this for `RLMUtilService` and `ReleaseRequestService`.

To create and select an endpoint:

a Name the endpoint.

> **TIP** Name the new endpoint the same as the Source Endpoint for which it is being created for ease of identification when selecting it as the Destination Endpoint later.

b In the URL field, enter the following:

```
http://localhost:<tomcat port>/alm/services/<service name>
```

where `<tomcat port>` is the port under which you are running the Serena Common Tomcat Web server.

This specifies the path to the Web services, which are deployed under the `alm/services` directory of the common Tomcat Web server.

Example endpoints with the default port number are shown in the following table.

Source	Destination Endpoint
`RLMUtilService`	`http://almhost:8080/alm/services/RLMUtilService`
`ReleaseRequestService`	`http://almhost:8080/alm/services/ReleaseRequestService`

c In the **Authentication** field, select **Security Token**.

d Click **Test Connection** to test the connection.

e Click **OK**.

f Select the Source Endpoint again and click **Choose Destination Endpoint**. Select the endpoint you just created.

When updating the endpoints:

(For details, see "Updating the Endpoints" on page 66 in the Development Manger Installation and Configuration Guide)

From SBM Application Administrator:

1 Click **Environments**.

2 Select the environment you used for the promotions.

3 Select the **Endpoints** tab.

4 Check that the server name portion of the URL for each endpoint is set to `localhost` or the name of the SBM server. If it is not:

a Select the endpoint.

b Click the Edit button

c Change the server name to `localhost`,

for example, DVMUtilService should be:

`http://localhost:8080/alm/services/DVMUtilService`

5 Click **OK**.

Deploy the relevant process apps after updating the endpoints.

Parent CR Dev Complete rule invalid (DEF226370)

When Deploying the process apps you may receive an error because some rules with sub-relational field dependencies are not set. There are four rules for which this may occur.

To remedy the problem, you will need to set the undefined rules to the correct value.

1 In SBM Composer, open the Dev Tasks process app.

2   Under **Rules**, select *Parent Dev CR not Complete.*
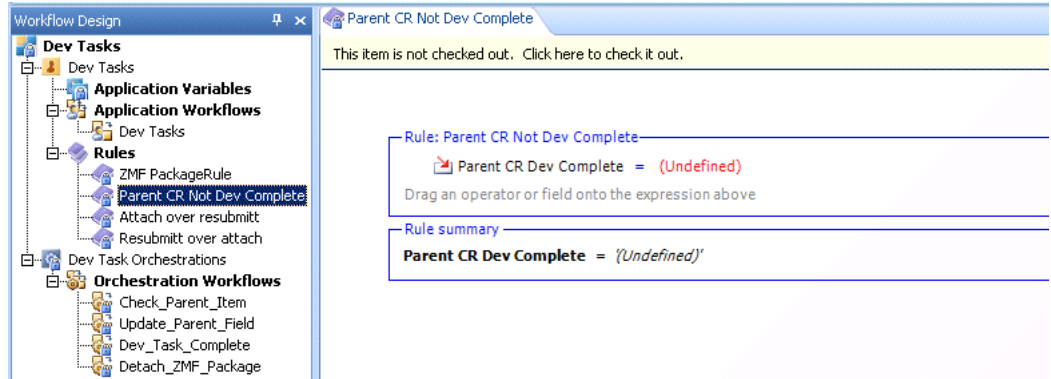
3   If the rule is undefined, change it to *Parent CR Dev Complete = No.*

4   Repeat this for the three rules in the Dev Packages process app as specified below.

The rules that may need to be set are:

- Dev Tasks:

