

**Oracle® Application Management Pack for Oracle
E-Business Suite**

Guide

Release 12.1.0.1.0

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Oracle Application Management Pack for Oracle E-Business Suite Guide, Release 12.1.0.1.0

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Oracle Application Management Pack for Oracle E-Business Suite Guide, Release 12.1.0.1.0

Part No. E28715-03

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- Are the implementation steps correct and complete?
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Note: Before sending us your comments, you might like to check that you have the latest version of the document and if any concerns are already addressed. To do this, access the new Oracle E-Business Suite Release Online Documentation CD available on My Oracle Support and www.oracle.com. It contains the most current Documentation Library plus all documents revised or released recently.

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Preface

Intended Audience

Welcome to Release 12.1.0.1.0 of the *Oracle Application Management Pack for Oracle E-Business Suite Guide*.

This book is intended for database administrators and system administrators who are responsible for performing the tasks associated with maintaining an Oracle E-Business Suite system using the Oracle Application Management Pack for Oracle E-Business Suite.

See Related Information Sources on page xii for more Oracle E-Business Suite product information.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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Related Information Sources

Oracle E-Business Suite System Administrator's Guide Documentation Set

This documentation set provides planning and reference information for the Oracle E-Business Suite System Administrator. *Oracle E-Business Suite System Administrator's Guide - Configuration* contains information on system configuration steps, including defining concurrent programs and managers, enabling Oracle Applications Manager features, and setting up printers and online help. *Oracle E-Business Suite System Administrator's Guide - Maintenance* provides information for frequent tasks such as monitoring your system with Oracle Applications Manager, managing concurrent managers and reports, using diagnostic utilities, managing profile options, and using alerts. *Oracle E-Business Suite System Administrator's Guide - Security* describes User Management, data security, function security, auditing, and security configurations.

Oracle Enterprise Manager Cloud Control Introduction

This manual introduces Oracle Enterprise Manager. It provides a brief overview of the system architecture and describes the key features of the product. The manual also details new features in this release.

Oracle Enterprise Manager Cloud Control Basic Installation Guide

This guide enables you to begin the installation of a new Enterprise Manager system.

Oracle Enterprise Manager Cloud Control Advanced Installation and Configuration Guide

Oracle Enterprise Manager Cloud Control Advanced Installation and Configuration Guide is an extension to *Oracle Enterprise Manager Cloud Control Basic Installation Guide*. While the *Oracle Enterprise Manager Cloud Control Basic Installation Guide* covers basic installation procedures that help you get started with Enterprise Manager Cloud Control, the *Oracle Enterprise Manager Cloud Control Advanced Installation and Configuration Guide* covers advanced installation procedures that help you install and configure the Enterprise Manager Cloud Control components in more complex environments.

Oracle Enterprise Manager Cloud Control Upgrade Guide

This guide describes how you can upgrade an existing Enterprise Manager 10g Grid

Control Release 5 (10.2.0.5.0) or Enterprise Manager 11g Grid Control Release 1 (11.1.0.1.0) to Enterprise Manager Cloud Control.

Oracle Enterprise Manager Cloud Control Administrator's Guide

This guide describes how to set up a Private Cloud, manage and deploy virtualization targets with Oracle Enterprise Manager 12c Release 1.

Oracle Enterprise Manager Cloud Administration Guide

This guide describes how to set up a Private Cloud, manage and deploy virtualization targets with Oracle Enterprise Manager 12c.

Oracle Enterprise Manager Lifecycle Management Administrator's Guide

The Lifecycle Management Guide introduces you to the lifecycle management solutions offered by Oracle Enterprise Manager Cloud Control (Cloud Control), and describes in detail how you can use the discovery, provisioning, patching, and configuration and compliance management features to manage your data center.

Do Not Use Database Tools to Modify Oracle E-Business Suite Data

Oracle **STRONGLY RECOMMENDS** that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle E-Business Suite data unless otherwise instructed.

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL*Plus to modify Oracle E-Business Suite data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle E-Business Suite tables are interrelated, any change you make using an Oracle E-Business Suite form can update many tables at once. But when you modify Oracle E-Business Suite data using anything other than Oracle E-Business Suite, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle E-Business Suite.

When you use Oracle E-Business Suite to modify your data, Oracle E-Business Suite automatically checks that your changes are valid. Oracle E-Business Suite also keeps track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL*Plus and other database tools do not keep a record of changes.

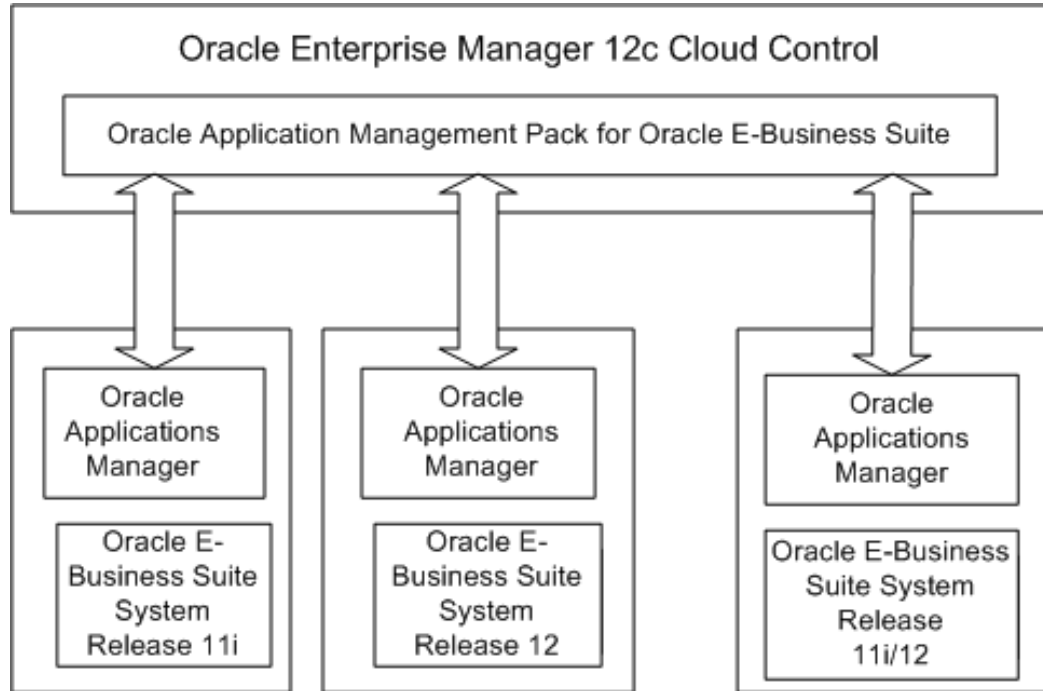
Introduction to the Oracle Application Management Pack for Oracle E-Business Suite

Overview

The Oracle Application Management Pack for Oracle E-Business Suite extends Oracle Enterprise Manager 12c Cloud Control to help monitor and manage Oracle E-Business Suite systems more effectively. The pack integrates Oracle Applications Manager with Cloud Control to provide a consolidated, end-to-end Oracle E-Business Suite management solution. The pack can be used to manage both Oracle E-Business Suite Release 11i systems and Release 12 systems.

This document describes the features and usage of this new pack for Cloud Control.

Oracle Enterprise Manager Cloud Control provides a complete view of your enterprise so that you can manage all of your Oracle E-Business Suite systems from a single console. This pack provides new pages within Cloud Control that help you to monitor the performance, availability and configuration changes of your Oracle E-Business Suite system and also help you to provision your Oracle E-Business Suite applications. You can take advantage of advanced Cloud Control features such as the provisioning framework.



Enterprise Manager itself allows you to monitor multiple Oracle E-Business systems (both Release 11*i* and Release 12) from the outside.

The Oracle Application Management Pack for Oracle E-Business Suite provides advanced features to monitor and manage Oracle E-Business Suite Release 12 systems as well as Release 11*i* systems that meet a standard interoperability patch level. These advanced features include Oracle E-Business Suite provisioning, Application Service Level Management, extended performance metrics, and links from Cloud Control to Oracle Applications Manager.

Note: Please refer to My Oracle Support Knowledge Document 1434392.1 for additional patches required for your system.

Information about the Oracle Application Management Pack for Oracle E-Business Suite Deployment

To find out information about the deployment of Oracle Application Management Pack for Oracle E-Business Suite on your system, navigate to Setup menu > Extensibility > Plug-ins. Under the Applications section, click on the Oracle E-Business Suite plug-in.

Note: The "About Oracle E-Business Suite Management Pack" feature in Release 4.0 of this pack has been replaced by the above native Enterprise Manager functionality.

Targets

The following table lists the target types in Release 12:

Target Name	Description
Oracle E-Business Suite	Oracle E-Business Suite system
Oracle Applications Service	Aggregate service for monitoring Oracle E-Business Suite.
Concurrent Processing Service	Service for monitoring concurrent processing. The key components for this service are: Database Instance, Applications Listener, and Oracle Concurrent Manager.
Forms-Based Applications Service	Service for monitoring Oracle Forms-based applications. The key components for this service are: Database Instance, Forms, OC4J, and Oracle HTTP Server.
Self-Service Applications Service	Service for monitoring Self-Service applications. The key components for this service are: Database Instance, OC4J, and Oracle HTTP Server.
Workflow Service	Service for monitoring Oracle Workflow. The key components for this service are: Database Instance, Applications Listener, Oracle Concurrent Manager, Oracle Workflow Agent Listener, Oracle Workflow Background Engine, and Oracle Workflow Notification Mailer.
Oracle E-Business Suite Node System	A system target that contains all the Oracle E-Business Suite Infrastructure targets for a given Oracle E-Business Suite system.
Oracle E-Business Suite Infrastructure	System for monitoring an Oracle E-Business Suite node. It contains targets for components that always run from that particular node.
Oracle Concurrent Manager	Target for monitoring concurrent managers.

Target Name	Description
Internal Concurrent Manager	Target for monitoring the Internal Concurrent Manager.
Oracle E-Business Suite Workflow	System for monitoring Oracle Workflow. It contains the Oracle Workflow Agent Listener, Oracle Workflow Background Engine, and Oracle Workflow Notification Mailer targets.
Oracle Workflow Agent Listener	Target for monitoring the Oracle Workflow Agent listeners.
Oracle Workflow Background Engine	Target for monitoring the Oracle Workflow Background Engine.
Oracle Workflow Notification Mailer	Target for monitoring the Oracle Workflow Notification Mailer.
Oracle Applications JVM Usage	Target for monitoring Oracle Applications JVMs.
Oracle E-Business Suite Custom Objects	Target for monitoring the custom objects configuration.
Oracle E-Business Suite Patch Information	Target for monitoring the patch information configuration.

For Release 11*i* systems, refer to the following table for target types:

Target Type	Description
Oracle E-Business Suite	Oracle E-Business Suite system.
Oracle Applications Service	Aggregate service for monitoring Oracle E-Business Suite. It contains the Oracle E-Business Suite Infrastructure Service.
Concurrent Processing Service	Service for monitoring concurrent processing. The key components for this service are: Database Instance, Applications Listener, and Oracle Concurrent Manager.

Forms-Based Applications Service	Service for monitoring Oracle Forms-based applications. The key components for this service are: Database Instance, Forms Listener for Oracle E-Business Suite 11 <i>i</i> , and HTTP Server for Oracle E-Business Suite 11 <i>i</i> .
Self Service Applications Service	Service for monitoring Self Service applications. The key components for this service are: Database Instance, HTTP Server for Oracle E-Business Suite 11 <i>i</i> , and JServ for Oracle E-Business Suite 11 <i>i</i> .
Workflow Service	Service for monitoring Oracle Workflow. The key components for this service are: Database Instance, Applications Listener, Oracle Concurrent Manager, Oracle Workflow Agent Listener, Oracle Workflow Background Engine, and Oracle Workflow Notification Mailer.
Oracle E-Business Suite Node System	A system target that contains all the Oracle E-Business Suite infrastructure targets for a given Oracle E-Business Suite system.
Oracle E-Business Suite Infrastructure	System for monitoring an Oracle E-Business Suite node. It contains targets for components that run from that particular node.
Oracle Concurrent Manager	Target for monitoring concurrent managers.
Internal Concurrent Manager	Target for monitoring the Internal Concurrent Manager.
Oracle E-Business Suite Workflow	System for monitoring Oracle Workflow. This target contains: Oracle Workflow Agent Listener, Oracle Workflow Background Engine, and Oracle Workflow Notification Mailer targets.
Oracle Workflow Agent Listener	Target for monitoring Oracle Workflow Agent listeners.
Oracle Workflow Background Engine	Target for monitoring Oracle Workflow Background Engine.

Oracle Workflow Notification Mailer	Target for monitoring Oracle Workflow Notification Mailer.
HTTP Server for Oracle E-Business Suite 11 <i>i</i>	Target for monitoring HTTP Server for Oracle E-Business Suite 11 <i>i</i> .
JServ for Oracle E-Business Suite 11 <i>i</i>	Target for monitoring JServ for Oracle E-Business Suite 11 <i>i</i> .
Forms Listener for Oracle E-Business Suite 11 <i>i</i>	Target for monitoring the Forms Listener for Oracle E-Business Suite 11 <i>i</i> . Applicable if Forms is configured in socket mode.
Forms Servlet for Oracle E-Business Suite 11 <i>i</i>	Target for monitoring Forms Servlet for 11 <i>i</i> . Applicable if forms is configured in servlet mode.
Reports Server for Oracle E-Business Suite 11 <i>i</i>	Target for monitoring Reports Server for Oracle E-Business Suite 11 <i>i</i> .
Discoverer for Oracle E-Business Suite 11 <i>i</i>	Target for monitoring Discoverer for Oracle E-Business Suite 11 <i>i</i> .
Oracle E-Business Suite Custom Objects	Target for monitoring custom objects configuration.
Oracle E-Business Suite Patch Information	Target for monitoring patch information configuration.

Privileges and Roles for Managing Oracle E-Business Suite

Oracle Application Management Pack for Oracle E-Business Suite uses the native Enterprise Manager functionality of privileges and roles for security.

Note: In previous releases, security was managed through the `amp.properties` file and disabled by default. In this release, the `amp.properties` file is no longer used, and security through privileges and roles is enabled by default.

User privileges provide a basic level of security in Enterprise Manager. They are designed to control user access to data and to limit the kinds of SQL statements that users can execute. When creating a user, you grant privileges to enable the user to connect to the database, to run queries and make updates, to create schema objects, and

more.

A role is a collection of Enterprise Manager resource privileges, or target privileges, or both, which you can grant to administrators or to other roles. Resource privileges allow a user to perform operations against specific types of resources. Target privileges allow an administrator to perform operations on a target. This management pack includes target-instance level privileges, which are for a particular target instance, and target-type level privileges, which are for all target instances of that type. An example of a resource privilege is the "Edit Global Preferences" resource privilege, which enables a user to edit global preferences for Oracle Application Management Pack for Oracle E-Business Suite. An example of a target-instance level privilege is the "Start and Stop Services" which enables a user to start and stop services using the Administration Dashboard for a given instance.

Privileges and roles are managed through the functions available from Setup menu > Security in the Cloud Control console. For more information, see the *Oracle Enterprise Manager Cloud Control Administrator's Guide*.

Ready-to-use privileges shipped with the management pack are listed in the tables below. Please note the following in regard to privileges:

- The user SYSMAN has all the listed privileges by default.
- The use of privileges on a system is enabled by default, which means that a user will not be able to perform an action unless the appropriate privilege(s) are granted to that user.
- All target privileges are given against the target "Oracle E-Business Suite".

For privileges used by the features in Change Management (Patch Manager, Customization Manager, and Setup Manager, see the section Change Management Approval Framework and Privileges, page 9-3.

The following table lists ready-to-use resource privileges in Oracle Application Management Pack for Oracle E-Business Suite:

Privileges applicable to all targets

Name	Included Privilege	Description
Create release package request	(none)	To create a request to release a package
Approve release package request	Create release package request	To approve the release of a package

Name	Included Privilege	Description
Edit global preferences	(none)	To edit global preferences of the Oracle Application Management Pack for Oracle E-Business Suite

The following table lists ready-to-use target instance level privileges. With these privileges, a user can perform the specified action against only the given target.

Target Privileges

Name	Included Privileges	Description
Create splice request	(none)	To create a request to splice an application
Approve splice request	Create splice request	To approve a request to splice an application
Create Patch Manager request	(none)	To create a Patch Manager request
Approve Patch Manager request	Create Patch Manager request	To approve a Patch Manager request
Create Setup Manager request	(none)	To create a Setup Manager request
Approve Setup Manager request	Create Setup Manager request	To approve a Setup Manager request
Start and Stop Services	(none)	To start and stop services using the Administration Dashboard

The following table lists ready-to-use target type level privileges. With these privileges, a user can perform the described action against any eligible target.

Target Type Level Privileges

Name	Included Privileges	Description
Create splice request	(none)	To create a request to splice an application
Approve splice request	Create splice request	To approve a request to splice an application
Create Patch Manager request	(none)	To create a Patch Manager request
Approve Patch Manager request	Create Patch Manager request	To approve a Patch Manager request
Create Setup Manager request	(none)	To create a Setup Manager request
Approve Setup Manager request	Create Setup Manager request	To approve a Setup Manager request
Start and Stop Services	(none)	To start and stop services using the Administration Dashboard

The following table lists ready-to-use roles:

Roles

Code	Name	Included Privileges	Description
EBS_SUPER_USER	Oracle E-Business Suite Super User	All target type privileges, all resource privileges, and CREATE_TARGET	Role with unrestricted access to all management activities for Oracle E-Business Suite

Code	Name	Included Privileges	Description
EBS_ACP_SUPER_USER	Change Management Super User	<ul style="list-style-type: none"> <li>• Resource privilege "Approve release package request" <li>• Target type level privilege "Approve splice request" <li>• Target type level privilege "Approve Patch Manager request" <li>• Target type level privilege "Approve Setup Manager request" 	Role with privileges to create as well as approve all Change Management requests.

Installing the Oracle Application Management Pack for Oracle E-Business Suite

Introduction to Installation

Oracle Application Management Pack for Oracle E-Business Suite (AMP) extends Enterprise Manager (EM) 12c Cloud Control to help monitor and manage an Oracle E-Business Suite system more effectively.

This pack can be used to manage both Oracle E-Business Suite Release 12 and Release 11i systems.

This pack is available for fresh installations; that is, you do not need to have a version of the pack installed before installing this version.

For customers considering upgrades from versions of Oracle Application Management Pack for Oracle E-Business Suite already installed (possibly with Oracle Change Application Management Pack for Oracle E-Business Suite, or ACP), upgrade paths are provided from the following:

- Enterprise Manager Grid Control 10.2.0.5 with AMP-ACP 3.1 installed
- Enterprise Manager Grid Control 11gR1 with AMP-ACP 4.0 installed

This release of Oracle Application Management Pack for Oracle E-Business Suite requires Oracle Enterprise Manager Cloud Control Release 12c.

This chapter describes the system requirements and installation of this new pack for Cloud Control.

Important: Uninstalling Oracle Application Management Pack for Oracle E-Business Suite is not supported. Please back up the Enterprise Manager repository before applying this management pack. Please

contact Enterprise Manager Support if you need more clarification on the backup procedure.

Note: This document typically uses UNIX syntax. If using MS Windows, substitute the appropriate Windows syntax.

System Requirements

Ensure that the following requirement has been met:

- **OS/User Group Requirement:** It is recommended that the Oracle E-Business Suite OS user and the Enterprise Manager Agent OS user is the same. If they are different, then they must belong to the same OS group.

Before continuing with the installation as outlined below, please read and become familiar with the known limitations as described later in this manual. These limitations are typically minor to most Oracle E-Business Suite Release 12 and Release 11i administrators; however, they might be of concern to longtime users of Oracle Enterprise Manager who are new to using the Oracle Application Management Pack for Oracle E-Business Suite.

Installing the Oracle Application Management Pack for Oracle E-Business Suite

The following are prerequisites for installation:

1. Install Enterprise Manager Cloud Control.
2. Discover the Oracle E-Business Suite host and install a Management Agent on that Oracle E-Business Suite host.
3. Deploy the Fusion Middleware plug-in on all application nodes that run the web tier. This step is necessary for Oracle E-Business Suite discovery to work correctly.
 1. From the Enterprise Manager Cloud Control Setup menu, select **Extensibility**, then **Plug-ins**.
 2. Select Oracle Fusion Middleware in the Plug-ins table. Select **Deploy On** and then select **Management Agent**.

See Oracle Enterprise Manager Cloud Control Getting Started with Oracle Fusion Middleware Management for more information.

4. Set up Software Library in Enterprise Manager. For more information on configuring Software Library, refer to: *Oracle Enterprise Manager Cloud Control Administrator's Guide*.

5. If the RDBMS version of the OMS database is 11.2.0.2.0 or greater, then apply RDBMS Server patch 12965899 on the OMS database before installing the Oracle E-Business Suite plug-in.
6. Apply any additional prerequisite patches as described in "Getting Started with Oracle Application Management Pack for Oracle E-Business Suite, Release 12.1.0.1.0", My Oracle Support Knowledge Document 1434392.1.

Important: The database plug-in must be deployed on the application nodes that have been configured to run the Applications listener so that metric collection can occur. The Applications listener target type is part of the database plug-in, so the database plug-in must be deployed on the same node(s).

Installing and Deploying the Oracle Application Management Pack for Oracle E-Business Suite

For details on deploying platform agents, see the chapter on installing Oracle Management Agent in *Oracle Enterprise Manager Cloud Control Basic Installation Guide*.

For details on deploying the Oracle Application Management Pack for Oracle E-Business Suite on the Oracle Management Server (OMS) and the platform agents, see *Oracle Enterprise Manager Cloud Control Administrator's Guide*.

Note: Enterprise Manager 12c introduces a new tool and methodology to deliver and install plug-ins, called the Enterprise Manager Store (EM Store). Updated plug-ins are made available through the Enterprise Manager Store, an external site that is periodically checked by Enterprise Manager Cloud Control to obtain information about updates ready for download. The Self Update feature allows customers to expand Enterprise Manager's capabilities by updating Enterprise Manager components whenever new or updated features become available. For more details on the EM Store, and the Self Update feature, see *Oracle Enterprise Manager Cloud Control Administrator's Guide*,

Upgrading the Oracle Application Management Pack for Oracle E-Business Suite

To upgrade the Oracle Application Management Pack for Oracle E-Business Suite, use the generic procedure described in *Oracle Enterprise Manager Cloud Control Upgrade Guide*.

The software is available from Oracle Technology Network at

<http://www.oracle.com/technetwork/oem/grid-control/downloads/oem-upgrade-console-502238.html> under the section "Download Plug-ins".

Note: Please ensure that in the upgrade process you change the software file type to ".opar" if it is ".zip".

Deleting an Instance

If you are deleting an Oracle E-Business Suite instance after an upgrade, Oracle recommends you delete the retired targets associated with the instance. Delete these retired targets manually from the All Targets page before running discovery again later. The target types are:

- Oracle E-Business Suite System
- Oracle Applications Infrastructure Service

Note: You must delete these manually in the current release. In a future release this deletion will be handled automatically.

Oracle also recommends that you delete the report associated with Oracle Applications Infrastructure Service. To do this, perform the following steps:

1. From the Enterprise menu select Report/Information Publisher Reports.
2. Search using the search term Target Type "Oracle Applications Infrastructure Service".
3. From under Oracle Applications Dashboards/Oracle Applications Service Dashboards, select <Oracle E-Business Suite instance name>-Oracle Applications Infrastructure Service Dashboard and click the **Delete** button.

Special Considerations for Upgrades

Note the following considerations and limitations for upgrades.

Properties in amp.properties file replaced by Preferences

The amp.properties file is obsolete with this release of the Oracle Application Management Pack for Oracle E-Business Suite.

The following properties are obsolete:

- ebs_acp_packAccessEnabled
- enableRoleBasedSecurity

- enableApproval_CM
- enableApproval_AZ
- enableApproval_PM
- targetLevelPrivilegeForApproval

The following properties must be set manually in the Preferences page after the upgrade:

- stageDir (Stage Directory)
- containerTableMaxRows
- ampCloneApplTopParallelThreads (Number of threads to be used while zipping, transferring, and unzipping the files under APPL_TOP of Apps Tier. Max value 16)
- ampCloneToolsParallelThreads (Number of threads to be used while zipping, transferring, and unzipping the files under Tools home of Apps Tier. Max value 8)
- ampCloneWebParallelThreads (Number of threads to be used while zipping, transferring, and unzipping the files under Web home of Apps Tier. Max value 4)
- ampCloneCommonTopParallelThreads (Number of threads to be used while zipping, transferring, and unzipping the files under COMMON_TOP of Apps Tier. Max value 4)
- um_dashboard_no_of_rows (Number of Rows in tables of User Monitoring)
- um_session_sampling_interval (Sampling Interval for User Monitoring)
- omsPatchStageDir (OMS Stage Directory Location)
- MOSEnabled/metalinkEnabled (Connect to My Oracle Support for Patches)

Security using Enterprise Manager Privileges and Roles

Oracle Application Management Pack for Oracle E-Business Suite now uses the native Enterprise Manager privileges and roles. As noted above, the amp.properties file is obsolete, so its security-related properties are no longer used. See Privileges and Roles for Managing Oracle E-Business Suite, page 1-6 for more information on managing security.

Cloning Considerations

Only Smart Clone procedures are supported in this release.

Clone transaction data created in previous releases will not be operable in this release.

Discovering Oracle E-Business Suite Systems

Discovering Oracle E-Business Suite Systems with Cloud Control

Before you can manage an Oracle E-Business Suite system in Cloud Control, you must discover (register) that system and its components with the agents. The Oracle Application Management Pack for Oracle E-Business Suite allows you to discover and register systems that have been deployed using a standard configuration. The process of registering an Oracle E-Business Suite system with Cloud Control has been automated.

Only users with the "Add any Target" target type privilege can submit a discovery job.

For information on managing targets in Enterprise Manager, refer to *Oracle Enterprise Manager Cloud Control Administrator's Guide*.

Note: The management pack does not support discovery of multiple Oracle E-Business Suite instances with the same name on different hosts on a given Oracle Management Server. Each Oracle E-Business Suite instance should have a unique Oracle System Identifier (SID).

Run diagnostic tests on your system before discovering it using the **Prevalidate** button. These tests are described below.

Prevalidating Discovery

You should prevalidate your system before the running discovery to help ensure success of the discovery process. These tests check that context files, context variables, users, and components are set up correctly in the system for successful discovery.

Use the **Prevalidate** button to run diagnostic tests on your system. Tests are done on the following:

- Oracle E-Business Suite context
- Enterprise Manager Cloud Control Oracle Management Service
- Enterprise Manager Cloud Control Agent

The following table lists details on the tests.

Diagnostic Tests for Discovery

Tasks	Test	Description	Notes/Expected Results/Corrective Measures
EBS Context Diagnostics	Validating Applications Context file: Number of Nodes	Verifies the number of applications contexts in the Oracle E-Business Suite environment.	
EBS Context Diagnostics	Validating Applications Context file: Context Names	Lists the names of all the application contexts in the Oracle E-Business Suite environment.	
EBS Context Diagnostics	Validating Applications Context file: Checking if any context file is invalid	Lists the names of all the invalid application context files in the Oracle E-Business Suite environment that would not be discovered.	
EBS Context Diagnostics	Validating Applications Context file: Checking if any context file has duplicates	Lists the names of all the duplicate application context files in the Oracle E-Business Suite environment that would lead to discovery failure.	

Tasks	Test	Description	Notes/Expected Results/Corrective Measures
EBS Context Diagnostics	Context variable details	View certain variables from the Context File, including: s_hostname s_appsuser s_appsgroup s_port_pool s_config_home s_atName	Lists the application context configuration variables that determine the failure/success of discovery. This information can be useful in troubleshooting discovery issues.
EBS Context Diagnostics	Validating Database Context file: Number of Nodes	Verifies the number of database contexts in the Oracle E-Business Suite environment.	
EBS Context Diagnostics	Validating Database Context file: Context Names	Lists the names of all the database contexts in the Oracle E-Business Suite environment.	
EBS Context Diagnostics	Validating Database Context file: Checking if any context file is invalid	Lists the names of all the invalid database contexts in the Oracle E-Business Suite environment that would not be discovered.	
EBS Context Diagnostics	Validating Database Context file: Checking if any context file has duplicates	Determine if any context file has any duplicates.	Lists the names of all the duplicate database contexts in the Oracle E-Business Suite environment that would lead to discovery failure.
EBS Context Diagnostics	Context variable details	View certain variables from the context file, including: s_hostname s_dbuser s_dbgroup s_dbport	Lists the database context configuration variables that determine the failure/success of discovery. This information is useful in troubleshooting discovery issues.

Tasks	Test	Description	Notes/Expected Results/Corrective Measures
OMS Diagnostics	Diagnosing Agent Installation	Validates if the EM Agent is installed on all the database and applications contexts of the Oracle E-Business Suite environment; reports accordingly with respect to every context of the Oracle E-Business Suite environment.	
OMS Diagnostics	Diagnosing EBS and EM component versions	<p>Validates the following on the OMS side:</p> <ul style="list-style-type: none"> Enterprise Manager OMS Component Version Oracle E-Business Suite OMS Component version <p>On the Agent side, validates the following on every Oracle E-Business Suite target host:</p> <ul style="list-style-type: none"> EM Agent component versions Oracle E-Business Suite Agent component version 	For this test to show correct results, the Host Configuration for "Oracle Software" should have been collected successfully.

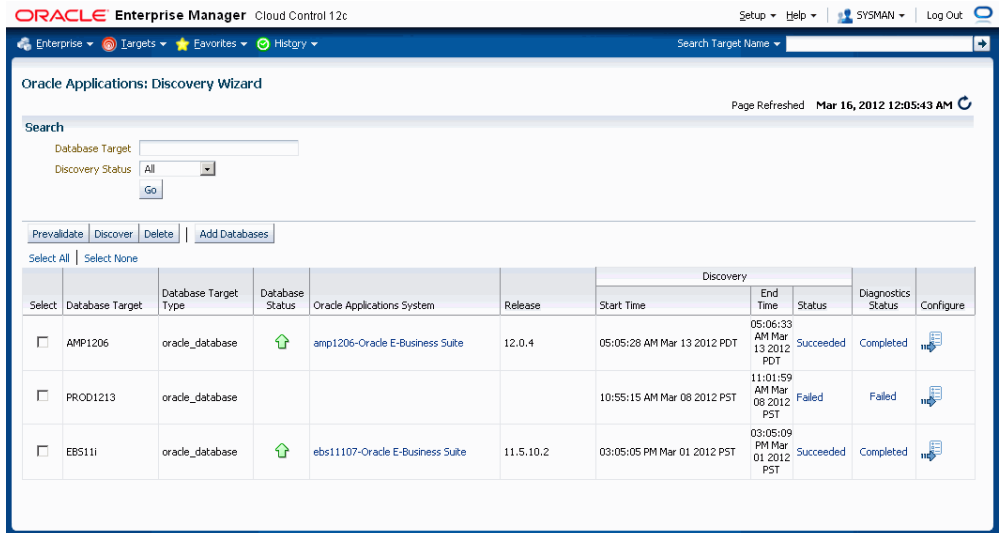
Tasks	Test	Description	Notes/Expected Results/Corrective Measures
Agent Diagnostics	Diagnosing Agent and EBS Operating System users	Validates the Operating System user and group information of the Agent and the Oracle E-Business Suite component.	<p>Passing criteria: If the Operating System user is same for the Agent and the Oracle E-Business Suite component.</p> <p>Failure Criteria:</p> <ul style="list-style-type: none"> • If the Operating System user is different but the group is the same for the Agent and the Oracle E-Business Suite component. Corrective action for this would be to give appropriate permissions to the specific set of files that is displayed in the test result. • If the Operating System user is different and the group is also different for Agent and the Oracle E-Business Suite component. Corrective action for this would be to look for alternatives so as to have same Operating System user or group for the Agent and Oracle E-Business Suite component. <p>For this test to show correct results, OMS should have collected the Agent Operating System</p>

Tasks	Test	Description	Notes/Expected Results/Corrective Measures
			user and group information successfully.
Agent Diagnostics	Diagnosing Meta Versions of EBS target types in EM Agent and OMS	<p>Compares versions on the OMS versus Agent for the following variables:</p> <p>Oracle_ebs Oracle_apps_cm Oracle_apps_cp_cst Oracle_apps_cm_cst Oracle_apps_icm Oracle_apps_inf Oracle_apps_jvm Oracle_apps_patch Oracle_apps_wf Oracle_apps_wfalsnr Oracle_apps_wfbg Oracle_apps_wfmlr Oracle_apps_jserv Oracle_apps_apache</p>	Validates the versions of the target types owned by the management pack on OMS with every Oracle E-Business Suite environment's target host. This information helps for troubleshooting the discovery issues.
Success Check	N/A	N/A	
Persist Status	N/A	N/A	

The results of these diagnostics tests can be accessed from the Diagnostics Status link for the database target in the results table.

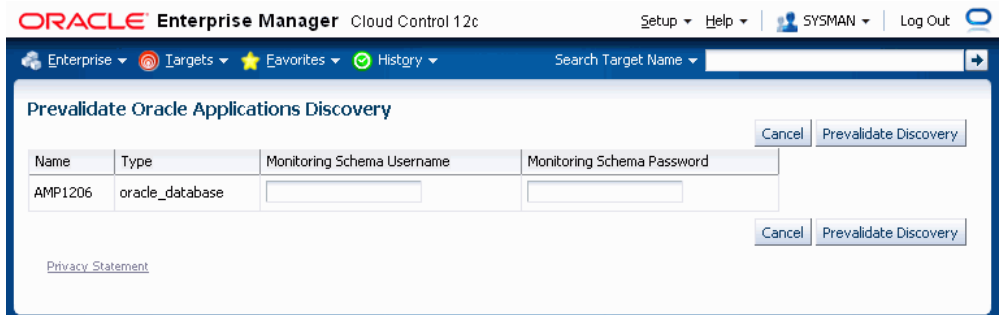
To prevalidate discovery:

1. Navigate to the Discovery Wizard using Targets menu > Oracle E-Business Suite > Discovery Wizard (under "Related Links").
2. Select an Application Database Target and click the **Prevalidate** button.



Note: The scope of running the Discovery Diagnostic tests is limited to only one Oracle E-Business Suite target for every transaction.

3. Enter the Monitoring Schema Username and the Monitoring Schema Password credentials for the database.



4. Click **Prevalidate Discovery** to start the job.
5. A confirmation page is shown.

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Oracle Applications: Discovery Wizard

Page Refreshed Mar 16, 2012 12:40:44 AM

Information

The following prevalidate job has been submitted:
Prevalidate Job for AMP1206

Search

Database Target:

Discovery Status: All

Prevalidate Discover Delete Add Databases

Select All Select None

Select	Database Target	Database Target Type	Database Status	Oracle Applications System	Release	Discovery			Diagnostics Status	Configure
						Start Time	End Time	Status		
<input type="checkbox"/>	amp1213rac	rac_database		amp1213-Oracle E-Business Suite		07:29:42 AM Mar 16 2012 PDT	07:36:31 AM Mar 16 2012 PDT	Failed		
<input checked="" type="checkbox"/>	AMP1206	oracle_database		amp1206-Oracle E-Business Suite	12.0.4	05:05:28 AM Mar 13 2012 PDT	05:06:33 AM Mar 13 2012 PDT	Succeeded	In Progress	

Click on the Diagnostics Status link for a specific Diagnostics job to drill down to details for this job.

- You can then review the Enterprise Manager job execution page for the Discovery Diagnostics job.

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Job Activity > Page Refreshed Mar 16, 2012 12:43:27 AM PDT

Job Run: EBS_DISC_DIAG_JOB_1331883710859 Delete Run Edit View Definition

Summary Log Report

Status Succeeded
 Scheduled Mar 16, 2012 12:41:50 AM GMT-07:00
 Started Mar 16, 2012 12:41:57 AM GMT-07:00
 Ended Mar 16, 2012 12:42:17 AM GMT-07:00
 Elapsed Time 19 seconds

Type ebs_disc_diag_job
 Owner SYSMAN
 Description ebs_disc_diag_job_desc

Targets
 Status All
 Go

Expand All Collapse All

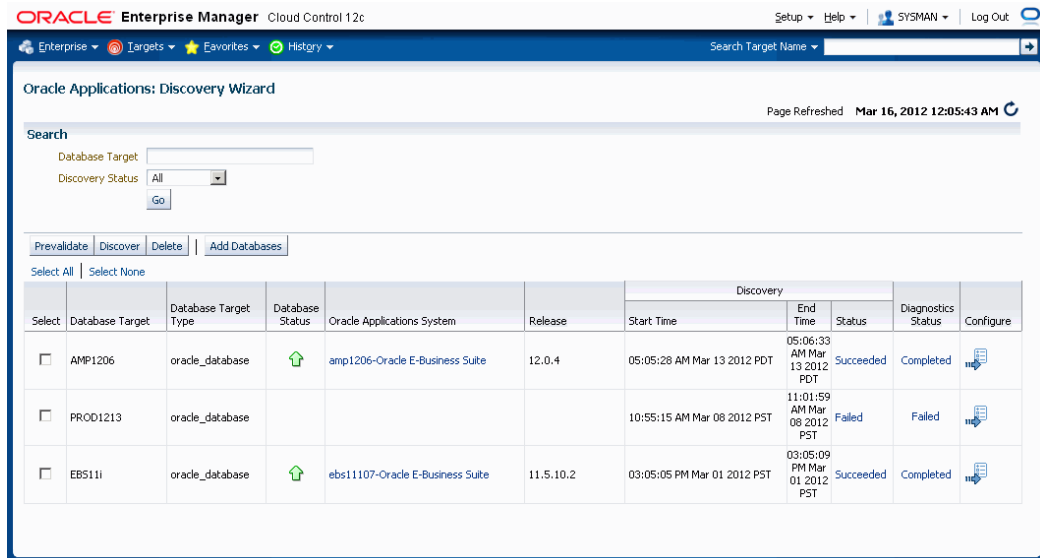
Name	Targets	Status	Started	Ended	Elapsed Time
Execution: AMP1206	AMP1206	Succeeded	Mar 16, 2012 12:41:57 AM GMT-07:00	Mar 16, 2012 12:42:17 AM GMT-07:00	19 seconds
Step: EBS_CONTEXT_DIAGNOSTICS		Succeeded	Mar 16, 2012 12:41:57 AM GMT-07:00	Mar 16, 2012 12:41:58 AM GMT-07:00	0 seconds
Task: EMGC_DIAGNOSTICS		Succeeded	Mar 16, 2012 12:41:58 AM GMT-07:00	Mar 16, 2012 12:42:12 AM GMT-07:00	14 seconds
Step: OMS_DIAGNOSTICS		Succeeded	Mar 16, 2012 12:42:02 AM GMT-07:00	Mar 16, 2012 12:42:03 AM GMT-07:00	0 seconds
Step: AGENT_DIAGNOSTICS		Succeeded	Mar 16, 2012 12:42:07 AM GMT-07:00	Mar 16, 2012 12:42:10 AM GMT-07:00	3 seconds
Step: SUCCESS_CHECK		Succeeded	Mar 16, 2012 12:42:12 AM GMT-07:00	Mar 16, 2012 12:42:12 AM GMT-07:00	0 seconds

The step EBS_CONTEXT_DIAGNOSTICS runs all the tests that validate that the Oracle E-Business Suite instance is in a "healthy" condition for it to be discovered in Enterprise Manager Cloud Control.

The task EMGC_DIAGNOSTICS has two steps under it:

- Step OMS_DIAGNOSTICS - This step runs all the tests that validate that the OMS component of Enterprise Manager Cloud Control is in healthy condition to discover the Oracle E-Business Suite instance.
- Step AGENT_DIAGNOSTICS - This step runs all the tests that validate that the Agents wherever Oracle E-Business Suite is deployed on are in healthy condition to discover the Oracle E-Business Suite instance.

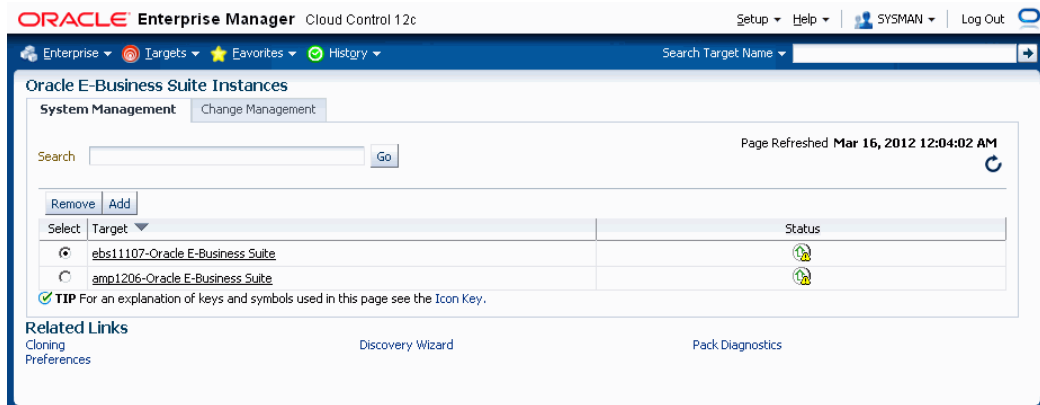
Using Discovery Wizard



Discovery Wizard allows you to track, plan, log, and customize Oracle E-Business Suite discovery processes.

Discovery Wizard also provides a way to prevalidate the system to ensure that the Oracle E-Business Suite context, OMS, and Agent are set up properly. See the section Running Discovery Diagnostics, page 3-1 for more information.

To access Discovery Wizard, navigate to the Targets menu > Oracle E-Business Suite > Discovery Wizard link (under "Related Links").



The following are prerequisites to using Discovery Wizard:

- An agent has been installed on the Oracle E-Business Suite system, on both the database tier and the application system tier.

- The Oracle E-Business Suite database host system has been discovered by Enterprise Manager Cloud Control. In the case of a Real Application Clusters (RAC) system, agents must be installed on all the nodes in the cluster.
- The Oracle E-Business Suite system database has been discovered by Cloud Control.

Note: For an AutoConfig-enabled Release 11*i* instance, running AutoConfig on the database tier adds the following lines to `sqlnet.ora` automatically:

```
tcp.validnode_checking = yes
tcp.invited_nodes=(11i_HOST)
```

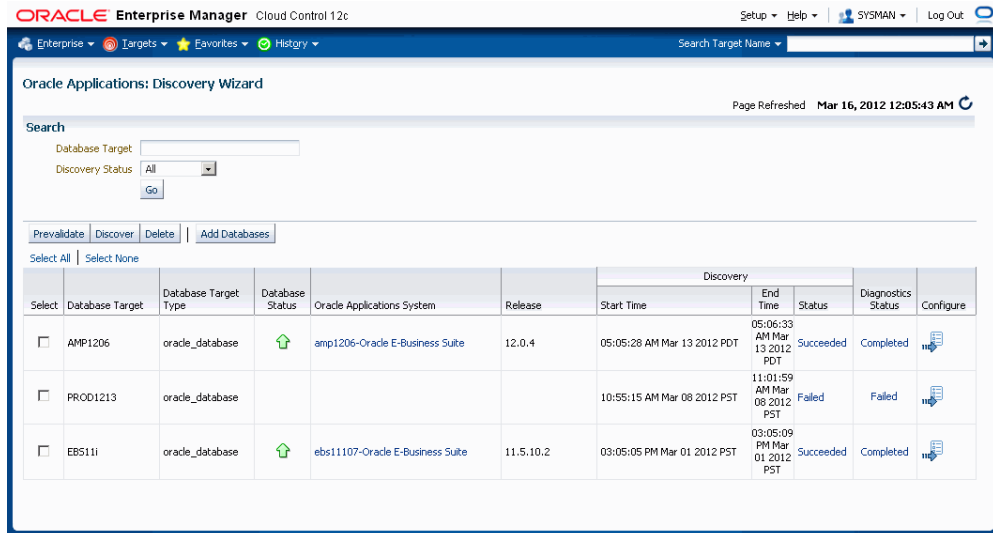
In this case, database discovery or application discovery via Oracle Enterprise Manager will fail because the Oracle E-Business Suite instance database tier listener will reject any connection requests other than from itself. To prevent this failure, add the Oracle Enterprise Manager Cloud Control server to `sqlnet_ifile.ora` as listed below and bounce the database listener before discovery via Oracle Enterprise Manager.

```
tcp.invited_nodes=(11i_HOST, EMGC_HOST)
```

To use Discovery Wizard to register an Oracle E-Business Suite system:

After ensuring that the above prerequisites have been met, you can begin the registration process of the Oracle E-Business Suite system using the steps below.

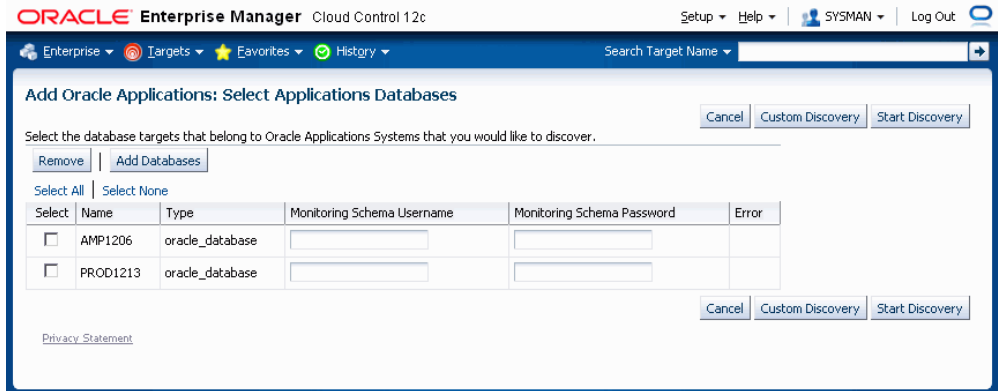
1. From the Discovery Wizard, you can add a database to the system using the **Add Databases** button.



2. Select a target from the list.



3. Once added, the database target appears in the main table of database targets.
4. On the main Discovery Wizard page, select the Application Database Targets you want to discover and click the **Discover** button to start a discovery process.
5. For Monitoring Schema and Monitoring Schema Password, enter the schema username and password for the Oracle E-Business Suite database that can be used by the management pack for monitoring.



Note: If you had selected two or more database targets in the main Discovery Wizard page, you must enter credentials for all of them on this page, even if you do not select them all here.

Note: If you have applied interoperability patches for Release 11*i* and/or Release 12, you can use the out-of-box `em_monitor` user with access to limited database objects required by the management pack. You can enable the `em_monitor` user as follows:

- Apply required patches, if any, to your Oracle E-Business Suite system.

Please see My Oracle Support Knowledge Document 1434392.1 for information on any required patches.

- Connect to the database through `sqlplus` as the `SYSTEM` user and issue command:

```
alter user em_monitor account unlock;
```

- Connect to the database through `sqlplus` as the `em_monitor` user and change the password:

```
sqlplus em_monitor/lizard;
```

You can also use the E-Business Suite Database Username and E-Business Suite Database Password (formerly called the Apps Schema Username and Apps Schema Password, respectively) as your monitoring schema credentials.

To begin the discovery process, click the **Start Discovery** button.

6. View the Discovery Job details.

After the system starts a job to discover the Oracle E-Business Suite you can check its status on the main Discovery Wizard page.