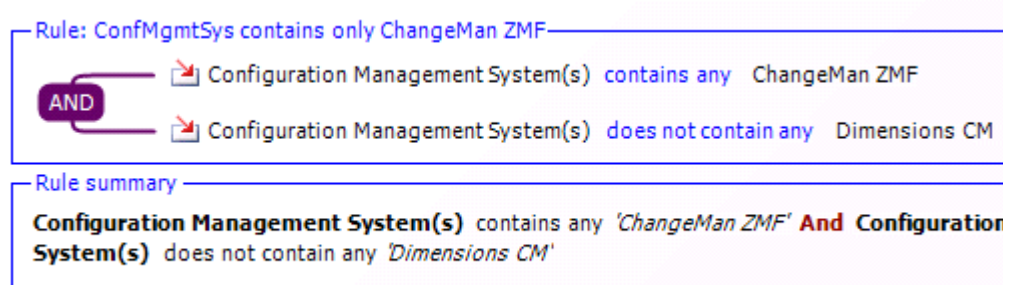   • Parent Dev CR not Complete:

    `Parent CR Dev Complete = No`

- Dev Packages:

    • ConfMgmtSys Contains only ChangeMan ZMF:

    Configuration Management System(s) contains any ChangeMan ZMF

    AND

    Configuration Management System(s) does not contain any Dimensions CM
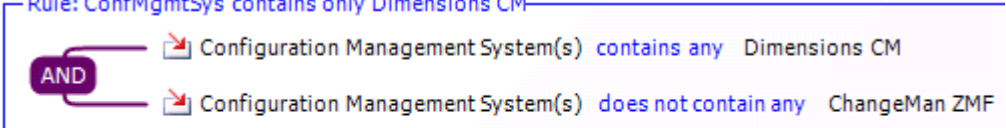
    • ConfMgmtSys Contains only Dimensions CM

    Configuration Management System(s) contains any Dimensions CM

AND

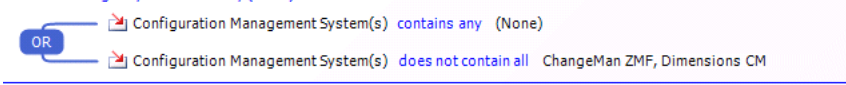*Configuration Management System(s) does not contain any ChangeMan ZMF*

- ConfMgmtSys Contains only (None)

  Configuration Management System(s) contains any (none)

  OR

  Configuration Management System(s) does not contain all ChangeMan ZMF, Dimensions CM

Continue deploying the process apps after making these changes.

Warnings When Promoting Process Apps

When promoting the process apps, you may see "Unable to create field" warning messages in the promote log. For example:

```
WARN -- Unable to create field 'alm_Originating Baseline' in table
    'Dev Packages' because relational table 'Related Vault
    Baselines' is not defined.
WARN -- Unable to create field 'Vault Template' in table 'Dev
    Packages' because relational table 'Vault_Request' is not
    defined.
```

Such messages will not affect the success of the promotions or the functioning of Development Manager, and can be ignored.

Error Promoting Global Process Apps when Upgrading an Existing Development Manager Installation (DEF213024)

If you are upgrading a previous installation of Development Manager, you may receive an error in SBM Application Administrator when promoting the *Global Process App (eval)* process app.

This problem can be overcome by setting the following values on the Global Entities page of the Promote Wizard.

- **Groups**: None

- **Users**: None

Groups and Users Unassigned from Projects when Upgrading an Existing Development Manager Installation (DEF211637)

When upgrading an existing installation of Development Manager, you may find that some groups and users are unassigned from projects after promoting snapshots.

This problem can be overcome by setting the following values on the Global Entities page of the Promote Wizard.

- **Groups**: None

- **Users**: None

User Groups Missing for Sample Database on MSSQL (DEF218177)

If you are using MSSQL, the user groups are not present for the sample data. In this case you will need to assign the necessary roles for the users to enable them to use the applications using SBM Administrator. For details, see "Creating and Assigning the Users" on page 49.

New Endpoints Created After Deploying Process Apps (DEF214586)

When you have redeployed the process apps, for example after updating the application links in the Event Mappings as described in the post-installation steps, you may find that duplicate endpoints have been created, such as

```
dmwebservices_2
DevManagerServices_2
```

This results in an error in SBM Composer such as:

```
The Orchestration Engine cannot send the Web service request at
    service step  CM_Create_Standard_Baseline to the endpoint ...
```

The solution is to use SBM Application Administrator to perform the deployments.

1   Open each process app in SBM Composer

2   Click the **Publish** button in the toolbar
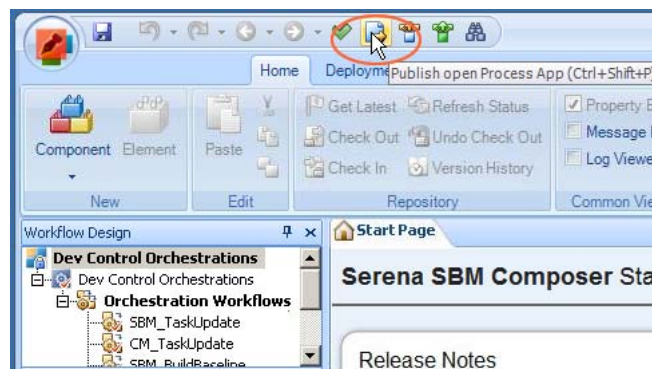
3   In the Publish Process App dialog box, select **Allow others to deploy this version of the process app** and click **Publish**.

4 Open SBM Application Administrator by entering http://localhost:8085/mashupmgr/
in a browser.

5 Select **Process Apps** on the left.

6 Select a process app and click the **Deploy** button

7 Click in the Destination field.

8 Select the environment and click Next.

9 Check that the list of endpoints is correct.
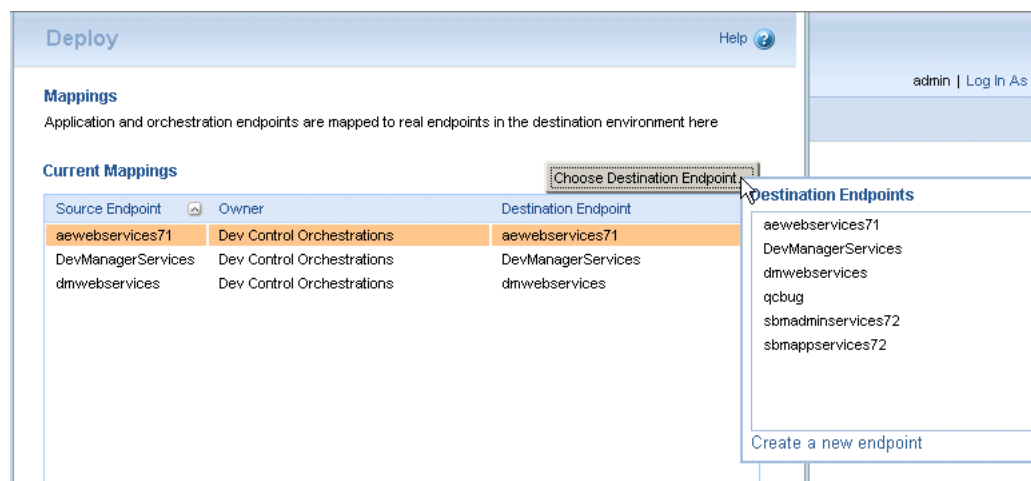
10 Click Done and complete the deployment.

11 Repeat Step 6 thru Step 10for the other process apps.

The User Interface is not Being Displayed (ENH213101)

The User Interface for Development Manager should have a blue and grey color scheme
when you log in using the URL:

        http://<hostname>/tmtrack/tmtrack.dll?shell=alm

If when accessing the Development Manager Application, the standard SBM interface is
displayed, it is probably the result of not applying the steps described in "Importing the
Files for the UI Shell" on page 33. This needs to be done immediately after running the
installation.