You can view details on the job on the Discovery Wizard main page by clicking the Status link. After gathering the inputs from the user (to register the Oracle E-Business Suite instance with Cloud Control), the discovery job connects to the Oracle E-Business Suite database and retrieves the configuration information. Cloud Control then registers the various target types for the Oracle E-Business Suite system and starts capturing the metrics.

You can view details on the Diagnostics Job by clicking on the link for Diagnostics Status.

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Job Activity > Page Refreshed Mar 16, 2012 12:29:51 AM PDT

Job Run: EBS_DISC_DIAG_JOB_1331285733184 [Delete Run] [Edit] [View Definition]

Summary [Log Report]

Status: Succeeded
 Scheduled: Mar 9, 2012 11:35:33 AM GMT-08:00
 Started: Mar 9, 2012 11:35:42 AM GMT-08:00
 Ended: Mar 9, 2012 11:36:02 AM GMT-08:00
 Elapsed Time: 19 seconds

Type: ebs_disc_diag_job
 Owner: SYSMAN
 Description: ebs_disc_diag_job_desc

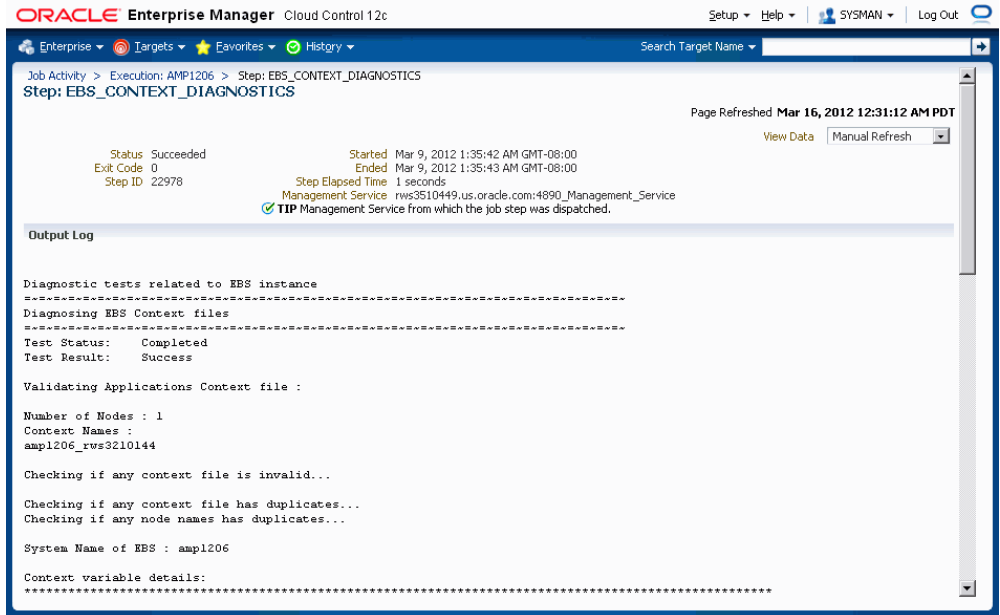
Targets: [input field]
 Status: All [dropdown]
 [Go]

Expand All | Collapse All

Name	Targets	Status	Started	Ended	Elapsed Time
Execution: AMP1206	AMP1206	Succeeded	Mar 9, 2012 11:35:42 AM GMT-08:00	Mar 9, 2012 11:36:02 AM GMT-08:00	19 seconds
Step: EBS_CONTEXT_DIAGNOSTICS		Succeeded	Mar 9, 2012 11:35:42 AM GMT-08:00	Mar 9, 2012 11:35:43 AM GMT-08:00	0 seconds
> Task: EMGC_DIAGNOSTICS		Succeeded	Mar 9, 2012 11:35:43 AM GMT-08:00	Mar 9, 2012 11:35:57 AM GMT-08:00	14 seconds
Step: PERSIST_STATUS		Succeeded	Mar 9, 2012 11:36:02 AM GMT-08:00	Mar 9, 2012 11:36:02 AM GMT-08:00	0 seconds

[Delete Run] [Edit] [View Definition]

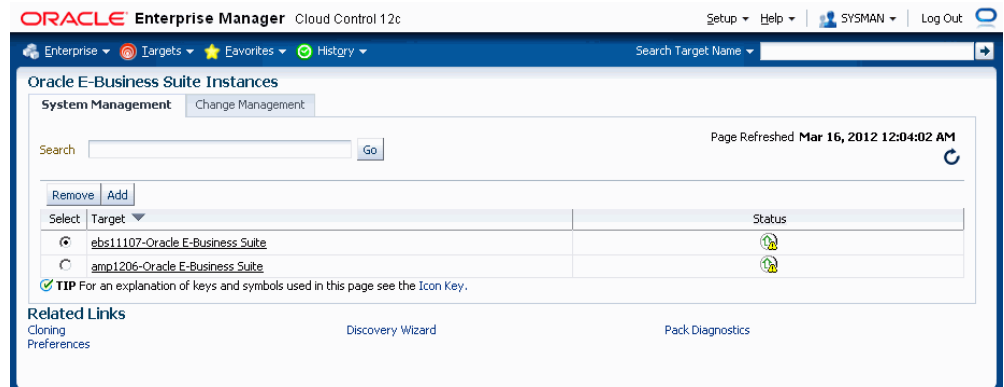
To learn more about a particular step in the discovery job's execution, click on the linked name of the step.



To start the discovery process from the System Management subtab (Alternate navigation):

You can also start the registration process from the System Management subtab.

1. Click the **Add** button on the System Management dashboard.



2. You can then use the **Add Database** button to add an additional Oracle E-Business Suite database target to be discovered. In the case of an Oracle E-Business Suite instance deployed on a RAC database, select the Cluster Database Target for Discovery.

To use Discovery Wizard for a customized Oracle E-Business Suite registration process:

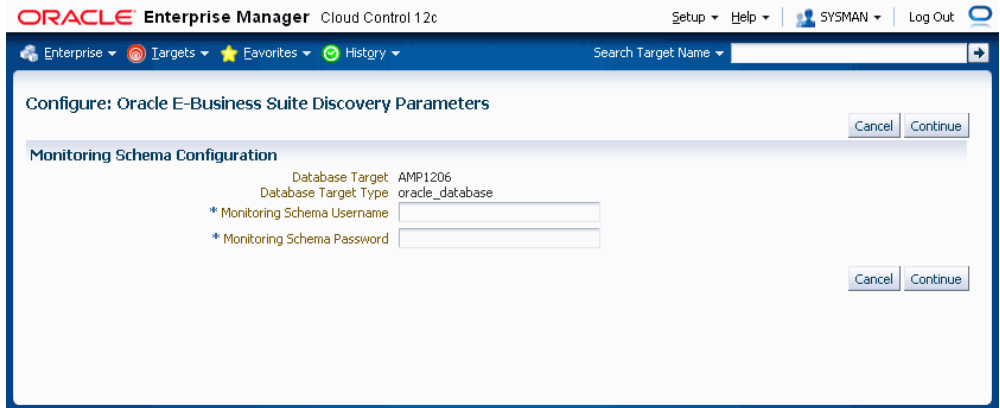
Discovery Wizard allows you to customize the Oracle Applications registration process by enabling you to override many discovery options.

1. To configure the discovery parameters for an Oracle E-Business Suite system, click on the icon in the Configure column of the database target for the Oracle E-Business Suite to configure the parameters.

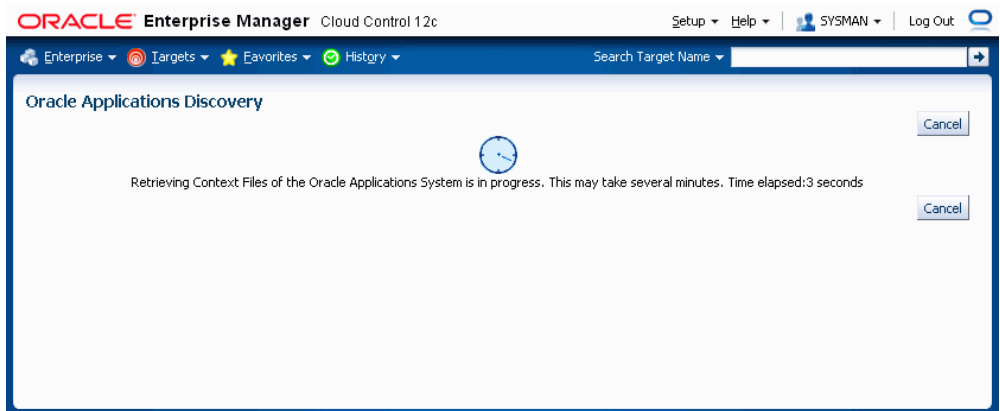
The screenshot shows the Oracle Enterprise Manager Cloud Control 12c interface. The main window is titled "Oracle Applications: Discovery Wizard". It features a search bar with "Database Target" and "Discovery Status" filters. Below the search bar are buttons for "Prevalidate", "Discover", "Delete", and "Add Databases". A table lists discovered database targets with columns for "Select", "Database Target", "Database Target Type", "Database Status", "Oracle Applications System", "Release", "Discovery Start Time", "Discovery End Time", "Discovery Status", "Diagnostics Status", and "Configure".

Select	Database Target	Database Target Type	Database Status	Oracle Applications System	Release	Discovery			Diagnostics Status	Configure
						Start Time	End Time	Status		
<input type="checkbox"/>	AMP1206	oracle_database		amp1206-Oracle E-Business Suite	12.0.4	05:05:28 AM Mar 13 2012 PDT	05:06:33 AM Mar 13 2012 PDT	Succeeded	Completed	
<input type="checkbox"/>	PROD1213	oracle_database				10:55:15 AM Mar 08 2012 PST	11:01:59 AM Mar 08 2012 PST	Failed	Failed	
<input type="checkbox"/>	EBS11i	oracle_database		ebs11107-Oracle E-Business Suite	11.5.10.2	03:05:05 PM Mar 01 2012 PST	03:05:09 PM Mar 01 2012 PST	Succeeded	Completed	

2. On the next page, enter application access details of the monitoring system. For Monitoring Schema Username and Monitoring Schema Password, enter the schema username and password for the Oracle E-Business Suite database that can be used by the management pack for monitoring. Click **Continue**.



3. The system then retrieves context files of the Oracle E-Business Suite system.



4. The Configure page allows you to update instance-level discovery parameters, as well as context-level parameters at the bottom of the page. To set context-level parameters, use the icon in the Configure column for the specified context.

Configure Page for a Release 12 System

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Configure: amp1206 Oracle E-Business Suite

Oracle Applications System: amp1206 System Name: amp1206
 Release: 12.0.4 Number of Nodes: 1
 Database Target: AMP1206 Database Target Type: oracle_database

Discovery Parameters

Customer Group Name:
 Customer Instance Group Name:
 Discover Workflow: Yes
 Discover Workflow Service: Yes
 Discover Forms Service: Yes

Discover SSA Service: Yes
To enable/disable discovery and monitoring of SSA Service
 Discover Patching Information Object: Yes
To enable/disable discovery and monitoring of Patching Information Object
 Discover Custom Objects: Yes
To enable/disable discovery and monitoring of Custom Objects
 Delete Removed Targets: No
Delete Removed Targets

Context Name	Context Type	Hostname	Autoconfig Status	Configure	Enable
amp1206_rws3210144	Applications	rws3210144.us.oracle.com	Synchronized		<input checked="" type="checkbox"/>
amp1206_rws3210144	Database	rws3210144.us.oracle.com	Synchronized		<input checked="" type="checkbox"/>

Configure Page for a Release 11i System

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Configure: ebs11107 Oracle E-Business Suite

Oracle Applications System: ebs11107 System Name: ebs11107
 Release: 11.5.10.2 Number of Nodes: 1
 Database Target: EBS11i Database Target Type: oracle_database

Discovery Parameters

Customer Group Name: Discover Discoverer: Yes
To enable/disable discovery and monitoring of Discoverer

Customer Instance Group Name:
 Customer Instance Group Name:

Discover Workflow: Yes Delete Removed Targets: No
To enable/disable discovery and monitoring of Workflow Delete Removed Targets

Context Name	Context Type	Hostname	Autoconfig Status	Configure	Enable
ebs11107_rws3210140	Database	rws3210140.us.oracle.com	Synchronized		<input checked="" type="checkbox"/>
ebs11107_rws3210140	Applications	rws3210140.us.oracle.com	Synchronized		<input checked="" type="checkbox"/>

Cancel Reset to Defaults Reset To Last Successful Configuration Save

Context-level Information

Context Name	Context Type	Hostname	Autoconfig Status	Configure	Enable
ebs11107_rws3210140	Database	rws3210140.us.oracle.com	Synchronized		<input checked="" type="checkbox"/>
ebs11107_rws3210140	Applications	rws3210140.us.oracle.com	Synchronized		<input checked="" type="checkbox"/>

Instance-level Parameters

The following parameters of discovery can be customized.

Instance-level Parameters for Release 12

Discovery Parameters

Customer Group Name	<input type="text"/>	Discover SSA Service	Yes <input type="button" value="v"/>
	Customer Group Name		To enable/disable discovery and monitoring of SSA Service
Customer Instance Group Name	<input type="text"/>	Discover Patching Information Object	Yes <input type="button" value="v"/>
	Customer Instance Group Name		To enable/disable discovery and monitoring of Patching Information Object
Discover Workflow	Yes <input type="button" value="v"/>	Discover Custom Objects	Yes <input type="button" value="v"/>
	To enable/disable discovery and monitoring of Workflow		To enable/disable discovery and monitoring of Custom Objects
Discover Workflow Service	Yes <input type="button" value="v"/>	Delete Removed Targets	No <input type="button" value="v"/>
	To enable/disable discovery and monitoring of Workflow Service		Delete Removed Targets
Discover Forms Service	Yes <input type="button" value="v"/>		
	To enable/disable discovery and monitoring of Forms Service		

Parameter Name	Description	Default Value
Customer Instance Group Name	All targets discovered for this instance will be grouped under this group. This group will be added to Group: Customer Group Name.	No value.
Customer Group Name	If Customer Instance Group Name is provided, then all the targets discovered for this instance and the Customer Instance Group Name will be added to this group.	No value.
Discover Workflow	Disable/Enable Monitoring of the Oracle Workflow component.	Yes
Discover Workflow Service	Disable/Enable creation of the Oracle Workflow service.	Yes

Parameter Name	Description	Default Value
Discover Forms Service	Disable/Enable creation of the Oracle Forms service.	Yes
Discover SSA Service	Disable/Enable creation of the Self-Service Applications (SSA) Service.	Yes
Discover Patching Information Object	Disable/Enable Discovery of the Patching Information Object. This target is essential for any Oracle E-Business Suite patching application and should be enabled if any patching applications are used with this Instance.	Yes
Discover Custom Objects	Disable/Enable Discovery of customs objects configuration.	Yes
Discover Order Management Services	Disable/Enable Monitoring of Order Management services (out-of-box services).	Yes
Delete Removed Targets	All targets which are dissociated from the Applications System will be deleted from the EM Repository if this option is set to 'Yes'.	No



Instance-level Parameters for Release 11i

Discovery Parameters	
Customer Group Name	<input type="text"/>
Customer Instance Group Name	<input type="text"/>
Discover Workflow	<input type="text" value="Yes"/>
Discover Discoverer	<input type="text" value="Yes"/>
Delete Removed Targets	<input type="text" value="No"/>

Customer Group Name
Customer Instance Group Name
Customer Instance Group Name
To enable/disable discovery and monitoring of Discoverer
To enable/disable discovery and monitoring of Workflow
Delete Removed Targets

Parameter Name	Description	Default Value
Customer Instance Group Name	All targets discovered for this instance will be grouped under this group. This group will be added to Group: Customer Group Name.	No value
Customer Group Name	If Customer Instance Group Name is provided, then all the targets discovered for this instance and the Customer Instance Group Name will be added to this group.	No value
Discover Workflow	Disable/Enable monitoring of the Oracle Workflow component.	Yes
Discover Discoverer	Disable/Enable monitoring of the Discoverer component.	Yes
Delete Removed Targets	All targets which are dissociated from the Applications System will be deleted from the EM Repository if this option is set to 'Yes'.	No

Discovered Contexts

Context Name	Context Type	Hostname	Autoconfig Status	Configure	Enable
ebs11107_rws3210140	Database	rws3210140.us.oracle.com	Synchronized		<input checked="" type="checkbox"/>
ebs11107_rws3210140	Applications	rws3210140.us.oracle.com	Synchronized		<input checked="" type="checkbox"/>

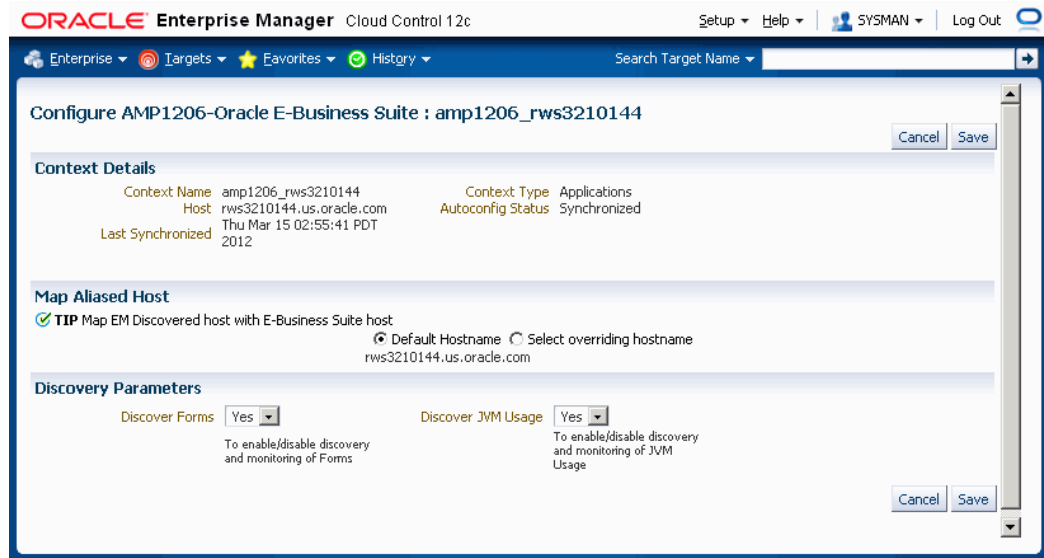
All contexts (nodes) that belong to the Oracle E-Business Suite are shown in this table. You can click the Configure icon for each individual context to set context-level parameters.

Once you have entered parameter values, you can do the following:

- Save - This option saves your changes to the EM Repository.
- Reset to Last Successful Configuration - This option resets the values to those that were used during the last successful discovery.
- Reset to Defaults - This option sets the parameters to the default values.
- Cancel - This option cancels your changes.

Configuring Contexts

Example of a Configure Context Page



Context details are retrieved from context files. There is a Database Context page applicable to both Release 11*i* and Release 12, and different Applications Context pages for Release 11*i* and Release 12.

The Mapped Alias Host configuration information can be used in host aliasing to specify the host target registered with Enterprise Manager for this context.

Database Context Page for Releases 11i and 12

The screenshot shows the Oracle Enterprise Manager interface for configuring a database context. The page title is "Configure AMP1206-Oracle E-Business Suite : amp1206_rws3210144". The context details are as follows:

Property	Value	Property	Value
Context Name	amp1206_rws3210144	Context Type	Database
Host	rws3210144.us.oracle.com	Autoconfig Status	Synchronized
Last Synchronized	Thu Mar 08 04:54:46 PST 2012		

The "Map Aliased Host" section is checked, indicating that the EM discovered host with E-Business Suite host. The default hostname is rws3210144.us.oracle.com.

Applications Context Page for Release 11i

The screenshot shows the Oracle Enterprise Manager interface for configuring an applications context. The page title is "Configure EBS11107-Oracle E-Business Suite : ebs11107_rws3210140". The context details are as follows:

Property	Value	Property	Value
Context Name	ebs11107_rws3210140	Context Type	Applications
Host	rws3210140.us.oracle.com	Autoconfig Status	Synchronized
Last Synchronized	Tue Mar 13 00:00:02 PDT 2012		

The "Map Aliased Host" section is checked, indicating that the EM discovered host with E-Business Suite host. The default hostname is rws3210140.us.oracle.com.

Applications Context Page for Release 12

Configure AMP1206-Oracle E-Business Suite : amp1206_rws3210144

Context Details

Context Name	amp1206_rws3210144	Context Type	Applications
Host	rws3210144.us.oracle.com	Autoconfig Status	Synchronized
Last Synchronized	Thu Mar 15 02:55:41 PDT 2012		

Map Aliased Host

TIP Map EM Discovered host with E-Business Suite host

Default Hostname Select overriding hostname
rws3210144.us.oracle.com

Discovery Parameters

Discover Forms	Yes	Discover JVM Usage	Yes
<small>To enable/disable discovery and monitoring of Forms</small>		<small>To enable/disable discovery and monitoring of JVM Usage</small>	

Parameter Name	Description	Default Value
Discover Forms	Enable/Disable discovery of the Oracle Forms target for this context.	Yes
Discover JVM Usage	Enable/Disable discovery of the JVM Usage target. This option will not affect rediscovery of the applications system.	Yes

Once you have entered parameter values, you can do one of the following:

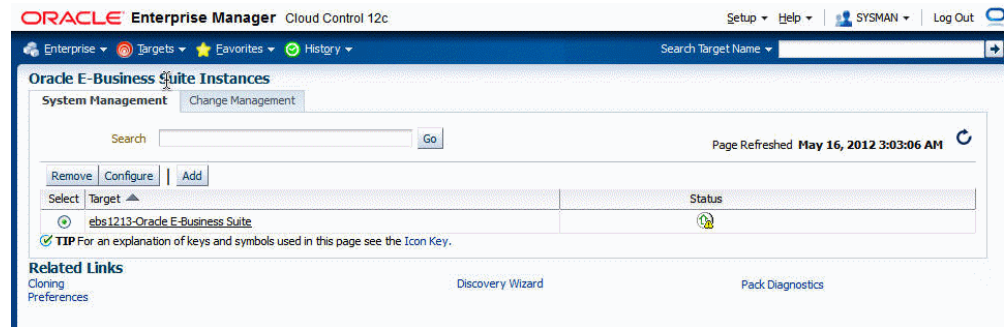
- Save - This option saves your changes to the EM Repository.
- Cancel - This option cancels your changes.

For the customization to take effect you must rediscover the Oracle E-Business Suite. Rediscovery can be done by discovering the Oracle E-Business Suite instance again. Rediscovery will not affect the history of any of the already discovered targets.

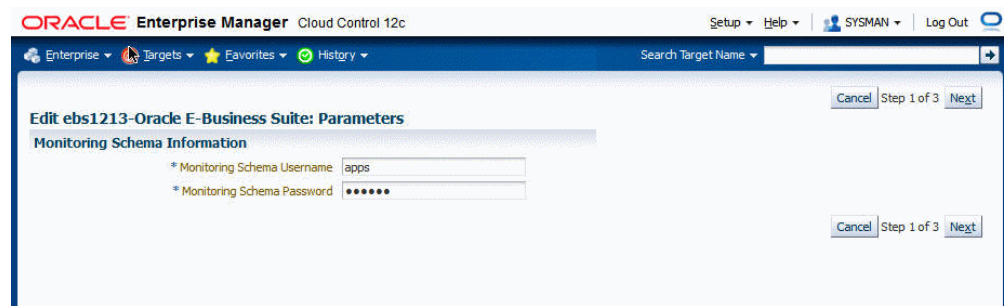
Configuring the Monitoring of Oracle E-Business Suite

1. To edit the monitoring configuration of an Oracle E-Business Suite system, first

select the desired system in the System Management tab, and then click **Configure**.

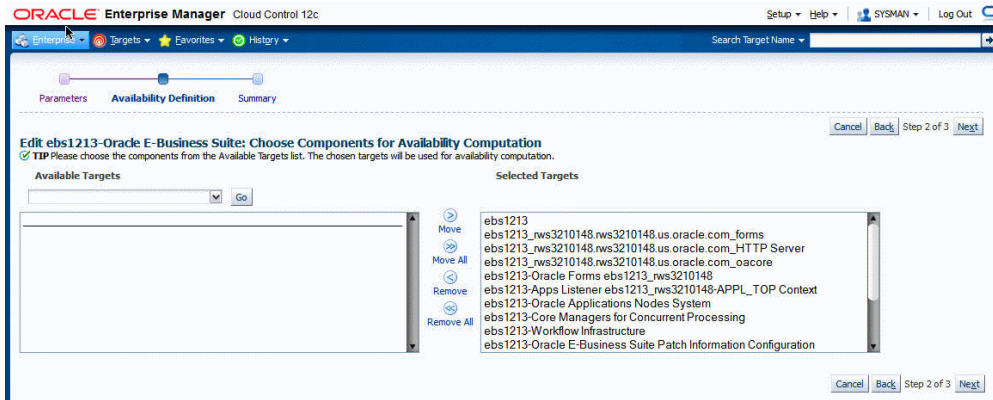


2. You can review and edit the monitoring schema information in the first step.



- Monitoring Schema Username - This is the name of the monitoring schema in your Oracle E-Business Suite database. Enterprise Manager will connect to this schema to collect certain system metrics.
- Monitoring Schema Password - This is the password of the monitoring schema in your Oracle E-Business Suite database.

After you have reviewed the required information, click **Next** to continue.



3.

The availability of Oracle E-Business Suite as shown in the target home page is defined as a function of the availability of a set of predefined targets. You can change this definition in this step. The left pane shows the targets available for inclusion while the right page shows the targets that are already part of availability computation. The availability of the Oracle E-Business Suite system is calculated as described in the following table:

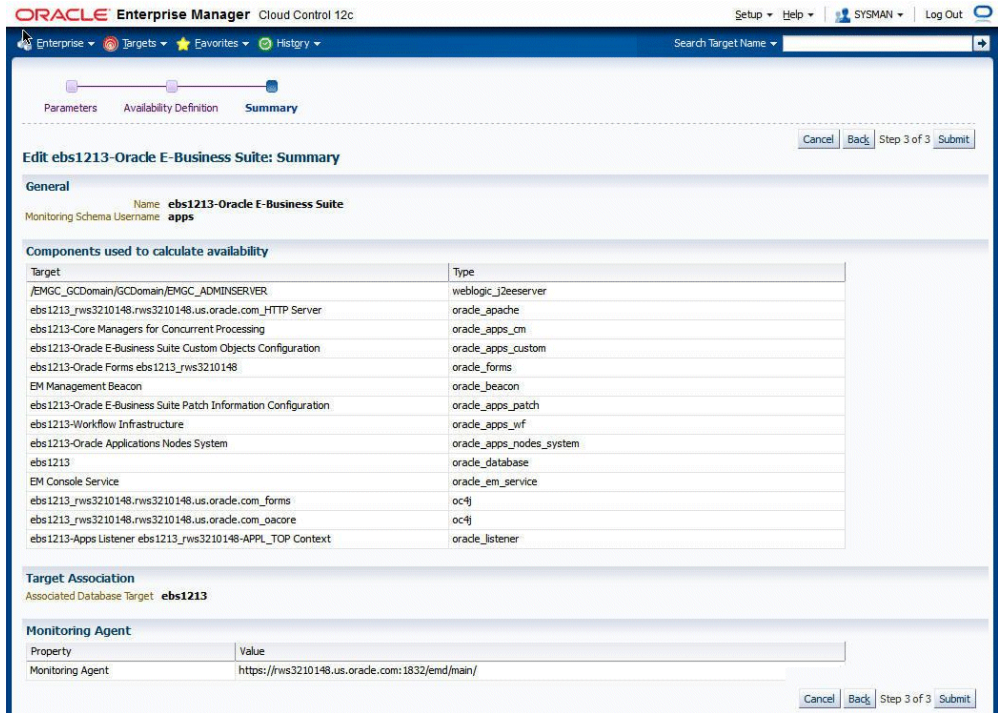
Selected Targets' Status	Oracle E-Business Suite System Status
All Up	Up
One or more Up	Partially Up
All Down	Down

To add a registered target to the **Selected Targets** list, choose the target type (for example, Database, Forms Listener for Oracle Applications Release 11i) and click **Go**. Select the appropriate target(s) from the **Available Targets** list, and click **Move**.

Note: This information will not be used by Enterprise Manager Grid Control and will not be reflected in the generic pages provided by EMGC to monitor any system. The status on Oracle E-Business Suite shown in those pages is based on the status of a predefined set of targets. This set of targets cannot be changed.

Once the **Selected Targets List** is complete, click **Next** to continue.

4. The Summary page summarizes the configuration information for your Oracle E-Business Suite system. Click **Next** to complete configuring the Oracle E-Business Suite system.



Configuring Monitoring of HTTPS/SSL Targets

To configure Cloud Control to monitor Oracle E-Business Suite middle tiers that are running in SSL, each Management Agent must be able to authenticate the middle tier's SSL certificate against its Certificate Authority (CA).

Assumed Prerequisites

The HTTP Server that ships with Oracle E-Business Suite is already configured and verified to be running in SSL mode.

Basic knowledge of SSL certificates and their configuration.

Obtaining the CA certificate(s)

1. In Microsoft Internet Explorer, connect to the HTTPS URL of the Web site you are attempting to monitor.
2. Double-click the lock icon at the bottom of the browser screen which indicates that you have connected to a secure Web site. The browser displays the Certificate dialog box, which describes the certificate used for this Web site. Other browsers offer a similar mechanism to view the certificate details of a Web site.
3. Click the Certificate Path tab and select the first entry in the list of certificates.

4. Click **View Certificate** to display a second Certificate dialog box.
5. Click the Details tab on the Certificate window.
6. Click **Copy to File** to display the Certificate Manager Export wizard.
7. In the Certificate Manager Export wizard, select Base64 encoded X.509 (.CER) as the format you want to export and save the certificate to a text file with an easily identifiable name, such as beacon_certificate.cer.
8. Open the certificate file using a text editor.

Add the Certificate to the Management Agent(s)

Each Management Agent that monitors an Oracle E-Business Suite middle-tier must have the CA certificate added to it as follows:

1. Locate the b64InternetCertificate.txt file in the following directory of Agent Home of the Beacon host: \$AGENT_ORACLE_HOME/sysman/config (This file contains a list of Base64 Certificates).
2. Edit the b64InternetCertificate.txt file and add the contents of the certificate file you just exported to the end of the file, taking care to include all the Base64 text of the certificate including the BEGIN and END lines.
3. Repeat for each Management Agent.

Restart Each Management Agent

Each Management Agent should be restarted:

```
> $AGENT_ORACLE_HOME/bin/emctl stop agent
> $AGENT_ORACLE_HOME/bin/emctl start agent
```

Cloud Control may not immediately pick up the change. You may want to give it a few minutes for the agent to run a metrics collection and upload them to the Oracle Management Server (OMS). You can click on the **Refresh** icon in the upper right of the Oracle E-Business Suite home page (by the Page Refreshed time stamp) in the Cloud Control console to get updated information.

Importing an Oracle E-Business Suite SSL Certificate to the OMS

AMP invokes REST services deployed on Oracle E-Business Suite using `java.net.HttpURLConnection`. The User Monitoring, Diagnostics, and Setup Manager features use REST services. If the Oracle E-Business Suite instance is SSL-enabled, the SSL certificate must be exported from Oracle E-Business Suite and imported to the trust keystore of the Oracle WebLogic Server (WLS) that runs the OMS. Below are the steps to do this action:

1. Find out the trust keystore of WebLogic Server.
2. Open the WebLogic Server Administration Console by using the following steps.
 1. Go to the All Targets page of Enterprise Manager Grid Control
 2. Select the target type Oracle WebLogic Server.
 3. Select the WebLogic Server instance that runs the OMS.
 4. The target home page will contain the link to open the Administration Console.
3. From the Administration Console, select Servers.
4. Select the server that runs the OMS.
5. Click on the subtab Keystores under Configuration.
6. Look for the Java Standard Trust Keystore which points to the location of the keystore.
7. Run the command to import the certificate using the `keytool` utility. Use the JDK that comes with WebLogic Server.

```
JDK_HOME/bin/keytool -importcert -alias oracle_ebs_<ebs instance name> -trustcacerts -file <location of EBS SSL certificate> -keystore <location of key store>
```

Refer to the Java SE documentation on the command `keytool` for information on passwords.
8. Restart the OMS.

For more information on configuring identity and trust for WebLogic Server, see the Oracle Fusion Middleware manual *Securing Oracle WebLogic Server*.

A Note on Oracle Forms 6i

Even though your Oracle Forms configuration may be running in SSL, Cloud Control does not require any additional configuration to monitor Forms. The reason for this is that it uses a different method for determining the Forms Server status which does not require SSL communications with the server.

Re-Configuring SSL for Oracle E-Business Suite

If you have implemented SSL or deactivated SSL after the initial discovery of that Oracle E-Business Suite instance in Cloud Control, you will have to re-configure Cloud Control to monitor the new URL with the new protocol. There are two ways to do this:

- The Easy Way: If you don't care about the metrics data that has been collected for the instance, you can simply remove the instance from Cloud Control and rediscover it.
- The Hard Way: If metrics history is important, then each HTTP Server Target has to be re-configured to point to the new URL, port, and protocol.

Re-configuring Release 11*i* Apache Targets

1. Select the Release 11*i* instance in the Oracle Applications targets tab.
2. Under Applications Nodes Status, expand the Context link that corresponds with your SSL middle tier.
3. Select the Apache target (description: "HTTP Server for Oracle Applications 11*i*").
4. From the Target menu, select Target Setup, then select Monitoring Configuration.
5. Edit the Protocol and Port as appropriate.
6. Click **OK**.

Re-configuring Release 12 Application Servers

1. Select the Release 12 instance in the Oracle Applications targets tab.
2. Under Applications Nodes Status, expand the Context link that corresponds with your SSL middle tier.
3. Select the target described as "Oracle Application Server".
4. Navigate to the Target menu (labeled "Application Server"), and select Change Application URL.
5. Edit the "URL to measure application response" as appropriate.
6. Click **OK**.

References

- My Oracle Support (formerly *OracleMetaLink*) Knowledge Document 123718.1 - A Guide to Understanding and Implementing SSL with Oracle Applications Release 11*i*
- My Oracle Support Knowledge Document 376700.1 - Enabling SSL in Oracle Applications Release 12

- My Oracle Support Knowledge Document 391652.1 - Problem: Accessing Web application gives sun.security.validator.ValidatorException: No trusted certificate
- *Oracle Enterprise Manager Cloud Control Administrator's Guide*

The Target Menu

Once you have selected an Oracle E-Business Suite target, you can use the Target menu to access additional functions that can be used with the target. In particular, you can access the following:

- Home - The Oracle E-Business Suite home page
- Monitoring, including Metrics features
- Job Activity
- Oracle Applications Manager
- Configuration Target Setup
- Target Information

Setting Credentials and Preferences

Setting Named Credentials

In Enterprise Manager, as part of the target type definition, you can define the types of credentials specific to the plug-in target type. Examples could be the user name and password required by the plug-in to connect to a target instance to collect metric data, or to invoke a specific Enterprise Manager job.

A named credential is a users' authentication information on a system. A named credential can be a user name/password, a public key-private key pair, or an X509v3 certificate. An Enterprise Manager administrator can store these credentials as named entities in Enterprise Manager to use when performing operations like running jobs, patching, and other system management tasks. For example, you can store the user name and password that you want to use for patching as MyPatchingCreds. You can then later submit a patching job that uses MyPatchingCreds to patch the production databases. Named credentials ensure an additional layer of security passwords because an operator would use the selected named credential, which is saved and stored by an administrator, and not know the actual user name and password associated with it.

To define Named Credentials, navigate to: Setup menu > Security > Named Credentials. For details on Named Credentials, see the *Oracle Enterprise Manager Cloud Control Administrator's Guide*.

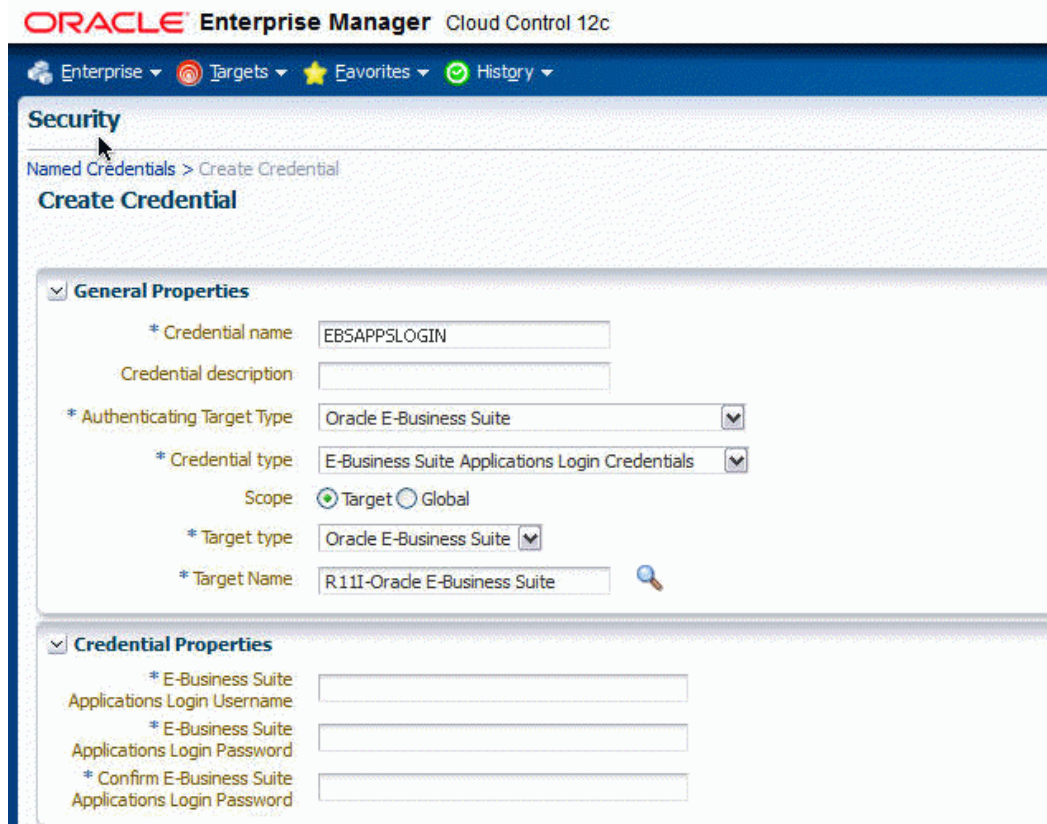
For the Oracle Application Management Pack for Oracle E-Business Suite, you must create named credentials for the Oracle E-Business Suite or Oracle E-Business Suite Infrastructure based on the management activity you are performing. Create all of the named credentials listed below if you plan on using all of the features of the management pack:

- A credential to access the Oracle E-Business Suite (applications login)
- Credentials to access the Oracle E-Business Suite Database
- A credential to monitor the Oracle E-Business Suite Database

Creating a Named Credential for Oracle E-Business Suite Applications Login

Follow these steps in defining this credential:

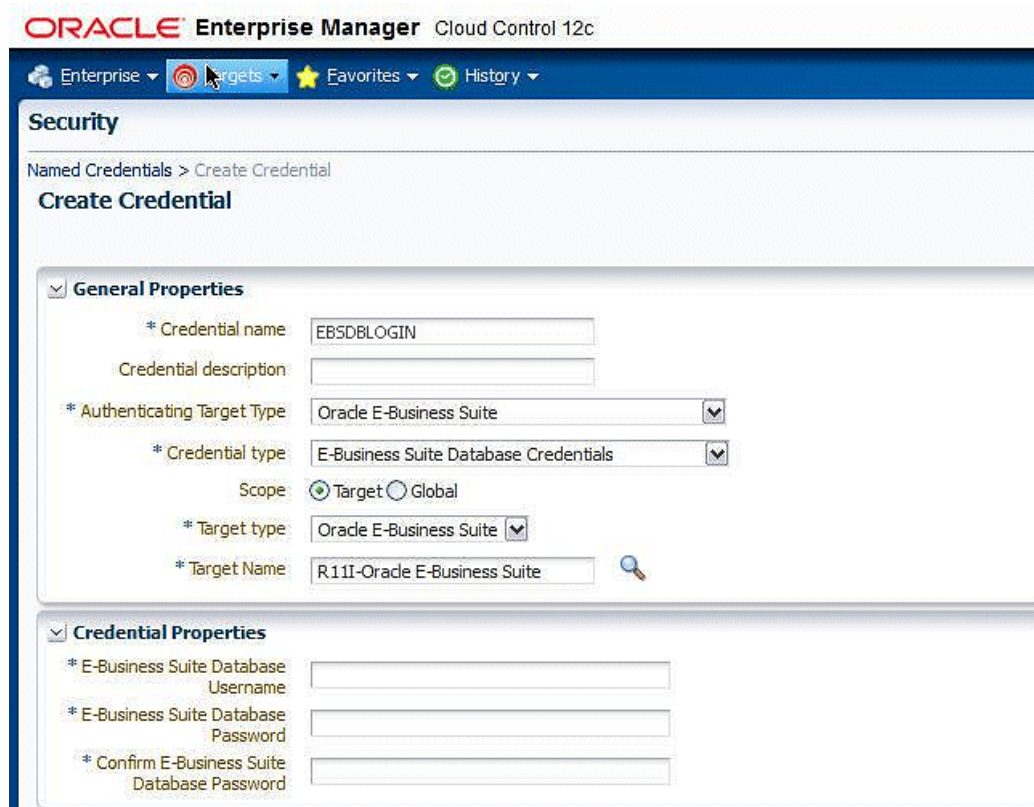
1. Specify a name and description for your credential.
2. Select 'Oracle E-Business Suite' as the Authenticating Target Type.
3. Select 'E-Business Suite Application Login Credentials' as the Credential Type.
4. The parameter Scope determines if this named credential is applicable for all instances of Oracle E-Business Suite or to a specific instance. So if you choose Target for the scope, you need to select Oracle E-Business Suite as target type and provide the name of the Oracle E-Business Suite for which this named credential is applicable.
5. If necessary based on the previous step, select 'Oracle E-Business Suite' as the Target Type and choose your Target Name.
6. Define your Credential Properties.



Creating Named Credentials to Access the Database

Follow these steps to create a named credential to access the Oracle E-Business Suite database:

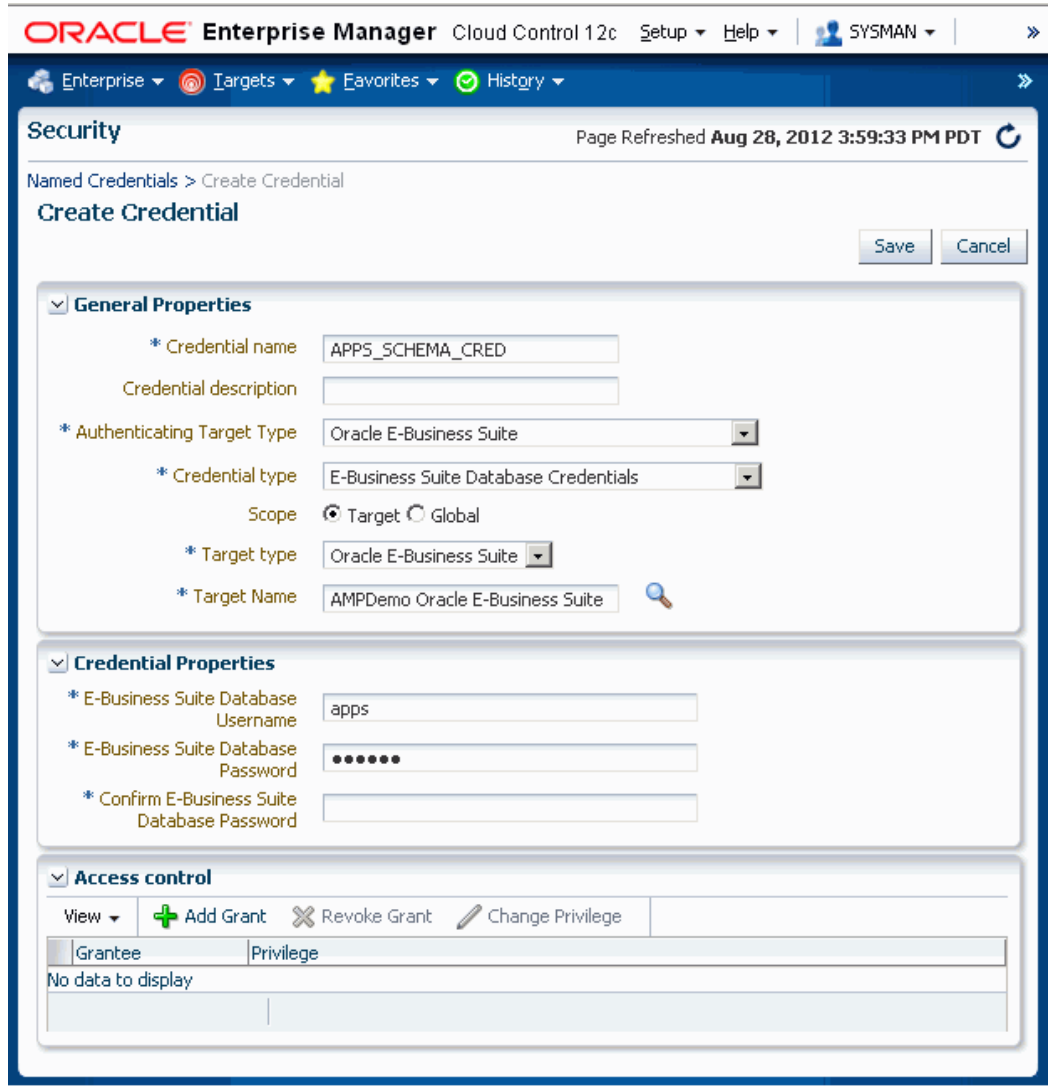
1. Specify a name and description for your credential.
2. Select 'Oracle E-Business Suite' as the Authenticating Target Type.
3. Select 'E-Business Suite Database Credentials' as the Credential Type.
4. The parameter Scope determines if this named credential is applicable for all instances of Oracle E-Business Suite or to a specific instance. So if you choose Target for the scope, you need to select Oracle E-Business Suite as target type and provide the name of the Oracle E-Business Suite for which this named credential is applicable.
5. Define your Credential Properties.



The following examples illustrate creating named credentials for database access.

Example: Creating a Named Credential for the Oracle E-Business Suite Database APPS Schema

1. Specify a name and description for your credential.
2. Select 'Oracle E-Business Suite' as the Authenticating Target Type.
3. Select 'E-Business Suite Database Credentials' as the Credential Type.
4. The parameter Scope determines if this named credential is applicable for all instances of Oracle E-Business Suite or to a specific instance. So if you choose Target for the scope, you need to select Oracle E-Business Suite as target type and provide the name of the Oracle E-Business Suite for which this named credential is applicable.
5. Define your Credential Properties. Specify the username and password for your APPS schema.



Example: Creating a Named Credential for the Oracle E-Business Suite Database APPLSYS Schema

Use the following steps to create a credential to access the APPLSYS schema:

1. Specify a name and description for your credential.
2. Select 'Oracle E-Business Suite' as the Authenticating Target Type.
3. Select 'E-Business Suite Database Credentials' as the Credential Type.
4. The parameter Scope determines if this named credential is applicable for all instances of Oracle E-Business Suite or to a specific instance. So if you choose Target for the scope, you need to select Oracle E-Business Suite Infrastructure as the target type and provide the name of the Oracle E-Business Suite target for which this named credential is applicable.