If the correct User Interface is not being displayed you will need to perform the following
steps:

1 Open the zip file \Solutions\Development
Control\com.serena.dvm.shell.zip, in the Serena installation folder, for
example:

        C:\Program Files\Serena\Solutions\Development Control
            \com.serena.dvm.sbm.shell.zip

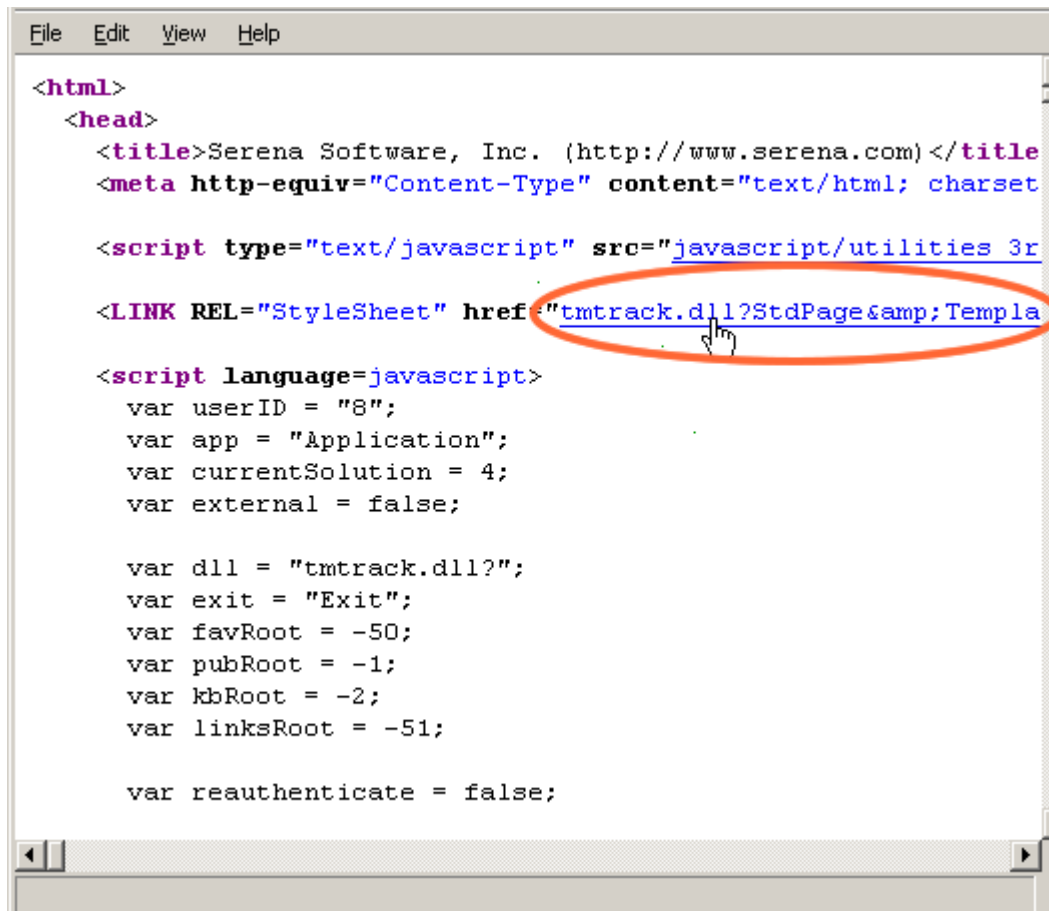**2** Extract the bin and template folders to the Application Engine folder, for example:

        C:\Program Files\Serena\SBM\Application Engine

Click **Yes to all** to overwrite the files

3 Perform the steps described in "Importing the Files for the UI Shell" on page 33

4 Open the SBM Development Manager application by entering:

```
http://<hostname>/tmtrack/tmtrack.dll?shell=alm
```

In a Web browser

5 If the stylesheet is not refreshing you may need to refresh them manually:

a Right click on the browser window, and select **View Page Source**

b Click on the link for the stylesheet.

This will open the .css file from the cache.

c In the stylesheet window, select **View** | **Reload** or press F5.

d Close and reopen SBM Development Manager.

Put Files into Database not Functioning Correctly (DEF221461)

You may experience a problem whereby having installed the ALM Suites and performed the action File | Put Files into Database using SBM System Administrator, and then made changes to the shell files and performed Put Files into Database again, that old versions of the files are still present in SBM. This means that you will need to replace the files again and repeat the Put Files into Database action.

This problem can be avoided by performing File | Get Files From Database in SBM System Administrator before running the ALM Suite installer.

There is an Access Denied failure when Attempting to Create an Item

If a process is attempting to create an item, and there is an error, for example "[ERROR] Access Denied," in the log, and the item is not created, then it is likely that you do not have access privileges for the connector user. Carry out the following steps:

1 Open the SBM System Administrator.

2 Select users.

3 Select the connector user (for example DMSYS) and click Edit.

4 Select the Administration tab.

5 Select **Global Administration** and click OK.

The REST Grids are not Returning Values

Check whether:

1 The Development Manager web services is running.

2 You have configured the Development Manager web services correctly.

3 If SSO is enabled, ensure that the user you are using in SBM also exists in Dimensions CM.

4 Make sure the SBM services JBOSS and IIS have been restarted, using SBM configurator for example.

TASK requests are not Being created in CM When Creating Dev Tasks

1 Deploy the Dev Control Orchestrations process app.

2 Restart the server.

If this does not work, check whether you are using the connector account (for example dmsys). You should not be using the connector account to create items in SBM, it is reserved for connecting only.

A Baseline Cannot be Created from a Dev Package

If when trying to create a baseline from a dev package, no baseline gets created in Dimensions CM, and the following appears in the Windows Event Viewer:

```
Error occurred in file:
   '.\WSInvoker.cpp', line 1287.
Error mapping data with field 'Baseline Build Configuration'
```

you can resolve the event viewer error by unlocking the event definition.

Do the following:

1 In SBM Composer open the Dev Packages application.

2 Show Extensions.

3 Expand *Orchestration Links.*

4 Click on *Event without Reply.*
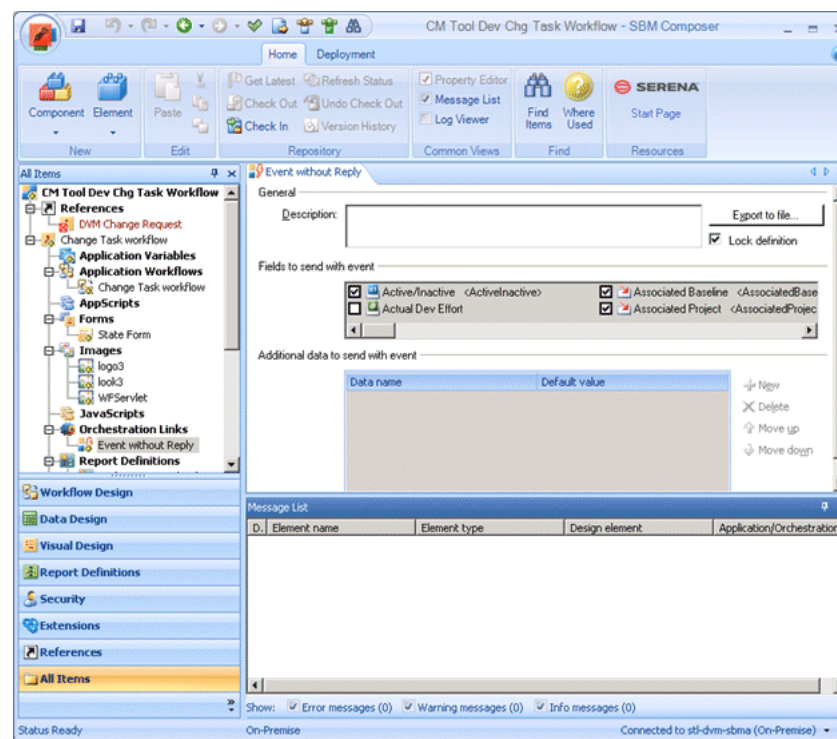
5 Check the item out.

Ensure that **Lock definition** (on the right-hand side) is **not** checked.