5. Define your Credential Properties. Specify the username and password for your APPLSYS schema.

The screenshot shows the Oracle Enterprise Manager Cloud Control 12c interface. The top navigation bar includes 'ORACLE Enterprise Manager Cloud Control 12c', 'Setup', 'Help', and a user profile 'SYSMAN'. Below the navigation bar, there are tabs for 'Enterprise', 'Targets', 'Favorites', and 'History'. The main content area is titled 'Security' and shows the breadcrumb 'Named Credentials > Create Credential'. The page was refreshed on 'Aug 28, 2012 3:59:33 PM PDT'. The 'Create Credential' form is divided into three sections: 'General Properties', 'Credential Properties', and 'Access control'. The 'General Properties' section includes fields for 'Credential name' (APPLSYS_SCHEMA_CRED), 'Credential description', 'Authenticating Target Type' (Oracle E-Business Suite), 'Credential type' (E-Business Suite Database Credentials), 'Scope' (Target selected), 'Target type' (Oracle E-Business Suite), and 'Target Name' (AMPDemo Oracle E-Business Suite). The 'Credential Properties' section includes fields for 'E-Business Suite Database Username' (applsyst), 'E-Business Suite Database Password' (masked with dots), and 'Confirm E-Business Suite Database Password'. The 'Access control' section has buttons for 'Add Grant', 'Revoke Grant', and 'Change Privilege', and a table with columns 'Grantee' and 'Privilege' showing 'No data to display'.

Example: Creating a Named Credential for the Oracle E-Business Suite Database System Schema

Use the following steps to create the Oracle E-Business Suite Database System Schema credential:

1. Specify a name and description for your credential.
2. Select 'Oracle E-Business Suite' as the Authenticating Target Type.
3. Select 'E-Business Suite Database Credentials' as the Credential Type.
4. The parameter Scope determines if this named credential is applicable for all

instances of Oracle E-Business Suite or to a specific instance. So if you choose Target for the scope, you need to select Oracle E-Business Suite Infrastructure as the target type and provide the name of the Oracle E-Business Suite target for which this named credential is applicable.

5. Define your Credential Properties. Specify the username and password for your SYSTEM schema.

The screenshot shows the Oracle Enterprise Manager interface for creating a named credential. The page title is "Security" and it indicates the page was refreshed on Aug 28, 2012 at 3:59:33 PM PDT. The breadcrumb path is "Named Credentials > Create Credential".

Create Credential

General Properties

- * Credential name: SYSTEM_SCHEMA_CRED
- Credential description: (empty)
- * Authenticating Target Type: Oracle E-Business Suite
- * Credential type: E-Business Suite Database Credentials
- Scope: Target Global
- * Target type: Oracle E-Business Suite
- * Target Name: AMPDemo Oracle E-Business Suite

Credential Properties

- * E-Business Suite Database Username: system
- * E-Business Suite Database Password: (masked with dots)
- * Confirm E-Business Suite Database Password: (empty)

Access control

View

Grantee	Privilege
No data to display	

Creating a Named Credential to Monitor the Oracle E-Business Suite Database

Create this credential using the following steps:

1. Specify a name and description for your credential.

2. Select 'Host' as the Authenticating Target Type.
3. Select 'Host Credentials' as the Credential Type.
4. The parameter Scope determines if this named credential is applicable for all instances of Oracle E-Business Suite or to a specific instance. So if you choose Target for the scope, you need to select Oracle E-Business Suite Infrastructure as the target type and provide the name of the Oracle E-Business Suite target for which this named credential is applicable.
5. Specify the APPL_TOP context.
6. Define your Credential Properties.

ORACLE Enterprise Manager Cloud Control 12c

Enterprise ▾ Targets ▾ Favorites ▾ History ▾

Security

Named Credentials > Create Credential

Create Credential

General Properties

* Credential name: N2

Credential description: []

* Authenticating Target Type: Host

* Credential type: Host Credentials

Scope: Target Global

* Target type: Oracle E-Business Suite Infrastructure

* Target Name: R11I-Infrastructure R11I_ap504ap

Credential Properties

* UserName: []

* Password: []

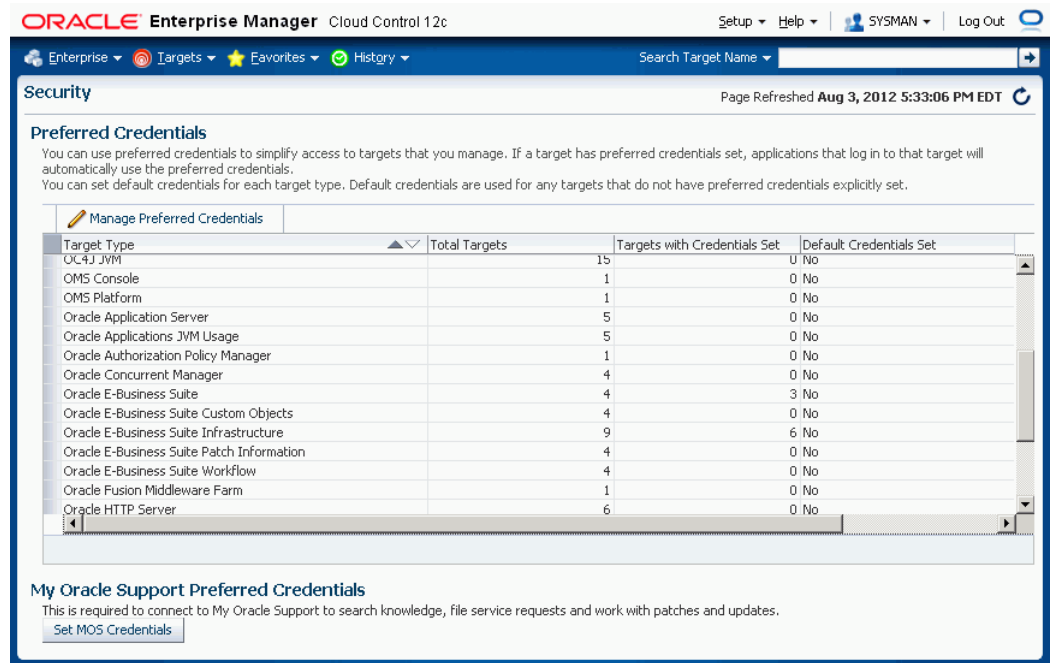
* Confirm Password: []

Setting Oracle E-Business Suite Preferred Credentials

Oracle E-Business Suite administration uses Preferred Credentials for connecting to the system and executing various commands. Before managing an Oracle E-Business Suite instance from the Administration Dashboard, the Preferred Credentials must be set for the specific Oracle E-Business Suite target and Oracle E-Business Suite Infrastructure target of the specific node. Applications Schema Credentials need to be set for only those targets whose administration requires Applications Schema Credentials. You can set default preferred credentials, which are applicable for all instances, or preferred

credentials for just a particular instance.

To set these credentials, navigate to Setup (menu) > Security > Preferred Credentials in Enterprise Manager.



Setting the Preferred Credentials for the Oracle E-Business Suite Target Type

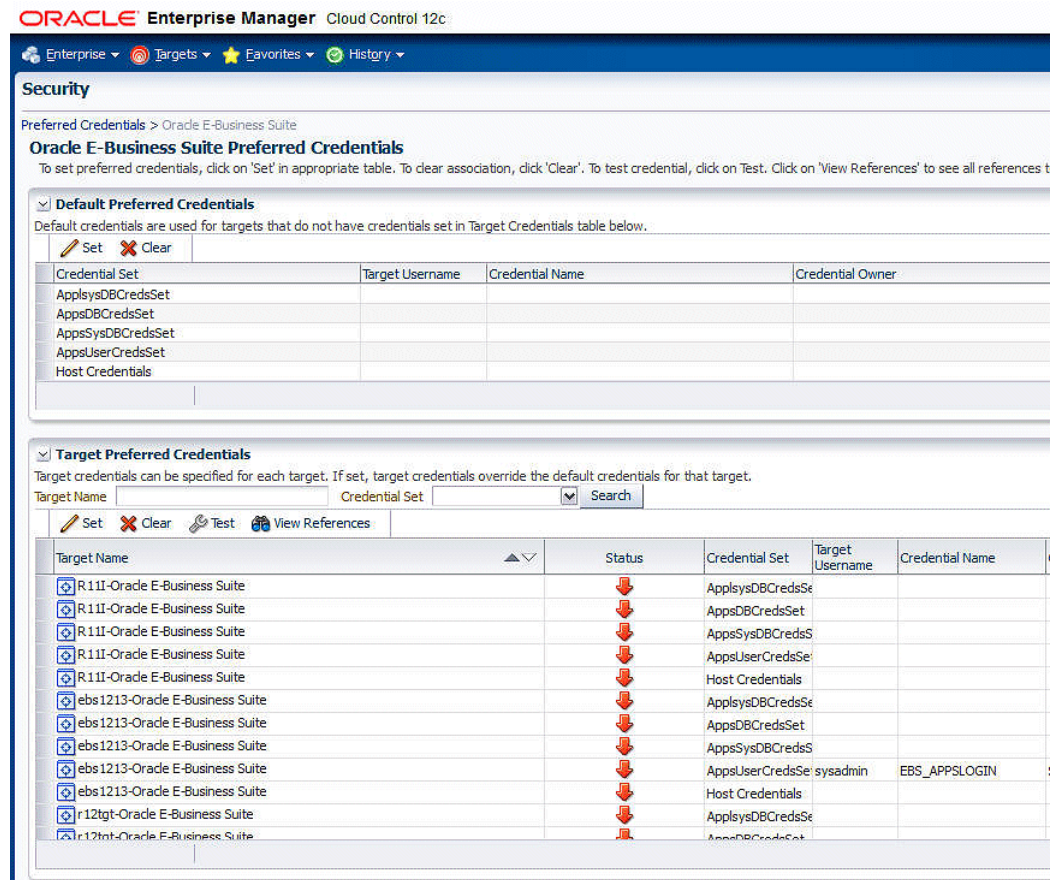
The following table lists the credential sets that are used by the management pack. You must set all of these if you plan to use all the features of the management pack.

Name	Description
AppsDBCredsSet	To access the APPS schema
AppsSysDBCredsSet	To access the SYSTEM schema
ApplsysDBCredsSet	To access the APPLSYS schema
AppsUserCredsSet	To log in to the application

To set these credentials, navigate to Setup (menu) > Security > Preferred Credentials in Enterprise Manager. Select Oracle E-Business Suite from the list of target types and click on Manage Preferred Credentials.

You either set the default preferred credentials or set them for a specific target instance.

Select the appropriate credential set and click on Set. Here you can choose from an existing named credential or create a new credential and set it.



Set the preferred credentials for each of the credential sets in the table above.

Setting the Preferred Credential Set for Oracle E-Business Suite Infrastructure

To set this credential set, navigate to Setup (menu) > Security > Preferred Credentials in Enterprise Manager. Select Oracle E-Business Suite Infrastructure from the list of target types and click on Manage Preferred Credentials.

Select **OS Credentials** and click Set. Here you can choose from existing named credentials or create new credentials and set them.

Note: If Named Credentials are not already set for Oracle E-Business Suite Infrastructure, you will get the message "Either there are no credential types or required configuration is missing."

ORACLE Enterprise Manager Cloud Control 12c

Enterprise ▾ Targets ▾ Favorites ▾ History ▾

Security

Preferred Credentials > Oracle E-Business Suite Infrastructure

Oracle E-Business Suite Infrastructure Preferred Credentials

To set preferred credentials, click on 'Set' in appropriate table. To clear association, click 'Clear'. To test credential, click on Test. Click on 'View Referen

Default Preferred Credentials

Default credentials are used for targets that do not have credentials set in Target Credentials table below.

Set Clear

Credential Set	Target Username	Credential Name	Credential Owner
OS Credentials			

Rows Selected 1

Target Preferred Credentials

Target credentials can be specified for each target. If set, target credentials override the default credentials for that target.

Target Name Credential Set Search

Set Clear Test View References

Target Name	Status	Credential Set	Target Username
R11I-Infrastructure R11I_ap504appvm1-APPL_TOP Context	↓	OS Credentials	
R11I-Infrastructure R11I_ap504appvm1-Database Context	↑	OS Credentials	
ebs1213-Infrastructure ebs1213_rws3210148-APPL_TOP Context	↓	OS Credentials	
ebs1213-Infrastructure ebs1213_rws3210148-Database Context	↑	OS Credentials	
r12tgt-Infrastructure r12tgt_rws3210312-APPL_TOP Context	↓	OS Credentials	
r12tgt-Infrastructure r12tgt_rws3210312-Database Context	↑	OS Credentials	

Setting Preferences

Use Preferences in Enterprise Manager to configure some of the features in the management pack.

Note: Preferences settings replace properties in the `amp.properties` file used in previous releases of the Oracle Application Management Pack for Oracle E-Business Suite.

Navigate to the Preferences page using the Preferences link under Related Links at the bottom of the System Management dashboard or the Change Management dashboard (Targets menu > Oracle E-Business Suite > Preferences under "Related Links").

Set the following:

- Maximum Number of Email Addresses for User (required)
- Stage Directory (required)
- OMS Stage Directory Location (required)
- Delete Application Server targets while deleting EBS Target - By default, the system

deletes application server targets (like the HTTP server, OC4J, and so on) when deleting the parent Oracle E-Business Suite target. If you do not want all the application server targets deleted, deselect this check box.

Set the following for the User Monitoring feature:

- Sampling Interval for User Monitoring (required)
- Number of Rows in Tables of User Monitoring (required)

Set the following for Patch Manager:

- Default Hotpatch in Patch Manager
- Default Blackout Minutes in Patch Manager
- Default Blackout Hours in Patch Manager
- Target Patch Directory Location
- Target Stage Directory Location.
- Connect to My Oracle Support for Patches

For Upgrades: Properties in `amp.properties` file replaced by Preferences

The `amp.properties` file is obsolete with this release of the Oracle Application Management Pack for Oracle E-Business Suite. Therefore, please note the following

The following properties are obsolete. They were used in the security model in the previous release; in the current release, the management pack uses the native Enterprise Manager Privileges feature.

- `ebs_acp_packAccessEnabled`
- `enableRoleBasedSecurity`
- `enableApproval_CM`
- `enableApproval_AZ`
- `enableApproval_PM`
- `targetLevelPrivilegeForApproval`

The following properties must be set manually in the Preferences page after the upgrade. The property name is given with the name under Preferences in parentheses ().

- `stageDir` (Stage Directory)

- containerTableMaxRows
- ampCloneApplTopParallelThreads
- ampCloneToolsParallelThreads
- ampCloneWebParallelThreads
- ampCloneCommonTopParallelThreads
- um_dashboard_no_of_rows (Number of Rows in tables of User Monitoring)
- um_session_sampling_interval (Sampling Interval for User Monitoring)
- omsPatchStageDir (OMS Stage Directory Location)
- MOSEnabled/metalinkEnabled (Connect to My Oracle Support for Patches)

Oracle E-Business Suite Administration

Overview

The Oracle Application Management Pack for Oracle E-Business Suite provides an Administration Dashboard for remotely managing Oracle E-Business Suite targets from an Enterprise Manager Cloud Control console. Jobs can be submitted to start/stop various Oracle E-Business Suite components from the Administration Dashboard. The details and statuses of these jobs can be tracked through standard Enterprise Manager Job screens.

An administrator must have the EM_ALL_ADMINISTRATOR role to run the jobs to start and stop components.

In addition, an administrator must have the "Start and Stop Services" privilege to start and stop services from the Administration Dashboard. See: Privileges and Roles for Managing Oracle E-Business Suite, page 1-6 for more information on privileges.

Note: Please ensure that the "Management Services and Repository" is up before using the Administration dashboard. Navigate to console's **Setup** menu and select **Management Services and Repository**.

Oracle E-Business Suite: Administration

Page Refreshed Mar 13, 2012 5:11:21 PM PDT

Select	Name	Type	Host	Status	Description
<input type="checkbox"/>	▽ ebs11107-Oracle E-Business Suite	Oracle E-Business Suite	rws3210140.us.oracle.com		
<input checked="" type="checkbox"/>	ebs11107-Internal Concurrent Manager	Internal Concurrent Manager	rws3210140.us.oracle.com	↑	Start / Stop the Internal Concurrent Manager component (adcmctl)
<input type="checkbox"/>	▽ ebs11107-Infrastructure ebs11107_rws3210140-APPL_TOP Context	Oracle E-Business Suite Node	rws3210140.us.oracle.com		Start / Stop Oracle E-Business Suite Node component (adstrtal/adstpall)
<input type="checkbox"/>	ebs11107-Internal Concurrent Manager	Internal Concurrent Manager	rws3210140.us.oracle.com	↑	Start / Stop the Internal Concurrent Manager component (adcmctl)
<input type="checkbox"/>	ebs11107-Apps Listener_ebs11107_rws3210140	Listener	rws3210140.us.oracle.com	↑	Start / Stop the Listener component (adalnctl)
<input type="checkbox"/>	ebs11107-Report Server_ebs11107_rws3210140	Reports Server for Oracle Applications 11i	rws3210140.us.oracle.com	↑	Start / Stop Reports Server for Oracle Applications 11i component (adrepctl)
<input type="checkbox"/>	ebs11107-Forms Listener_ebs11107_rws3210140	Forms Listener for Oracle Applications 11i	rws3210140.us.oracle.com	↑	Start / Stop Forms Listener component for Oracle Applications 11i (adformsctl)
<input type="checkbox"/>	ebs11107-Apache_ebs11107_rws3210140	HTTP Server for Oracle Applications 11i	rws3210140.us.oracle.com	↑	Start / Stop the HTTP Server component for Oracle Applications 11i (adapctl)

Note: To use the Administration Dashboard, you should have appropriate roles and permissions under User Management for the Oracle E-Business Suite target itself, as well as know the host credentials and applications credentials.

The following table displays the targets in a Release 11i system that can be controlled from the Administration Dashboard.

Oracle E-Business Suite Target Type	AD script used	Requires Apps Credentials	Short Description
Internal Concurrent Manager	adcmctl.sh	Yes	Start / Stop the Internal Concurrent Manager component
Oracle E-Business Suite Infrastructure	adstrtal.sh / adstpall.sh	Yes	Start / Stop the Oracle E-Business Suite node component
Listener	adalnctl.sh	No	Start / Stop the Listener component

Oracle E-Business Suite Target Type	AD script used	Requires Apps Credentials	Short Description
Discoverer for Oracle Applications 11i	addisctl.sh	No	Start / Stop the Discoverer component for Oracle Applications 11i
Reports Server for Oracle Applications 11i	adrepctl.sh	No	Start / Stop the Reports Server for Oracle Applications 11i component
HTTP Server for Oracle Applications 11i	adapctl.sh	No	Start / Stop the HTTP Server component for Oracle Applications 11i
Forms Listener for Oracle Applications 11i	adformsctl.sh	No	Start / Stop the Forms Listener component for Oracle Applications 11i

The following table displays the targets in a Release 12 system that can be controlled from the Administration Dashboard.

Oracle E-Business Suite Target Type	AD script used	Requires Apps Credentials	Short Description
Internal Concurrent Manager	adcmctl.sh	Yes	Start / Stop the Internal Concurrent Manager component
Oracle E-Business Suite Infrastructure	adstrtal.sh / adstpall.sh	Yes	Start / Stop the Oracle E-Business Suite node component
Listener	adalnctl	No	Start / Stop the Listener component
Forms	adformsctl	No	Start / Stop the Forms component

Oracle E-Business Suite Target Type	AD script used	Requires Apps Credentials	Short Description
OC4J forms	adformsctl.sh	No	Start / Stop the Forms OC4J Forms component
OC4J oacore	adoacorectl.sh	No	Start / Stop the oacore oc4j oacore component
OC4J oafm	adoafmctl.sh	No	Start / Stop the oafm oc4j oafmcomponent
Oracle HTTP Server	adapctl	No	Start / Stop the Oracle HTTP Server component

Administration Dashboard

The Administration dashboard can be reached through the following navigation paths:

- From the main page for the Oracle E-Business Suite system, click on the Administration tab.

ORACLE Enterprise Manager Cloud Control 12c

Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

amp1213-Oracle E-Business Suite rws3210150.us.oracle.com

Target Menu

Oracle Applications: amp1213-Oracle E-Business Suite

Service Level Reports Oracle Application Services Go

Home Performance Administration Maintenance Diagnostics User Monitoring

Page Refreshed Jul 23, 2012 7:43:52 AM

General

Status: Partially Up
 System Name: amp1213
 Version: 12.1.1
 Products Installed: 131
 New Internal System Alerts: 1
 Patches Applied: 0
 Site Level Profile Options: 0
 Context Files Edited: 0
 Monitoring Host: rws3210150.us.oracle.com

Activity Summary

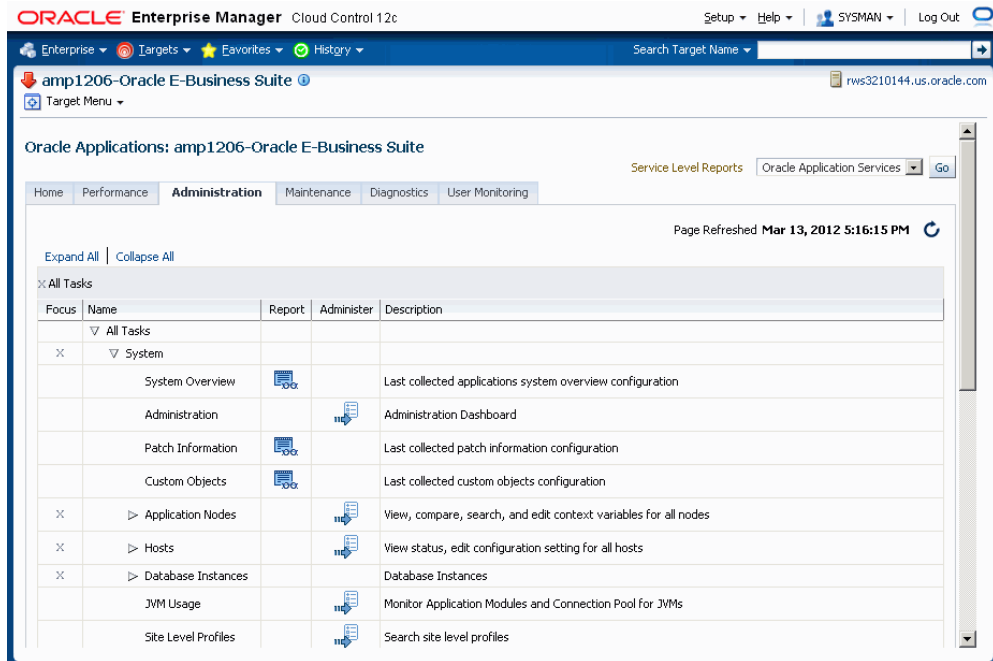
6:14 8 10 12 PM 2
Jul 23, 2012

- Forms Sessions
- Web Users (Hourly)
- Concurrent Requests Running
- Active Service Processes

Services

Name	Status	Performance Incidents	Usage Incidents	System	Key Components Status	Key Components Incidents
amp1213-Oracle Applications Service	↓	0 0	0 0	amp1213-Oracle E-Business Suite	↓ 1 ↑ 2	0 0
amp1213-Concurrent Processing Service	⌚	0 0	0 0	amp1213-Oracle E-Business Suite	↓ 0 ↑ 2	0 0
amp1213-Forms Applications Service	↑	0 0	0 0	amp1213-Oracle E-Business Suite	↓ 0 ↑ 3	0 0
amp1213-Self Service Applications Service	↑	0 0	0 0	amp1213-Oracle E-Business Suite	↓ 0 ↑ 2	0 0
amp1213-Workflow Service	↓	0 0	0 0	amp1213-Oracle E-Business Suite	↓ 2 ↑ 3	0 0

Then from the Administration tab, click on the icon for Administration.



- From the Up/Down/Other Target Status page on the Home tab:
Click on a Status link.

ORACLE Enterprise Manager Cloud Control 12c

Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

amp1213-Oracle E-Business Suite rws3210150.us.oracle.com

Target Menu

Oracle Applications: amp1213-Oracle E-Business Suite

Service Level Reports Oracle Application Services Go

Home Performance Administration Maintenance Diagnostics User Monitoring

Page Refreshed Jul 23, 2012 7:43:52 AM

General

Status: Partially Up (Up(7) Down(2) Other(1))

System Name: amp1213
 Version: 12.1.1
 Products Installed: 131
 New Internal System Alerts: 1
 Patches Applied: 0
 Site Level Profile Options: 0
 Context Files Edited: 0
 Monitoring Host: rws3210150.us.oracle.com

Activity Summary

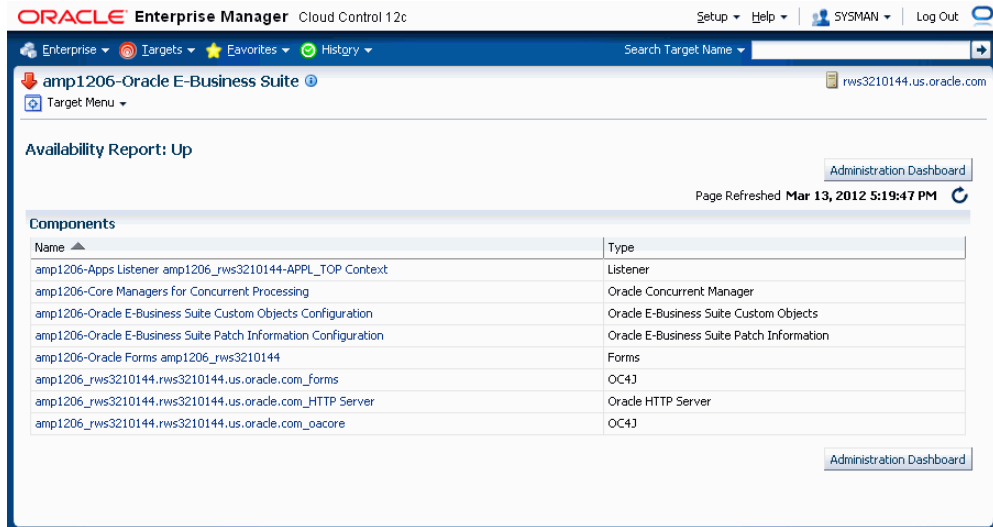
6:14 8 10 12 PM 2
Jul 23, 2012

- Forms Sessions
- Web Users (Hourly)
- Concurrent Requests Running
- Active Service Processes

Services

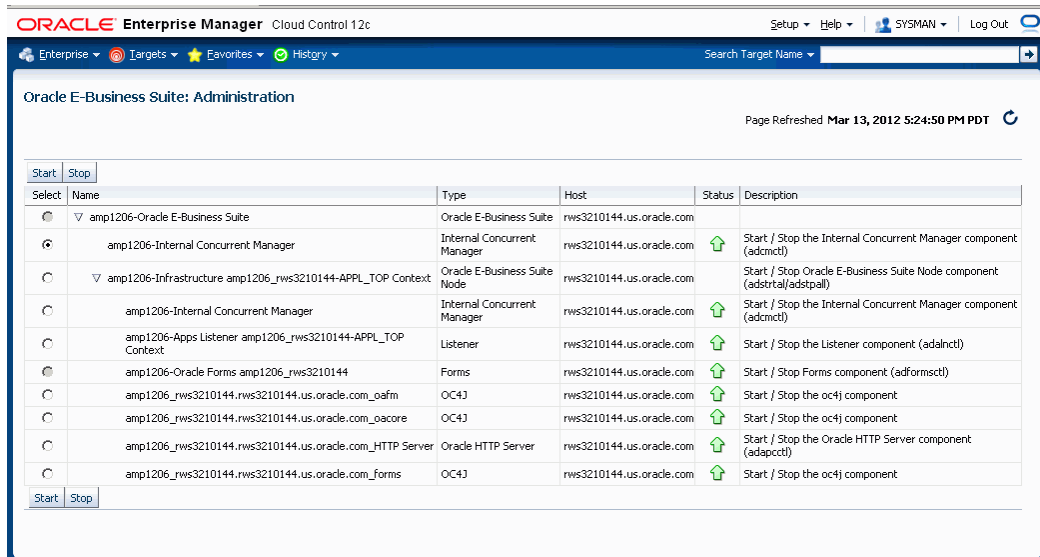
Name	Status	Performance Incidents	Usage Incidents	System	Key Components Status	Key Components Incidents
amp1213-Oracle Applications Service	↓	0 0	0 0	amp1213-Oracle E-Business Suite	↓ 1 ↑ 2	0 0
amp1213-Concurrent Processing Service	⌚	0 0	0 0	amp1213-Oracle E-Business Suite	↓ 0 ↑ 2	0 0
amp1213-Forms Applications Service	↑	0 0	0 0	amp1213-Oracle E-Business Suite	↓ 0 ↑ 3	0 0
amp1213-Self Service Applications Service	↑	0 0	0 0	amp1213-Oracle E-Business Suite	↓ 0 ↑ 2	0 0
amp1213-Workflow Service	↓	0 0	0 0	amp1213-Oracle E-Business Suite	↓ 2 ↑ 3	0 0

In the resulting Availability Report page, click on the **Administration Dashboard** button.



Starting or Stopping a Target

To start/stop a target, select the target and click the **Start** or **Stop** button. A message page will appear. Click **OK** to submit a job for the requested operation.



The status of the Job can be viewed from the Oracle Enterprise Manager Jobs page. Navigate to the **Enterprise** menu > **Job** > **Activity**.

The System Management Dashboard

Overview

Cloud Control allows you to monitor multiple Oracle E-Business Suite systems from a single console and to drill down into Oracle Applications Manager where you can control, configure, troubleshoot, and maintain individual systems. Once you have registered your Oracle E-Business Suite systems, you can start using the features of Cloud Control for managing those systems.

Setting Preferred Credentials

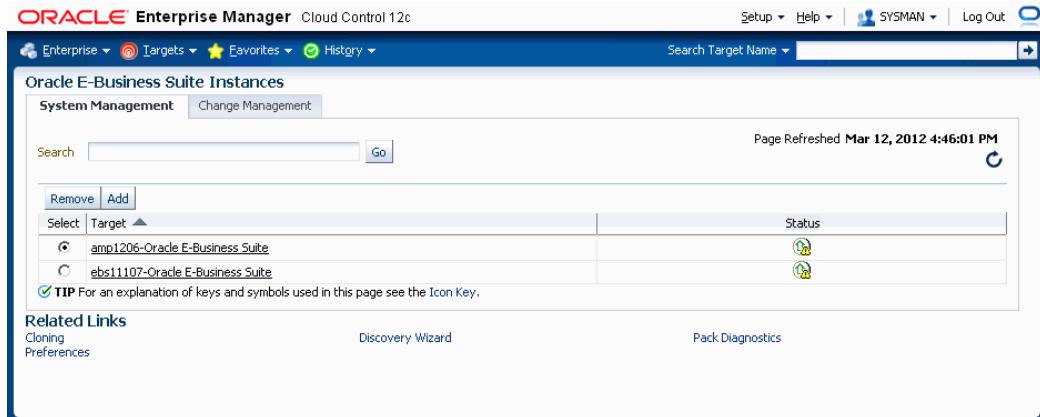
When using the Oracle Application Management Pack for Oracle E-Business Suite, you will need to access Oracle E-Business Suite instances. You can set up credentials for these instances as a one-time setup step instead of entering them every time you need to access an instance. For more information on setting preferred credentials, see: [Setting Oracle E-Business Suite Preferred Credentials](#), page 4-8.

Use the following steps to set up credentials:

1. Within Oracle Enterprise Manager, navigate to Setup > Security.
2. Select Preferred Credentials.
3. Select the Set Credentials icon to set the credentials for target types "Oracle E-Business Suite Infrastructure" and "Oracle E-Business Suite".
4. Set the values as needed in the resulting page.

The Oracle E-Business Suite Instances Page

Access the Oracle E-Business Suite Instances page by navigating to Targets menu > Oracle E-Business Suite in the Cloud Control console.



This page provides a list of the Oracle E-Business Suite systems that have been registered with Cloud Control. You can register a new system by clicking **Add**, and following the directions in the section *Discovering Oracle E-Business Suite Systems with Cloud Control*, page 3-1. You can remove an Oracle E-Business Suite system from Cloud Control by selecting the desired system in the table, and then clicking **Remove**. You can also edit the monitoring configuration of a system by selecting the desired system in the table, and then clicking **Configure**.

This page also provides you with links to additional features:

- Cloning - Described in a later chapter.
- Discovery Wizard - Described in an earlier chapter.
- Pack Diagnostics - Described in this chapter.
- Preferences - Described in an earlier chapter.

The Change Management tab, if enabled, provides you with access to Patch Manager, Customization Manager, and Setup Manager.

Pack Diagnostics

Use the Pack Diagnostics link to run diagnostic tests on the various features of the Oracle E-Business Suite management packs.

Available tests are divided into the following categories:

- AMP: Cloning
- Setup Manager
- Patch Manager
- Customization Manager

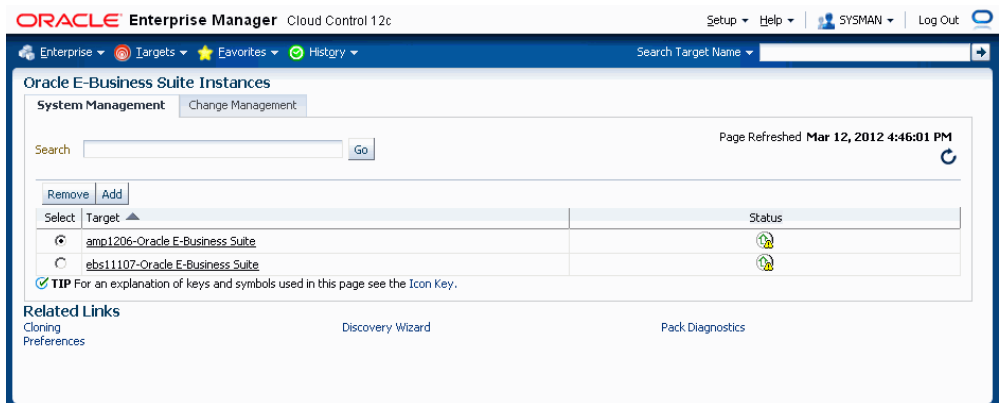
- User Monitoring

Running Pack Diagnostics Tests

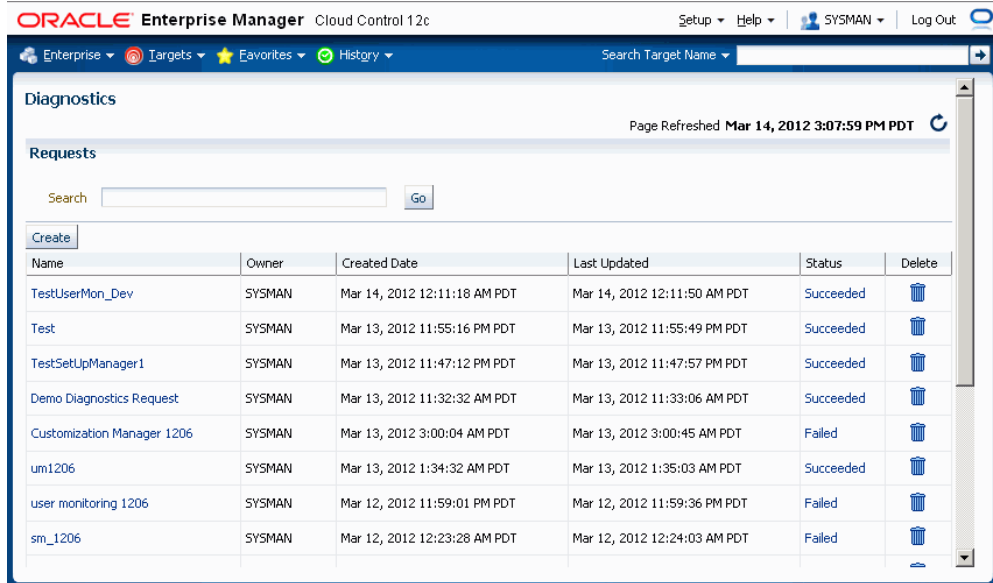
You should run diagnostic tests on your configuration for the components of the management pack that you plan to use. The results of these tests can help you determine if your configuration is set up correctly.

Navigating the Diagnostics Dashboard:

1. Click on the Pack Diagnostics link under Related Links on the Oracle E-Business Suite instances page.



2. The resulting Diagnostics dashboard page lists any previous requests to run diagnostic tests.



Use the Search feature to search for a Diagnostics request based on your search criteria.

Create a new request using the **Create** button, as described below.

The requests table lists the following for each request:

- Name - User-defined name of the diagnostic test request.
- Owner - This value indicates the Enterprise Manager user who submitted the request.

Note: Currently, only those requests submitted by the user currently logged in are shown.

- Created Date - The date and time the request was submitted.
- Last Updated - The date and time of the last update for the transaction.
- Status - The status of the transaction's job. This value is a link to the Enterprise Manager Job execution summary page.
- Delete link - Use the Delete link to delete the diagnostics test request transaction.

Creating a request to run diagnostic tests:

1. To request to run a diagnostic test, click the **Create** button on the Diagnostics dashboard. The Create Request page appears.

ORACLE Enterprise Manager Cloud Control 12c

Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Create Request

* Indicates required field

* Name

Module AMP: Cloning

Show Details All

Category Generic User Specific

Description

Cancel Submit

Targets

Add

Name	Release	Delete
No Targets Added		

Cancel Submit

Enter the following details for your request for a diagnostic test.

- Enter a name for your request.
- Choose the set of tests for one of the following modules: AMP: Cloning, Setup Manager, Patch Manager, Customization Manager, or User Monitoring.
- You have two options for logging the details.
 - All - This option logs all information regardless of whether the diagnostic test completes with success or error
 - Error - Only log details for those tests that error out.
- For Category, choose "Generic" if you want to run the tests that pertain to the Oracle E-Business Suite target and Enterprise Manager Cloud Control, in which the test results would not depend on the Enterprise Manager user.
Choose "User Specific" for all the tests that depend on the Enterprise Manager user who is currently logged in.
- Optionally enter a Description.
- Add Targets for your request using the **Add** button.
Use the LOV to select your target.

Search and Select: Oracle E-Business Suite Targets Cancel Select

Search
To find your item, enter a word in the text field then select the "Go" button. To see a list of all items, clear the search box and click the "Go" button

Search By: Target Name

Results
[Select All](#) | [Select None](#)

Select	Name	Release	Status
<input type="checkbox"/>	amp1206-Oracle E-Business Suite	12.0.4	↓
<input type="checkbox"/>	ebs11107-Oracle E-Business Suite	11.5.10.2	↓

Cancel Select

2. Click the **Submit** button.
3. On the main Diagnostics page, you can monitor your request.
The Status column shows the status of your request.
If you want to delete your request, click on the Delete icon for the request.
4. You can click on the request's Name link to view details for the request.

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Request Search > Request Details
View Request: Demo Diagnostics Request Page Refreshed Mar 14, 2012 3:12:44 PM PDT

Name: Demo Diagnostics Request
Module: Patch Manager
Show Details: All
Category: Generic User Specific
Description:
Status: Succeeded

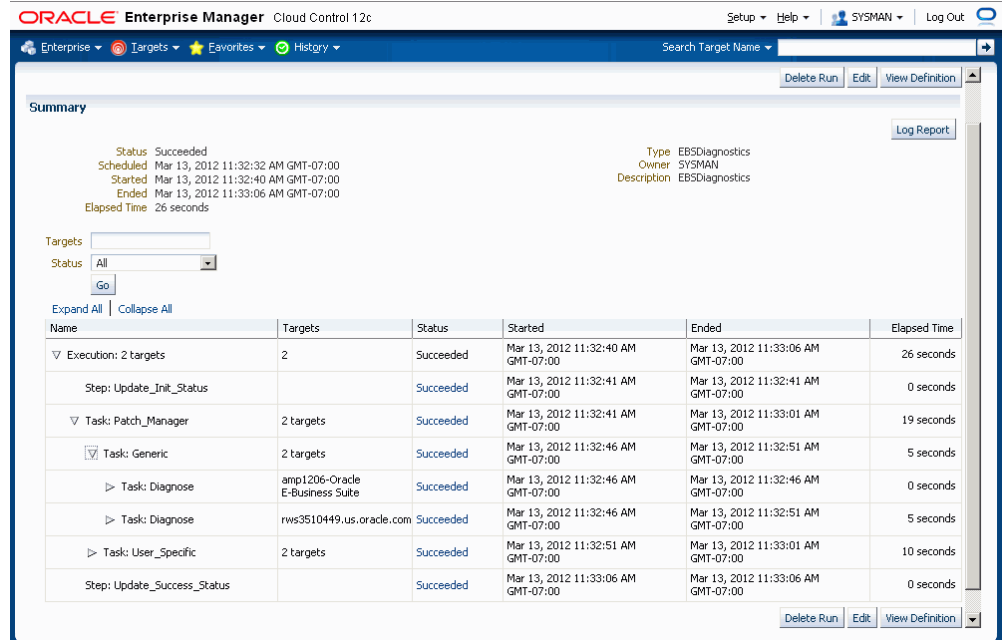
Targets

Name	Release
amp1206-Oracle E-Business Suite	12.0.4

[Return to Request Search](#)

From this page you can resubmit the request using the **Resubmit** button.

5. Click on the Status link to drill down to details on the diagnostics job, as well as the log file with the results from the diagnostic tests.



The job execution page lists the name of the module for which the diagnostic tests are submitted; for example, "Task: Cloning".

The "Task: Generic" step includes 2 major steps:

- Task Diagnose: Step EMGC - This step would run all Generic tests pertaining to Enterprise Manage Cloud Control. The OMS host is listed as the target.
- Task Diagnose: Step EBS - This step would run all the Generic tests pertaining to the Oracle E-Business Suite instance. This step would repeat if you requested the tests to run against more than one Oracle E-Business Suite target. The Oracle E-Business Suite targets are listed.

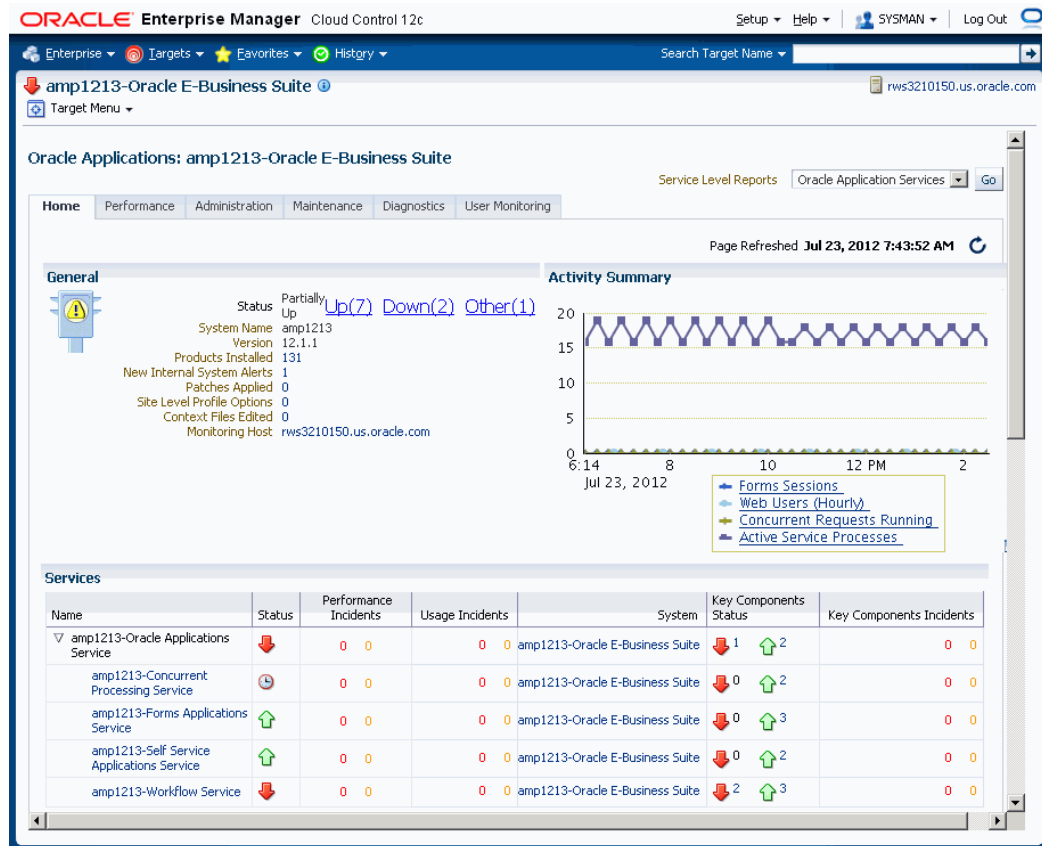
The "Task: User Specific" step includes 2 major steps:

- Task Diagnose: Step EMGC - This step would run all user-specific tests pertaining to Enterprise Manage Cloud Control. The OMS host is listed as the target.
- Task Diagnose: Step EBS - This step would run all user-specific tests pertaining to the Oracle E-Business Suite instance. This step would repeat if you requested the tests to run against more than one Oracle E-Business Suite target. The Oracle E-Business Suite targets are listed.

The Oracle Applications System Home Tab

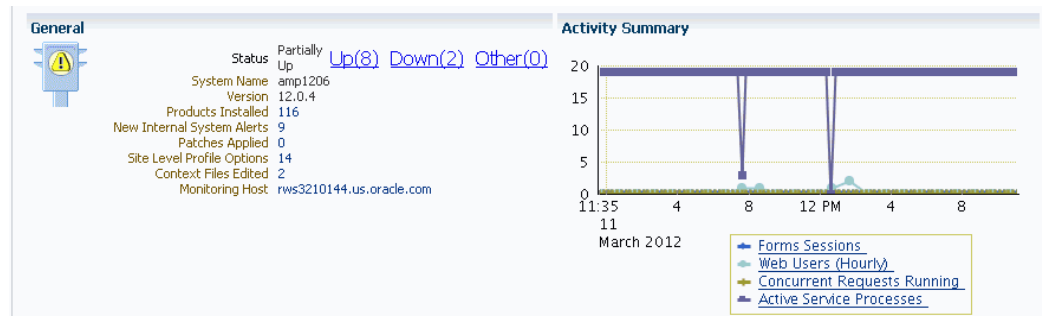
The Home tab for an individual Oracle E-Business Suite system can be reached by

drilling down from the Oracle Applications page as described in the section above.



The Oracle Applications System home page provides an overview of the status of a single Oracle E-Business Suite system. This page is divided into the following sections:

General



The General section provides general status and configuration information, including:

- Status - The status of the Oracle E-Business Suite system, calculated based on the availability of its member targets that contribute to its availability definition. In

addition to the current status of the system, you can see the counts of member targets that fall into the status categories of Up, Down, or Other. You can drill down on a status category to view the targets that currently fall into that category.

Note: When an Oracle E-Business Suite instance is brought down on both the middle tier and the database tier, the following 3 targets will be listed with the status of Other, with metric collection errors:

- Concurrent Processing Service
- Internal Concurrent Manager
- Workflow Service

When Enterprise Manager encounters an error during the collection of the metric "Response (Status)" for any target, it retains the error until it is cleared.

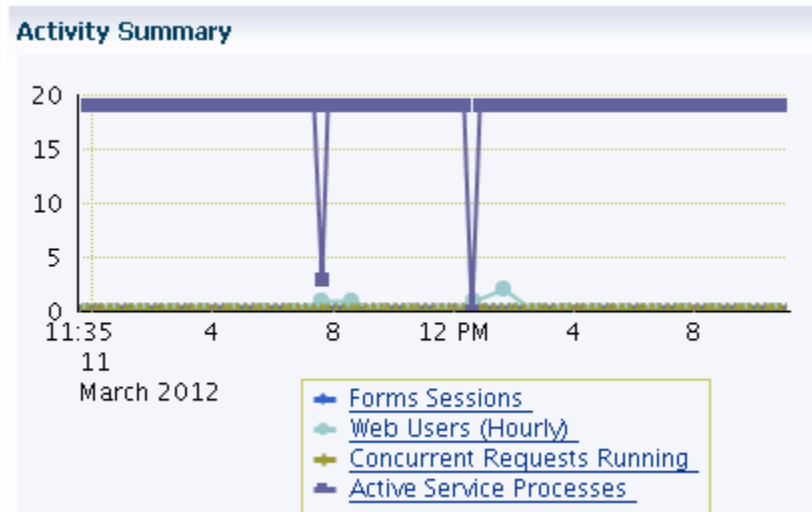
- System Name - The system name that was entered when the system was registered as described in the section above.
- Version - The current release level of the Oracle E-Business Suite system. The level is set at installation time, and is updated when Maintenance Packs are applied. Please note that family packs, mini-packs, and individual patches do not update this version number. The actual patch levels of individual products may be more recent than the system version.
- Products Installed - This indicates the number of products that are installed in the Oracle E-Business Suite system. If the Oracle E-Business Suite Enterprise Manager interoperability patch has been applied to the managed system, then you can drill down on this value into Oracle Applications Manager, where you can view the list of products installed, and the patch levels of those individual products.
- New Internal System Alerts - This metric is only available when the Oracle E-Business Suite Enterprise Manager interoperability patch has been applied to the managed system. This metric shows the number of System Alerts within Oracle Applications Manager that have a status of New. You can drill down on this number to view the details in Oracle Applications Manager. Note that these System Alerts originate from within the Oracle E-Business Suite System itself, and are complementary to the Oracle Enterprise Manager incidents discussed below. For more information on System Alerts, please see the Oracle Applications Manager online help.
- Patches Applied - This metric is only available when the Oracle E-Business Suite Enterprise Manager interoperability patch has been applied to the managed system.

This metric indicates the number of patches that have been applied to the system in the last 24 hours. You can drill down on this metric to view the patches in Oracle Applications Manager.

- **Site Level Profile Options Changed** - This metric indicates the number of site level profile options that have changed on the system in the last 24 hours. You can drill down on this metric to view the site level profile options in Oracle Applications Manager. (Note: For Release 11*i*, this metric is available only when the Oracle E-Business Suite Enterprise Manager interoperability patch has been applied to the managed system. See My Oracle Support Knowledge Document 1434392.1 for information on required patches.)
- **Context Files Edited** - This metric is only available when the Oracle E-Business Suite Enterprise Manager interoperability patch has been applied to the managed system. This metric indicates the number of AutoConfig context files that have changed on the system in the last 24 hours. You can drill down on this metric to view the context files in Oracle Applications Manager.
- **Monitoring Host** - The host of the agent that is monitoring the Oracle E-Business Suite system. This host was selected when the Oracle E-Business Suite system was registered as described in the section above. You can drill down on the host name to reach the Cloud Control home page for the host.

The **New Internal System Alerts**, **Patches Applied**, **Site Level Profile Options Changed**, and **Context Files Edited** metrics are based on information periodically summarized in the Oracle E-Business Suite database by the Oracle Applications Manager Dashboard Collection concurrent program. This program is controlled through the **Preferences** global link in Oracle Applications Manager. If this program has been disabled in the Oracle E-Business Suite system for some reason, then these metrics will not be updated.

Activity Summary



The activity summary provides an overview of system activity for the last 24 hours including:

- Form Sessions - This metric indicates the number of open Form sessions on the system at a given point in time.
 - Note:** To enable Oracle Applications Manager and Cloud Control to collect this metric, set the profile option Sign-on: Audit Level to "Form" in the target Oracle E-Business Suite system.
- Web Users (Last Hour) - This metric measures the number of distinct users to access Oracle E-Business Suite HTML pages during the previous hour.
- Concurrent Requests Running - This metric indicates the number of concurrent requests running on the system at a given point in time.
- Active Service Processes - The meaning of this metric differs depending on whether or not the Oracle E-Business Suite Enterprise Manager interoperability patch has been installed on the target system. If the interoperability patch has been applied, then this metric indicates the number of active application tier processes that are running under the Generic Service Management feature of Oracle E-Business Suite Release 11i. This metric includes concurrent processing infrastructure processes, Workflow Mailer processes, and more. If the interoperability patch has not been applied to the target system, then this metric indicates only the number of active concurrent processing infrastructure processes on the application tier. The concurrent processing infrastructure includes concurrent managers, transaction managers, service managers, the Internal Concurrent Manager, the Conflict

Resolution Manager, and the Scheduler.

Services

Services						
Name	Status	Performance Incidents	Usage Incidents	System	Key Components Status	Key Components Incidents
▽ amp1213-Oracle Applications Service		0 0	0 0	amp1213-Oracle E-Business Suite	1 2	0 0
amp1213-Concurrent Processing Service		0 0	0 0	amp1213-Oracle E-Business Suite	0 2	0 0
amp1213-Forms Applications Service		0 0	0 0	amp1213-Oracle E-Business Suite	0 3	0 0
amp1213-Self Service Applications Service		0 0	0 0	amp1213-Oracle E-Business Suite	0 2	0 0
amp1213-Workflow Service		0 0	0 0	amp1213-Oracle E-Business Suite	2 3	0 0

Using the Service Level Management feature with Enterprise Manager Cloud Control, Oracle E-Business Suite middle tier components can be monitored for their availability and performance. The middle tier components, being the infrastructure for Oracle E-Business Suite, are monitored not only for their key processes but also for all the other components on which they are dependent.

The Oracle Applications Service is defined by the following:

- Concurrent Processing Service - This service provides a summary of the availability and performance of concurrent processing within Oracle E-Business Suite.
- Forms Applications Service - This service provides a summary of the availability and performance of Oracle Forms within Oracle E-Business Suite.
- Self-Service Applications Service - This service provides a summary of the availability and performance of Oracle Application Framework pages within Oracle E-Business Suite.
- Workflow Service - This service provides a summary of the availability and performance of Oracle Workflow within Oracle E-Business Suite.

The following table provides details of the core service/component that's being monitored as part of the infrastructure service and also the key components on which the core service is dependent.

Service	Core Service / Component Monitored	Key Components
Concurrent Processing Service	Internal Concurrent Manager	<ul style="list-style-type: none"> • Database Instance • Applications Listener

Forms Application Service	OC4J Forms Server	<ul style="list-style-type: none"> • Oracle HTTP Server • Database Instance
Self Service Application Service	OC4J (Oracle Application Framework)	<ul style="list-style-type: none"> • Oracle HTTP Server • Database Instance
Workflow Service	<ul style="list-style-type: none"> • Workflow Agent Listener • Workflow Background Engine • Workflow Notification Mailer 	<ul style="list-style-type: none"> • Oracle Concurrent Manager • Database Instance • Applications Listener

Application Node Status

Applications Nodes Status							
Expand All Collapse All							
x All Nodes							
Focus	Node Name	Description	Status	Host	Platform	Host Status	
	v All Nodes						
x	v amp1206-Infrastructure amp1206_rws3210144-APPL_TOP_Context	Oracle E-Business Suite Infrastructure		rws3210144.us.oracle.com	i686		
	amp1206_rws3210144.rws3210144.us.oracle.com	Oracle Application Server		rws3210144.us.oracle.com	i686		
	amp1206_rws3210144.rws3210144.us.oracle.com_oacore JVM_1_apps	Oracle Applications JVM Usage		rws3210144.us.oracle.com	i686		
	amp1206-Oracle Forms amp1206_rws3210144	Forms		rws3210144.us.oracle.com	i686		
	amp1206-Apps Listener amp1206_rws3210144-APPL_TOP_Context	Listener		rws3210144.us.oracle.com	i686		
x	v amp1206-Infrastructure amp1206_rws3210144-Database_Context	Oracle E-Business Suite Infrastructure		rws3210144.us.oracle.com	i686		
	AMP1206	Database Instance		rws3210144.us.oracle.com	i686		

The Application Node Status provides a summary of the availability statuses of various components such as Forms, Applications Listener, Application Server and Database Instance. The availability status information is summarized at the node level. The host details such as host name, platform and the host status are available for each component.

Incidents and Related Incidents

Incidents						
Metric Collection Errors 2						
Severity	Metric	Target Name	Target Type	Incident Triggered	Last Value	Last Checked
<div style="display: flex; justify-content: space-between; align-items: center;"> ▼ Related Incidents Previous 1-5 of 7 Next 2 </div>						
Severity	Metric	Target Name	Target Type	Incident Triggered	Last Value	Last Checked
	Tablespace Space Used (%) for APPS_TS_SEED	amp1213	Database Instance	Apr 13, 2012 5:20:23 AM	86.825117370892016	Apr 18, 2012 3:19:08 PM
	Tablespace Space Used (%) for APPS_TS_TX_IDX	amp1213	Database Instance	Apr 13, 2012 5:20:23 AM	89.989685317641488	Apr 18, 2012 3:19:08 PM
	Tablespace Space Used (%) for ODM	amp1213	Database Instance	Apr 13, 2012 5:20:23 AM	86.36363636363636	Apr 18, 2012 3:19:08 PM
	Tablespace Space Used (%) for OLAP	amp1213	Database Instance	Apr 13, 2012 5:20:23 AM	88.808337109198007	Apr 18, 2012 3:19:08 PM
	Tablespace Space Used (%) for SYSALUX	amp1213	Database Instance	Apr 13, 2012 5:20:23 AM	96.26728110599079	Apr 18, 2012 3:19:08 PM

The Incidents section provides an overview of any incidents posted by Oracle Enterprise Manager for targets that have become unavailable, or for metrics that have exceeded specified thresholds. The Incidents table shows incidents specifically for the Oracle E-Business Suite system target.

The Related Incidents table shows incidents for all targets that were registered as members of the Oracle E-Business Suite system but being monitored separately outside the pack.

You can drill down to view the details of an incident by clicking on the corresponding name in the **Metric** column. You can drill down to the related target's home page by drilling down on the **Target Name**. To define a metric threshold for incidents, click the **Edit Metric Thresholds** link under Related Links at the bottom of the page. For more information on metrics and incidents, please refer to the Enterprise Manager Cloud Control documentation.

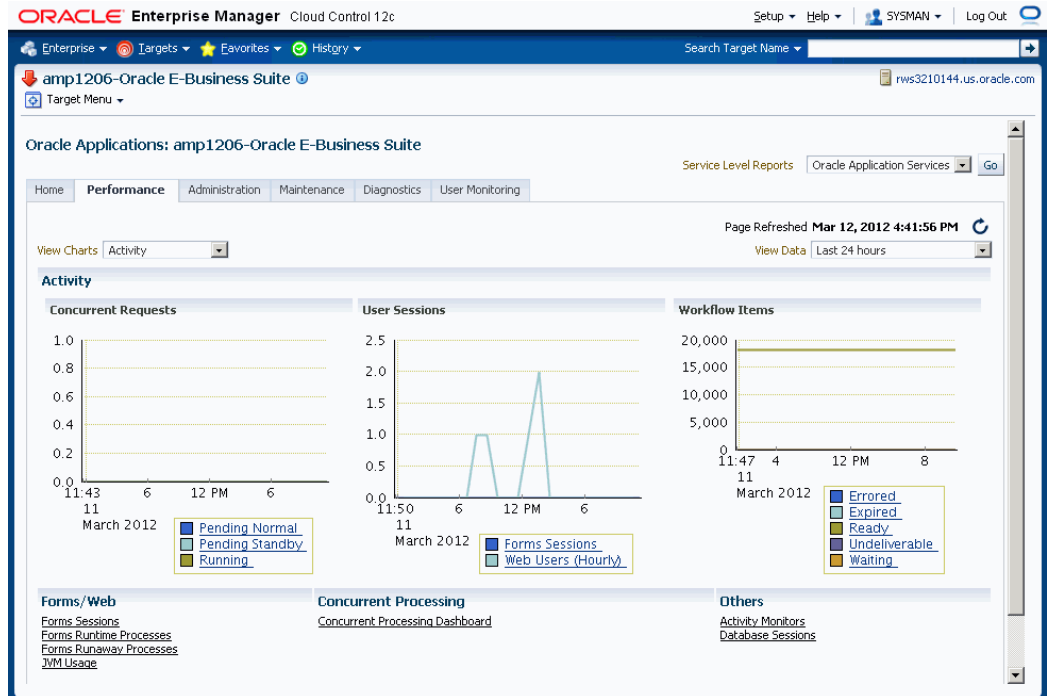
The Oracle Applications System Performance Tab

The Oracle Applications System Performance tab consolidates key usage and performance indicators for the system in general, and for each tier of the system. You can change views using the **View** list. Four views are provided:

- Activity
- Applications Server
- Database
- All

Each view provides a set of charts. You can control the period of time depicted by the charts using the **View Data** list.

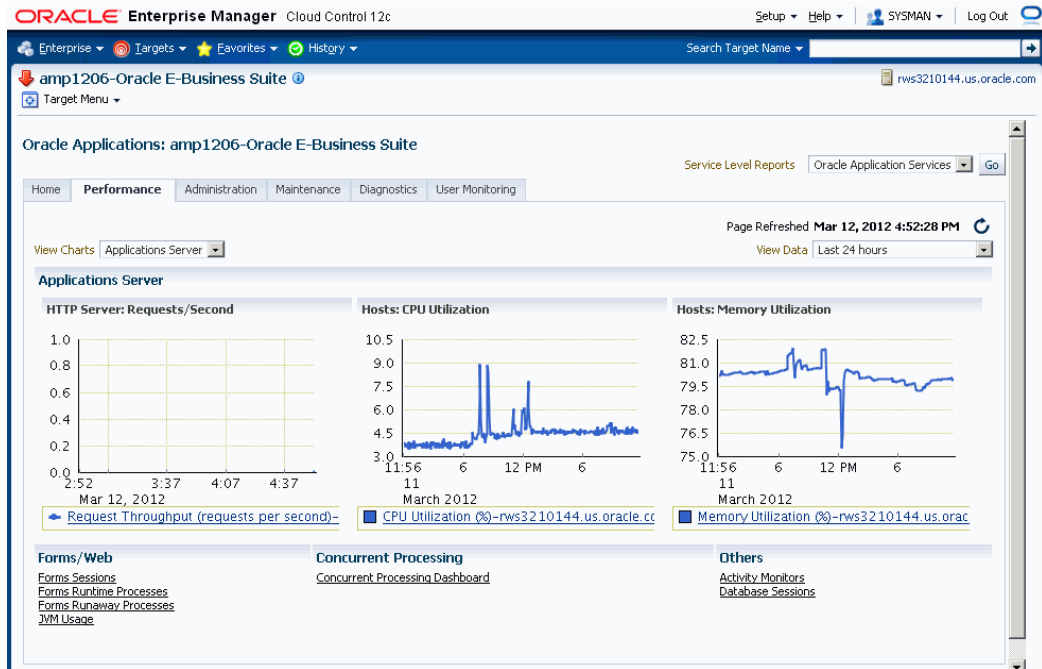
The Oracle Applications System Activity View



The Oracle Applications System view provides an overview of key system-wide metrics. This view contains the following three charts:

- **Concurrent Requests** - This chart depicts the concurrent request load on the system. The chart shows the numbers of Pending Normal, Pending Standby, and Running concurrent requests at each point in time.
- **User Sessions** - This chart depicts the end user activity on the system. The chart shows the number of Oracle Forms sessions active at each point in time. Also, the chart shows the count of users who have accessed the HTML-based applications over hourly intervals.
- **Workflow Items** - This chart depicts the messaging activity in Oracle Workflow's Business Event System. The chart shows the count of messages by status for each period of time.

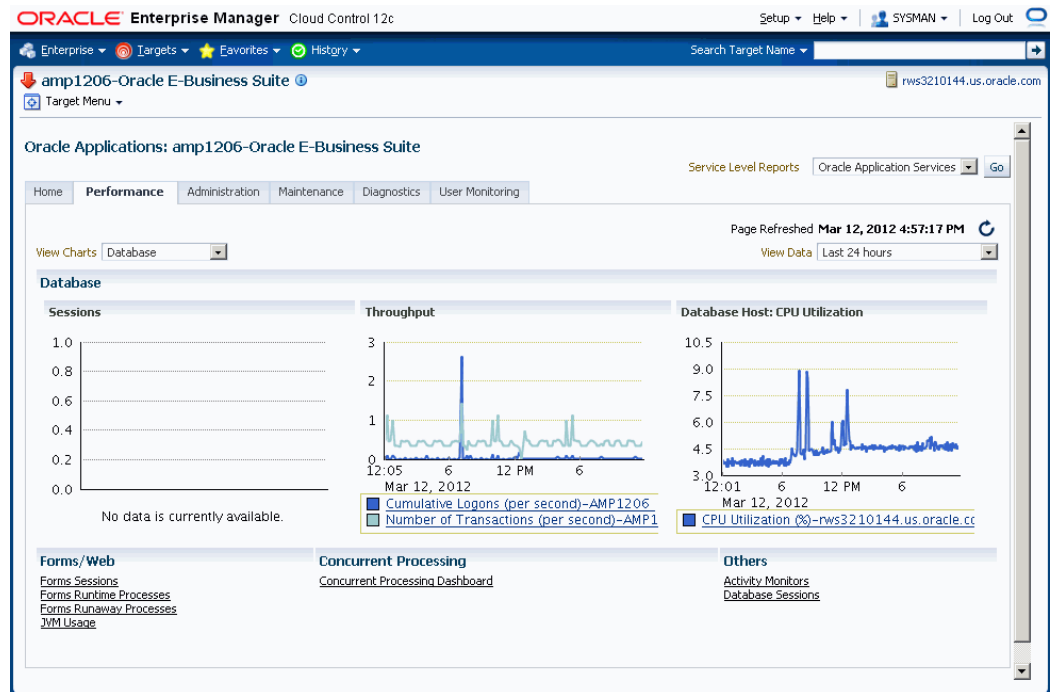
The Applications Server View



The Applications Server view shows key middle tier usage and performance metrics for the Oracle Applications system. This view provides the following three charts:

- HTTP Server: Requests/Second - This chart depicts the throughput of the HTTP Server at each point in time. Multiple HTTP servers are represented by different lines in this graph.
- Hosts: CPU Utilization - This chart depicts the CPU utilization on each Applications Tier host. Multiple hosts are shown as different lines in this graph.
- Hosts: Memory Utilization - This chart depicts the memory utilization on each Applications Tier host. Multiple hosts are shown as different lines in this graph.

The Database View



The Database tier view shows usage and performance metrics for the Oracle Applications system database and its hosts. This view provides the following three charts:

- **Sessions** - This chart breaks down the database session usage. The data points include the total count of database sessions, the count of active sessions using CPU, the count of active sessions waiting on I/O, and the count of active sessions waiting on other resources.
- **Throughput** - This chart provides two indicators of database throughput: the number of transactions per second and the number of logins per second.
- **Database Hosts: CPU Utilization** - This chart depicts the CPU utilization on each database tier host. Multiple hosts are shown as different lines in this graph.

JVM Usage

The JVM usage summary can be accessed from the Performance tab using the link under the heading Forms/Web.

JVM Usage Summary: amp1206-Oracle E-Business Suite Page Refreshed 04:59:34 PM Mar 12 2012 PDT

Expand All | Collapse All

Application Servers

Focus	Name	Host	Pid	CPU (%)	Memory (MB)	Total/Locked Application Modules	Locked/Leaked AOLJ Connections	Total Objects/Cache Components
	Application Servers							
X	amp1206_rws3210144.rws3210144.us.oracle.com							
X	amp1206_rws3210144.rws3210144.us.oracle.com_oacore							
	amp1206_rws3210144.rws3210144.us.oracle.com_oacore_JVM_1_rws3210144.us.oracle.com22954			0	257,445	Unavailable/Unavailable	Unavailable/Unavailable	Unavailable/Unavailable

The JVM usage information is available across all the multiple nodes. The following metrics are collected as part of the JVM Usage:

- Application Module pool - Provides information about all the active and leaked Application Modules.
- Locked AOLJ Connections - Provides information about all the locked and leaked AOL/J connections utilized by applications.
- Cache Components - Provides information about the cache component utilization by Oracle Application Framework.

For Release 12 systems, in order to enable collection of the data for Application Modules, AOL/J Connection, and Cache Components columns, please ensure that you have set up the monitoring configuration for each "oacore" OC4J target as follows:

1. For each "oacore" OC4J target click on the name link. The oacore OC4J targets are named in <context_name>.<hostname>_oacore format and are parent targets of each JVM target.
2. On the home page of the oacore OC4J target, click on "Monitoring Configuration" link under the Related Links section.
3. Enter the OC4J administrator username and password for the "oacore" OC4J in the "Username for Basic authorization" the "Password for Basic authorization" fields respectively. Please refer to the note below to determine the values for these fields.
4. Click on **OK** to save the information.

Note: The OC4J administrator username by default is "oc4jadmin" and is specified in the system-jazn-data.xml file under the \$INST_TOP/ora/10.1.3/j2ee/oacore/config directory. The oc4jadmin password by default is set to a randomized value during installation and will need to be reset as in the following example:

- In the \$INST_TOP/ora/10.1.3/j2ee/oacore/config/system-jazn-data.xml file, set the value of the "credentials" element for oc4jadmin user to your chosen password preceded by a ! character. For example:


```
<user>
<name>oc4jadmin</name>
<display-name>OC4J Administrator</display-name>
<description>OC4J Administrator</description>
<credentials>[new password]</credentials>
</user>
```

- After saving system-jazn-data.xml restart the oacore OC4J. This will encrypt the updated password in system-jazn-data.xml.

For both Release 11*i* and Release 12, ensure that the Application Server passwords are set as well, because Oracle Enterprise Manager expects these passwords to be set for metrics collection for the JVM targets.

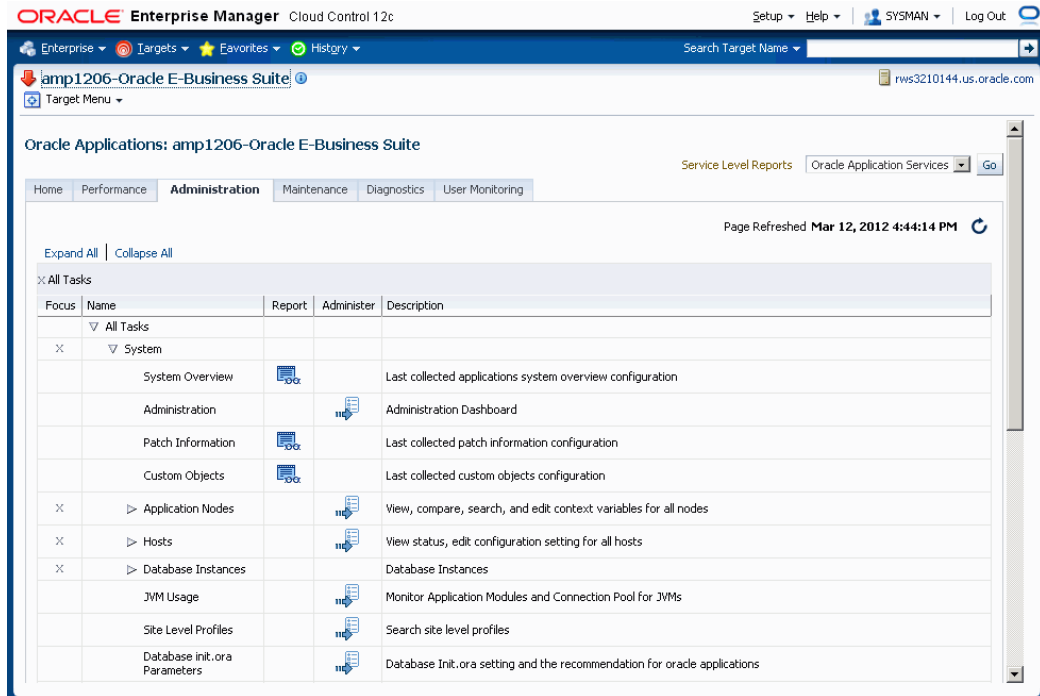
Drill down to Oracle Applications Manager

The System Performance tab provides seamless integration to performance pages within Oracle Applications Manager (OAM). You can use the links provided to access the performance metrics within OAM.

The Oracle Applications System Administration Tab

The Oracle Applications System Administration tab provides seamless integration with all the administrative activities within Oracle Applications Manager (OAM). Click on the icon in the "Administer" column to navigate to a feature's OAM administrative page.

Configuration reports of the middle-tier components can be accessed from this page using the icons in the "Report" column.



This section describes the various configuration reports accessible from the Administration page.

Note: On the entire configuration reports page, you can perform the following actions:

- Save - You can save the current configuration snapshot for either comparing with other reports or for viewing historical changes.
- Compare - You can compare the configuration information with that of the same system, saved at an earlier time, or with information of another system.
- Compare with Multiple - You can compare the configuration information of a system with multiple other systems (being monitored using Cloud Control).
- History - You can view the change history of the configuration.
- Refresh - You can refresh the configuration report to reflect the latest data.

View Configuration

The Oracle E-Business Suite system configuration can be accessed from the

Administration tab. Click on the icon in the Report column for System Overview.

System Overview

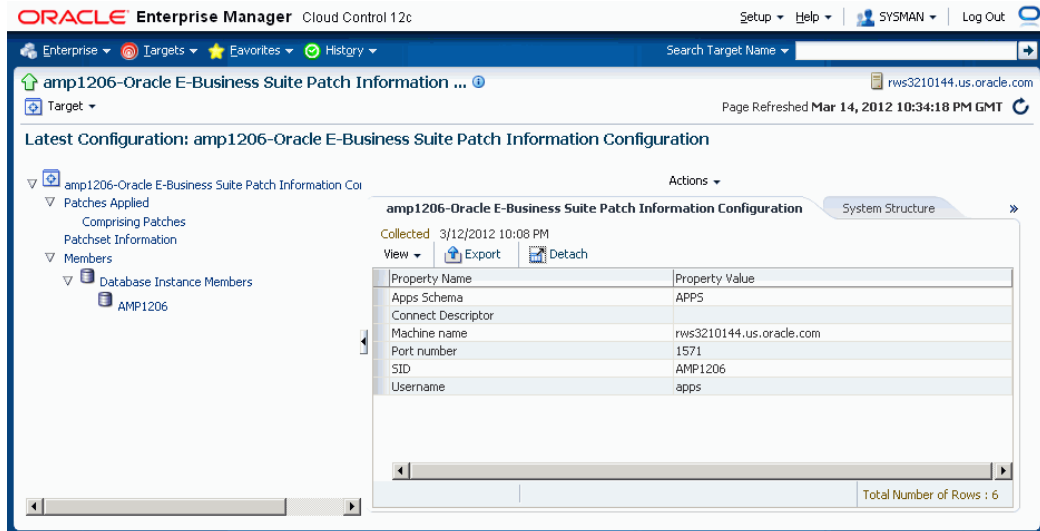
The screenshot shows the Oracle Enterprise Manager interface. The main content area displays the 'System Overview' for the target 'amp1206-Oracle E-Business Suite'. The page includes a navigation pane on the left with a tree view of system components, and a main table of properties on the right. The table lists various system configuration details such as Web URL, Database Target Name, SID, Port number, Machine name, Connect Descriptor, Separated components list, and Apps Schema.

Property Name	Property Value
Web URL	https://rws3210144.us.oracle.com:4493
Database Target Name	AMP1206
SID	AMP1206
Port number	1571
Machine name	rws3210144.us.oracle.com
Connect Descriptor	
Separated components list	BB19CED1223FC0BAE040D20ACD294DD1 BB19CED12241C0BAE040D20ACD294DD1
Apps Schema	APPS

The System Overview provides configuration data using the Enterprise Manager Cloud Control Configuration Browser.

Patch Information

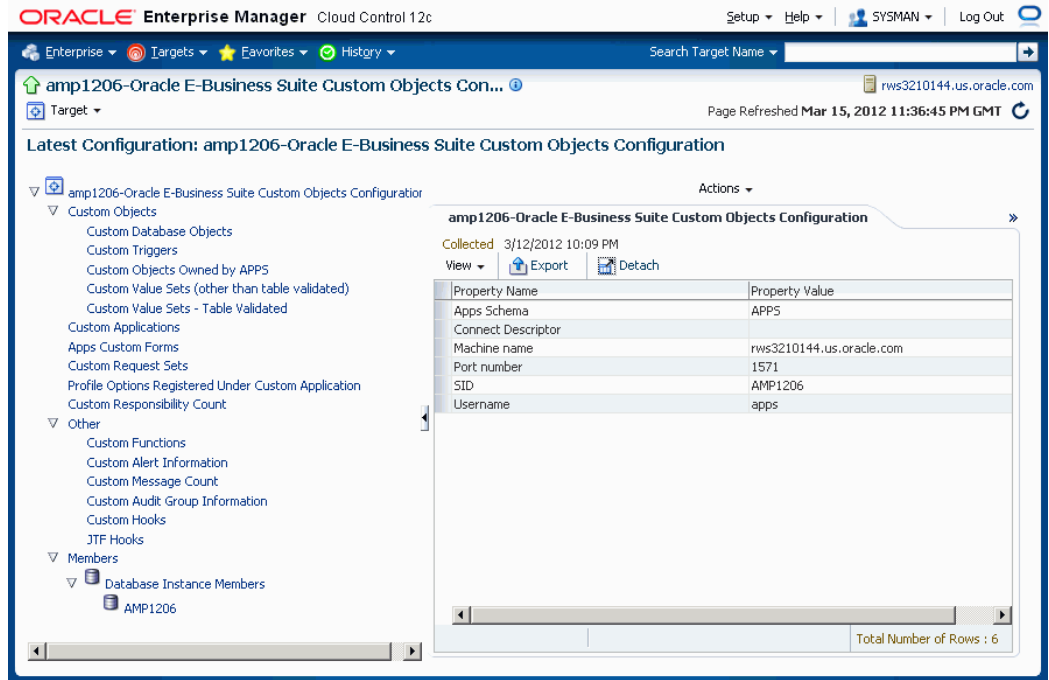
Navigate to Patch Information using the icon in the Report column for Patch Information.



The Patch Information view provides information about all the patches that have been applied to the Oracle E-Business Suite system.

Custom Objects

Navigate to Custom Objects using the icon in the Report column for Custom Objects.

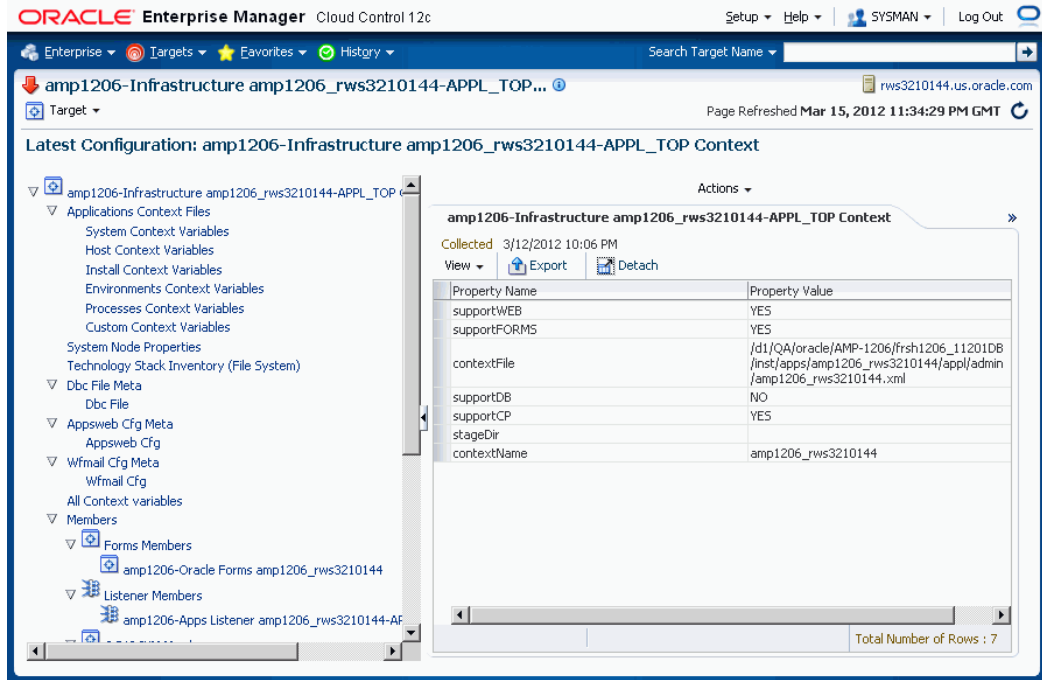


In the custom objects view you can see all the Oracle E-Business Suite customizations.

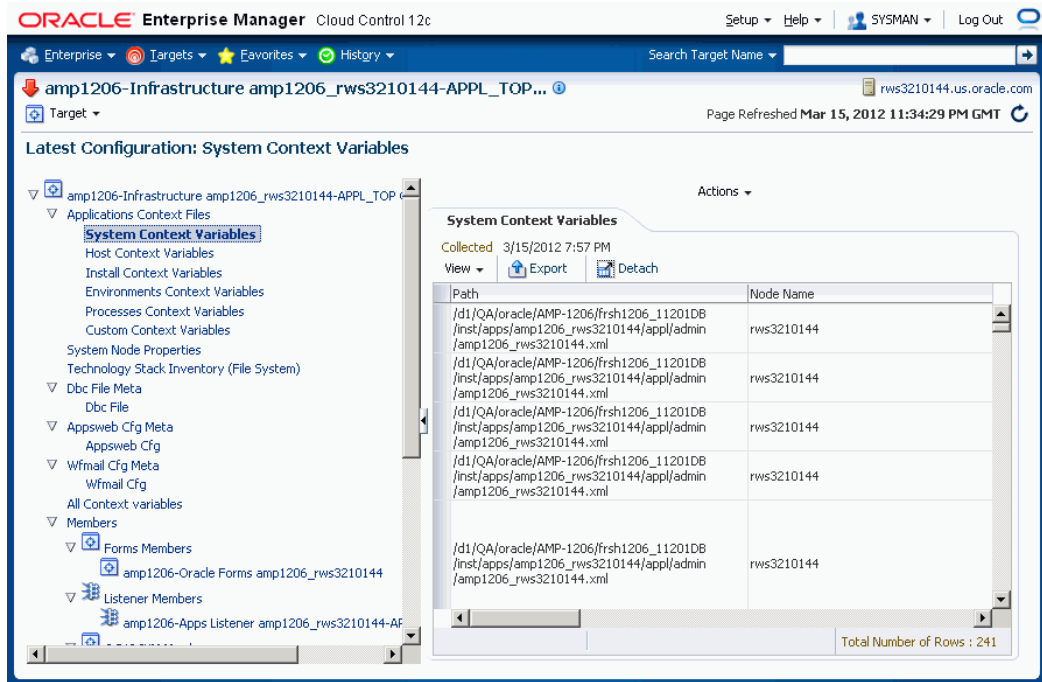
View Oracle E-Business Suite Context Files

The Oracle E-Business Suite applications context files can be accessed from the Administration tab.

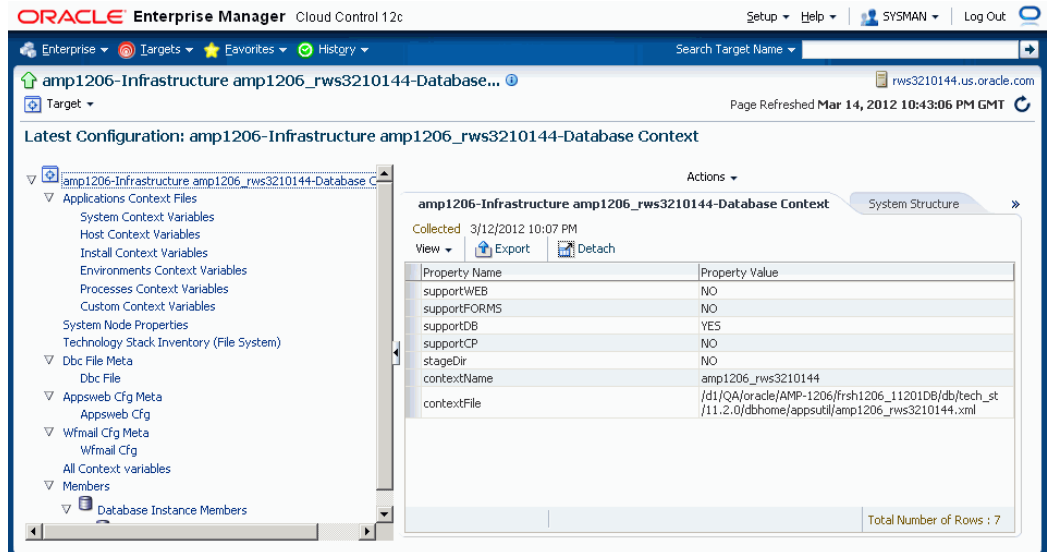
To view the context file for the application tier, expand "Application Nodes" in the table, then click the icon in the Report column for "APPL-TOP Context".



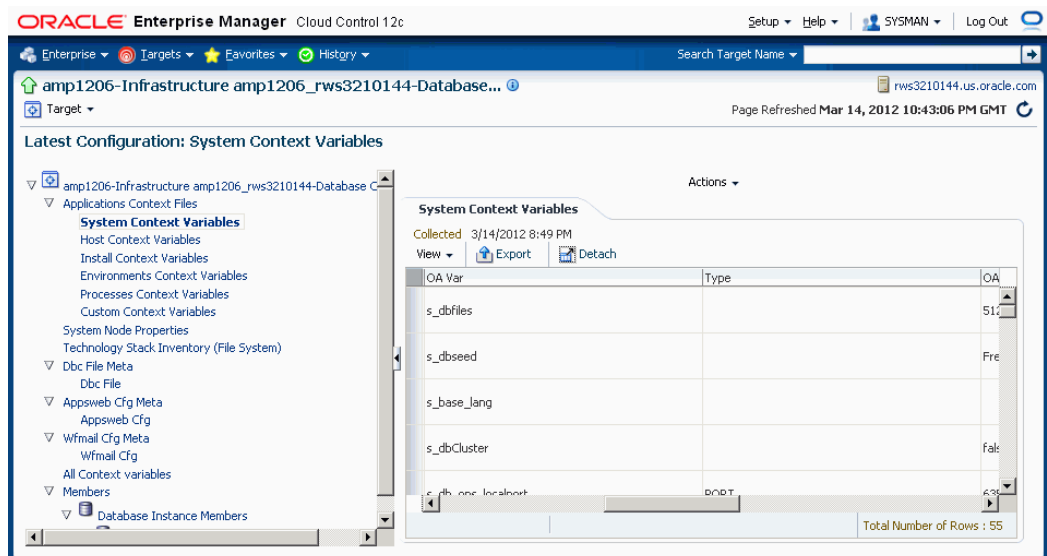
Next click on the appropriate context file name to view the context file.



To view the context file for the database tier, click the icon in the Report column for "Database Context".



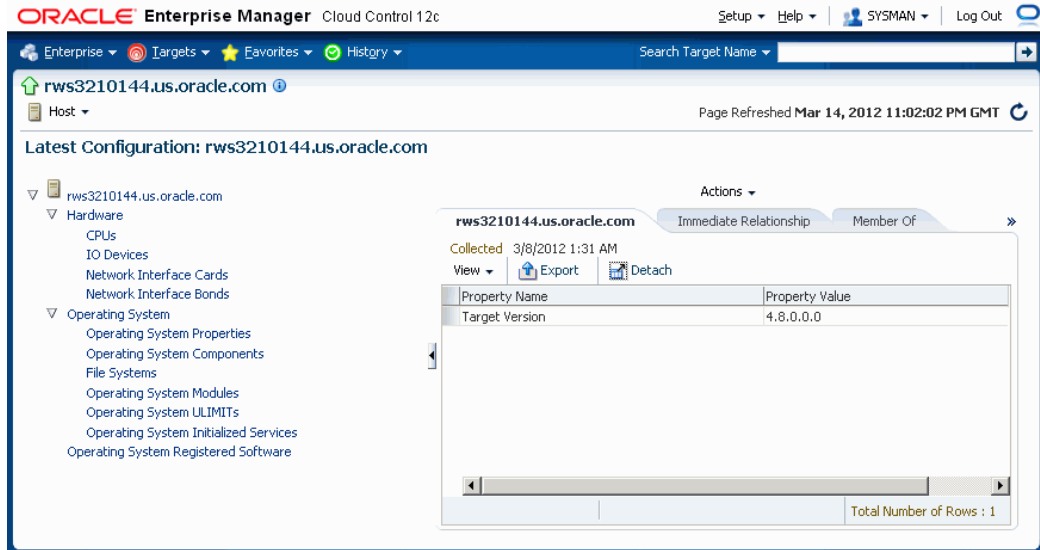
Next select the appropriate context file name to view the context file.



View Host Configuration

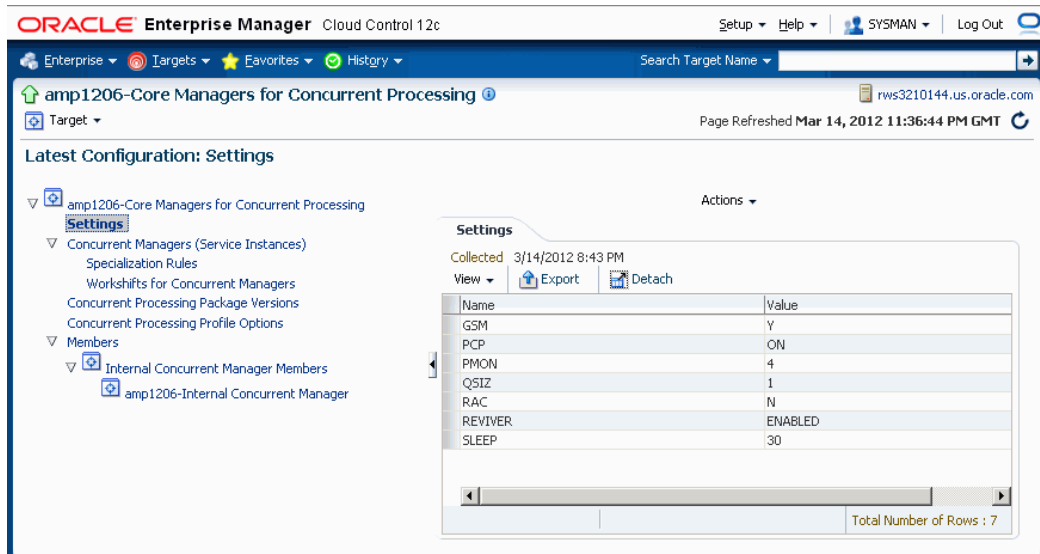
The host configuration details can be accessed from the Administration tab. Expand the "Hosts" heading to view a listing of individual hosts; then for each host, click on the icon under the Report column to view its details.

You can view the configuration information of the hardware, operating system, Oracle software (such as Java Runtime Environment or the Oracle database product) and OS-registered software.



View Concurrent Processing Configuration

The Concurrent Processing configuration details can be accessed from the Administration tab.

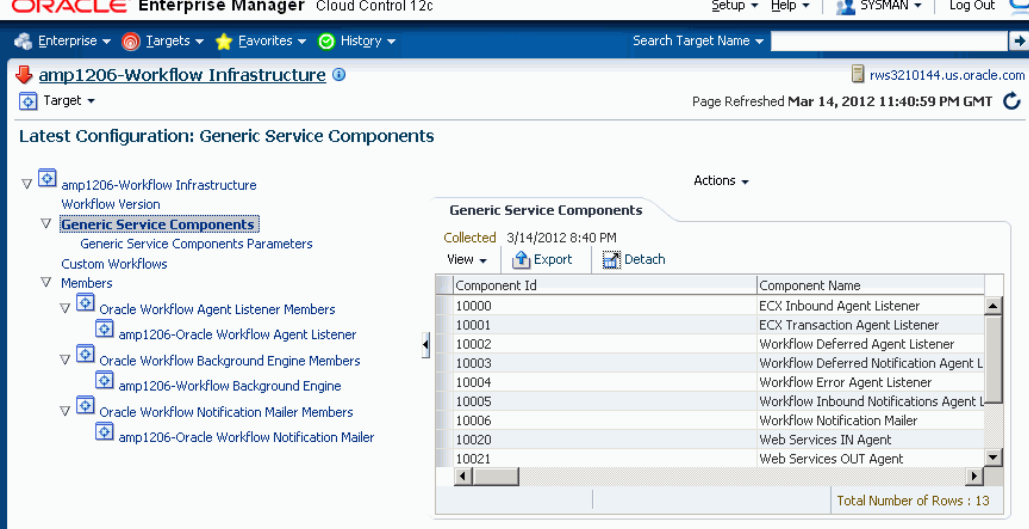


You can view the configuration information for the concurrent processing component of the Oracle E-Business Suite system. The information shown includes:

- Concurrent managers and their configuration attributes, such as work shifts and specialization rules
- Profile option settings for concurrent processing

View Oracle Workflow Configuration

The configuration information for the Oracle Workflow component of the Oracle E-Business Suite system is available from the Administration tab.



The screenshot displays the Oracle Enterprise Manager interface for the target 'amp1206-Workflow Infrastructure'. The 'Generic Service Components' section is expanded, showing a table of components. The table includes columns for Component Id and Component Name. The components listed are:

Component Id	Component Name
10000	ECX Inbound Agent Listener
10001	ECX Transaction Agent Listener
10002	Workflow Deferred Agent Listener
10003	Workflow Deferred Notification Agent L
10004	Workflow Error Agent Listener
10005	Workflow Inbound Notifications Agent L
10006	Workflow Notification Mailer
10020	Web Services IN Agent
10021	Web Services OUT Agent

The table also shows a 'Total Number of Rows : 13' at the bottom right.

Included configuration information is shown for the following components:

- XML Gateway (ECX) Inbound Agent Listener
- XML Gateway (ECX) Transaction Agent Listener
- Workflow Deferred Agent Listener
- Workflow Deferred Notification Agent Listener
- Workflow Inbound Notifications Agent Listener
- Workflow Notification Mailer

Search Patches Applied/Search Patchset Info

You can search for Oracle E-Business Suite patch/patchset information from the Administration tab.

You can search for patch information by Target Name, Applied Patch ID, or Patch Number.

report that was saved previously.

1. Click the **Compare** button within the configuration report.
2. Choose the configuration report from another instance or from a "Saved Configurations" of the current system and click the **Compare** button.
3. The comparison results are shown.

Compare Information (One to Many)

You can also compare a configuration report to other reports for multiple instances in a single request.