6 Check in the item and re-deploy.

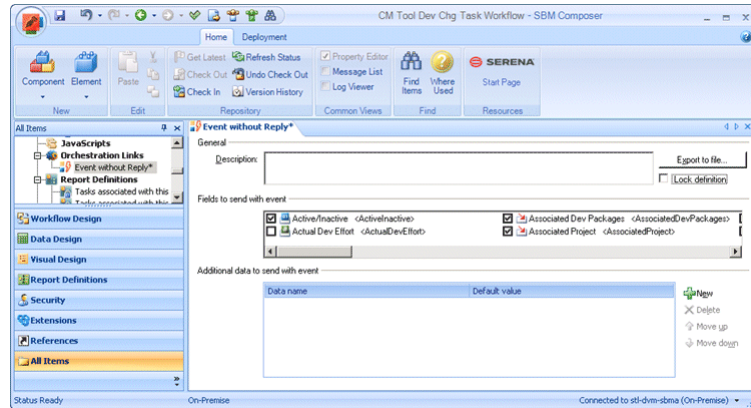### *The Dev Control Orchestrations Process Application Doesn't Handle Events from the Dev Tasks Process Application*

You need to recreate `ChangeTaskworkflowEventDefinition`:

1 In SBM Composer, Open the Dev Tasks process application.

2 Under Orchestration Links, select Event without Reply.

3 Uncheck **Lock definition.**

4   Click **Export to file…** , type the file name and export the Orchestration link to a file.
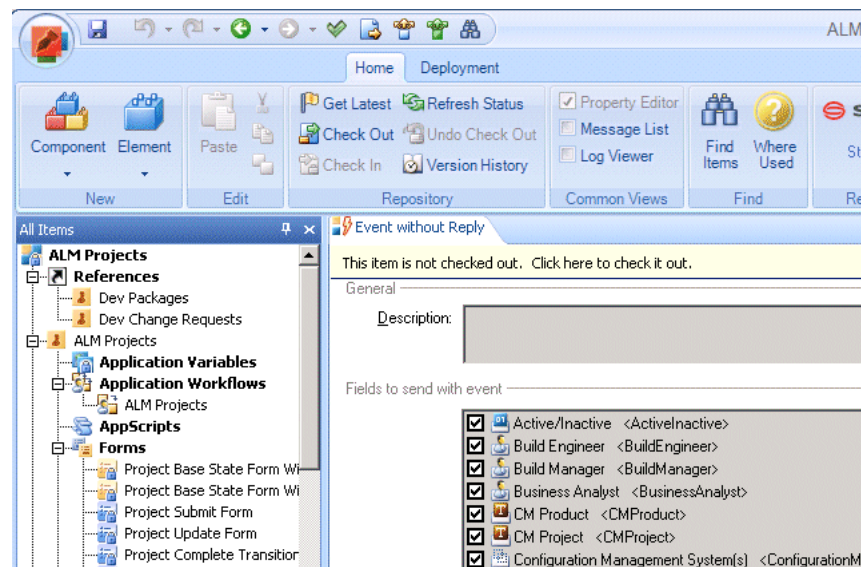

5   Click Yes to automatically lock the definition

6   Check in the item and re-deploy.

The Dev Control Orchestrations Process Application Doesn't Handle Events from the ALM Projects Process Application
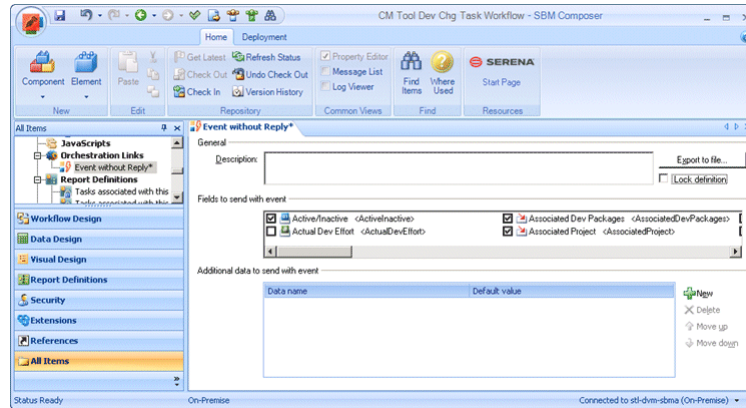
In this case, you need to recreate

> `DevelopmentControlChangeRequestWorkflowEventDefinition`.