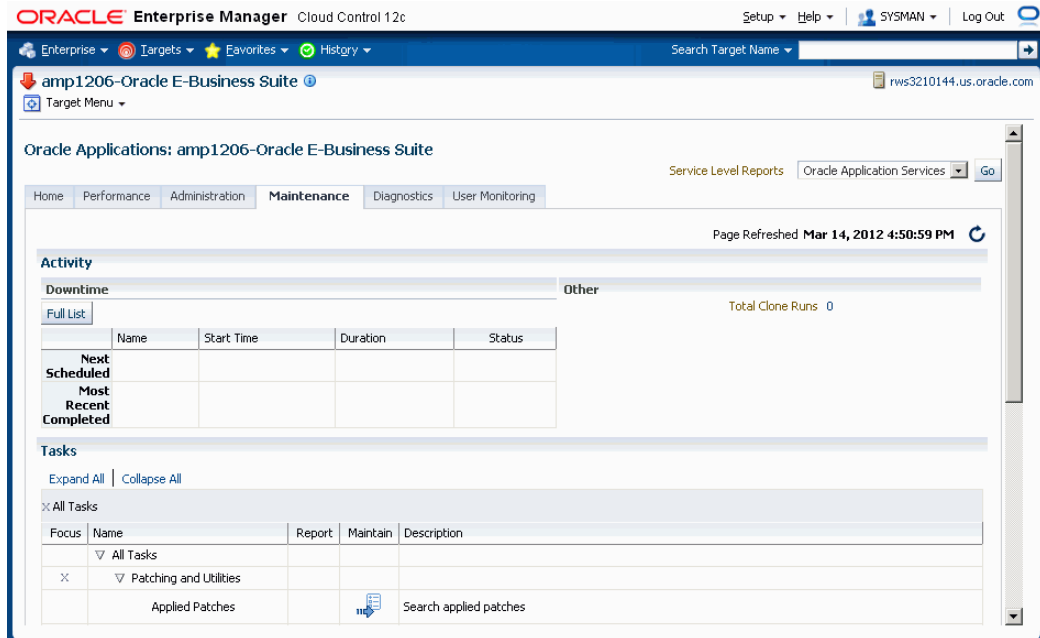
1. To compare configuration with multiple other configurations, click the **Compare to Multiple** button within the configuration report.

By default the latest configuration information for the system is used for comparison. However, you can choose information from another saved configuration (with an earlier timestamp).

2. Select all the Oracle E-Business Suite systems whose configuration information needs to be compared with the first (selected in the earlier step). Any number of Oracle E-Business Suite systems can be added for comparison. By default, their latest configuration information is utilized; however, a saved "snapshot" can also be used.
3. You can schedule the comparison to begin immediately or on a future date (also an option to choose a convenient time zone is available). This comparison job can also be repeated and options for the same are available in this page.
4. Complete the comparison job by reviewing the details that you had provided.
5. View the result summary of the comparison job done across multiple instances.
6. Click the **Different** link to view the actual differences between configurations.

The Oracle Applications System Maintenance Tab

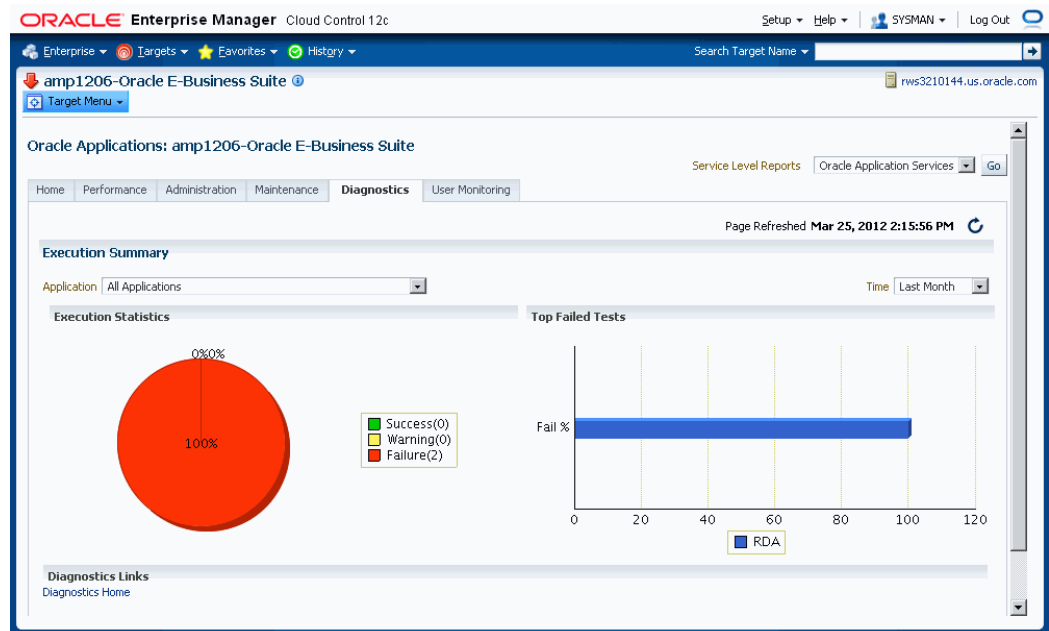
The Oracle Applications Maintenance tab provides information on maintenance activities for the Oracle E-Business Suite system, particularly in the areas of patching and cloning.



The Maintenance tab is divided into the three sections:

- Activity - This section provides a summary of system down time that has been scheduled and that have recently been completed.
- Tasks - The Tasks table provides links to various patching and cloning tasks.
 - Patching tasks - these links direct you to the corresponding tasks page within Oracle Applications Manager.
 - Cloning tasks - Cloning can be done automatically from the Oracle Application Management Pack for Oracle E-Business Suite and is discussed later in this document.

The Oracle Applications System Diagnostics Tab



The Diagnostics tab provides summary results of Diagnostic Test execution within the system.

The Diagnostics Dashboard shows the execution statistics of diagnostic tests across all applications as well as for a specific application.

Navigation: From the Oracle E-Business Suite instance's Application Management Pack Dashboard, navigate to the Diagnostics subtab.

The dashboard has two charts, one pie chart and a bar chart. These charts allow you to select the application for which the statistics is needed. By default statistics across all applications is displayed.

It is a possible to see the statistics for last month, last week, or last 24 hours.

The Execution Statistics pie chart shows the success, failure, and warning rates of diagnostics tests depending on the selection of application.

The Top Failed Tests bar chart shows the top five failed tests in terms of percentage of failure. By default tests across all applications is shown. You can see the top failed tests under a specific application by selecting it.

Links are provided to open the associated Oracle E-Business Suite instance in a separate window and open up the Oracle Diagnostics pages in Oracle E-Business Suite.

The Oracle Applications System User Monitoring Tab

The User Monitoring tab enables you to link a database session to an Oracle E-Business Suite user session. In this way you can link a performance issue in a database session to activity done by that Oracle E-Business Suite user. The User Monitoring feature checks three entities: Concurrent Programs requests, Forms sessions, and Oracle Application Framework sessions to see if it can find a match for the database session ID.

Note: If the database session is triggered by something else, this system will not be able to capture it. This is a limitation.

Setup Steps for User Monitoring

User Monitoring requires additional setup steps. On the OMS side:

- Set the preferred credentials of "Oracle E-Business Suite" target type for the Oracle E-Business Suite user name and password.

Additional setup steps required on the Oracle E-Business Suite side are:

1. For the above Oracle E-Business Suite user, assign "LCM_EM_CLIENT" responsibility.
2. Form sessions can be monitored only when the site-level profile **Sign-On: Audit Level** is set to 'FORM'. The internal name for this profile is 'SIGNONAUDIT:LEVEL'.

Diagnostic Tests for User Monitoring

You can run diagnostic tests on your system for user monitoring. These tests can be accessed from the Diagnostics dashboard, available from the Pack Diagnostics link on the Oracle Applications page. For more information on running diagnostic tests, see: Running Pack Diagnostics Tests, page 6-3.

The following tables list tests for user monitoring.

Generic Diagnostic Tests for User Monitoring

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EBS	CheckIOPatches for <Release>	Verify that certain patches have been applied on the Oracle E-Business Suite target.	Note that this step may change, depending on the Oracle E-Business Suite release (for example, Release 11i, 12.0, and so on). The list of patches is contained in an XML file that might be modified to include or exclude recommended patches.
EBS	CheckRESTHealth	Checks if "Rest Ping" is working properly. Rest Ping is a Ping Service, called using REST framework. The Ping Service tries to ping Oracle E-Business Suite instance and this should return a "SUCCESS". User monitoring is heavily dependent on this framework.	If the test fails, normally it gives the message why it failed. Refer to the emoms.log for additional information.
EBS	Summary	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	

User-Specific Diagnostic Tests for User Monitoring

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EBS	CheckEBSProfile	Check if the Oracle E-Business Suite profile is properly set. User Monitoring functionality displays a user's form related activities. To show this information, a user's system profile code "SIGNONAUDIT:LEVEL" must be set to FORM. This checks if the profile value is set to FORM.	Verify that the credentials supplied are valid for the "E-Business Suite Applications Login" username/password, found in the in "E-Business Suite" Target Type in Preferred Credentials. Verify that the user specified in the "E-Business Suite Applications Login" section has their "SIGNONAUDIT:LEVEL" profile set to "FORM".
EBS	CheckEBSRole	Verify if the EM User (that is, the user executing the diagnostic test) has the required responsibility to execute User Monitoring Functionality. The responsibility is LCM_EM_CLIENT, and must be attached to the Oracle E-Business Suite user in the Oracle E-Business Suite Applications Login Preferred Credentials.	Verify that the credentials supplied are valid for the "E-Business Suite Applications Login" username/password, found in the in "E-Business Suite" Target Type in Preferred Credentials. Verify that the user specified in the "E-Business Suite Applications Login" section has been assigned the "LCM_EM_CLIENT" responsibility.
EBS	CheckEBSGlobalCred	Check Oracle E-Business Suite preferred credentials. This test verifies if the "E-Business Suite Applications Login" username and password exists and, if so, are valid for a particular instance.	Verify that the credentials supplied are valid for the "E-Business Suite Applications Login" username/password, found in the in "E-Business Suite" Target Type in Preferred Credentials.

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EBS	Summary	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	

User Monitoring Dashboard

Navigate to the User Monitoring dashboard from the Oracle E-Business Suite instance's User Monitoring subtab.

The dashboard has four bar charts of database sessions (triggered by APPS user only)



- Top waiting sessions; that is, sessions waiting for a database event to trigger to proceed further
- Top running SQL statements
- Top CPU consuming sessions
- Top memory intense sessions

The level of detail shown in the bar graphs is controlled by properties set in the Preferences page:

- Sampling Interval for User Monitoring
- Number of Rows in tables of User Monitoring

You can drill down from the legend to see the details of the session. If the Oracle E-Business Suite user information is available, the Oracle E-Business Suite session details will be shown with further drilldown to the database session details. If the Oracle E-Business Suite user information is not available, you can drill down to the database session details. The charts are derived by monitoring session history for the last 15 minutes. This interval is configurable by setting the value for Sampling Interval for User Monitoring in the Preferences page. The maximum value allowed is 60. You can navigate to the Preferences page from the main Oracle E-Business Suite Instances page, under Related Links.

Note: If you make changes to the Preferences settings, , the changes will take at least fifteen (15) minutes to take effect. If you want the changes to take effect immediately, restart the OMS.

Search Applications User Sessions

You can search for Oracle E-Business Suite user sessions from the User Monitoring subtab.

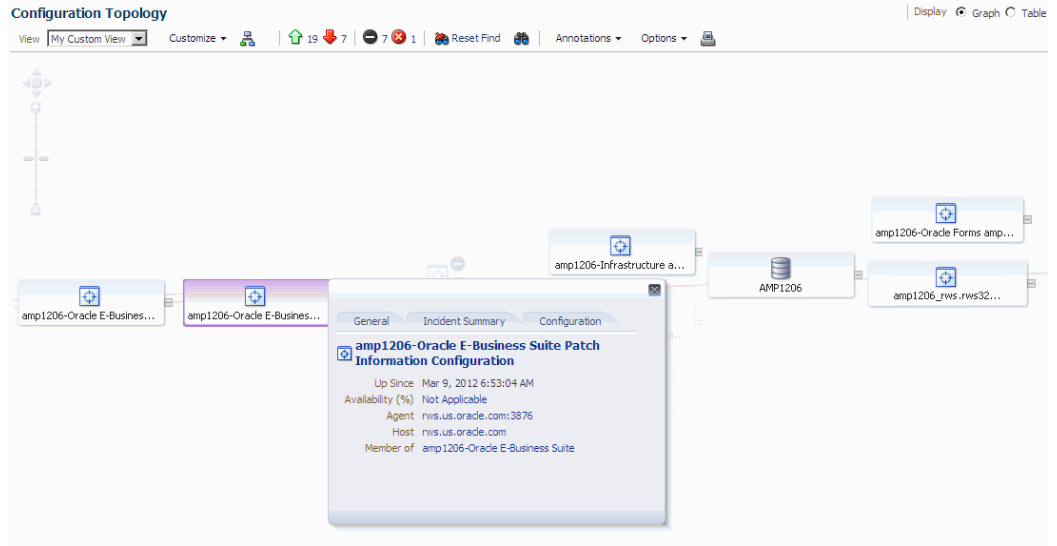
The link to this search feature is available in the dashboard itself.

- Using DB Session ID - Provide the database session ID and if a match is found with a concurrent program, form or OA page, the details will be shown with a drilldown facility to the database session details.
- Using Oracle E-Business Suite user name - This search shows all the active concurrent programs, Forms, and Oracle Application Framework pages used by the user. It will also show the associated database session ID with drilldown capability.

The Configuration Topology Page

The Configuration Topology page for Oracle E-Business Suite lists the dependencies between the infrastructure services, the key system components, and other services that define their availability. Upon service failure, the potential causes of failure, as identified by Root Cause Analysis, are highlighted in the topology view. In the Topology tab, you can view dependent relationships between services and systems.

Navigate to the Topology page from the Target menu > Configuration > Topology.



The Configuration Topology page shows the infrastructure service Topology view of the Oracle E-Business Suite system. The icons represent each service and the lines connecting them show their dependencies. This view allows administrators to identify the root cause of a problem much more quickly compared to a tabular representation of the same information.

See the *Oracle Enterprise Management Lifecycle Management Administrator's Guide* for more information on the Configuration Topology Viewer.

The Concurrent Processing Dashboard

Introduction

The Concurrent Processing Dashboard provides you with details in concurrent processing in your Oracle E-Business Suite system. The dashboard gives you a complete picture of concurrent processing on your system, both current activities as well as usage statistics.

The Concurrent Processing Dashboard is available from the Performance tab of the main page for an Oracle E-Business Suite instance, under Concurrent Processing.

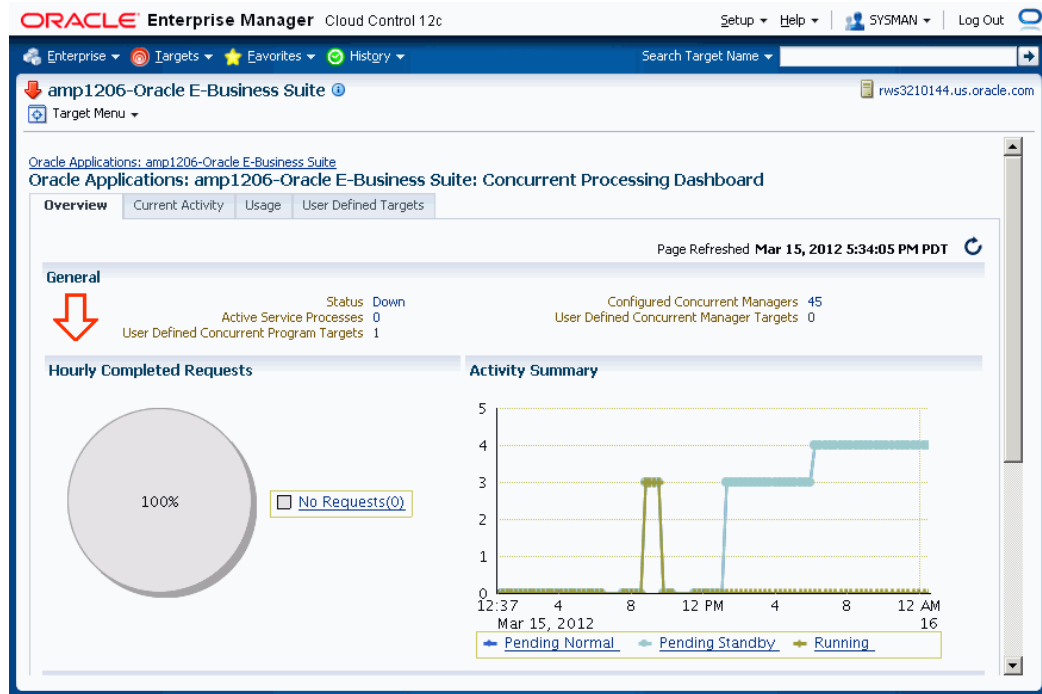
You can add a user-defined concurrent program as a target to the Oracle E-Business Suite composite target. You can then monitor related activities of the registered individual concurrent programs for your own specified thresholds.

You can also add a user-defined concurrent manager as a target to the Oracle E-Business Suite composite target. You can then monitor related activities of the registered individual concurrent managers for your own specified thresholds.

In addition to the features described in this chapter, links are provided under Related Links for the following Oracle Application Manager features:

- Concurrent Request Runaways
- Concurrent Processing Reports
- Concurrent Processing Charts

Overview Tab



The General region lists the status of the Concurrent Processing Service

- Status - The status is linked to the Concurrent Processing Service home page.
- Active Service Processes - Number of active service processes.
- User-defined Concurrent Program Targets - Defining these targets is described in a later section.
- Configured Concurrent Managers - The number of configured concurrent managers.

The Hourly Completed Requests region shows a pie chart for requests by status (Successful, Warning, and Errored).

The Activity Summary graph illustrates active requests in the following statuses

- Pending Normal
- Pending Standby
- Running

The Components region lists components of the Concurrent Processing service. The table shows the following for each component:

- Name
- Type
- Status
- Incidents
- Host

The Incidents region lists any incidents that were triggered recently, with the following information for each:

- Severity
- Metric
- Target Name
- Target Type
- Incident Triggered
- Last Value
- Last Checked

At the bottom of the dashboard are Related Links:

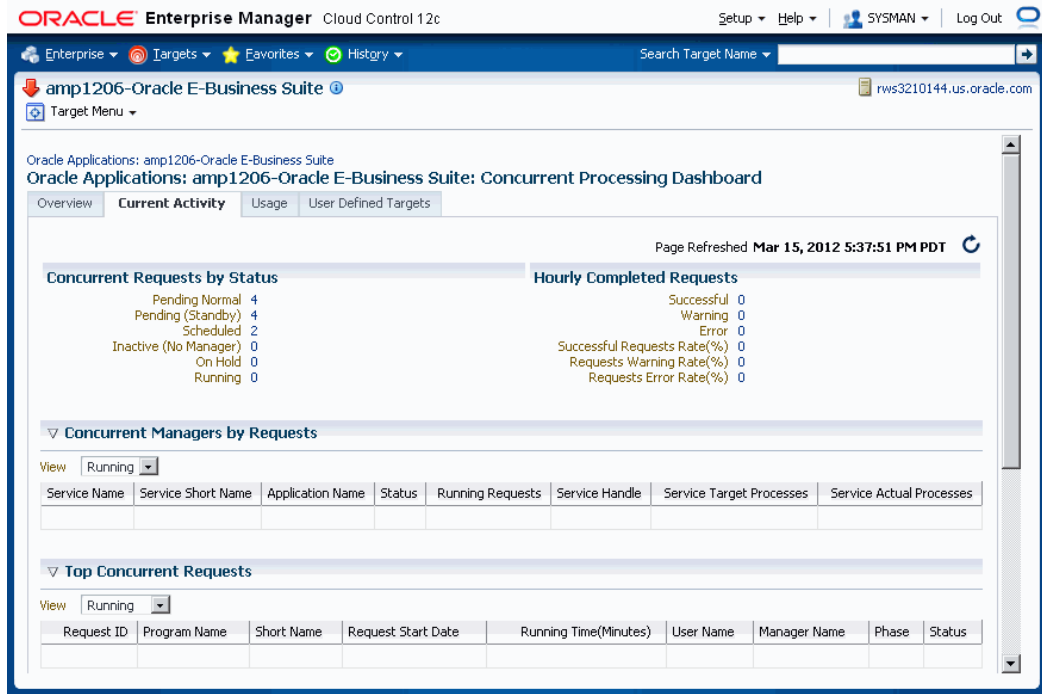
The first three links provide metrics on requests and processes:

- Hourly Completed Requests
- Processes and Requests per Concurrent Manager
- Active Concurrent Requests by Application

The last three links take you to Oracle Applications Manager pages for the Oracle E-Business Suite instance:

- Concurrent Request Runaways
- Concurrent Processing Reports
- Concurrent Processing Charts

Current Activity Tab



The Concurrent Requests by Status region lists the number of requests for each status:

- Pending Normal
- Pending (Standby)
- Scheduled
- Inactive (No Manager)
- On Hold
- Running

Click on the number for a status to find out more about the metric trend.

The Hourly Completed Requests region lists statistics for requests that have completed in the past hour, including:

- Successful
- Warning
- Error

- Successful Requests Rate (%)
- Requests Warning Rate (%)
- Requests Error Rate (%)

Click on the number for each statistic to find out more details.

The Concurrent Managers by Requests lists all concurrent managers, in order of the number of requests it has in the specified status, either Running or Pending.

With "Running" selected, the following is shown for each concurrent manager:

- Service Name
- Service Short Name
- Application Name
- Status
- Running Requests
- Service Handle
- Service Target Processes
- Service Actual Processes

With "Pending" selected, the following is shown for each concurrent manager:

- Service Name
- Service Short Name
- Application Name
- Status
- Normal Pending Requests
- Standby Pending Requests
- Service Handle
- Service Target Processes
- Service Actual Processes

The Top Concurrent Requests region shows the top ten (10) requests for the specified status of Running, Pending, or Scheduled.

- Running - These are sorted by running time in descending order.
- Pending - These are sorted by running time in descending order.
- Scheduled - These are sorted by their scheduled start time.

The Top Applications region lists the top ten (10) applications for running requests or pending requests, as specified.

The Top Users region lists the top ten (10) users by number of running or pending requests, as specified.

Usage Tab

The screenshot displays the Oracle Enterprise Manager Cloud Control 12c interface. The page title is "Oracle Applications: amp1206-Oracle E-Business Suite: Concurrent Processing Dashboard". The "Usage" tab is selected, showing a table of "Top Concurrent Programs". The table columns are Program Name, Short Name, Number of Executions, Successful Executions(%), and Errored Executions(%). The page was refreshed on Mar 15, 2012 5:40:09 PM PDT.

Program Name	Short Name	Number of Executions	Successful Executions(%)	Errored Executions(%)
Compile Descriptive Flexfields	FDFCMPD	5899	100	0
Flexfield View Generator	FDVGN	2749	98.25	1.75
OAM Applications Dashboard Collection	FND0AMCOL	379	100	0
Request Set Stage	FNDRSSTG	199	89.95	0
Synchronize WF LOCAL tables	FNDWFLSC	191	89.53	0
Compile Key Flexfields	FDVGN	101	100	0
Drop obsolete products schema	ADDRPOBS	72	100	0
Generic Loader	FNDLOAD	43	93.02	6.98
Workflow Control Queue Cleanup	FNDWFBES_CONTROL_QUEUE_CLEANUP	30	100	0
Report Set	FNDRSSUB	23	100	0

This tab provides a summary of how the concurrent programs and managers have been utilized over a period of time.

The top ten (10) concurrent requests for the following categories are listed:

- Number of executions - For this category, the total number of executions, the percentage (%) of successful executions, and the percentage (%) of errored executions are shown.
- Number of failed executions - The number of executions, percentage (%) of failed executions, and percentage (%) of errored executions are shown.
- Average run time in minutes - The number of executions, average running time

(minutes), and total running time (minutes) are shown.

- Total run time in minutes - The top ten (10) programs with the highest maximum running time are shown. For each program listed, the number of executions, total running time (minutes) and percentage (%) of successful executions are shown.

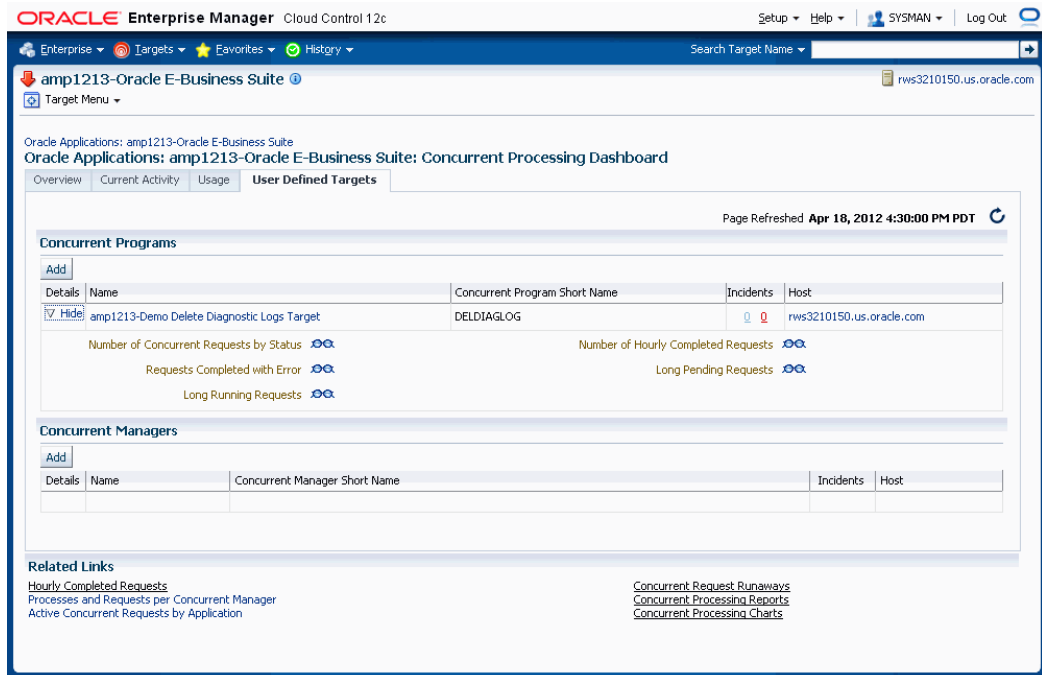
Top Applications			Top Users	
View <input type="button" value="Number of Executions"/>			User Name	Total Requests
Application Name	Application Short Name	Number of Executions	SYSADMIN	566
Application Object Library	FND	9776		
Applications DBA	AD	72		
Receivables	AR	39		
Incentive Compensation	CN	35		
Human Resources	PER	30		
Service Contracts	OKS	27		
Application Implementation	AZ	23		
Service	CS	20		
Payables	SQLAP	11		
Sales Foundation	AS	7		
View <input type="button" value="Number of Executions"/>				

The top ten (10) applications for the following categories are listed:

- Number of executions
- Number of failed executions

The top ten (10) users by total number of requests are also listed, in descending order of number of requests.

User-Defined Targets Tab



You can add concurrent managers and programs as targets to monitor. Use this tab to get details about these targets as well as add more custom targets.

Concurrent Programs

For custom concurrent program targets, the following columns are shown:

- Name
- Concurrent Program Short Name
- Incidents
- Host

Click on "Show" in the Details column to see the following metrics for the given concurrent program target. (More details can be seen from the Target home page > All Metrics):

- Number of Concurrent Requests by Status
- Number of Hourly Completed Requests
- Requests Completed with Error

- Long-Pending Requests
- Long-Running Requests

Use the **Add** button under Concurrent Programs to add a new program target.

Concurrent Managers

For concurrent manager targets, the following columns are shown:

- Name
- Concurrent Manager Short Name
- Incidents
- Host

Click on "Show" in the Details column to see the following for the given concurrent manager target:

- Active Processes
- Running Requests
- Pending Requests

Use the **Add** button under Concurrent Managers to add a new manager target.

Adding a Concurrent Program Target

You can add a concurrent program custom target so that the system will collect metrics on activity and usage for the concurrent program.

Note: You cannot add a custom concurrent program target using Internet Explorer 8. Please use a different version, or different browser such as Mozilla Firefox.

1. To add a concurrent program custom target, navigate to the Concurrent Processing Dashboard, User Defined Targets tab, and click **Add** under Concurrent Programs.

Add Concurrent Program: amp1206-Oracle E-Business Suite

Target Name Prefix: amp1206

* Target Name:

Target Type: Custom Oracle Concurrent Program

* Concurrent Program Short Name:

Monitoring Host: rws3210144.us.oracle.com

Name	Value	Description
SID	AMP1206	SID
Machine	rws3210144.us.oracle.com	Host Machine
Port	1571	Database Port
User name	apps	Database monitoring User
password	*****	Database monitoring password
ConnectString		ConnectString in case of RAC

Name	Value	Description
Long Running Request Threshold in Minutes	300	Requests running more than this time will be classified as long running
Long Pending Request Threshold in Minutes	300	Requests pending for more than this time will be classified as long pending
Long Running Tolerance Percentage	100	Requests running more than this percentage of the average run time will be classified as long running

2. For your new target, define the following:

- Target Name Prefix - This value is determined by the system based on the instance name and cannot be updated.
- Target Name - Enter in a target name "suffix". The actual target name will be composed of the Target Name Prefix (above) and the value of this field.
- Target Type - The system automatically provides the value "Custom Oracle Concurrent Program".
- Concurrent Program Short Name - Use the LOV icon to search for and select the program short name. In searching for the program name you can search by concurrent program short name, concurrent program name, or application.
- Monitoring Host

For the Basic Properties region, values for the following should default in. These values are used as credentials by the target for metrics collection:

- SID
- Machine
- Port
- (Database) User name

- (Database) Password
 - ConnectString
3. For metrics collection, you need to define the thresholds for several metrics. Define instance parameters that will be used to categorize requests for the following:

A request will be termed Long Pending if it is in Pending status for longer than the "Long Pending Request Threshold In Minutes".

A request will be considered Long Running if it runs for longer than the "Long Running Request Threshold In Minutes" and $(1+0.1 \times \text{"Long Running Tolerance Percentage"}) \times \text{Average Running Time of the Concurrent Program}$.
 4. When you are done, click **Add** to add the target.

Custom Concurrent Program Target Metrics

Once you have added a custom concurrent program target, you can monitor it. It should be listed on the User Defined Targets tab. Click on its name link to view details.

The screenshot shows the Oracle Enterprise Manager Cloud Control 12c interface. The main content area displays details for a target named "amp1206-AMP1206 - Active Users". On the left, there is a "Summary" section with a "Status" of "Up Since Mar 15, 2012 11:27:14 AM". On the right, there is an "Incidents and Problems" section with a table listing incidents. The table has columns for Summary, Target, SeveStatus, Escalation level, Type, and Time since last update. Two incidents are listed: "Problem: java.lang.NullPointerException" and "Compliance score 51% is below".

Summary	Target	SeveStatus	Escalation level	Type	Time since last update
Problem: java.lang.NullPointerException		New	-	Problem	0 days 7 hours
Compliance score 51% is below		New	-	Incident	9 days 0 hours

Click on the Show link under Details for links to drill down on the following:

- Number of Concurrent Requests by Status
- Number of Hourly Completed Requests
- Requests Completed with Error
- Long Pending Requests
- Long Running Requests

From here, you can access the metrics collected for this target by navigating to Target menu > Monitoring > All Metrics. The collected metrics are listed below.

Metrics Collected

The following metrics are collected:

Basic Information

This page lists metrics for the following:

- Requests Completed Successfully
- Requests Completed with Warnings
- Requests Completed with Errors
- Minimum Run Time
- Maximum Run Time
- Average Run Time

Concurrent Requests by Status

The numbers for requests in each status below are listed.

- Concurrent Requests Pending (Normal)
- Concurrent Requests Pending (Standby)
- Concurrent Requests Scheduled
- Concurrent Requests Inactive (No Manager)
- Concurrent Requests Inactive (On Hold)
- Concurrent Requests Running

Hourly Completed Requests

- Concurrent Requests Completed Successfully
- Concurrent Requests Completed With Warning
- Concurrent Requests With Error
- Concurrent Requests Successful Requests Rate (%)
- Concurrent Requests Warning Rate (%)

- Concurrent Requests Error Rate (%)

Long Pending Requests

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Pending Time
- Concurrent Manager

Long Running Requests

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Running Time
- Concurrent Manager

Pending Requests

- Request ID
- Concurrent Program Short Name

- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Pending Time
- Concurrent Manager

Requests Completed with Error

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Execution Time

Requests Completed with Warning

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status

- Execution Time

Running Requests

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Running Time
- Concurrent Manager

Adding a Concurrent Manager Target

You can add a concurrent manager custom target so that the system will collect metrics on activity and usage for requests run by the concurrent manager.

1. To add a concurrent manager custom target, navigate to the Concurrent Processing Dashboard > User Defined Targets tab, and click **Add** under Concurrent Manager.

Add Concurrent Manager: amp1206-Oracle E-Business Suite

Target Name Prefix: amp1206
 * Target Name:
 Target Type: Custom Oracle Concurrent Manager
 * Concurrent Manager Short Name:
 Monitoring Host: rws3210144.us.oracle.com

Basic Properties

Name	Value	Description
SID	AMP1206	SID
Machine	rws3210144.us.oracle.com	Host Machine
Port	1571	Database Port
User name	apps	Database monitoring User
password	*****	Database monitoring password
ConnectString		ConnectString in case of RAC

Monitoring Properties

Name	Value	Description
Long Running Request Threshold in Minutes	300	Requests running more than this time will be classified as long running
Long Pending Request Threshold in Minutes	300	Requests pending for more than this time will be classified as long pending
Long Running Tolerance Percentage	100	Requests running more than this percentage of the average run time will be classified as long running

2. For your new target, define the following:

- Target Name Prefix - This value is determined by the system based on the instance name and cannot be updated.
- Target Name - Enter in a target name "suffix". The actual target name will be composed of the Target Name Prefix (above) and the value of this field.
- Target Type - The system automatically provides the value "Custom Oracle Concurrent Manager".
- Concurrent Manager Short Name - Use the LOV icon to search for and select the concurrent manager short name. In searching for the manager name you can search by concurrent manager short name, concurrent manager name, or application.
- Monitoring Host

For the Basic Properties region, values for the following should default in. These values are used as credentials by the target for metrics collection:

- SID
- Machine
- Port

- (Database) User name
 - (Database) Password
 - ConnectString
3. For metrics collection, you need to specify values for three Instance Properties that will be used to categorize requests for the following:
- A request will be termed Long Pending if it is in Pending status for longer than the "Long Pending Request Threshold In Minutes".
- A request will be considered Long Running if it runs for longer than the "Long Running Request Threshold In Minutes" and $(1+0.1 \times \text{"Long Running Tolerance Percentage"}) \times \text{Average Running Time of the Concurrent Program}$.
- You can also change these properties by clicking the "Monitoring Configuration" link on the Target Home page.
4. When you are done, click **Add** to add the target.

Monitoring a Custom Concurrent Manager Target

Once you have added a custom concurrent manager target, you can monitor for it. It should be listed on the User Defined Targets tab. Click on its name link to view details.

The screenshot shows the Oracle Enterprise Manager Cloud Control 12c interface. The page title is "amp1206-amp1206target". The page is refreshed on Mar 25, 2012 9:50:39 PM GMT. The interface is divided into two main sections: "Summary" and "Incidents and Problems".

Summary Section:

- Status:** Up Since Mar 25, 2012 9:46:51 PM

Incidents and Problems Section:

View: Target | Local target and related targets | Category: All | 0 | 1 | 0 | 0 | Open events without incidents for current target

Summary	Target	Sevd Status	Escalation level	Type	Time since last update
Compliance score 51% is below criti		New	-	Incident	4 days 14 hours

Columns Hidden: 13 | Open events without incidents for current target | Updated in last 31 days

From here, you can also monitor the metrics for this target by navigating to Target menu > Monitoring > All Metrics.

Active Processes

- Target Node
- OS Process ID
- Session ID

- Process Status

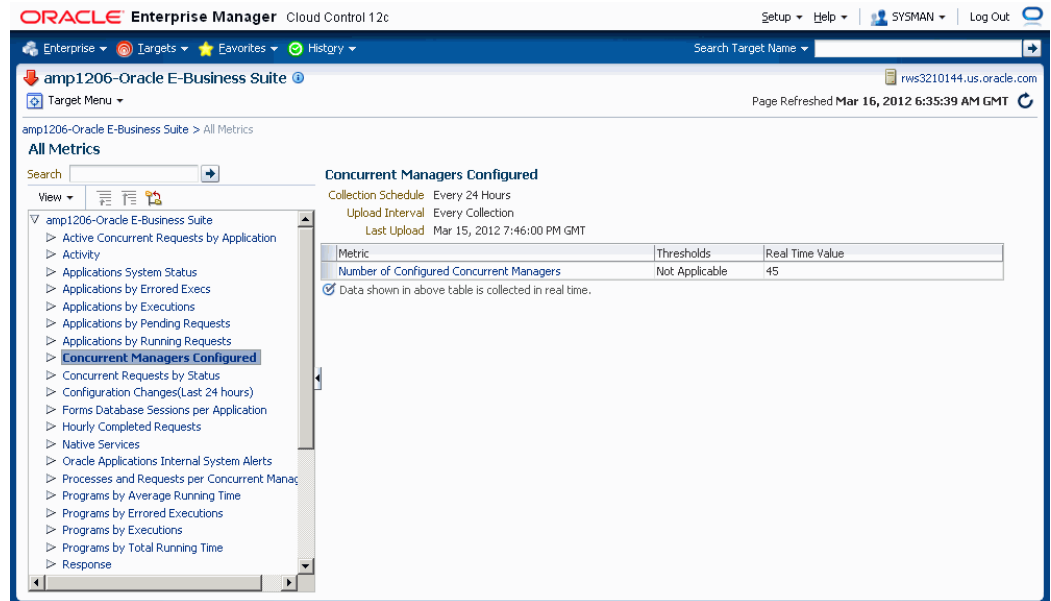
Pending Requests

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Pending Time

Running Requests

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Running Time

Concurrent Processing Metrics



This section lists the concurrent processing metrics available from the All Metrics page. Navigate to the All Metrics page by selecting Target menu > Monitoring > All Metrics.

For each type of metric below, the details listed for each record are shown.

Active Concurrent Requests by Application

- Application Short Name
- Application Name
- Non-Repeating Pending Requests (Normal and Standby)
- Repeating Pending Requests (Normal and Standby)
- Non-Repeating Running Requests
- Repeating Running Requests

Applications by Errored Executions

- Application Short Name
- Application Name

- Total Executions
- Errored Executions
- Errored Executions (%)

Applications by Executions

- Application Short Name
- Application Name
- Total Executions
- Successful Executions (%)
- Errored Executions (%)

Applications by Pending Requests

- Application Short Name
- Application Name
- Number of Pending Requests

Applications by Running Requests

- Application Short Name
- Application Name
- Number of Running Requests

Programs by Average Running Time

- Concurrent Program Name
- User Concurrent Program Name
- Total Executions
- Average Running Time
- Maximum Running Time

Programs by Errored Executions

- Concurrent Program Name
- User Concurrent Program Name
- Total Executions
- Total Executions (Errored)
- Executions Errored (%)

Programs by Executions

- Concurrent Program Name
- User Concurrent Program Name
- Total Executions
- Successful Executions (%)
- Errored Executions (%)

Programs by Total Running Time

- Concurrent Program Name
- User Concurrent Program Name
- Total Executions
- Total Running Time
- Successful Executions (%)

Top Pending Requests

- Request ID
- Program Name
- Program Short Name
- Request Start Date

- Pending Time
- User Name
- Manager Name
- Phase
- Status

Top Running Requests

- Request ID
- Program Name
- Program Short Name
- Request Start Date
- Running Time
- User Name
- Manager Name
- Phase
- Status

Top Scheduled Requests

- Request ID
- Program Name
- Program Short Name
- Request Start Date
- Scheduled to Run In (Minutes)
- User Name
- Manager Name
- Phase

- Status

Top Users (Requests Submitted)

- User Name
- Number of Requests

Users by Pending Requests

- User Name
- Number of Pending Requests

Users by Running Requests

- User Name
- Number of Running Requests

Setting Long Running and Long Pending Requests Parameters for Metrics and Incidents

Oracle Application Management Pack for Oracle E-Business Suite allows you to define parameters for long running and long pending requests. Follow the procedure below to do so.

1. From the Concurrent Processing Dashboard, add a custom concurrent program or concurrent manager target.
2. For the custom target, enter in values for these fields:
 - Long Pending Request Threshold in Minutes
 - Long Running Request Threshold in Minutes
 - Long Running Tolerance Percentage

The three parameters above are instance parameters for categorizing a request as long running or long pending.

A request will be considered long pending if it is pending for more than the "Long Pending Threshold in Minutes" value.

A request will be considered long running if it runs for more than the "Long Running Request Threshold in Minutes" value AND for longer than $(1 + 0.01 * [\text{Long Running Request Threshold in Minutes}])$

Running Tolerance Percentage]*[Average Running Time of the Concurrent Program]).

3. After you have set these parameters, you can go to the All Metrics page to see these categories listed. Navigate to the All Metrics page by navigating to the Target Menu, selecting Monitoring, then selecting All Metrics.

For Long Pending Requests, the following details are available through drilling down:

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Pending Time
- Concurrent Manager

For Long Running Requests, the following are available through drilling down:

- Request ID
- Concurrent Program Short Name
- Concurrent Program Name
- Request Start Date
- Username
- Phase
- Status
- Running Time
- Concurrent Manager

For Long Running and Long Pending Requests, you can drill down to get a count for each.

4. On the same All Metrics page, click on Metric and Policy Settings to edit the incident threshold for long pending and long running requests. Choose to view "All Metrics" from the View dropdown list and set the incidents count for Long Pending Requests and Long Running Requests.

Cloning an Oracle E-Business Suite System

Cloning an Oracle E-Business Suite System

One of the key features of the Oracle Application Management Pack for Oracle E-Business Suite is the ability to clone an Oracle E-Business Suite system automatically using the Smart Clone procedure.

The key highlights of the cloning process include:

- The Oracle Application Management Pack for Oracle E-Business Suite allows Oracle E-Business Suite systems to be cloned using the Cloud Control provisioning framework.
- Cloud Control automates the creation of clone systems and executes any required application-specific actions.
- Cloning of systems deployed on Oracle Real Application Clusters (RAC) is possible. For more information, see the My Oracle Support Knowledge Documents listed later in this section.

Smart Clone

Smart Clone allows you to use the database target cloned using external third-party solutions as an input to its deployment procedures. Smart Clone procedures would take this input to configure a database target and then clone the applications tier of the source instance and then apply that to the target Oracle E-Business Suite system.

Smart Clone supports the following scenarios for both Release 11*i* and Release 12:

- Configuring single instance databases
- Configuring RAC databases
 - Customizing the listener names is supported if you have the required Oracle

E-Business Suite patches applied.

- Listeners can also be configured with Scan IPs

For both Release 11*i* and Release 12:, the following applications tier cloning and configuration procedures are supported:

- Single Node to Single Node
- Multi-Node to Single Node (Scale Down)

In addition to the above features, the following scenarios are supported:

- As soon as Oracle E-Business Suite announces the certification on any database version with Oracle E-Business Suite, then the Oracle Application Management Pack for Oracle E-Business Suite (Release 12.1.0.1.0) customers should be able to use the Smart Clone deployment procedure immediately for Oracle E-Business Suite cloning.
- Any specific needs like data masking, data compression, and so on can be performed before running Smart Clone.
- Smart Clone supports cloning of systems with different OS users for the database tier and the applications tier

Terms

The following table lists some cloning terms used in this document.

Term	Meaning
Source	Oracle E-Business Suite system being cloned.
Target	Oracle E-Business Suite system being created as a copy of the source system.
Smart Clone	Smart Clone allows you to use a database target cloned using an external solution as an input to the AMP cloning procedures.

Additional Setup Steps

- Cloning using Oracle Application Management Pack for Oracle E-Business suite requires Perl 5.005 or higher on the Oracle Enterprise Manager agent. The user who starts the agent processes must set the PERL5LIB environment variable pointing to

Perl 5.005 (or higher) libraries. Also, the Perl executable 5.005 must be used.

- While upgrading the database from 9i to 10g (or 11g) with an Oracle E-Business Suite Release 11i instance, you need to ensure that the source instance perl.exe is pointed to the database 10g (11g) ORACLE_HOME of the Oracle E-Business Suite.
- All the virtual internet protocol (VIP) addresses configured in the Oracle Cluster Ready Services (CRS) of the target nodes identified for the created RAC instance must be up and running.
- With Release 11i, for a clone job from Single Node - Single User to Single Node - Multiple User, ensure that you have write permissions for user IDs to the target base directory. Give 770 permissions to the directories from/to the target base directory with the following command:

```
$ chmod -R 770 <target base directory>
```
- If for a cloning process the target is multi-node and the database node domain and the applications node domain are different, perform the following step:
 1. Include the target database node server name in the /etc/hosts file of the target applications node so that the applications node will be able to resolve the database node without the domain name. The modification should be like the following (this entry is for Linux x86; change as appropriate for your platform):

```
<ip-address> <Machine name with domain name> <Machine Name>
```

For example:

```
140.87.205.217 adc60002demo.us.oracle.com adc60002demo
```
 2. For Release 12 only: In addition to the above entry in the /etc/hosts file, the applications node context file needs to be changed.

Change the s_dbdomain entry in the
<STAGE_LOC>/appsTier/context/apps/<SID>_<SERVER_NAME>.xml file to the correct domain name of the database tier.

For example, if the database node domain name is idc.oracle.com, and the applications node domain name is us.oracle.com, then the context file

```
/d1/QA/stage/PMS29/080522035852/PMS29_adc60010demo.xml
```


should be changed to

```
<domain oa_var="s_dbdomain">idc.oracle.com</domain>
```
- The OS utilities **make**, **ld**, **cc**, and **ar** must be in the environment PATH variable in all the host targets. If not, please update the PATH variable accordingly and restart the agent in the same terminal.

Cloning with RAC Instances

With Smart Clone, if the target Oracle E-Business Suite instance database is of type "RAC" and if you want to configure Parallel Concurrent Processing after the clone is completed, then it is recommended that you follow instructions described in the following My Oracle Support Knowledge Documents, depending on your RDBMS version:

- Document 312731.1, "Configuring Oracle Applications Release 11*i* with 10g RAC and 10g ASM"
- Document 757980.1, "Using Oracle 11g Release 1 Real Application Clusters and Automatic Storage Management with Oracle E-Business Suite Release 11*i* (11.1.0.6)"
- Document 455398.1, "Using Oracle Real Application Clusters and Automatic Storage Management with Oracle E-Business Suite Release 11*i* and Oracle Database 11g"
- Document 783188.1, "Certified RAC Scenarios for E-Business Suite Cloning" for more information on cloning of systems deployed on Oracle Real Application Clusters (RAC) is possible.
- Document 559518.1, "Cloning Oracle E-Business Suite Release 12 RAC-Enabled Systems with Rapid Clone" for information on cloning a Release 12 system on a RAC database

Preferences

The following properties are set in the Preferences page. Navigate to the Preferences page by navigating to Targets, then selecting Oracle E-Business Suite, then **Preferences**.

- Number of parallel threads/processes that will be used while zipping, transferring and unzipping the files under APPL_TOP directory of Apps Tier.
 - Minimum value: 1
 - Maximum value: 16
 - If the value is empty OR less than 1 OR greater than 16, then the default value of 8 is used.
- Number of parallel threads/processes that will be used while zipping, transferring and unzipping the files under Tools Oracle Home directory of Apps Tier.
 - Minimum value: 1
 - Maximum value: 8

- If the value is empty OR less than 1 OR greater than 8, then the default value of 4 is used.
- Number of parallel threads/processes that will be used while zipping, transferring and unzipping the files under Tools Oracle Home directory of Apps Tier.
 - Minimum value: 1
 - Maximum value: 4
 - If the value is empty OR less than 1 OR greater than 4, then the default value of 2 is used.
- Number of parallel threads/processes that will be used while zipping, transferring and unzipping the files under COMMON_TOP directory of Apps Tier.
 - Minimum value: 1
 - Maximum value: 4
 - If the value is empty OR less than 1 OR greater than 16, then the default value of 2 is used.

Diagnostic Tests for Cloning

You should run diagnostic tests on your system in preparation for the cloning procedures to ensure your system is set up properly. These tests can be accessed from the Diagnostics dashboard, available from the Pack Diagnostics link on the Oracle Applications page. For more information on running diagnostic tests, see: Running Pack Diagnostics Tests, page 6-3.

The following tables list tests related to cloning.

Generic Diagnostics Tests for Cloning

Step	Severity	Test	Description	Notes/Expected Results/Corrective Measures
EBS	Warning	Check if EBS has Shared File System	Check if the Oracle E-Business Suite is a multi-node applications tier with a shared file system configured.	Expected results: Yes/No. This is an informational message. If the shared file system is enabled and the result is No, please check 's_atname' to find out if all the nodes are consistent. Name of Command: CheckIfSFS
EBS	Critical	Check if AutoConfig is run on Database Tier	Verify if AutoConfig has been run on the database tier.	For cloning to work, it is mandatory that AutoConfig was successfully run on the source database tier. Name of Command: CheckIfAutoConfigIsRun
EBS	Critical	Check If AutoConfig Is Run on Applications Tier	Verify if AutoConfig has been run on the applications tier.	For Cloning to work, it is mandatory that AutoConfig was successfully run on the source applications tier. Name of Command: CheckIfAutoConfigIsRun

Step	Severity	Test	Description	Notes/Expected Results/Corrective Measures
EBS	Warning	Get the Database Tier Operating System User Name	Get the O/S User Name for the database tier.	<p>It is useful to know with which operating system user name the source database nodes have been created, as there could be file permissions issues in cloning.</p> <p>Corrective action: AutoConfig needs to be run in the Database Context to get t this value populated in the configuration. The configuration variable 's_dbuser' stores this information.</p> <p>Name of Command: GetDBOSUserInfo</p>
EBS	Warning	Get Agent Perl Version	Verify Agent Perl utility version.	<p>AMP Cloning requires the agent Perl utilities to be at a certain version level for certain cloning flows to function properly. Please make sure that the Perl version inside the Agent is compatible with that in the Oracle E-Business Suite instance (see the related diagnostic test for the Oracle E-Business Suite Perl Version)</p> <p>Name of Command: GetAgentPerlVersion</p>

Step	Severity	Test	Description	Notes/Expected Results/Corrective Measures
EBS	Warning	Get key environment variables for Database Context	Obtain key environment variables for Database Context, including: PATH LD_LIBRARY_PATH LIBPATH SHLIB_PATH ORACLE_HOME ORACLE_SID PERL5LIB TNS_ADMIN	Certain database context variables of the source Oracle E-Business Suite instance need to be definitively set with non-null values for the cloning job to proceed successfully. If this diagnostic test fails, run AutoConfig on the database tier so that the correct environment file is generated again. The values in the environment file are used in this command. Name of Command: GetEnvironmentVariableValues
EBS	Warning	Get the APPS tier Operating System User Name	Get the O/S User Name for the applications tier.	If this diagnostic test fails, rerun AutoConfig on the applications tier. AutoConfig should populate the 's_appuser' variable in the applications tier context file correctly. Name of Command: GetAppsOSUserInfo

Step	Severity	Test	Description	Notes/Expected Results/Corrective Measures
EBS	Warning	Get key information required for Apps Context Configvariables	Obtain key environment variables for the applications context, including: s_base s_dbuser s_dbgroup s_appsuser s_appsgroup s_dbport s_port_pool s_config_home s_atName s_hostname	Certain applications context variables of the source Oracle E-Business Suite instance need to be definitively set with non-null values for the clone job to proceed successfully. If this diagnostic test fails, run AutoConfig on the applications tier so that the correct environment file is generated again. The values in the environment file are used in this command. Name of Command: GetAPPSCfgVariables
EBS	Critical	CheckIOPatches for <Oracle E-Business Suite Release Name>	Verify that certain patches have been applied on the Oracle E-Business Suite target.	Certain I/O patches need to be definitively run on the Oracle E-Business Suite instance for some of the clone flows to work successfully. Note that this step may change – depending on the Oracle E-Business Suite release (for example, 11i, 12.0, and so on). The list of patches is contained in an XML file that might be modified to include or exclude recommended patches. Name of Command: CheckEBSPatches

Step	Severity	Test	Description	Notes/Expected Results/Corrective Measures
EBS	Critical	Get EBS Perl Version	Check Oracle E-Business Suite Perl utility version.	<p>AMP Cloning requires Oracle E-Business Suite Perl utilities to be at a certain version level for certain cloning flows to function properly. Please make sure that the Perl version on the Oracle E-Business Suite instance is compatible with that in the Agent (see related diagnostic test for the Agent Perl Version).</p> <p>Name of Command: CheckEBSPerlVersion</p>
EBS	Critical	Check if AutoConfig is run on Applications Tier	Verify if AutoConfig has been run on the applications tier.	<p>It is mandatory that AutoConfig completed successfully on the source applications tier for cloning to work.</p> <p>Name of Command: CheckIfAutoConfigIsRun</p>
EBS	Warning	Get information for key Database Context Config variable	<p>Obtain key database context variables that are required for non-"Smart Clone" cloning procedures, including:</p> <pre>s_base s_dbuser s_dbgroup s_appsuser s_appsgroup s_dbport s_port_pool s_hostname</pre>	<p>Certain database context variables of the source Oracle E-Business Suite instance need to be set with non-null values for the clone jobs to finish successfully. If this diagnostic test fails, rerun AutoConfig on the database tier.</p> <p>Name of Command: GetDBConfigVariables</p>

Step	Severity	Test	Description	Notes/Expected Results/Corrective Measures
EBS	Warning	Get key environment variables for Application Context	Obtain key environment variables for the applications context, including: PATH LD_LIBRARY_PATH LIBPATH SHLIB_PATH ORACLE_HOME ORACLE_SID PERL5LIB TNS_ADMIN	If this diagnostic test fails, rerun AutoConfig on the applications tier. Name of Command: GetEnvironmentVariableValues
EBS	Warning	Checks if Oracle E-Business Suite AD Snapshot is valid	Verify if the Oracle E-Business Suite AD snapshot is valid.	In order to perform a "scale-down clone" process (that is, a multi-node source applications tier instance which has non-shared APPL_TOPs to a unified APPL_TOP in the target), AMP needs to ensure that the snapshots for the source APPL_TOPs have been updated properly. Make sure the Maintain "Update Current View Snapshots" option in <code>adadmin</code> is run at least once after the Oracle E-Business Suite creation. Name of Command: CheckIfADSnapshotIsValid
EBS		Summary:	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	

User-Specific Tests for Cloning

Step	Severity	Test	Description	Notes/Expected Results/Corrective Measures
EBS	Warning	Check Host Credential for Smart Clone flows	Check if the EM User has required preferred credential set for "Operating System Username" and "Operating System Password" in "Oracle E-Business Suite Infrastructure" target type for the applications context for Smart Clone flows.	If this diagnostic test fails, set the applications context operating system credentials in the "Oracle E-Business Suite Infrastructure" target type in the preferred credential store. Name of Command: CheckAppsContextCredentialExistence
EBS		Check Database schema credentials for Smart clone flows	Check if the EM User has the required preferred credential set for the APPS schema users in "Oracle E-Business Suite" target type for Smart Clone flows.	The database APPS schema credentials must be entered manually with Smart Clone flows.
EBS		Summary	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	

Running a Smart Clone Procedure

This section describes running a Smart Clone procedure. Smart Clone procedures can be used for both for Release 11*i* and Release 12.

At a high level, a Smart Clone procedure performs the following

1. Configures the target database
2. Clones and configures the applications tier from the source Oracle E-Business Suite system.

Steps 1 and 2 result in creating a target Oracle E-Business Suite system which is ready to use.

The following are prerequisites to running a Smart Clone procedure:

1. The target database must have already been cloned from the source Oracle E-Business Suite database.

To do this, you can:

- Use the Enterprise Manager 12c Database Plug-in to perform the required database cloning procedures OR
- Use any other technology which suits your database cloning needs.

Once the Target Database is cloned, discover it in Enterprise Manager 12c.

2. The Enterprise Manager user running the Smart Clone procedure must have the appropriate privileges.

The following privilege setup instructions can be ignored if the user is a "Super Administrator".

In order to execute the Smart Clone deployment procedure, a non-Super Administrator user must have certain target-level privileges and the resource privileges.

The privileges listed below could be granted in many ways depending on the desired level of granularity of privileges to be granted to the user. For more details on granting privileges, please refer to the section "Configuring Security" in the manual *Oracle Enterprise Manager Cloud Control Administrator's Guide 12c Release 1*.

The following outlines one of the ways of granting the required privileges for executing the Smart clone procedure.

Target Privileges

- Add any Target
 - Privileges applicable to all targets
 - Name: Add any Target (Description: Add any target in Enterprise Manager)
- Operator any Target
 - Privileges applicable to all targets
 - Name: Operator any Target (Description - Ability to perform administrative operations on all managed targets)
 - Included Privileges - View any Target

- Applicable Target Types - All Target Types

Resource Privileges

1. Job System resource:
 - Name - Job System
 - Description - Job is a schedulable unit of work that administrator defines to automate the commonly run tasks
 - Resource Type Privilege - Create
2. Deployment Procedure:
 - Name - Deployment Procedure
 - Description - Deployment procedures are customizable orchestration routines for various Provisioning and Patching tasks
 - Resource Type Privilege - Create
3. The following Named Credentials must be defined:
 - Host target type
 - Authentication Target Type: "Host"
 - Credential Type: "Host Credentials"
 - Oracle E-Business Suite target type

Please refer to the section Creating Named Credentials for Oracle E-Business Suite, page 4-1 for instructions on creating the Oracle E-Business Suite Database Credentials.

To run a Smart Clone procedure:

1. Navigate to the Cloning home page by selecting Targets menu > Oracle E-Business Suite. From the Oracle E-Business Suite launch page, select Cloning under Related Links.
2. Enter general information for the cloning process. This step captures information related to the target database already cloned and discovered in Enterprise Manager.
Provide a transaction name for the Clone Name.
Pick the Source Oracle E-Business Suite you would like to Clone from the LOV.

Select the Target Database which is cloned from the Source Oracle E-Business Suite's Database.

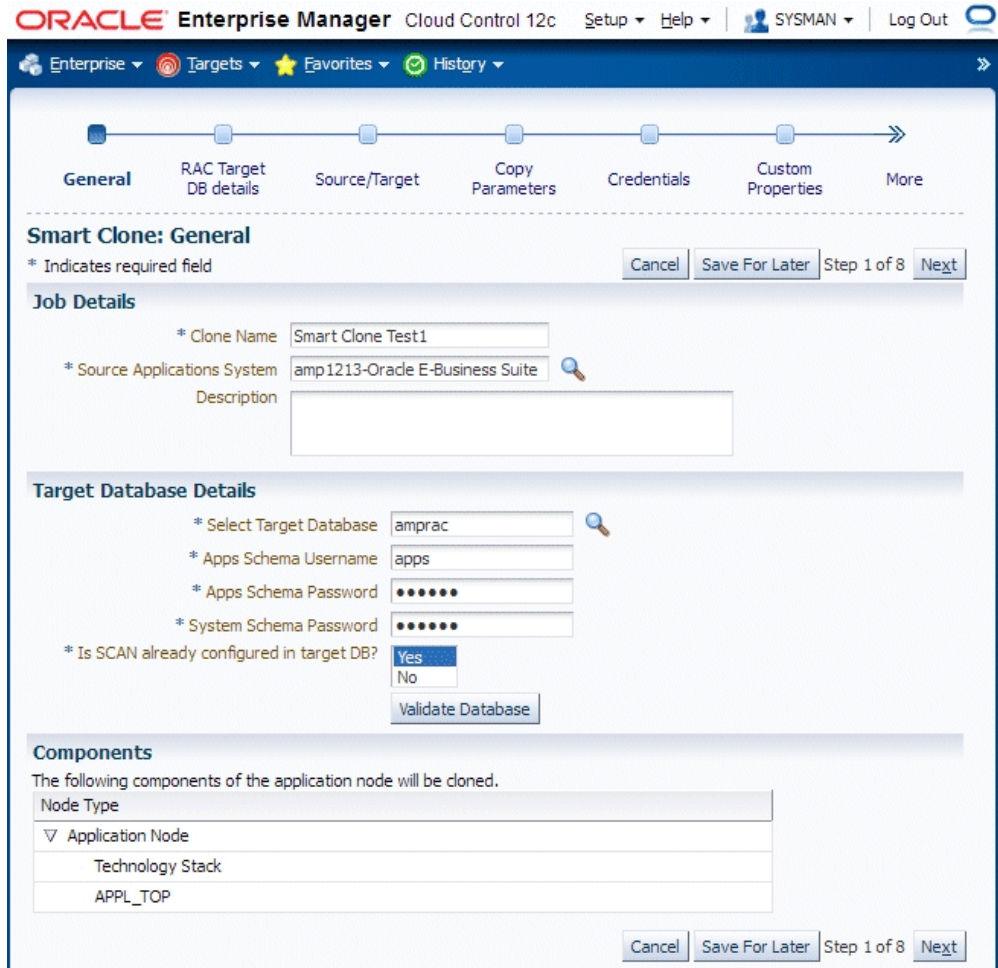
Based on the type of Database (like Single Instance Database or RAC Database) rendering of this section will dynamically change. Currently following page snapshot shows the rendering of the section if it is a Single Instance Database.

Provide the required details as shown in the Page Snapshot.

You can click on **Validate Database** button or you can leave it to the **Next** button to perform the same action.

The screenshot shows the 'Smart Clone: General' configuration page in Oracle Enterprise Manager. The page is titled 'Smart Clone: General' and is part of a multi-step process (Step 1 of 8). The 'Job Details' section includes fields for 'Clone Name' (Smart Clone: Non-RAC 11i Apps), 'Source Applications System' (multi11-Oracle E-Business Suite), and a 'Description' field. The 'Target Database Details' section includes fields for 'Select Target Database' (tgt11i), 'Apps Schema Username' (apps), 'Apps Schema Password', 'System Schema Password', and 'TNS admin directory' (/d1/cmora/11i/tgt11i/tgt11idb/10.2.0.3/network/admin/tgt11i_rws3210136). A 'Validate Database' button is present below the TNS admin directory field. The 'Components' section lists the components to be cloned: Application Node, Technology Stack, and APPL_TOP.

If the target database is a RAC database, the Target Database Details is rendered differently, as shown in the following figure.



3. Enter RAC Target database details, if applicable.

This step only applies if the target database is a RAC database. This step is skipped if the target database is of type Single Instance.

If the Source Oracle E-Business Suite technology stack has the required patches applied for configuring customized names for listeners, then this page would automatically render in such a way that you provide your own name for the target database listeners by providing the required name for the field "New Listener Name".

If the source Oracle E-Business Suite technology stack does not have the required patches, then Smart Clone will give default name to the listeners using the naming convention "LISTENER_<hostname>".

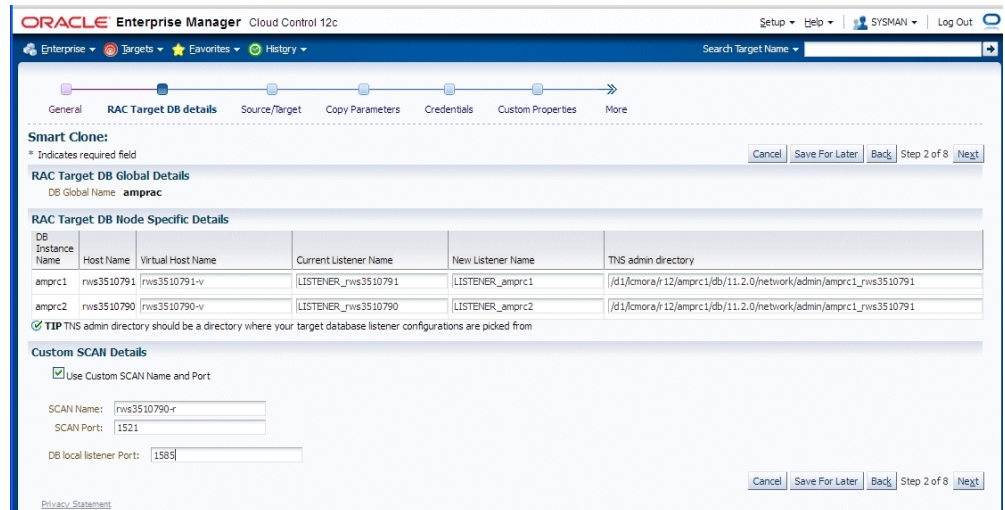
If the Source Oracle E-Business Suite technology stack has the required patches applied for configuring the target database with "Scan Listeners", then the "Custom Scan Details" section is rendered with the "Scan Name" and "Scan Port" fields populated automatically. It is highly recommended not to change these values if it

automatically populated. If for some reason the Scan Name and Scan Port fields are not populated (for example, if the cluster target instance discovered in Enterprise Manager has not populated these values yet as properties), then be sure to type in the correct values for these fields.

Optionally, check the box "Use Custom Scan Name and Port" if you want to get the target database configured with the scan listener. If you do not check the box "Use Custom Scan Name and Port" then Smart Clone will clone the target database with virtual host names.

If the Source Oracle E-Business Suite technology stack does not have the required patches then the "Custom Scan Details" section will not be rendered and the target database will be configured with virtual host names.

If the target instance is already configured with scan listeners then by default the "Use custom scan name and port" box will be checked.

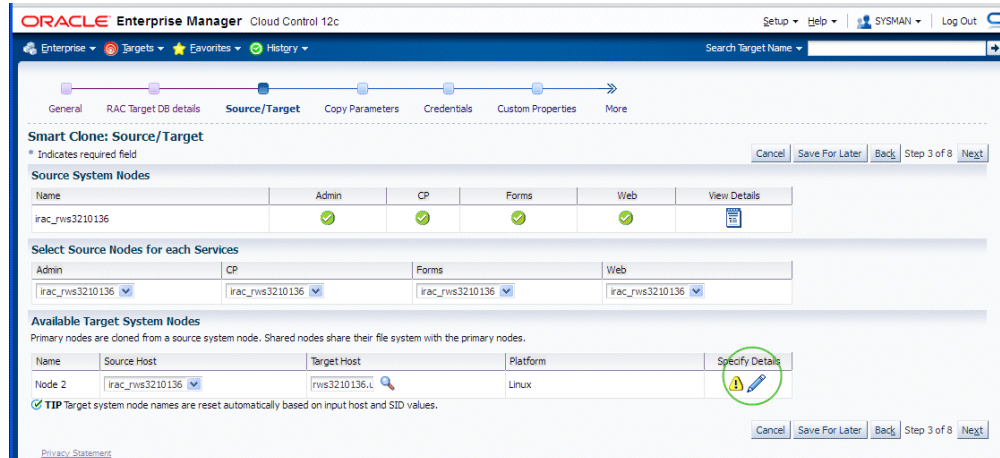


4. Enter source and target information.

In this step, Smart Clone captures information related to the source and target.

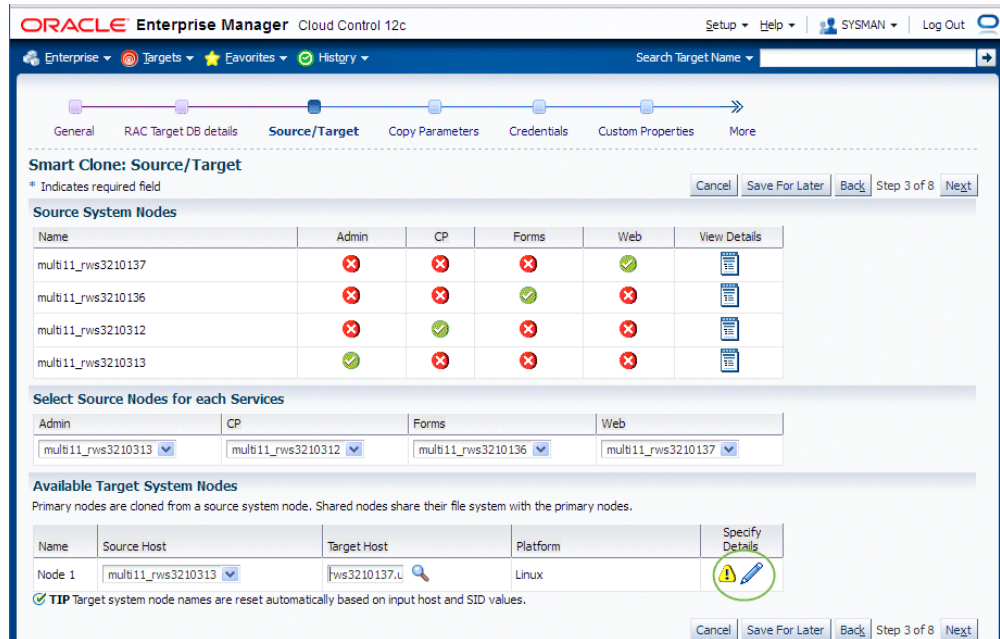
- All application tier information of the source Oracle E-Business Suite system is displayed.
- You enter details for the target Oracle E-Business Suite system.

For the case in which the source Oracle E-Business Suite system is deployed on a single applications tier, the Source/Target page is displayed as in the figure below.



In the Available Target System Nodes region, choose the source host that can be used as a reference while cloning the target applications tier. Specify the target host from the LOV where Smart Clone should create the target applications tier.

For the case in which the source Oracle E-Business Suite system is deployed on a multi-node applications tier, the Source/Target page is displayed as in the figure below.



The "Source System Nodes" region shows the details of the source Oracle E-Business Suite applications tier in terms of

- Number of nodes the applications tier is deployed on

- Details of the services on the nodes.

For the "Select Source Nodes for each service" region, In the case of a Release 11*i* multi-node applications tier system, you will need to choose the nodes for the services which are to be used as references for creating the Release 11*i* single node applications tiers.

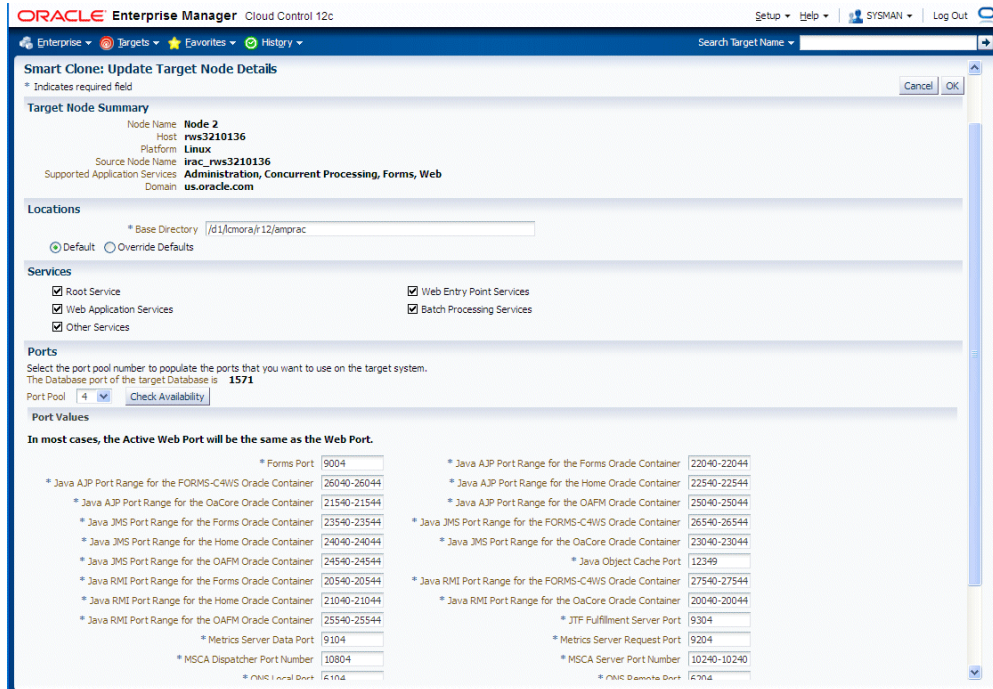
For Release 12, selecting the service in this section is unnecessary because the reference source host will be picked only from the "Available Target System Nodes" section.

In the Available Target System Nodes region, choose the source host that can be used as a reference while cloning the target applications tier. Specify the target host from the LOV where Smart Clone should create the target applications tier.

Note: Currently Smart Clone supports scaling down to a single-node applications tier only.

For the target system node, click the Specify Details icon to update its properties.

5. The Target Node Summary page, navigable from the Specify Details icon is show in the following figure.

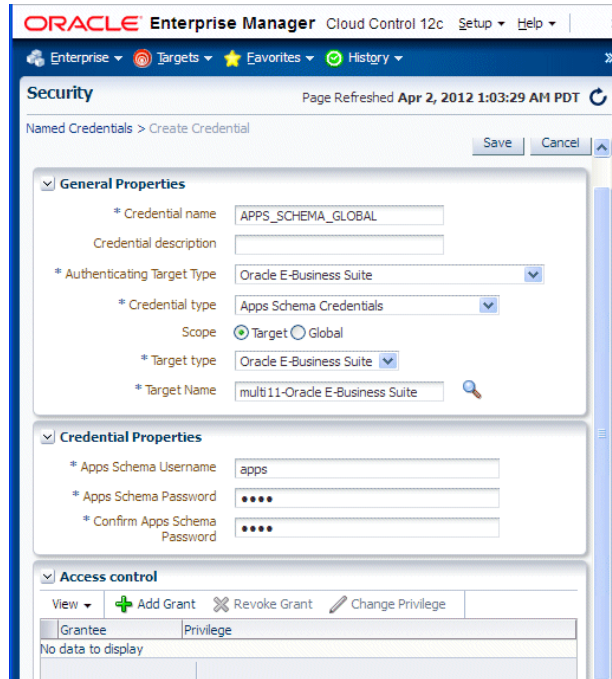


The port pool and individual port values are updated from the source instance.

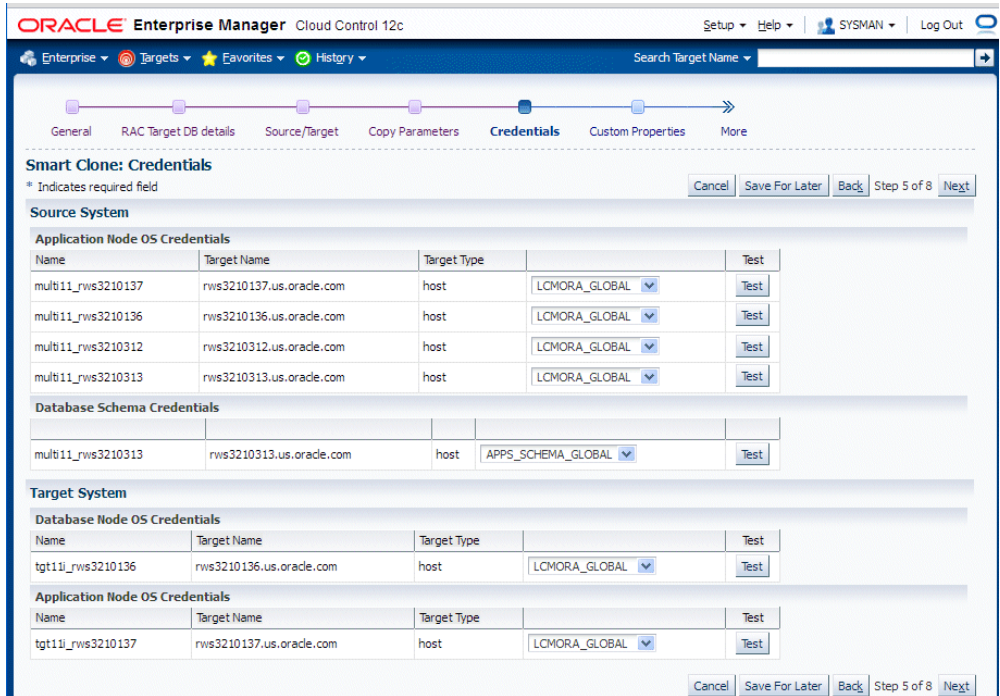
If there is an invalid value in the port pool from the source instance: following error will be shown: "NOTE: Source Apps portpool context variable (s_port_pool) is invalid: <value>. Setting to default value '0'. Please update as needed!"

6. The next step is to Copy Parameters.

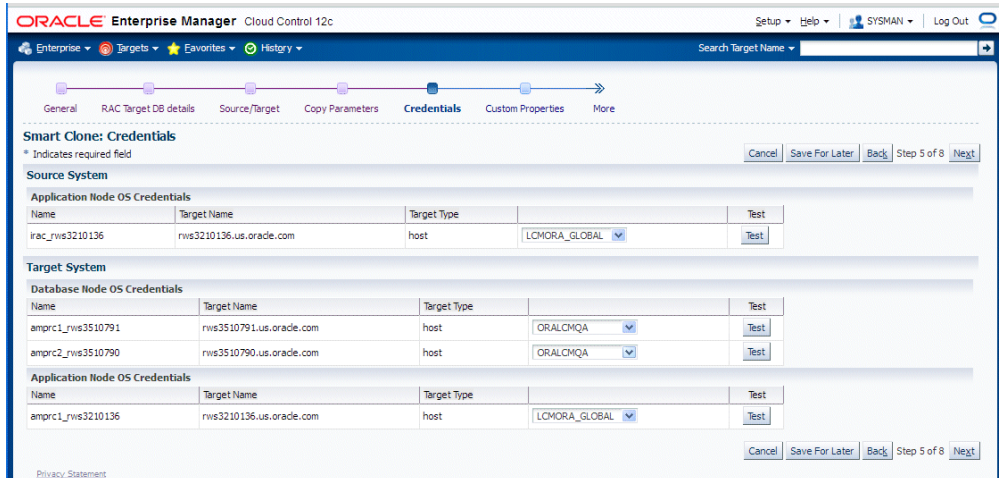
Note: Database Schema credentials appear only when the source applications system is on Release 11i and using a non-shared file system.



The Credentials page for a Smart Clone procedure where the source applications system is multi-node and the target database is non-RAC allows you to enter in and test all required credentials.



The Credentials page for a Smart Clone procedure where the source applications system is single node and the target database is RAC allows you to enter in the required credentials.

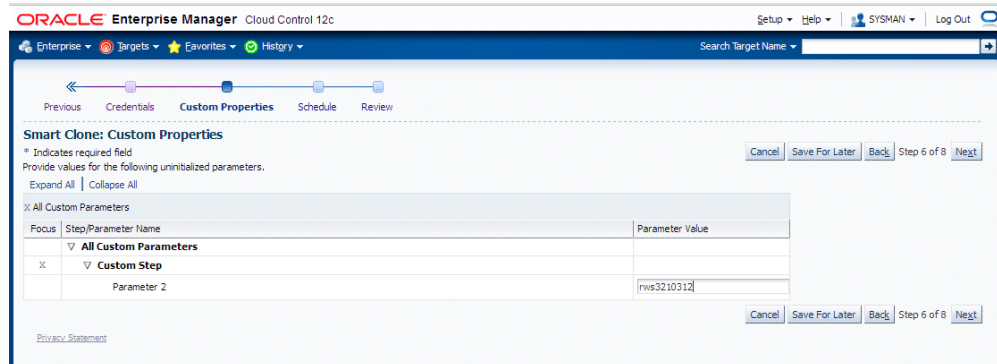


8. Enter values for custom parameters.

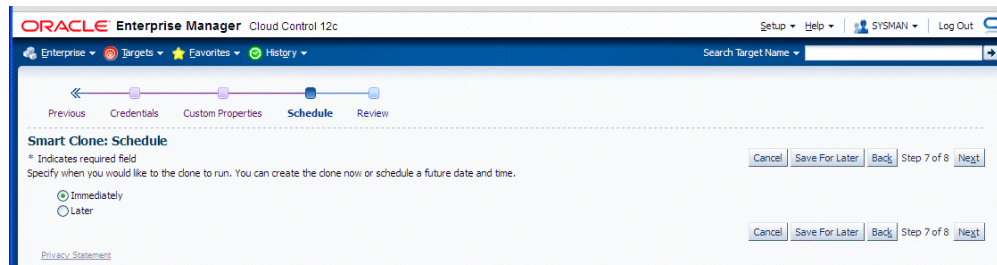
You can create directive steps to be integrated into a deployment procedure. For more information, see the *Oracle Enterprise Manager Cloud Control Administrator's Guide*.

For a description on how to create a directive step and insert it into a procedure

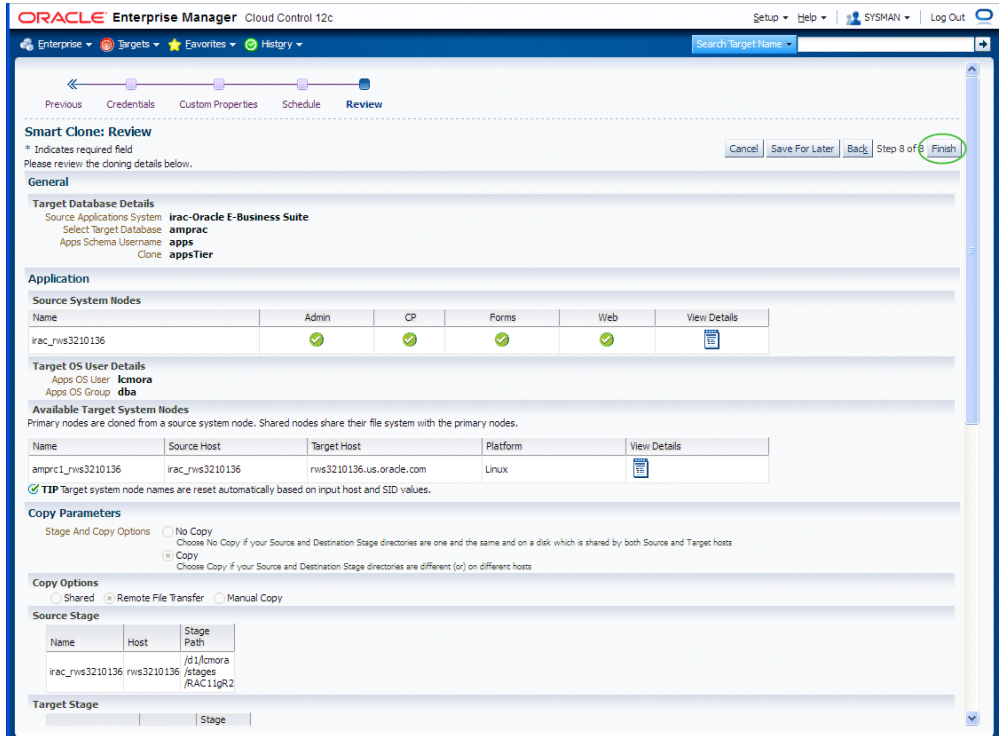
created using the "Create Like" feature and a shipped Smart Clone procedure, see: Adding Custom Steps to a Smart Clone Deployment Procedure, page 8-25.



9. Schedule the deployment.



10. Review your Smart Clone deployment procedure and click **Finish**.

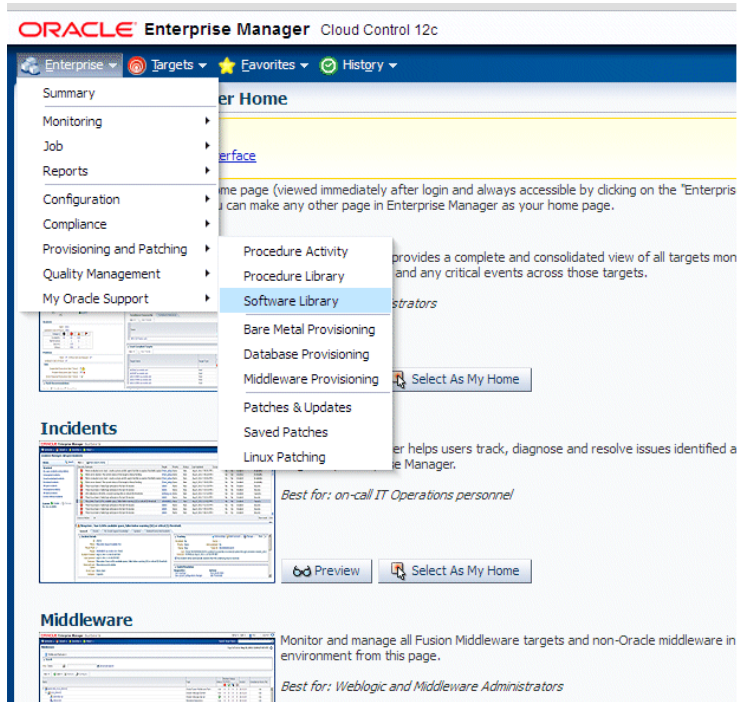


Adding Custom Steps to a Smart Clone Deployment Procedure

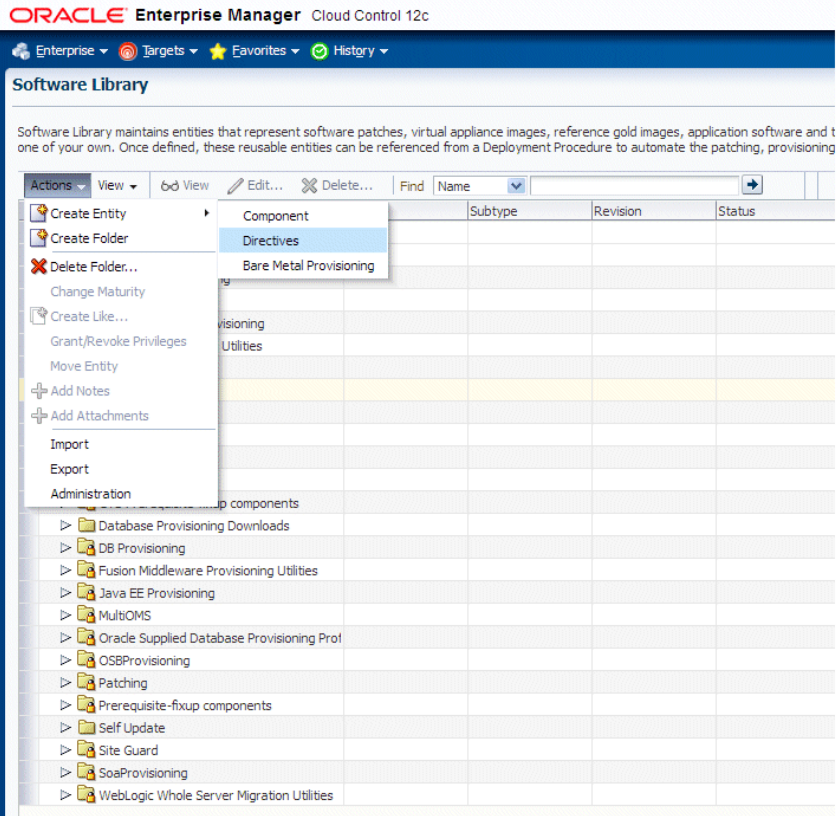
This section describes creating custom steps and adding them to a Smart Clone deployment procedure. For more information generic information on how to create a Directive step and add it to a copy of an out-of-the-box Deployment procedure, refer to the *Oracle Enterprise Manager Cloud Control Administrator's Guide*.

Create a directive step:

1. From the Enterprise menu, select Provisioning and Patching, then select Software Library.



2. Create a new directive. From the Actions menu, select Create Entity, then select Directives.



3. Specify a name and other attributes for the directive.

ORACLE Enterprise Manager Cloud Control 12c Help

Software Library

Describe **Configure** Select Files Review

Create Directives : Describe Back Step 1 of 4 Next Save Cancel

Parent Directory Directives

Specify name, description and other attributes that describe the entity. These attributes are shared by all revisions of this entity. Additionally, attach any documents and keep notes.

* Name

Description

Other Attributes

Name	Value
PRODUCT_VERSION	<input type="text"/>
PRODUCT	<input type="text"/>
VENDOR	<input type="text"/>

Attachments

Add Remove

File Name	Size(KB)	Mime Type
No attachment has been added yet.		

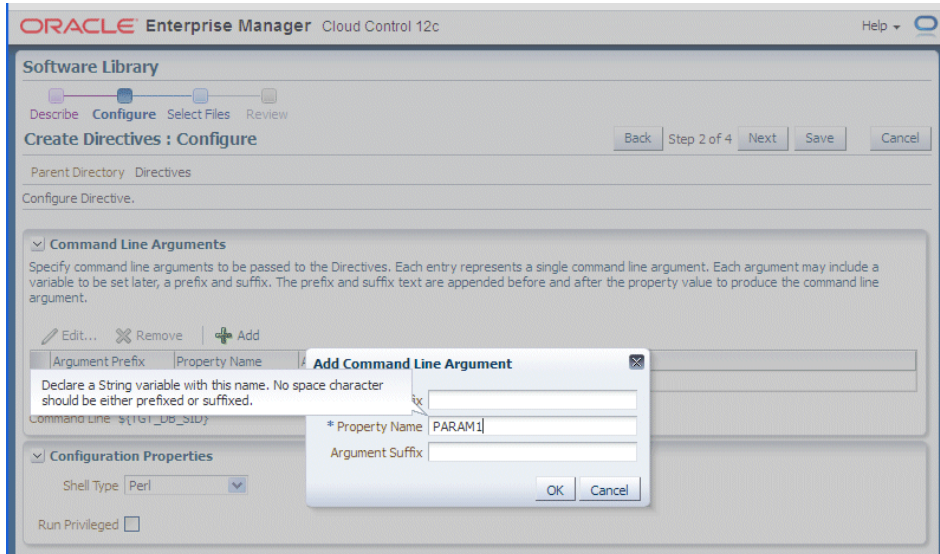
Notes

New Note Add

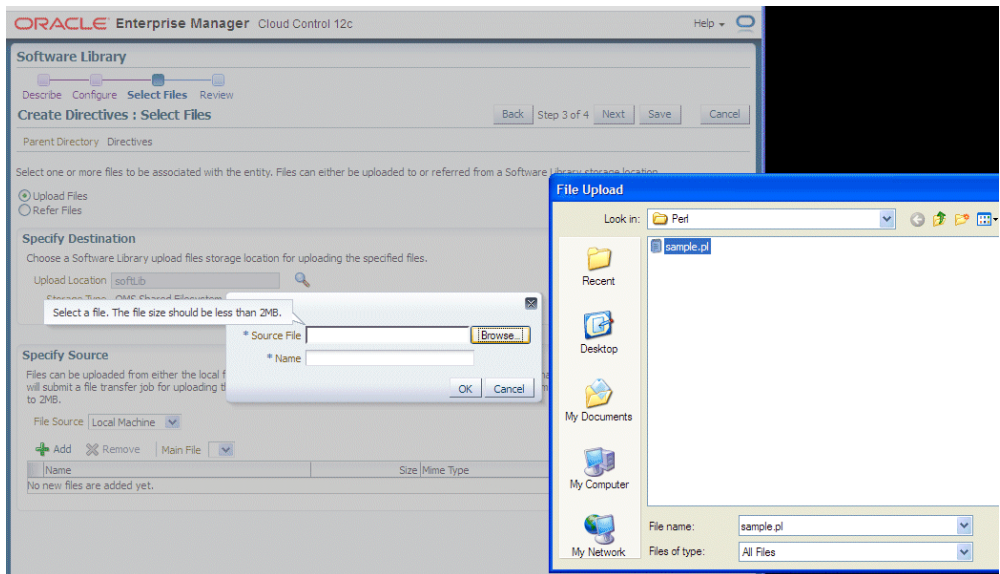
Note	Added By	Date
No note has been added yet.		

TIP Notes once added cannot be deleted or edited.

4. Add parameters for the directive.



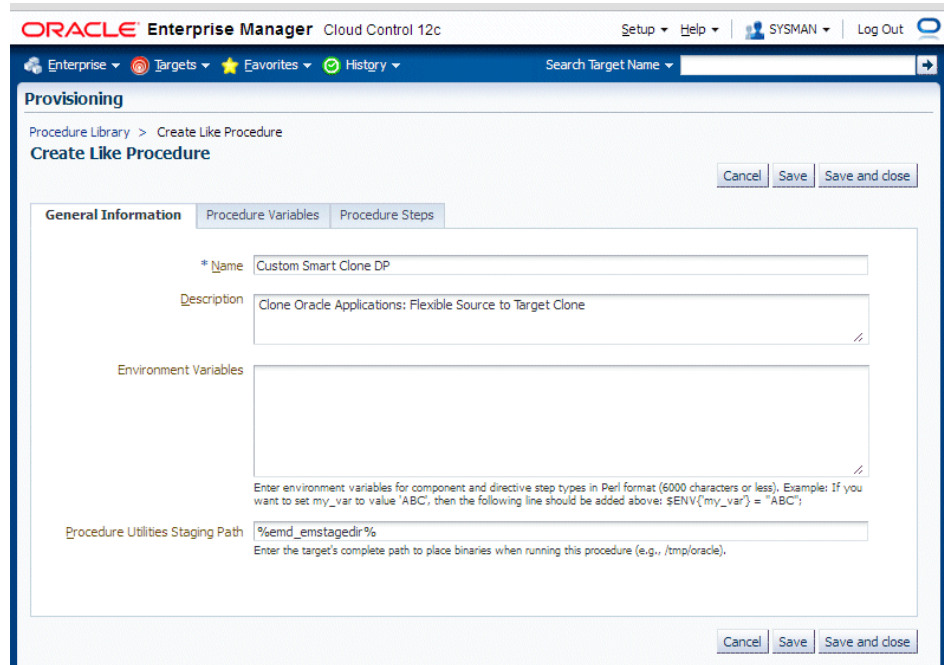
5. Select the "Software Library" location and the script to be executed. In the example below, a Perl script is used.



6. Click **Next** and **Save and Upload**.

Create a copy of the out-of-box Smart Clone deployment procedure:

1. From the Enterprise menu, select Provisioning and Patching, then select Procedure Library.



4. On the Procedure Steps tab, select the step before, inside, or after which you want to add the custom step, and click **Insert**.