1   In SBM Composer, open the ALM Projects process application.

2   Select **Orchestration Links**. Links can be exported from here.

3   Select the *Event without reply* orchestration link.

4   Uncheck **Lock definition.**

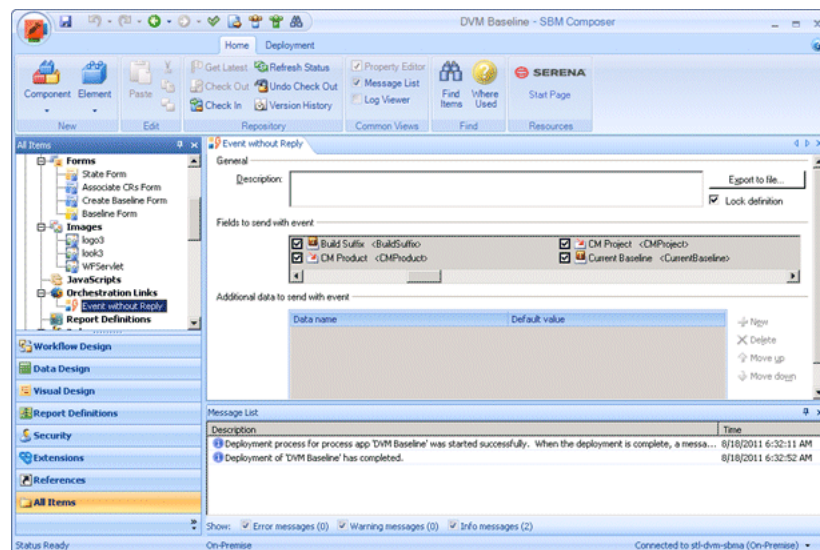**5**   Click **Export to file...** , type the file name and export the Orchestration link to a file.

6   Check in the item and re-deploy.

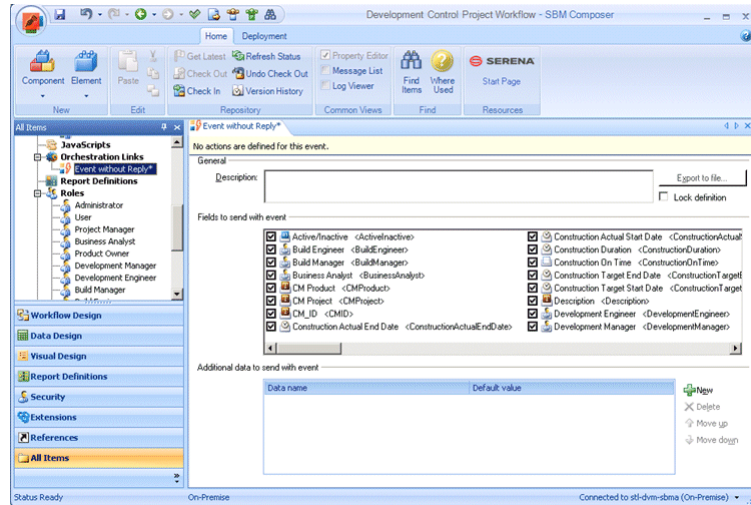*The Dev Control Orchestrations Process Application Doesn't Handle Events from the Dev Packages Process Application*

You need to recreate `DVMBaselineEventDefinition`.

1   In SBM Composer, open the ALM Projects process application.

2   Select **Orchestration Links**. Links can be exported from here.

3   Select the *Event without reply* orchestration link.

4   Uncheck **Lock definition.**

5   Click **Export to file...** , type the file name and export the Orchestration link to a file.

6   Check in the item and re-deploy.