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Provisioning Procedure Library > Create Like Procedure

Create Like Procedure Cancel Save Save and close

General Information Procedure Variables Procedure Steps

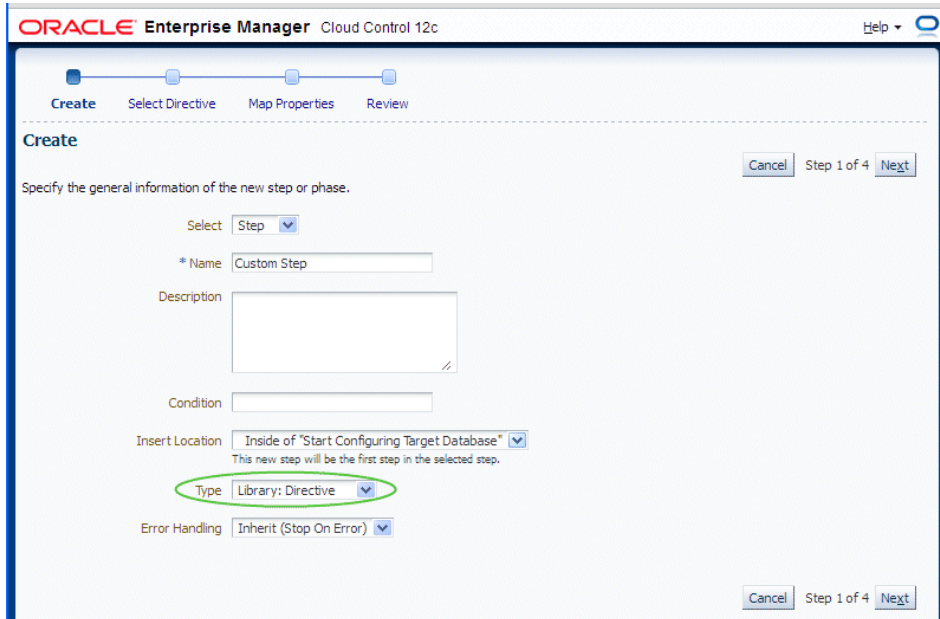
Enable Disable Delete **Insert** Edit Step

Select All Select None Expand All Collapse All

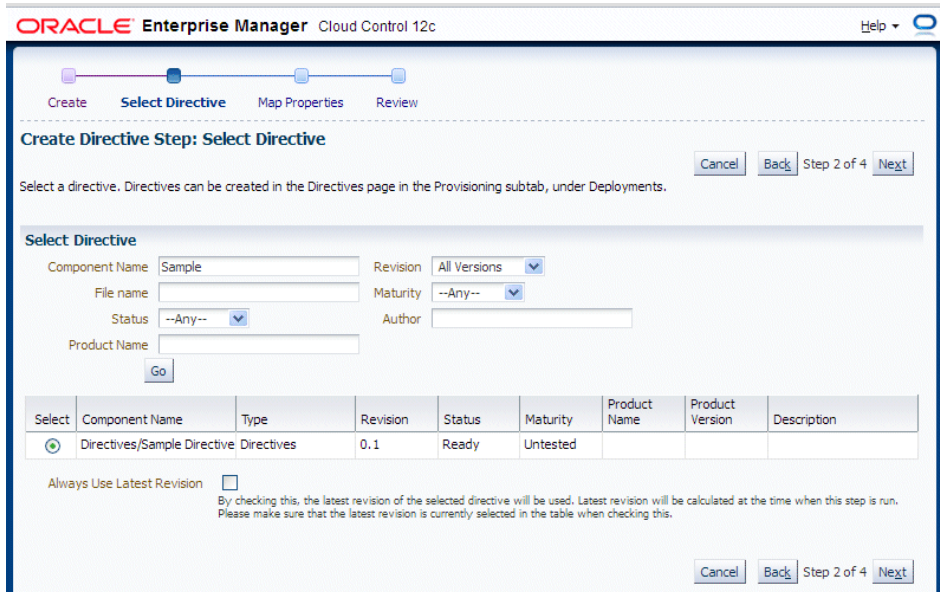
Select	Name	Type	Description	Error Handling Mode	Credentials Used
<input type="checkbox"/>	▼ Custom Smart Clone DP		Clone Oracle Applications: Flexible Source to Target Clone	Stop On Error	
<input type="checkbox"/>	▼ Pre-Check validity of Target Database	Parallel		Inherit (Stop On Error)	
<input type="checkbox"/>	Checks the status in Enterprise Manager	Job	Checks the status of Target Database in Enterprise Manager	Inherit (Stop On Error)	os_creds
<input type="checkbox"/>	Checking the Connectivity to Target Database	Job	Checking the existence of tnsname.ora, listener.ora, connecting to Target Database using apps credentials with sid, Service Name and connecting as sysdba	Inherit (Stop On Error)	os_creds
<input type="checkbox"/>	Check and Reterive the Remote and Local listeners	Job	Check and Retrieve the Remote and Local listeners information	Inherit (Stop On Error)	os_creds
<input type="checkbox"/>	Instantiate new listener and tnsnames information	Job	Instantiate new listener.ora and tnsnames.ora file entries	Inherit (Stop On Error)	os_creds
<input type="checkbox"/>	Stop Target Database	Job	Stop Target Database	Inherit (Stop On Error)	os_creds
<input type="checkbox"/>	Stop Target Database Listener	Job	Stop Target Database Listener	Inherit (Stop On Error)	os_creds
<input checked="" type="checkbox"/>	▼ Start Configuring Target Database	Rolling		Inherit (Stop On Error)	
<input type="checkbox"/>	Start the Listeners	Job	Start the Listeners	Inherit (Stop On Error)	os_creds
<input type="checkbox"/>	Start the Target Database	Job	Start the Target Database	Inherit (Stop On Error)	os_creds
<input type="checkbox"/>	Check the Status of	Job	Check the status of the instantiated listeners	Inherit (Stop On Error)	os_creds

Waiting for rws3210143.us.oracle.com...

5. Give the new step a name and enter additional information for the step.

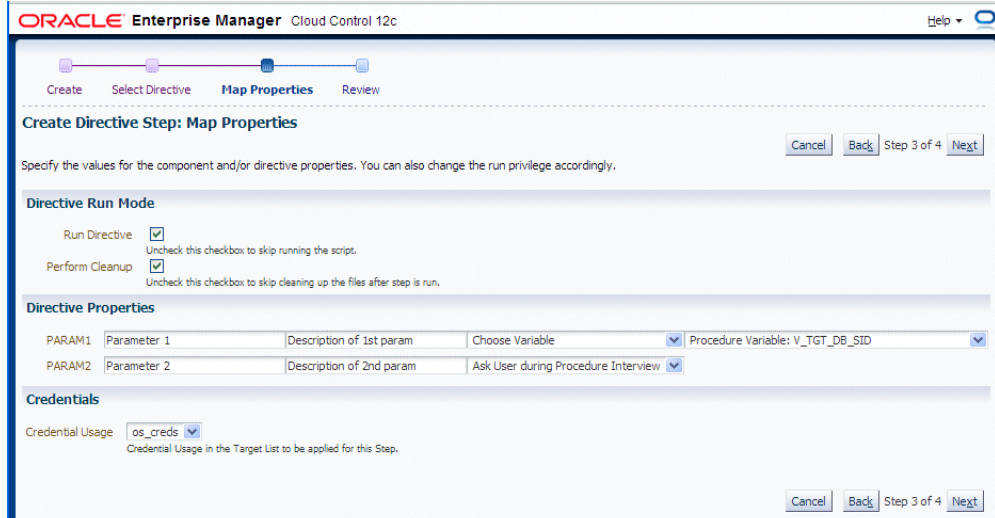


6. Search for the directive and click **Next**.

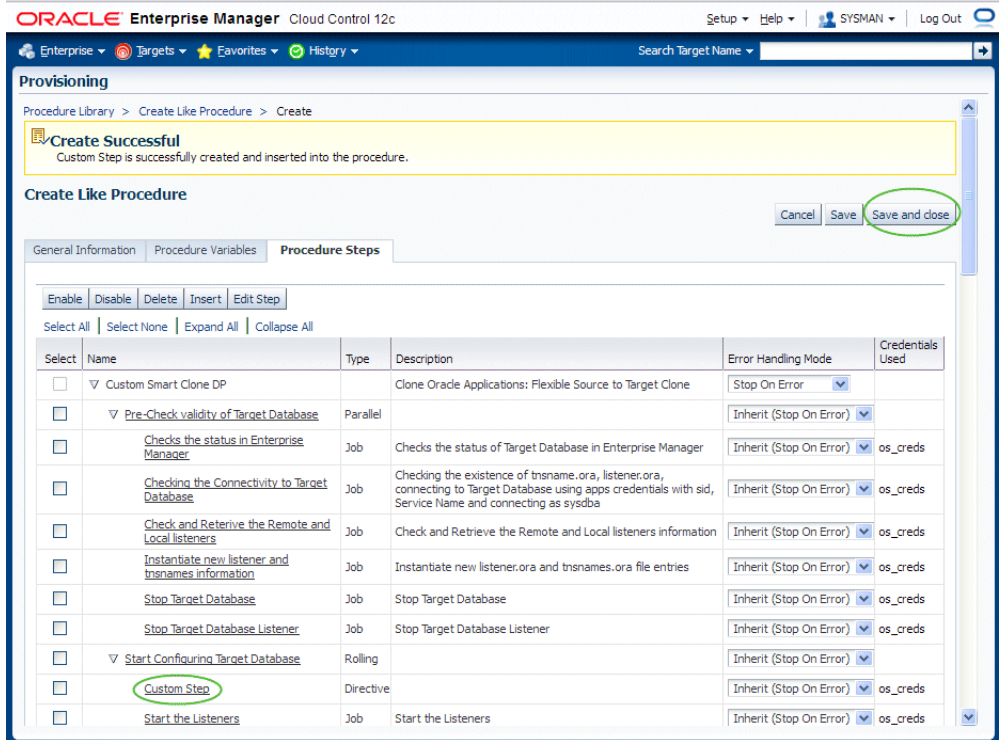


7. Map the parameters as required in the Map Properties step.

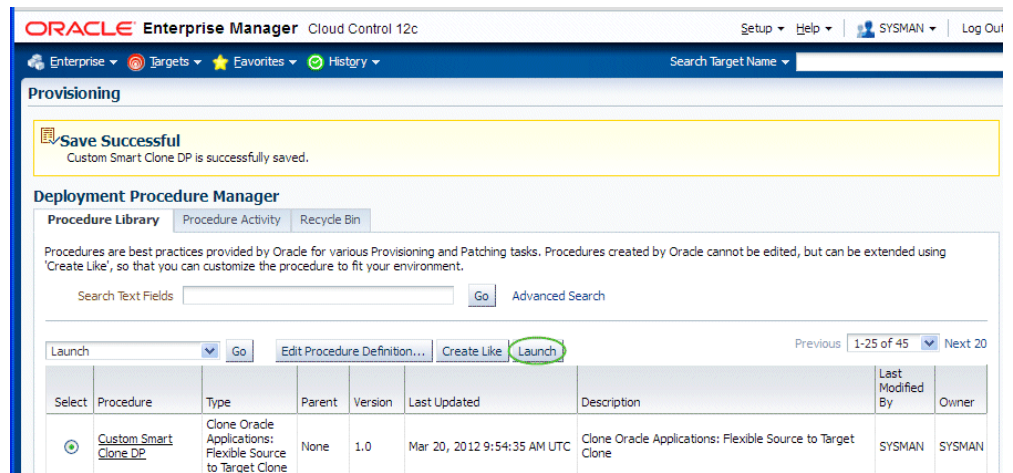
In our example, a text book will be provisioned in the Smart Clone procedure interview to provide the value for "Parameter 2".



8. Save the custom step and then save the procedure.



9. You can now submit the newly-created deployment procedure.



Introduction to Change Management

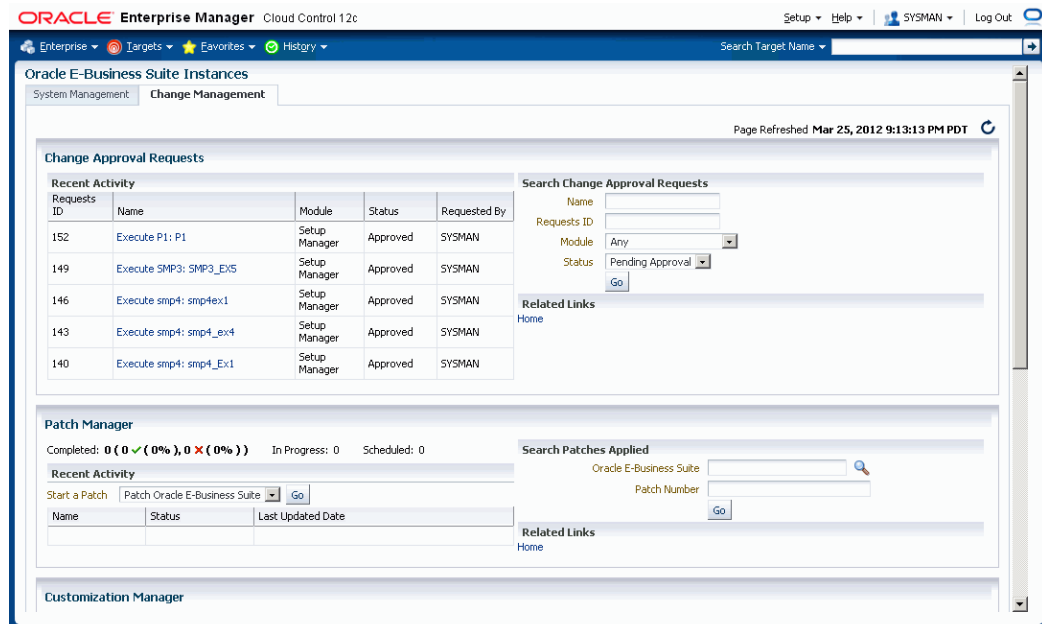
Introduction

Change Management for Oracle E-Business Suite (formerly delivered in the product "Oracle Application Change Management Pack for Oracle E-Business Suite" and abbreviated as "ACP" or "ACMP") provides a centralized view to monitor and orchestrate changes (both functional and technical) across multiple Oracle E-Business Suite systems. Change Management offers the capabilities to manage changes introduced by customizations, patches and functional setups during implementation or maintenance activities.

Change Management for Oracle E-Business Suite consists of three main components:

- Patch Manager allows you to deploy patches across Oracle E-Business Suite instances from a single console. Patch Manager integrates with My Oracle Support and can automatically download and deploy patches across multiple (single or multi-node) Oracle E-Business Suite instances. Both Oracle E-Business Suite patches and patchsets, as well as patches created with Customization Manager, are supported.
- Customization Manager automates the process of packaging, releasing, deploying, and migrating customizations for a single Oracle E-Business Suite instance or multiple Oracle E-Business Suite instances. It provides capabilities to integrate with third-party source control repositories to access customizations that need to be packaged. Before packaging the updates, Customization Manager validates the customization against software coding best practices. These custom packages can then be patched to Oracle E-Business Suite instances like any other Oracle Patch either using the Oracle Applications DBA (AD) utilities or using Patch Manager.
- Setup Manager helps define implementation projects in terms of functional setups that need to be migrated across Oracle E-Business Suite instances. Setup Manager extends the capabilities of Oracle iSetup by providing functional configuration change management capabilities across multiple Oracle E-Business Suite instances.

These components can be accessed from the central Change Management tab, or dashboard, available from Targets (menu) > E-Business Suite > Change Management (tab).



Major Benefits

- Simplifies the mechanism of orchestrating changes across multiple Oracle E-Business Suite systems.
- Improves user productivity by automating the deployment of changes.
- Reduces human errors by providing a standards-based change deployment framework.
- Provides notifications to specified users of updates to the Oracle E-Business Suite systems.

Change Management thus helps to lower the total cost of ownership by providing these benefits from the central Oracle Enterprise Manager console which allows you to manage the entire application environment.

Change Management Dashboard

The Change Management Dashboard gives you quick access to commonly-used functions, as well as summaries of recent activity.

The Change Approval Requests region is available to users with the required roles. This Change Approval section shows the summary of recent change approval requests that

have been updated. You can also search for a specific change approval request or navigate to the complete list by clicking the "Home" link.

For Patch Manager, recent patching activity is listed. The summary lists patch runs that have completed, that are in progress, or that are scheduled. You can click on the patch names to drill down to more information. You can also search for patches, go to the Patch Dashboard, or start/schedule a new patch application.

For Customization Manager, the most recently updated packages, for both Release 11*i* and Release 12, are shown. Recent activity regarding packages including their statuses is also shown. You can click on the package names to drill down for more information. You can search for packages, create new packages, set up your File Source and Oracle E-Business Suite mappings, or access reports. Also, you can manage custom applications and track requests pertaining to custom application registration/validation on one or more instances.

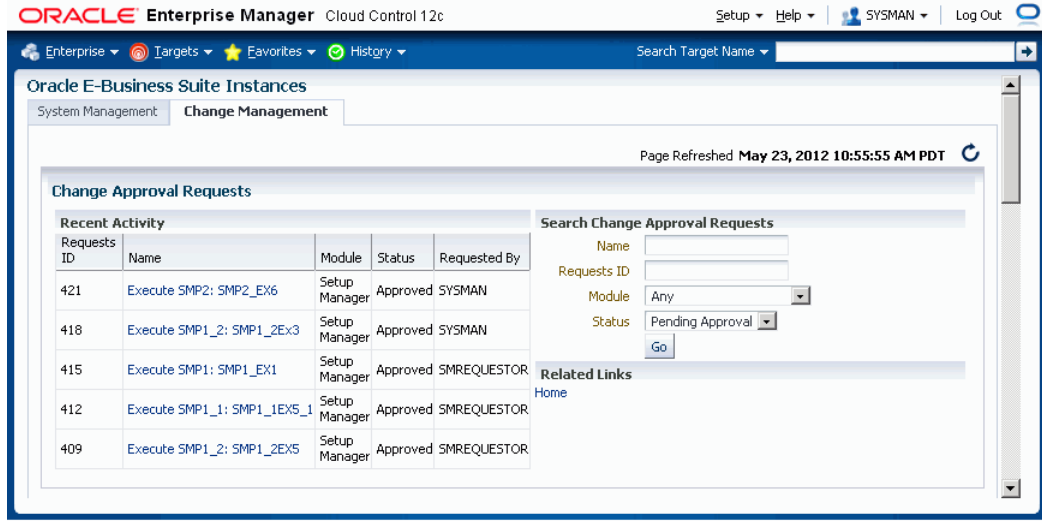
For Setup Manager, a summary of projects for Release 11*i* and Release 12 is shown, as well as recent activity on projects. You can click on the project names for more information on each project. You can also search for project or create a new project from the dashboard.

Change Management Privileges

The Change Approval Framework helps ensure that all changes done using any of the products in Change Management (sometimes referred to as "ACP") go through a change approval mechanism. This change control mechanism entails one level of approval for any change that results in a configuration or code change of an Oracle E-Business Suite instance. The Change Approval Framework provides tracking and auditing with respect to the change control requests and historical data. A common change control tracking dashboard is provided for tracking all change requests within Change Management. Auto-approvals are possible if the requestor is a Super Administrator or has the respective approver role with approval target access.

All critical changes within Patch Manager, Setup Manager, and Customization Manager would need to go through the change control mechanism.

The main Change Management tab lists recent activity for change approval requests.



Required Privileges and Roles

Specific privileges are required to access the relevant containers in the Change Management tab. These are:

For rendering this container...	Logged-in user must have at least one of these privileges
Patch Manager	Create Patch Manager request
Customization Manager	Create splice request or Create release package request
Setup Manager	Create Setup Manager request

If the user has ANY of the above privileges, the Change Management home page will be rendered.

The seeded "Change Management Super User" role (code EBS_ACP_SUPER_USER) has privileges to submit and approve all Change Management requests.

For more information on these privileges, see: Privileges and Roles for Managing Oracle E-Business Suite, page 1-6.

In order to submit a patch run in Patch Manager, create a package in Customization Manager, or execute a project in Setup Manager, a user must have the "Operator any Target" privilege, as described below:

- Name - Operator any Target

- Description - Ability to perform administrative operations on all managed targets
- Included Privileges - View any Target
- Applicable Target Types - All Target Types

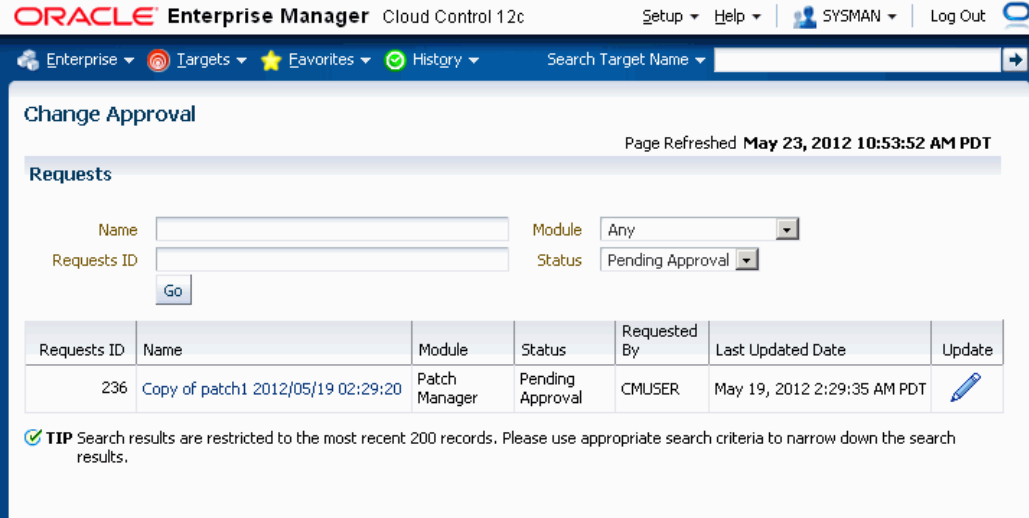
In addition to the above Target Type privilege, a user must have the "Job System" resource privilege, as described below:

- Name - Job System
- Description - Job is a schedulable unit of work that administrator defines to automate the commonly run tasks
- Privilege Grants Applicable to all Resources - Create

Note: You must also assign Resource Type Privilege of "Create" to the user using the "Manage Privilege Grants" feature, available from Setup menu > Security > Administrators. For more information on managing privilege grants, see the Enterprise Manager Cloud Control documentation.

The Change Approval Dashboard

Click on the Home link under Change Approval Requests on the Change Management to access the Change Approval Dashboard.



ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Change Approval

Page Refreshed **May 23, 2012 10:53:52 AM PDT**

Requests

Name Module

Requests ID Status

Requests ID	Name	Module	Status	Requested By	Last Updated Date	Update
236	Copy of patch1 2012/05/19 02:29:20	Patch Manager	Pending Approval	CMUSER	May 19, 2012 2:29:35 AM PDT	

TIP Search results are restricted to the most recent 200 records. Please use appropriate search criteria to narrow down the search results.

The Change Approval Dashboard allows users with the proper privileges to perform the following:

- Search for requests as per role access.

- Approve or reject a given change control request after viewing details.
- Track heuristic data with respect to change control requests for auditing purposes using "Related History".

Setting Preferred Credentials

When using Change Management features, you will need to access Oracle E-Business Suite instances. You can set up credentials for these instances for every user as a one-time setup step instead of entering them every time you need to access an instance.

Please note that preferred credentials are not shared across users.

To set up credentials:

1. Within Oracle Enterprise Manager, navigate to Setup > Security > Preferred Credentials.
2. Highlight the desired target type, then click **Manage Preferred Credentials**.
 - For Patch Manager, choose these target types:
 - Oracle E-Business Suite - Set the following credential sets: AppsDBCredsSet, AppsSysDBCredsSet, AppsUserCredsSet. Please refer to section Setting Oracle E-Business Suite Preferred Credentials, page 4-8 for more information on these credential sets.

Named Credentials must be created prior to setting up Preferred Credentials. Review the section Creating Named Credentials for Oracle E-Business Suite, page 4-1 for information on creating named credentials as well as reusing the same named credentials across the target instances and sharing them across administrators.
 - Oracle E-Business Suite Infrastructure - Set the "OS Credentials" credential set.

Please refer to section Setting the Preferred Credential Set for Oracle E-Business Suite Infrastructure, page 4-10 for information on this credential set.

Named Credentials must be created prior to setting up Preferred Credentials. Review the section Creating Named Credentials for Oracle E-Business Suite, page 4-1 for information on creating named credentials as well as reusing the same named credentials across the target instances and sharing them across administrators.

Set this credential for both APPL_TOP Context and Database Context.
- For Customization Manager, choose the following target types:

- Host - You must set the "Normal Username" and "Normal Password" for the host from where files will be checked out. This host is referenced within File Source Mapping.

- Oracle E-Business Suite Infrastructure - Set the "OS Credentials" credential set.

Please refer to section Setting the Preferred Credential Set for Oracle E-Business Suite Infrastructure, page 4-10 for information on this credential set.

Named Credentials must be created prior to setting up Preferred Credentials. Review the section Creating Named Credentials for Oracle E-Business Suite, page 4-1 for information on creating named credentials as well as reusing the same named credentials across the target instances and sharing them across administrators.

Set this credential for the APPL_TOP Context.

- Oracle E-Business Suite - Set the following credential set: AppsDBCCredsSet.

You must set the credentials for Oracle E-Business Suite Infrastructure for every instance that is used for building Java patches or reports. Both the Applications and the Database context credentials for each Oracle E-Business instance must be set.

For Customization Manager, it is also required to set the APPLSYS schema credentials, APPS schema credentials and SYSTEM schema credentials for using the custom applications registration and validation functionality for the given Oracle E-Business Suite instance. You can do this by setting the following credential sets: AppsDBCCredsSet, AppsSysDBCCredsSet, ApplsysDBCCredsSet. Please refer to section Setting Oracle E-Business Suite Preferred Credentials, page 4-8 for more information on these credential sets.

Named Credentials must be created prior to setting up Preferred Credentials. Review the section Creating Named Credentials for Oracle E-Business Suite, page 4-1 for information on creating named credentials as well as reusing the same named credentials across the target instances and sharing them across administrators.

- For Setup Manager, choose the following target types:
 - Oracle E-Business Suite Infrastructure - Set the "OS Credentials" credential set.

Please refer to section Setting the Preferred Credential Set for Oracle E-Business Suite Infrastructure, page 4-10 for information on this credential set.

Named Credentials must be created prior to setting up Preferred

Credentials. Review the section *Creating Named Credentials for Oracle E-Business Suite*, page 4-1 for information on creating named credentials as well as reusing the same named credentials across the target instances and sharing them across administrators.

Set this credential for the APPL_TOP Context.

- **Host Target Type** - Set the "Normal Host Credentials" credential set for the host target type instance on which the APPL_TOP context node exists.
- **Oracle E-Business Suite** - Set the following credential set:
AppsUserCredsSet.

Please refer to section *Setting Oracle E-Business Suite Preferred Credentials*, page 4-8 for more information on this credential set.

Named Credentials must be created prior to setting up Preferred Credentials. Review the section *Creating Named Credentials for Oracle E-Business Suite*, page 4-1 for information on creating named credentials as well as reusing the same named credentials across the target instances and sharing them across administrators.

- **Oracle E-Business Suite** - Set the following credential set: AppsDBCredsSet.
Please refer to section *Setting Oracle E-Business Suite Preferred Credentials*, page 4-8 for more information on this credential set.
Named Credentials must be created prior to setting up Preferred Credentials. Review the section *Creating Named Credentials for Oracle E-Business Suite*, page 4-1 for information on creating named credentials as well as reusing the same named credentials across the target instances and sharing them across administrators.
- **Addition setup required on the Oracle E-Business Suite side** - You must assign the 'LCM EM' Client responsibility to the Oracle E-Business Suite users whose Preferred Credentials would be provided in Oracle Enterprise Manager for Setup Manager. You must also assign the 'Oracle iSetup' responsibility (for Release 11*i*) or the 'iSetup' (for Release 12) responsibility to those users as well.

Notifications Setup

You have the option of sending e-mail notifications to users regarding updates to the Oracle E-Business Suite systems. To have these notifications sent successfully, you must have the system set up properly:

- Ensure that the agent on the Oracle Management Server is up and running.

- Ensure that the command parDeploy has been run as part of the setup of Oracle Enterprise Manager Cloud Control 12c.
- Enter the SMTP information as described below.

To set the SMTP information in Oracle Enterprise Manager:

The Outgoing SMTP Server information must be entered in Oracle Enterprise Manager.

Note: If the SMTP information is not set correctly, notifications will not be sent.

1. Within Oracle Enterprise Manager, navigate to Setup > Notifications > Notification Methods.
2. Set the Outgoing Mail (SMTP) Server value.
3. Enter additional information as needed.

Diagnostic Tests

Oracle Application Management Pack for Oracle E-Business Suite includes diagnostic tests that should be run to ensure your system is set up correctly to use the pack's features. These tests are run using the Pack Diagnostics link under Related Links on the Oracle E-Business Suite Instances page. For more information on using the Pack Diagnostics link, see: Running Pack Diagnostics Tests, page 6-3.

Patch Manager

Introduction

Patch Manager allows you to deploy patches across Oracle E-Business Suite instances from a single console. You can create a patch run definition and run it multiple times on multiple instances and you can copy a patch procedure and modify it to suit your business needs. Also, you can easily access details on patch runs, correct errors if necessary, and continue the patch runs.

Key Features

Patch Manager

- Automates the deployment patches across multiple Oracle E-Business Suite instances.
- Utilizes most common Oracle E-Business Suite Applications DBA (AD) Utilities.
- Utilizes patching best practices and reduces downtime.
- Integrates with Customization Manager to deploy custom packages.
- Supports downloading patches directly from My Oracle Support for deployment.
- Supports deployment of patches that were previously downloaded to a central location on the Oracle Management Server.
- Supports National Language Support (NLS) patches.
- Provides a complete history of all patch deployments.
- Provides a customizable patch deployment procedure.

- Leverages Oracle Enterprise Manager infrastructure for distributed processing.

With Patch Manager, you can

- View the readme of a patch with just one click.
- Schedule deployments based on the target's time zone.
- Schedule deployments of patches immediately or in the future.
- Perform a complete series of pre/post health checks when deploying patches.
- Track and monitor all patching deployments "In Progress", "Scheduled", "Saved" and "Completed" from a centralized console.
- Send and receive notifications for patch failures and completion.

Diagnostic Tests for Patch Manager

You should run diagnostic tests on your system in preparation for running Patch Manager procedures to ensure your system is set up correctly. These tests can be accessed from the Diagnostics dashboard, available from the Pack Diagnostics link on the Oracle Applications page. For more information on running diagnostic tests, see: Running Pack Diagnostics Tests, page 6-3.

The following tables list tests related to Patch Manager:

Generic Diagnostic Tests for Patch Manager

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EMGC	Check permissions for OMS Stage directory	Determine if a stage directory is defined on the OMS. Determine if the owner of has read/write permissions to that directory.	Expected results are: the OMS Stage Directory Location, with the OMS user with read/write permissions.
EMGC	Check Patch Manager Stage directories	Verify if the properties set in the Preferences page have proper definitions for Patch Manager Stage directories	Refer to Running a Patching Procedure, page 10-8 for instructions on completing this step.

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EMGC	Summary	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	
EBS	Check if EBS Snapshot in OMS Repository is valid	Verify if the Oracle E-Business Suite snapshot in OMS Repository is valid.	A snapshot shows data about a system for a point in time. If the snapshot is invalid, navigate to Targets > Oracle Applications > <target system name>. Expand "Application Nodes". For each node, click on the Report icon and click the Refresh button on the View Configuration page.
EBS	Check for EBS CPU Count	Verify that the target Oracle E-Business Suite system's CPU Count is greater than zero (0).	If there is not a valid snapshot, contact Oracle Support.
EBS	Summary	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	

User-Specific Diagnostic Tests for Patch Manager

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EMGC	CheckMetalinkCredentials	Verify if username/password credentials are entered for My Oracle Support.	Refer to the Oracle Enterprise Manager documentation for instructions on completing this step.

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EMGC	CheckPrivilege	Check if the user currently logged in has authority to patch any instances.	
EMGC	Summary	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	
EBS	Check if Preferred Credentials exist	Check if if the EM User has the required Preferred Credential set for APPS and SYSTEM schema users in "Oracle E-Business Suite" target type. Check if that user has the required Preferred Credentials for "Oracle E-Business Suite Infrastructure" target type for Database Context and for APPL_TOP Context.	
EBS	Summary	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	

Patch Manager Home

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Patch Oracle Applications Page Refreshed Aug 2, 2012 5:26:45 PM

Home Procedures Search Patch Runs Start a Patch Patch Oracle E-Business Suite Go

▼ In Progress

Select	Patch Run Name	Procedure	Last Updated	Status

▼ Completed

16 (6 ✓ (37%), 10 ✗ (62%))

Create Like Completed Review Completed Previous 10 11-16 of 16 Next

Select	Patch Run Name	Procedure	Completed Date	Status
<input checked="" type="radio"/>	run2	Patch Oracle E-Business Suite	08:23:00 AM Jul 05 2012 PDT	Succeeded
<input type="radio"/>	run1	Patch Oracle E-Business Suite	06:21:19 AM Jul 05 2012 PDT	Succeeded
<input type="radio"/>	testrun	Patch Oracle E-Business Suite	05:39:08 AM Jul 05 2012 PDT	Succeeded
<input type="radio"/>	test567	Patch Oracle E-Business Suite	05:34:04 AM Jul 05 2012 PDT	Succeeded
<input type="radio"/>	EBSPatchProcedure_1341465478095	Patch Oracle E-Business Suite	05:18:47 AM Jul 05 2012 PDT	Succeeded
<input type="radio"/>	EBSPatchProcedure_1341465411344	Patch Oracle E-Business Suite	05:18:42 AM Jul 05 2012 PDT	Succeeded

▶ Scheduled

▶ Saved

▶ Pending Approval

▶ Approved

▶ Rejected

The Patch Manager Home tab lists your patch runs according to their status: Completed, Scheduled, Saved, Pending Approval, Approved, and Rejected.

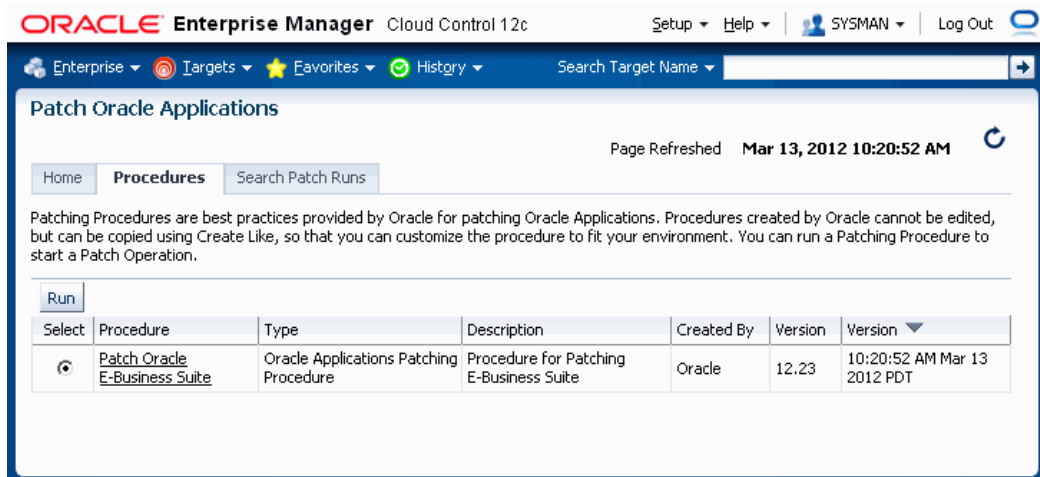
You can click on a Patch Run name to view its details. See: View a Patch Run, page 10-20.

To start a new patch run, you can select "Patch Oracle E-Business Suite" or your customized patching procedure from the "Start a Patch" list.

To copy an existing patch run, in order to change any aspect of the patch run or to run an identical run due to changes in the patch or target, select the Patch Run you wish to copy and click the **Create Like [Status]** button (for example, the **Create Like Completed** button).

To view the details of an existing patch run, select the patch run in the Patch Manager Home tab and click the **Review [Status]** button (for example, the **Review Completed** button).

Patching Procedures



The Patch Manager Procedures tab lists the available patching procedures. You cannot edit procedures created by Oracle, but you can copy them using the Create Like feature (accessed from Procedures Tab by clicking on the name of the procedure and then choosing Create Like), and then customize the copies to fit your environment.

To run a patching procedure, select the procedure from the table and click **Run**.

During the patching Deployment Procedure the system will try to "black out" the targets associated with an Oracle E-Business Suite system. In order for the blackout to occur, the user submitting the patch run must have been granted the 'operator' or 'blackout target' target privilege for the Oracle E-Business Suite targets. Below is a list of Oracle E-Business Suite targets that will be blacked out if the system detects this user has the authority to black them out:

- Concurrent Processing Service
- Forms Based Applications Service
- Internal Concurrent Manager
- Listener
- Oracle Applications Infrastructure Service
- Oracle Applications Service
- Oracle Applications System
- Oracle Concurrent Manager

- Oracle E-Business Suite Custom Objects
- Oracle E-Business Suite Infrastructure
- Oracle E-Business Suite Nodes System
- Oracle E-Business Suite Patch Information
- Oracle E-Business Suite System
- Oracle E-Business Suite Workflow
- Oracle Workflow Agent Listener
- Oracle Workflow Background Engine
- Oracle Workflow Notification Mailer
- Self Service Applications Service
- Workflow Service
- Database Instance
- Host

By default, the blackout time period is one hour. You can control the blackout duration setting the following properties in the Preferences page: Navigate to this page from the Preferences link under Related Links on the Oracle E-Business Suite home page.

- **Default Blackout Hours in Patch Manager**
- **Default Blackout Minutes in Patch Manager**

In addition, as part of a queueing mechanism for patch runs, set the property **Minutes Patch Manager should wait for a down target**. If a patch run is executing and detects that a target(s) that it is supposed to patch is in a blackout state, the patch run will wait this specified time before failing. Patch Manager will check every minute to see if the target has come out of the blackout state; if it has, Patch Manager will continue with the patch run.

Finally, if you want AutoPatch to apply a patch regardless of whether the Oracle E-Business Suite system is in Maintenance Mode (and Maintenance Mode is enabled), then check the **Default Hotpatch in Patch Manager** box.

Searching for a Patch Run

The screenshot shows the Oracle Enterprise Manager interface for searching patch runs. The page title is "Patch Oracle Applications" and it includes a search bar for "Search Target Name". The "Search Patch Runs" tab is active. The search criteria fields are:

- Patch Number:
- Patch Run Name:
- Submitted Before: (MM/dd/yyyy)
- Submitted After: (MM/dd/yyyy)
- Requester:
- Target Name:
- Status:

A "Search" button is located below the Submitted After field. Below the search criteria is a table with the following columns: Patch Run Name, Status, Start Date, End Date, Submission Date, Requester, Files, and Targets. The table currently displays "No Patching Procedures found."

Use the Search Patch Runs tab to search for particular patch runs.

The search criteria are:

- Patch Number - Enter the number of a patch applied in the patch run.
- Patch Run Name - Enter the name of the patch run entered in the Patch Run Details page.
- Submitted Before - Enter the date before which the patch run was submitted.
- Submitted After - Enter the date after which the patch run was submitted.
- Requester - Enter the user name of the requester.
- Target Name - Enter the name of the target in the patch run.
- Status

Patch runs that meet the search criteria are shown in the search table. Click on the patch run name link to view details of the patch run.

Running a Patching Procedure

Oracle provides you with patching procedures that are best practices for patching Oracle E-Business Suite. Procedures created by Oracle cannot be edited, but they can be copied using the "Create Like" feature so that you can customize the procedure to fit your environment.

To run a patching procedure, or create a patch run, you can do one of the following:

- From the Home tab for Patch Manager, choose "Patch Oracle E-Business Suite" or your customized patching procedure from the "Start a Patch" list and click the **Go** button.
- Navigate to the Patch Manager Procedures tab, select a procedure, and click the **Run** button.
- Navigate to the Enterprise menu, select Provisioning and Patching, then select Procedure Library. Select a procedure of type "Oracle Applications Patching Procedure", choose Launch from the list, and click **Go**.

Note that you can also copy an existing patch run. From the Home tab, select the patch run you wish to copy and click the **Create Like [Status]** button.

Note: In the Patch Run interview you can use the **Back** button to go back to a previous step; however, entered values on the current page will be lost.

The following are prerequisites to running a patching procedure:

1. To download an Oracle patch directly from My Oracle Support, the following property must be set in the Preferences page.
 - **Connect to My Oracle Support for Patches** - This box should be checked.
2. Patches are downloaded to the OMS when they are applied. Set the property **OMS Stage Directory Location** to the directory to which the patch should be downloaded.

Note: If a patch has already been downloaded to the OMS, it will not be downloaded again.

After a patch is on the OMS, it will then be moved to the target Oracle E-Business Suite system. The exception to this step is the case in which the system detects that an Oracle patch is already on the target; the system will not move the patch from the OMS to the target again. Custom patches, described in the next chapter, will always be moved from the OMS to the target because a developer can change the patch.

3. You should specify the following directory locations in the Preferences page. Navigate to this page from the Preferences link under Related Links on the Oracle E-Business Suite home page.
 - **Target Stage Directory Location** - The directory to which zipped patches are

downloaded.

- **Target Patch Directory Location** - The directory to which patches are unzipped and from where the patches are applied.

4. As part of a queueing mechanism for patch runs, set the property **Minutes Patch Manager should wait for a down target**.

If a patch run is executing and detects that a target(s) that it is supposed to patch is in a blackout state, the patch run will wait this specified time before failing. Patch Manager will check every minute to see if the target has come out of the blackout state; if it has, Patch Manager will continue with the patch run. This property specifies in minutes the maximum length of time Patch Manager will wait before the patch run fails.

5. Patch Manager uses Preferred Credentials. These must be set prior to running a patch procedure. The Preferred Credentials that might be required are:

- For the host, the application node and database credentials.
- For the database schema, the APPS schema and system schema credentials.

To create a Patch Run:

1. On the Patch Run Details page, enter the details below.

Patch Run Details Target List Patch Details Patch Options Schedule Review

Patch Oracle Applications: Patch Run Details

Cancel Save Step 1 of 6 Next

* Patch Run Name

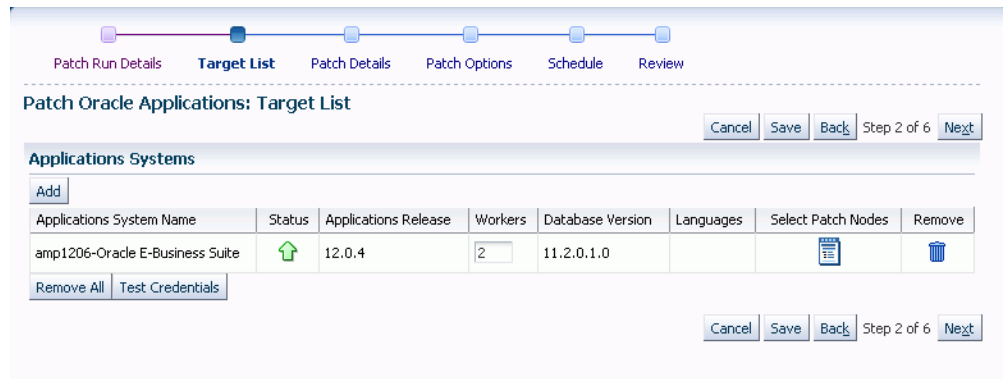
Description

* Requester SYSMAN

Cancel Save Step 1 of 6 Next

- Patch Run Name - Enter a user-friendly name for the patch run. You can search on this name later on.
- Description
- Justification
- Requester - The default value is the user name with which you are signed in. You can change this to another name.

2. On the Target List page, enter the target system(s) to which the patch(es) will be applied.



To search for available targets, click the Add button under "Applications Systems". The List of Values (LOV) window displays the target names and their release levels. Select the desired targets from this window. Note: All targets selected must be at the same release level.

Once selected, the system name will appear in the Target List with the following:

- Applications System Name - The name of the system.
- Status - The status of the system (Up or Down).
- Applications Release - The release level of the applications system.
- Workers - The number of workers available on the system. Note that you can change this value.
- Database Version - The release level of the database for the applications system.
- Languages - The languages installed on this system. Note: Newly installed languages may not show up yet if collections haven't run.
- Select Patch Nodes - Choose which nodes adpatch will run on.

Note: Patch Manager allows you to choose these nodes if you have a multi-node system with a shared APPL_TOP or a multi-node system with a non-shared APPL_TOP.
- Remove - Click this icon to remove this applications system from the Target List.

You can click the **Remove All** button to remove all applications systems from the Target List.

Click the **Test Credentials** button to test the Preferred Credentials for the applications system.

3. In the Patch Details page, select the details for the patch(es) to be applied.

Patch Oracle Applications: Patch Details

Target Stage Directory Location **%appl_top%/patch_stage**
 Target Patch Directory Location **%appl_top%/patches**
 OMS Stage Directory Location **/tmp**

Cancel Save Back Step 3 of 6 Next

Oracle E-Business Suite Updates
 Consult README to determine any necessary steps. Click on the icon in the README column to view the README.

Patch ID	Product	Platform	Version	Description	Files	Can Be Re-Applied	Pause After Patching	README	Remove
7829071	Workflow	Generic Platform	Applications R12.0	1OFF:12.0.4:ORA-06502 PL/SQL: NUMERIC OR VALUE IN WF_ENGINE_UTIL.NOTIFICATION_SEND	p7829071_R12.OWF.A_R12_GENERIC.zip	<input type="checkbox"/>	<input type="checkbox"/>		

Add Oracle Patch Add Custom Patch Check Prerequisites

Remove All

Cancel Save Back Step 3 of 6 Next

The following are shown on the Patch Details page: These are set in the Preferences page.

- Target Stage Directory Location - The directory to which zipped patches are downloaded.
- Target Patch Directory Location - The directory to which patches are unzipped, and from where the patches are applied.
- OMS Stage Directory Location

Important: You must have at least 'view' target privilege on the agent(s) of the target hosts. For example, say you are patching an Oracle E-Business Suite system that contains 3 middle tiers. You must have the 'view' privilege (or greater) on the agents of these 3 middle tiers.

Enter the Software Updates you wish to apply. Use the **Add Oracle Patch** to add a patch from Oracle, and use **Add Custom Patch** to add a custom patch created through Customization Manager.

Important: Before you deploy a custom patch in Patch Manager, you should run the Instance Comparison Report to compare the technology stack properties of the package with those of the instance to which the package is being deployed. Patch Manager does not stop the deployment of a patch if the technology stack properties are not compatible, so you should make your best

judgement based on the Instance Comparison Reports.

To add an Oracle patch:

1. Select **Add Oracle Patch**.
2. In the Search and Select window, Patch Oracle E-Business Suite, if you are downloading a patch or patches from My Oracle Support, you can search based on the following criteria:

- Patch Number
- Platform - "Any" returns patches for all platforms, or Generic if patch is not port-specific.

If you are searching for a patch for a specific platform, your search results will return a Generic-platform patch if no platform-specific patch exists.

- Language - "All installed languages" will return the base (Generic or platform-specific) patch plus any language patches (if they exist) for every language installed on the selected targets. Choosing a specific language from the drop-down list will return its language patch if it exists plus the base patch.

You can also select **Simple Search** to search simply on the Patch Number.

The search results will include the following for each patch found:

- Patch Number
- Platform
- Version
- Language
- Description
- Included or Replaced By

If you plan to deploy patches from an OMS location, the Search window will provide a List of Values based on the patches located in the directory specified for OMS Stage Directory Location in the Preferences page.

Choose the desired patches and click **Select** to return to main window.

Note: You must retrieve the desired patch through the Search and Select: Add Oracle Patch window even if you have already

downloaded the patch to the stage location (the process will not re-download the patch, however).

To add a custom patch:

1. Select **Add Custom Patch**.
2. In the Search and Select window, you can search based on the following criteria:
 - Patch Number
 - Patch Name
 - Description
 - Created By
 - Version
 - Language

The search results will include the following for each patch found:

- Patch Number
- Patch Name
- Version
- Language
- Description
- Created By

Choose the desired patches and click **Select** to return to main window. A listing of patches is given.

A Merge Patches check box appears at the top of the table if more than one patch has been selected.

Note: You should merge AD patches separately from non-AD patches.

The following appears for each patch in the table.

- Patch ID - The patch number.

- Product - The short name of the owning product.
- Platform - The platform for the patch.
- Version - The version to which the patch is valid.
- Description - The description of the patch.
- Files - The files to be downloaded for the patch.
- Password - A password is necessary for downloading controlled-release patches. Passwords expire after 21 days, so for scheduled deployments further in the future make sure you have already downloaded the patch and staged it.
- Order - The order the patches should be applied. Will only be displayed when you have more than one patch selected and don't have merge patches check box checked.
- Can Be Re-applied - You can check this box if the patch can be re-applied with no ill effects. In the case of testing, it might be necessary to apply the same patch repeatedly, in which case this box should be checked.
- Pause After Patching - Check this box if you will need to perform post-patching steps (such as running a script) immediately after this patch is applied. This option does not appear when the Merge Patches check box is checked.

Note that this option causes the Deployment Procedure job to halt with the status of "Failure" so that the job is paused for post-patching steps. Once you have performed your required tasks, select the **Retry** button within the EM Console.

- README - Click on this icon to review the README file for the patch.
- Techstack Report - Only applicable to custom patches. This report is described in the section on Instance Comparison Reports in Creating a Report, page 11-38 .
- Remove - If you want to remove this patch from the list, click this icon.

Finally, you can check for prerequisites for your patches using the **Check Prerequisites** button.

4. Specify Patch Options.

Patch Run Details Target List Patch Details **Patch Options** Schedule Review

Patch Oracle Applications: Patch Options

Cancel Save Back Step 4 of 6 Next

Patching Procedure Options

Create Target Backup Before Patching Pause Before AutoPatch Steps
 Create Target Backup After Patching Pause After AutoPatch Steps
 Enable HotPatch Mode Run AutoConfig
 Disable Archive Mode Pause After AutoConfig Test Mode Step

AutoPatch Options

Enable Prerequisite Patch Checking Enable Schema Validation
 Disable JSP Compilation Disable File Generation
 Disable Invalid Objects Compilation

AD Administration Options

Generate Message Files Relink Applications Programs
 Compile APPS Schema Generate Product JAR Files
 Compile Menu Information Generate Reports Files
 Compile Flexfields Generate Form Files
 Re-create Grants and Synonyms for APPS Schema

Cancel Save Back Step 4 of 6 Next

Specify details for how the patch should be applied.

For more information on many of these options, see: *Oracle E-Business Suite Patching Procedures* and *Oracle E-Business Suite Maintenance Utilities*.

Patching Procedure Options include the following:

- Create Target Backup Before Patching - Adds a pause after system is prepared for backup allowing for a manual backup.
- Create Target Backup After Patching - Adds a pause after patch is applied and database is brought back down to allow for a manual backup.
- Enable HotPatch Mode - Patch will be applied without shutting down the applications or database, disabling archive mode, or enabling maintenance mode.

In HotPatch mode, AutoPatch applies a patch regardless of whether the Oracle E-Business Suite system is in maintenance mode. Maintenance mode controls the system downtime period by managing user login sessions.

Note: In HotPatch mode, if the patch application fails, the process will still perform/execute the blackout steps in the "Patch Oracle E-Business Suite" procedure. The blackout notifies other Enterprise Manager administrators that a maintenance procedure is being performed on the environment.

- Disable Archive Mode - Issues an 'alter database noarchivelog' command.
- Pause Before AutoPatch Steps - Adds a pause before AutoPatch (adpatch) is run

to allow for any necessary manual preparation.

AutoPatch (adpatch) is the Oracle Applications DBA (AD) tool that applies patches to an Oracle E-Business Suite system.

- Pause After AutoPatch Steps - Adds a pause immediately after patch is applied to allow for any necessary manual activities.

Note: This option is not the same as the "Pause After Patching" option in the Patch Details page (Step 3). The "Pause after Patching" step, performed at the individual patch level, causes the Deployment Procedure job to halt so that manual steps can be done immediately after that patch is applied. The "Pause After AutoPatch Steps" option introduces a manual step into the Deployment Procedure which causes the Deployment Procedure to pause. This manual step can be used to do manual work or it can be modified in a custom procedure to run an automated script.

- Run AutoConfig - Run AutoConfig, the AD tool that manages configuration changes in an Oracle E-Business Suite system.
- Pause After AutoConfig Test Mode Step - Adds a pause after AutoConfig is run in test mode to allow for validation of changes.

AutoPatch Options include the following:

- Enable Prerequisite Patch Checking - Prevents you from applying a patch without first applying all required prerequisite patches.
- Disable JSP Compilation - Tells adpatch not to automatically compile out-of-date JSP files (nocompilejsp command).
- Disable Invalid Objects Compilation - Tells adpatch not to compile invalid objects (nocompiledb command).
- Enable Schema Validation - Tells adpatch to connect to all registered Oracle E-Business Suite schemas at the start of the patching process.
- Disable File Generation - Tells adpatch not to run commands normally found in generate driver (nogenerateportion command).

AD Administration Options are listed below. These tasks are done to manage database objects (database objects or data in the database related to Oracle E-Business Suite). For example, a patch might add new menu entries or change the setup of a flexfield.

- Generate Message Files - Creates new message files after the messages have been loaded into the database. The README should instruct you when this is necessary.
- Compile APPS Schema - Compiles the APPS schema.
- Compile Menu Information - Compiles menus.
- Compile Flexfields - Compiles flexfields.
- Recreate Grants and Synonyms for APPS Schema - Recreates grants and synonyms for the APPS schema.
- Relink Application Programs
- Generate Product JAR Files
- Generate Reports Files
- Generate Form Files

5. Specify the Schedule for the patch application.

You can choose to apply the patches immediately or at a later date.

If you choose Immediately as the schedule type to have the patches applied immediately.

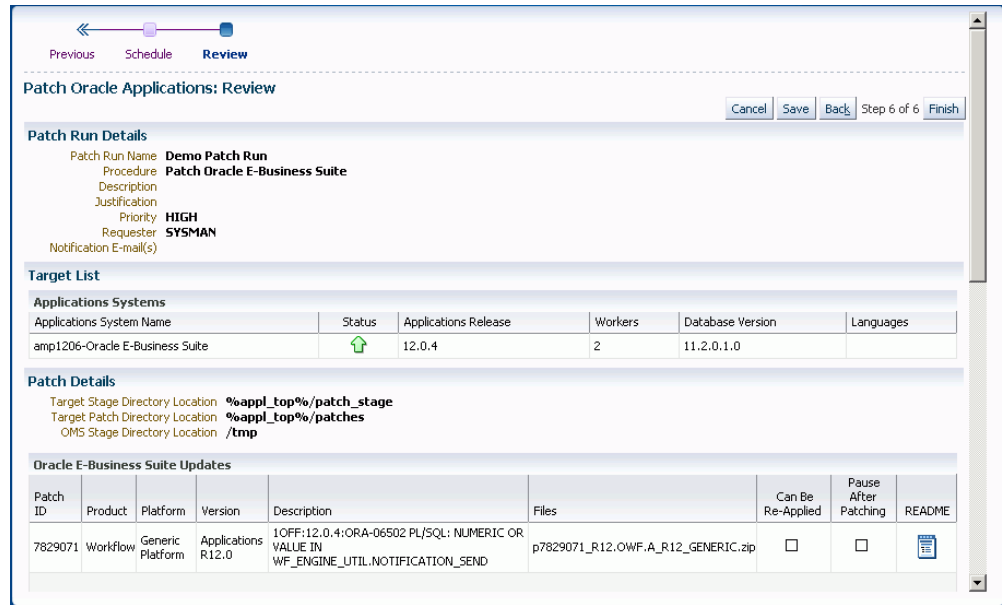
If you choose Later, you can specify the time and date you wish to have the patches applied. Provide the Time Zone, Date and Time.

You can specify a Grace Period as well. If you choose an Indefinite Grace Period, then if for some reason the patches cannot be applied at the immediate time, the system will try to apply them as soon as possible, and will keep trying indefinitely.

If you provide a defined Grace Period by specifying the system to end the Grace Period after your given hours and minutes, the system will not try to apply the patches after that amount of time.

The Blackout Length indicates the amount of time the target system will have a blackout status in Enterprise Manager. Set this length to a higher value for large patch runs.

6. Review your patch run.



The Review Page lets you review your patch run details, target list, patch details, patching options, credentials, and schedule.

Copying a Patch Run

You might want to copy an existing patch run to change some aspect of it or to rerun it due to changes in the patch or target. To do this, select the patch run in the Patch Manager Home tab and click the **Create Like [Status]** button.

Patch Oracle Applications

Page Refreshed **Aug 2, 2012 5:26:45 PM**

Home | Procedures | Search Patch Runs

Start a Patch Patch Oracle E-Business Suite Go

▼ In Progress

Select	Patch Run Name	Procedure	Last Updated	Status

▼ Completed

16 (6 ✓ (37%), 10 ✗ (62%))

Create Like Completed | Review Completed Previous 10 | 11-16 of 16 | Next

Select	Patch Run Name	Procedure	Completed Date	Status
<input checked="" type="radio"/>	run2	Patch Oracle E-Business Suite	08:23:00 AM Jul 05 2012 PDT	Succeeded
<input type="radio"/>	run1	Patch Oracle E-Business Suite	06:21:19 AM Jul 05 2012 PDT	Succeeded
<input type="radio"/>	testrun	Patch Oracle E-Business Suite	05:39:08 AM Jul 05 2012 PDT	Succeeded
<input type="radio"/>	test567	Patch Oracle E-Business Suite	05:34:04 AM Jul 05 2012 PDT	Succeeded
<input type="radio"/>	EBSPatchProcedure 1341465478095	Patch Oracle E-Business Suite	05:18:47 AM Jul 05 2012 PDT	Succeeded
<input type="radio"/>	EBSPatchProcedure 1341465411344	Patch Oracle E-Business Suite	05:18:42 AM Jul 05 2012 PDT	Succeeded

► Scheduled

► Saved

► Pending Approval

► Approved

► Rejected

The system will take you through the patch run creation pages as if you were creating a new patch run, but with most values copied from the original patch run. Please note the following:

- The Patch Run Name defaults to the original name prefixed with "Copy of" and appended with the date.
- The Requester field has a default value of the original requester's user name. Change this value as appropriate.
- The new patch run would be scheduled to run immediately by default, because the original run may have been scheduled for a now past date and time.

Viewing a Patch Run

To view the user-entered details of a patch run, select the patch run in the Patch Manager Home tab and click the **Review [Status]** button.

You can navigate to the details of the deployment of a patch run in one of several ways:

- From the Patch Manager Home tab, click on the Patch Run Name link for the patch run.
- From the search results on the Search Patch Runs tab, click on the Patch Run Name link.

- From the Enterprise Menu, select Provisioning and Patching, then select Procedure Activity. Click on the patch run name.

The above navigation paths take you to the Status page for the procedure. The Status page is part of the Oracle Deployment Manager. Refer to the Oracle Enterprise Manager online help for more information on Oracle Deployment Manager.

Information on this Status page includes when the patch run was started and completed and each step in the procedure and its status. You can also drill down in each step to view logging information, errors, and so on.

Extending Patch Manager Deployment

You can extend Patch Manager procedures using the Deployment Procedure Manager using the steps below. In these steps you create a copy of an existing procedure and extend it in the Deployment Procedure Manager.

1. From the Patch Manager Procedures tab, click on the name of a procedure.
2. From the View Procedure page, click the **Create Like** button.
3. Rename the copy of the original procedure as desired. You can make other updates here as well.
4. Save your new procedure.
5. Upon saving, the Deployment Procedure Manager Procedures tab appears. Your new procedure is listed first. You can select this procedure and click **Edit** to add steps, choose notifications, or make other changes. For example, you might want to add steps to a copy of the shipped Patch Oracle E-Business Suite procedure to automate the following steps: Pre-Patch Application Tier Backup, Post-Patch Database Tier Backup, or Post-Patch Application Tier Backup.

For more information on the Deployment Procedure Manager and provisioning in Enterprise Manager, refer to the Enterprise Manager documentation, including:

- *Oracle Enterprise Manager Lifecycle Management Administrator's Guide*
- Oracle Enterprise Manager online help

Logging, Health Checks, and Troubleshooting

This section describes logging, health checks, and troubleshooting features within Patch Manager.

How to View the AD Patch Log

To view the AD Patch Log for a patch run, follow these steps:

1. Navigate to your patch run using any method in "View a Patch Run".
2. Click on the Patch Run Name.
3. Click on the adpatch step (Apply Patch).
4. Click on Job Status.
5. Expand the bottom task.
6. Click on Step: Execute command as normal user.

How to Restart Failed Workers

1. Navigate to your patch run using any method in "View a Patch Run".
2. Click on the Patch Run Name.
3. Click on the adpatch step (Apply Patch).
4. Select the check box for the failed target.
5. Click Update and Retry.
6. Change the parameter "restart_workers" to YES and click Retry.

Note: These steps are also listed in the AD Patch Log when you have a failed worker.

Troubleshooting Patch Manager Deployment Failures

1. Navigate to your patch run using any method in Viewing a Patch Run, page 10-20.
2. Click on the Patch Run Name.
The Deployment Procedure Manager in Provisioning appears.
3. For the patch run that failed, click on the links for Status and Job Status for the step that failed. Information on the failure including the output log listing errors encountered is shown.

Health Checks

Patch Manager validates these servers shutting down and starting up: listener, Forms server, Apache web services, and Internal Concurrent Manager.

Customization Manager

Introduction

Customization Manager automates the process of packaging, releasing and reporting customizations for a single Oracle E-Business Suite instance or multiple Oracle E-Business Suite instances. It provides capabilities to integrate with third-party source control repositories to access customizations that need to be packaged. It also integrates with Patch Manager for deployment of custom patches to one or more Oracle E-Business Suite instances.

Customization Manager also provides a dashboard to manage custom applications across Oracle E-Business Suite instances. It provides capabilities to not only register and validate custom applications across instances, but also a drill down to the custom objects associated with any registered custom application on a given instance. Registration and validation of the custom application ensures that custom packages associated with the custom application can be deployed on the given Oracle E-Business Suite instance.

Key Benefits

- Automates creation of customization packages that are deployable with Patch Manager or standard Oracle E-Business Suite Applications DBA (AD) Utilities
- Provides repository to manage/catalog customizations.
- Validates custom code against software coding best practices using a standards checker.
- Integrates with most source control systems.
- Supports National Language Support (NLS) patches.
- Generates reports on customization packages or manifests in these formats: rich text

format (RTF) for Microsoft Word, PDF, or Microsoft Excel.

- Leverages Oracle Enterprise Manager infrastructure for distributed processing.
- Provides an interface to manage custom applications across the enterprise.

File Types

Customization Manager allows you to package custom files of a variety of file types, including the following:

- Oracle Application Object Library (FND) objects - menus, responsibility, concurrent programs, and so on
- Forms
- Reports
- Database objects - views, tables, triggers, packages, and so on
- Oracle Application Framework components

For more information on file types, see the appendix.

For more information on making customizations, see the *Oracle E-Business Suite Developer's Guide* and the *Oracle Application Framework Developer's Guide*.

Setup Steps for Customization Manager

- Ensure that the Preferred Credentials are set for each user as described in the first chapter.
- Ensure that the Stage Directory is specified in the Preferences page. To do so, navigate to Preferences under Related Links on the main Oracle E-Business Suite system page.
- Configure the stage directory for the Oracle E-Business Suite Infrastructure for the particular instance you will use for building patches that contain Java or PLD files. This step can be done via the All Targets page in Oracle Enterprise Manager (search for Oracle E-Business Suite Infrastructure) and drilling down to set the stageDir value of APPL_TOP Context.

Major Features and Definitions

Package

A package is a fundamental unit of work of Customization Manager. A package consists of all the relevant objects that constitute a customization along with all the necessary metadata relevant for the given customization. A customization package can have one or more custom patches associated which can be deployed to promote customizations.

File Manifest

The file manifest contains a list of files to be included in a package.

File Metadata Repository

The File Metadata Repository stores metadata information of custom files used to create customization packages. This information can be used to manage and catalog customizations within the system.

Technology Stack Details

The Technology Stack Details for a package is a snapshot of the technology stack properties for the Oracle E-Business Suite instance where the package was compiled.

Reporting

Customization Manager provides several methods for generating reports on packages:

- Generate a Standard report on a single package.
- Compare two packages using a Comparison report.
- The Instance Comparison report can be used to compare a given package against an instance with respect to technology stack, files with versions, missing entries for file driver file, custom products involved, and so on. It can be used to assess the likely impact before actually applying the custom patch on the given instance

Reports can be generated in RTF for Microsoft Word, PDF, and Microsoft Excel.

Releasing a Package

Once a customization package is created and tested successfully, it might need to be shared with other users. This is possible by updating the package metadata and setting the package status as "Released".

Obsoleting a Package

For scenarios where the given customization is no longer valid, the customization package may be retired by updating the package metadata and setting the package status to "Obsoleted".

Applications Standards Validation

Customization Manager has a standards checker to check that the files included in a custom package meet certain coding standards. This checker tests all code for standards compliance and cannot be turned on or off.

Some standards are mandatory and will result in failure when Customization Manager attempts to build the package. Other standards are recommended, and the standards checker will give a warning but the package will be built.

For example, Customization Manager mandates that each file included within a customization package has an Oracle-compliant source header present within the file. If a file in a package is missing this header, the package cannot be built.

Oracle-compliant Source Header

Each file included within a customization package is recommended to have an Oracle-compliant source header present within the file.

The following is an example of an Oracle-compliant header:

```
$Header: sample.txt 10.1 2012/04/06 09:38 lmathur noship $
```

The header contains the following elements:

- Filename
- Revision ID - This needs to be incremented every time a file is checked in
- Date and time of checkin
- Author
- Shipment state - ship/noship

Automatic Header Update and Insertion

This option can be enabled while defining or updating the "File Source Mapping" used for package creation. When the "Automatic header update" option is selected, Customization Manager takes care of querying the source control repository to derive the revision number and updates the Oracle-compliant header present within the file with the same, during the process of package creation.

It is important to ascertain that the correct "Version command" is provided to lookup/query the revision number from the given source control repository, except when using CVS or File System. This feature is not supported when the source repository is 'File System'. Also, for CVS there is no need to specify the version command as the header is always looked up from the \$Header string present within the file.

Important: When using the automatic header update feature with CVS, you must have a \$Header placeholder within each source file. The placeholder header must be embedded in the source file before the file is checked in into CVS.

Also ensure that you change the file name with the correct case within the \$Header before embedding the header in the file.

Important: When using Subversion, it is required to use Subversion client version 1.2 or above for automatic header update.

Automatic header update is supported for all file types. For binary files like forms, reports, and so on, you must provide a dummy placeholder for the header with enough appropriate offset (space). It is recommended to leave at least 40% extra offset (space) to accommodate incrementing revision numbers. During the process of package creation, the system uses this as a placeholder and updates it with the correct header. Again, the automatic header update option should be enabled and the correct version command should be specified within the file source mapping. The header is calculated based on the release and the version in the source control. For example, if you are building a package for Release 12 and the version of the file in the subversion repository is 29, then the header version calculated would be 120.29.

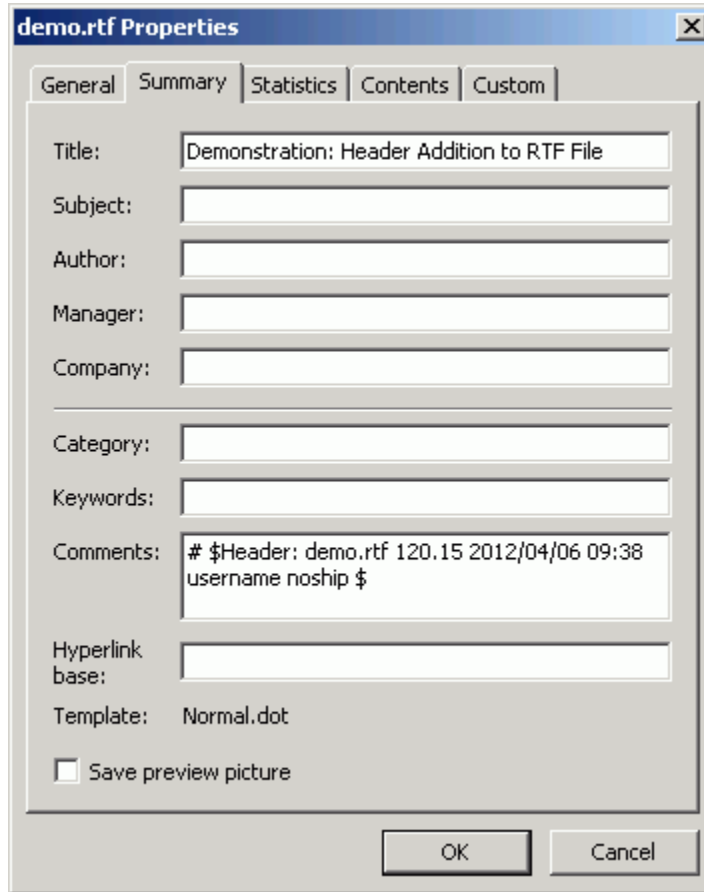
Automatic header insertion is supported only for selected file types when using Subversion as the source control system. In this case, Customization Manager inserts a valid Oracle compliant header into the source file during the process of package creation, even when there is no \$Header present in the file. The following file types are supported for automatic header insertion in case the file does not contain a proper \$Header:

- .css
- .drvX
- .htm
- .html
- .ildt
- .java

- .jlt
- .jsp
- .ldt
- .msg
- .odf
- .pdt
- .pkb
- .pkh
- .pks
- .pl
- .plb
- .pls
- .sh
- .slt
- .sql
- .tpl
- .wft
- .wfx

Adding a Header to Custom RTF Files

You can add a header to a custom RTF file by adding it to the file's "Comments" property. For example, in Microsoft Word, navigate to the File menu, select Properties, and enter the header in the Comments field as shown in the figure below.



Uploading Existing Custom Patches

You can upload a custom patch to Customization Manager repository:

The upload option is provided to upload existing custom patches created in the Customization Manager repository. On upload, a package with status "Succeeded" is created. The status can move to status "Released" or "Obsoleted" as other customization packages. One or more NLS patches can be uploaded for a given package. Once uploaded, the patches can be deployed using Patch Manager. Also, attachments can be added for the uploaded packages.

Note: Reporting and update capabilities are not available for the uploaded packages.

Automatic File Driver File Generation and Update

A file driver file is a master file for adpatch to identify valid Oracle E-Business Suite files for a given product (including a custom product). It is required to have an entry

within the file driver file for selected file types like forms, reports, and so on. If not, then the following error is thrown during patching: "File in patch is not a known Oracle Applications file".

Customization Manager takes care of this file driver file requirement automatically. Customization Manager implicitly generates a file driver file for the relevant files in a package. During deployment with Patch Manager, these entries are automatically added to the custom product master file driver file. In case a user applies a patch manually with adpatch, he or she can run updateFileDriver.pl within the <package>/meta-inf folder **before** invoking adpatch.

Note that if you get the error "File in patch is not a known Oracle Applications file" while applying a custom patch built with Customization Manager, then it could be due to a missing entry in file driver file for the custom product for one or more custom files.

The file driver file for a custom product is located under:

```
$<custom_product_top>/admin/driver/<custom_product_short_name>file.drv
```

For example, if XXCO is the custom product, then you can find the file driver file under

```
$$XXCO_TOP/admin/driver/xxcofile.drv
```

All custom files would require an entry in the respective file driver file depending on the custom product they belong, EXCEPT files which have destination path beginning with any of the following:

- admin
- sql
- mds
- lib
- patch
- help
- def

as well as any java file under destination path beginning with "java".

The usual format for an entry into the file driver file is:

```
<product> <subdirectory> <filename>
```

Sample entries are as below:

```
xxco    admin/sql XXCONLADD.sql
xxco    forms/<LANG> XXCOFORM.fmb
```

Diagnostic Tests for Customization Manager

You should run diagnostic tests on your system in preparation for using Customization Manager to ensure your system is set up correctly. These tests can be accessed from the Diagnostics dashboard, available from the Pack Diagnostics link on the Oracle Applications page. For more information on running diagnostic tests, see: Running Pack Diagnostics Tests, page 6-3.

The following tables list tests related to Customization Manager:

Generic Diagnostic Tests for Customization Manager

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EMGC	CheckOMSStage	Determine if a stage directory is defined on the OMS. Determine if the owner of the directory has read/write permissions to that directory.	Expected results are: the OMS Stage Directory Location and the OMS user with read/write permissions.
EMGC	Summary	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	
EBS	CheckEBSHome	Verify permissions for APPL_TOP.	Verify that the user running the diagnostic test has the correct permissions for the APPL_TOP directory structure. If the test fails, provide the correct Preferred Credentials information in "E-Business Suite" or "E-Business Suite Infrastructure". See: Setting Up Credentials, page 9-6.

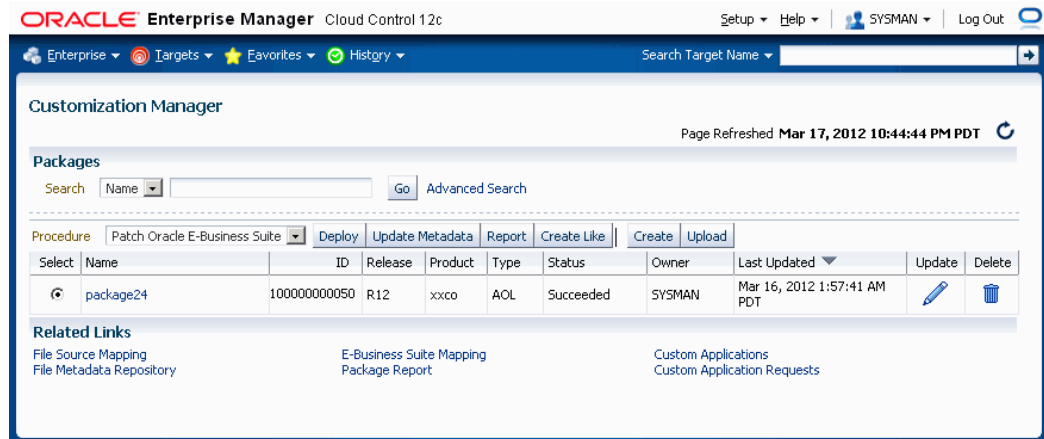
Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EBS	CheckAgentStage	Verify permissions within the Agent stage directory.	<p>Verify that the user running the diagnostic test has the correct permissions for the Agent stage directory structure.</p> <p>If the test fails, provide the correct Preferred Credentials information in "E-Business Suite" or "E-Business Suite Infrastructure". See: Setting Up Credentials, page 9-6.</p>
EBS	CheckAgentHome	Verify permissions within the Agent home directory.	<p>Verify that the user running the Diagnostic test has the correct permissions for the \$AGENT_HOME directory structure.</p> <p>If the test fails, provide the correct Preferred Credentials information in "E-Business Suite" or "E-Business Suite Infrastructure". See: Setting Up Credentials, page 9-6.</p>
EBS	Check Customization Manager related AD Patches for 11i Release	Verify that certain AD patches have been applied on the Oracle E-Business Suite target.	<p>The set of required interoperability patches will vary for the different Oracle E-Business Suite releases (that is, Release 11i , Release 12, and so on). The list of patches is contained in an XML file that might be modified to include or exclude recommended patches.</p> <p>The file is located at: <OMS_HOME>\sysman\admin\emdrop\eps\testsuites\CMTTestSuite.xml</p>

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EBS	Check Customization Manager Patches for 11i Release	Verify that certain Customization Manager patches have been applied on the Oracle E-Business Suite target.	<p>The set of required interoperability patches will vary for the different EBS releases (that is, Release 11i , Release 12, and so on). The list of patches is contained in an XML file that might be modified to include or exclude recommended patches.</p> <p>The file is located at: <OMS_HOME>\sysman\admin\emdrep\ebs\testsuites\CMTestSuite.xml</p>
EBS	CheckAmpAcp	Verify that the Agent is patched with the latest Oracle E-Business Suite management pack release. The Application Management Pack and the Application Change Management Pack patches are required on both the OMS and Agents.	If the Agent is not at the appropriate release, then it will need to be installed or upgraded through Oracle Universal Installer.
EBS	GetAPPSConfigVariables	Check if the context property JDBC_URL is available.	The context variable JDBC_URL needs to be set with non-null values for the Customization Manager jobs to proceed successfully. If the test fails, wait until the metric collection occurs, or force evaluation of the metric collection explicitly
EMGC	Summary	A summary of all of the diagnostic tests that have been executed, in these groups: Successful, Failed, With Warning, Aborted, and Total.	

User-Specific Diagnostic Tests for Customization Manager

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EBS	CheckEBSGlobalCred	Check Oracle E-Business Suite Preferred Credentials. This test verifies if the "Applsys Schema", "Apps Schema", and "System Schema" username/password exist; and, if so, if they are valid for a particular instance.	Verify the validity of the credentials supplied for the "Applsys Schema", "Apps Schema", and "System Schema" username/password for the "E-Business Suite" target type in Preferred Credentials. If the test fails, provide the correct credentials for the user in question. See: Setting Up Credentials, page 9-6.
EBS	Summary	A summary of all of the diagnostic tests that have been executed, in these groups: Successful, Failed, With Warning, Aborted, and Total.	

Customization Manager Main Page



The main page for Customization Manager lists packages that are registered in the system. For each package, the following is given:

- Name - The name of the package.
- ID - The ID of the package. This is always unique across packages.
- Release - The Oracle E-Business Suite release level for the package.
- Product - The owning product or custom application.
- Type - The type of package. Valid values include AOL, FORMS, PL/SQL, XML Publisher, OAF, and Others. This is purely for classification purposes and has no bearing on the functionality of the package.
- Status - The status of the package. Valid values include Saved, In Progress, Failed, Succeeded, Released, Pending Approval, and Obsoleted. Note that some actions are restricted based on the status of a package.
- Owner - The owner of the package. Note that some actions are restricted based on the owner of a package.
- Last Updated - The date and time the package was last updated.
- Update - Use this icon to update a package.
- Delete - Use this icon to delete a package.

You can search for a package based on its name or ID, or click the "Advanced Search" link to perform a search on other criteria.

The following functions are available for a given package (depending on its status and ownership):

- Using the procedure specified, deploy the package as a patch job in Patch Manager using the **Deploy** button. Packages with statuses "Succeeded" or "Released" can be deployed.
- Update the package metadata using the **Update Metadata** button. Packages with the statuses Succeeded or Released only can be updated for metadata changes, provided they are owned by the user currently logged in.
- Run a report on the package using the **Report** button. Packages with statuses Succeeded, Released or Obsoleted can be used for reports.
- Create a copy of a package using the **Create Like** button.

You can also create a new package using the **Create** button or upload an existing package using the **Upload** button.

Use the Related Links at the bottom of the page to access the following features:

- File Source Mapping

- E-Business Suite Mapping
- Package Report
- File Metadata Repository
- Custom Applications
- Custom Application Requests

Registering File Source Mapping

The screenshot displays the Oracle Enterprise Manager interface for the Customization Manager. The main section is titled 'File Source Mapping'. It includes a search bar with a 'Go' button and a 'Create' button. Below this is a table listing the mappings. The table has columns for Name, Host Name, Source Type, Owner, Last Updated, Enabled, Public, and Delete. One mapping is listed: 'fsm1' with Host Name 'rws3210140.us.oracle.com', Source Type 'SubVersion', Owner 'SYSMAN', Last Updated 'Mar 12, 2012 2:00:51 AM PDT', Enabled (checked), and Public (unchecked). Below the table, there are 'Related Links' for E-Business Suite Mapping, File Metadata Repository, Packages, Package Report, Custom Applications, and Custom Application Requests.

Name	Host Name	Source Type	Owner	Last Updated	Enabled	Public	Delete
fsm1	rws3210140.us.oracle.com	SubVersion	SYSMAN	Mar 12, 2012 2:00:51 AM PDT	✓	✗	🗑️

File Source Mapping captures all the required metadata for retrieving custom files from a source control or file system repository. Creating a File Source Mapping is usually performed once as a setup step. You may create one or more File Source mappings, if required.

The main File Source Mapping page allows you to search for a File Source Mapping by name. The table lists each mapping with the following:

- Name - The name given to the mapping. Click on the link to go to the Update File Source Mapping page.
- Host Name - The name of the host from where the source control or file system is accessible.
- Source Type - The type of the source control system. Valid values are: SubVersion, CVS, File System, or Others.
- Owner - The user who created this File Source Mapping.
- Last Updated - The date and time the mapping was last updated.
- Enabled - Specifies if the mapping is enabled or disabled. You can enable/disable a

mapping in the Update File Source Mapping page.

- Public - Whether the given mapping is public. If a mapping is public, all users can view it, but only the owner and Super Administrators can edit it.
- Delete - Use the icon provided to delete a mapping. You can delete a mapping only when no package is associated with it.

To create a File Source Mapping:

The screenshot shows the 'Create File Source Mapping' page in Oracle Enterprise Manager. The page has a blue header with navigation tabs like 'Enterprise', 'Targets', 'Favorites', and 'History'. The main content area contains several form fields:

- Name:** A text input field.
- Host Name:** A text input field with a search icon. Below it, a note says 'Preferred Credentials need to be set for this host'.
- Stage Path:** A text input field. Below it, a note says 'Location of the directory with write permissions from where files would be checked out'.
- Source Control Type:** A dropdown menu with 'SubVersion' selected.
- Command:** A text input field containing the command: `svn cat file:///usr/local/svn/%product_code%/%file_path%/%file_name% > %file_name`. Below it, a note says 'Complete checkout command with required parameters. Command should checkout file in the current directory.' There is a checkbox for 'Enable Automatic Header Update'.
- Environment Script:** A text input field. Below it, a note says 'Script to be run before checkout to set environment parameters'.
- Description:** A large text area.
- Public:** A checkbox.

On the right side, there is a 'Checkout Command Syntax' section with a table:

Name	Description
%product_code%	Substitution variable for the product code
%file_path%	Substitution variable for source path
%file_name%	Substitution variable for file name
%version%	Substitution variable for version
%lang_code%	Substitution variable for language
%user_name%	User Name
%password%	Password

At the bottom of the form, there is a 'Test Checkout Command' button.

Perform the following steps to create your File Source Mapping. Note that for the checkout command, you should follow the checkout command syntax provided on the page.

1. Enter the name for the file source mapping.
2. Enter the host name of the file source mapping. You can select the host from the list of values.
3. Enter the stage path. This should be a folder on the given host with read/write access which is used for temporary processing during checkout.
4. Select the source control type. Possible values are:
 - SubVersion
 - CVS
 - File System
 - Others

The source control type is used to default the checkout command. However, the checkout command can be modified based on your source control or file system configuration. If your source control system is not among CVS, SubVersion or File System, then you may choose "Others" and enter your checkout command.

5. Enter the complete command, with required parameters, to be used to check out files. The parameters that can be used to construct the checkout command are mentioned under the "Checkout Command Syntax: section. Oracle strongly recommends that you to test the checkout command by using the "Test Checkout Command" option. It is also important to ascertain that the user provided within the "host" credentials has the correct permissions on the given host selected for checkout.
6. Optionally enter the environment script to be run before files are checked out, to set any environment parameters ore preprocessing, if required.
7. Enter a description for your reference.

8. Mark the file source mapping as Public if desired.

If a file source mapping is marked as Public, any user can view it and use it to create a package. However, only the owner and Super Administrators can edit the file source mapping.

This feature is typically useful when you would want the system administrator to create one mapping and enable all developers to use them, without having them know the details of the source control system.

Note that a Super Administrator can see all transactions. A Super Administrator can access all file source mappings, Oracle E-Business Suite mappings, reports, and packages. A Super Administrator can also modify and delete them.

9. The "Test Command" feature allows you to test the checkout command and the version command provided on the remote checkout host. It is strongly recommended that you test the checkout command and version command to help prevent any failures during checkout while creating a package. Enter Test Checkout Command information

Test Checkout Command

Product Language

Source Path User Name

File Name Password

Version

Command Preview

Test Result

Enter the following:

- Product
- Source Path
- File Name
- Version
- Language
- User Name - If your source control system requires it and a %user_name% token is included within the checkout command.
- Password - If your source control system requires it and a %password% token is included within the checkout command.

Use the **Preview** or **Test** button to preview or test the checkout command and version command. The results will be shown in the Command Preview or Test Results field.

To update a File Source Mapping:

You can update a File Source Mapping by clicking on its name listed in the main File Source Mapping page. You can only update the fields described below. It is not possible to update the host for a given file source mapping.

Note that you can check or uncheck the Enabled box to enable or disable a file source mapping.

1. Enter the source control type. Possible values are:
 - SubVersion
 - CVS

- File System
 - Others
2. Enter the complete command, with required parameters, to be used to check out files.
 3. Enter the stage path. The stage path is the location of the directory, with write permissions, to where the files would be checked out.
 4. Optionally enter the environment script to be run before files are checked out, to set environment parameters.
 5. Enter a description.
 6. Mark the file source mapping as Public if desired. If it is marked as Public, all users can view the mapping. However, only the owner and Super Administrators can edit it.
 7. The separate preview and test section is provided so that you can preview the checkout command and test it on the remote checkout host. It is strongly recommended that you test the checkout command before actually using it to create a package.

Enter the following:

- Product
- Source Path
- File Name
- Version
- Language
- User Name
- Password

Use the **Preview** or **Test** button to preview or test the checkout command. The results will be shown in the Command Preview or Test Results field.

Example of a File Source Mapping with Parameters

The following table provides information on the file source mapping parameters and sample values for each parameter.

Name	Description	Related User Interface Page	Sample Value
%product_code%	Substitution variable for the product code	Create/Update Package - File Listing	xxco
%file_path%	Substitution variable for source path	Create/Update Package - File Listing	patch/115/import
%file_name%	Substitution variable for file name	Create/Update Package - File Listing	Custom_Responsibilities.l dt
%version%	Substitution variable for version	Create/Update Package - File Listing	115.32
%lang_code%	Substitution variable for language	Create/Update Package - File Listing	US
%user_name%	Substitution variable for username	Create/Update Package - General	developer1
%password%	Substitution variable for password	Create/Update Package - General	welcome1

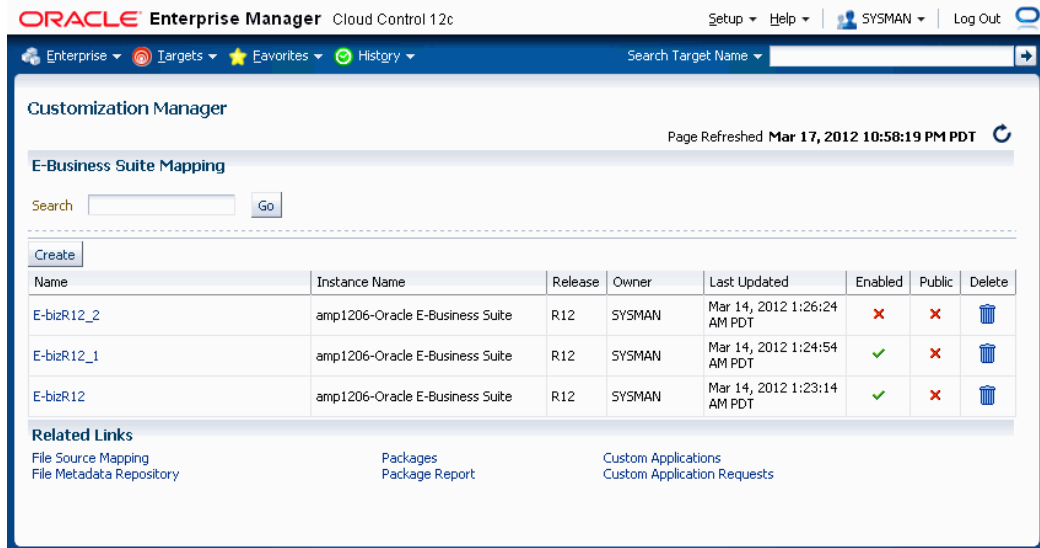
Here is the syntax of a checkout command with the parameters:

```
svn cat
file:///usr/local/svn/%product_code%/%file_path%/%lang_code%/%file_name%
--username %user_name% --password %password% > %file_name%
```

Here is the above checkout command with values substituted for the parameters:

```
svn cat
file:///usr/local/svn/xxco/patch/115/import/US/Custom_Responsibilities.l
dt --username developer1 --password <password> >
Custom_Responsibilities.ldt
```

E-Business Suite Mapping



Creating an E-Business Suite Mapping is an optional setup step. This mapping is used if Java or PLD file compilation is required. It is also used for report generation. The E-Business Suite Mapping indicates the Oracle E-Business Suite instance which would be used to compile Java or PLD files or used for report generation. Please note that all operations on this instance are read-only and using an instance for E-Business Suite mapping cannot cause any kind of change on the given instance via Customization Manager.

The main E-Business Suite Mapping page allows you to search for an E-Business Suite Mapping by name. The table lists each mapping with the following:

- Name - The name given to the mapping. Click on the link to go to the Update E-Business Suite Mapping page.
- Instance Name - The name of the Oracle E-Business Suite instance.
- Release - Release level of the Oracle E-Business Suite instance.
- Owner - The user who created this mapping.
- Last Updated - The date the mapping was last updated.
- Enabled - Specifies if the mapping is enabled or disabled. You can enable/disable a mapping in the Update E-Business Suite Mapping page.
- Public - Whether this E-Business Suite Mapping is available for all users. If a mapping is marked as Public, all users can view it, but only the owner and Super

Administrators can edit it.

- Delete - Use the icon provided to delete a mapping. You can delete a mapping only when there are no packages associated with it.

Select the **Create** button to create a new mapping.

To create an E-Business Suite Mapping:

The screenshot shows the Oracle Enterprise Manager interface for creating an E-Business Suite Mapping. The page title is "Create E-Business Suite Mapping". The form includes the following fields and options:

- Name**: A required text input field.
- E-Business Suite Instance**: A text input field with a search icon. Below it, there is a note: "Preferred Credentials need to be set for this E-Business Suite instance" and a checkbox labeled **Public**.
- Stage Path**: A required text input field. Below it, there is a note: "Location of the directory with write permissions from where files would be checked out".
- Prepend Classpath**: A text input field. Below it, there is a note: "Classpath to be prepended while building the package".
- Description**: A large text area for entering a description.

There are "Cancel" and "Submit" buttons at the top right and bottom right of the form.

Use the following steps to create an E-Business Suite Mapping.

1. Enter a name for the mapping.
2. Enter the name of the reference Oracle E-Business Suite instance. Options for this instance are automatically discovered by Oracle Application Management Pack for Oracle E-Business Suite.
3. Mark the mapping as Public, if desired.

If an E-Business Suite Mapping is marked as Public, any user can view it and use it to create a package, but only the owner and Super Administrators can edit it.

This feature is typically useful when you would want the system administrator to create one mapping and enable all developers to use them, without having them know the details of the source control or Oracle E-Business Suite system.

Note that a Super Administrator can see all transactions, including E-Business Suite mappings. A Super Administrator can access all file source mappings, E-Business Suite mappings, reports, and packages. A Super Administrator can also modify and delete them.

4. Enter the stage path. The stage path is the location of the directory with write permissions used for temporary processing during compilation and build process.

5. Enter the prepend classpath. This field is valid only with Java files; this classpath is prepended to these files when a package is built. This can be used to specify any third party libraries if you custom java files have dependencies on them.
6. Enter a description for the mapping.

To update an E-Business Suite Mapping:

To update an E-Business Suite Mapping, click on its name in the main E-Business Suite Mapping page. Note that you cannot update the E-Business Suite Mapping name or the instance mapping here.

1. Check the Enabled box if you want the E-Business Suite Mapping to be active.
2. Check or uncheck the "Public" box depending on whether the mapping should be viewable by all users.
3. Enter the stage path. The stage path is the location of the directory with write permissions to where files would be compiled.
4. Enter the prepend classpath. This field is valid only with Java files; this classpath is prepended to the environment classpath during package compilation.
5. Enter a description for the mapping.

Creating a Package

Use the following procedures to create packages:

To create a package:

1. Enter general information for the package. The Package ID is an auto-generated unique number.

- Package Name - Enter a user-friendly name for the package.
- Product - Enter the owning product application. This product can be a custom product created in Oracle E-Business Suite (not in Customization Manager).
- Package Type - Enter the package type. This value is for your own classification and convenience for searching and cataloging. No validation is performed on this field.
- Description - Enter a description for your reference. This description becomes part of the package readme.
- File Source Mapping - Enter the File Source Mapping for this package. Select from the list of previously-defined mappings.
- User Name - Enter the user name to connect to the source control system, if required. The User Name will be substituted in the "%user_name%" parameter of the checkout command.
- Password - Enter the password for the above user name, if required. The password entered here would be substituted for the %password% token within your checkout command.
- Upload Manifest - If you have a file manifest in a comma-separated value (CSV) format on your computer, you can upload it here.

The following is an example of a file manifest:

```
#Product,SourcePath,FileName,Version,Type,DestPath,LangCode
xxco,java\r12\reporter\cpserver,XXCOCustomCp.java,115.1,java,java
/r12/reporter/cpserver,Generic
xxco,patch\115\import,XXCOConcprog.ldt,115.9,software
ldt,patch/115/import,US
xxco,patch\115\import,XXCOMenu.ldt,,software
ldt,patch/115/import,US
xxco,patch\115\import,XXCOCReqGroup.ldt,115.3,software
ldt,patch/115/import,US
xxco,patch\115\import,XXCOCResp.ldt,115.7,software
ldt,patch/115/import,US
xxco,patch\115\import,XXCOUser.ldt,115.6,software
ldt,patch/115/import,US
xxco,forms,XXCOFRM.fmb,,fmb,forms,US
```

2. Enter the file listing.

The screenshot shows the Oracle Enterprise Manager interface for creating a package. The main heading is "Create Package: File Listing". Below this, there are navigation buttons: "General", "File Listing" (selected), and "Submit". There are also "Cancel", "Save", "Back", "Step 2 of 3", and "Next" buttons. The table below has the following structure:

Select	Product	Source Path	File Name	Version	Type	Destination Path	Language	Status
<input type="checkbox"/>					none		Generic	
<input type="checkbox"/>					none		Generic	
<input type="checkbox"/>					none		Generic	
<input type="checkbox"/>					none		Generic	
<input type="checkbox"/>					none		Generic	
<input type="checkbox"/>					none		Generic	
<input type="checkbox"/>					none		Generic	
<input type="checkbox"/>					none		Generic	
<input type="checkbox"/>					none		Generic	
<input type="checkbox"/>					none		Generic	

You may add or remove file entries manually from the File Listing page. Alternatively, you may also include file entries from the File Metadata Repository using the **Include Files** button.

For each file, enter the following:

- **Product** - The owning product application. This product can be a custom product created in Oracle E-Business Suite (not in Customization Manager). This would be substituted in the "%product_code%" parameter in the checkout command.
- **Source Path** - The source directory for the file on the source control system or file system. This would be substituted in the "%file_path%" parameter in the checkout command.

- File Name - The name of the file. This would be substituted in the "%file_name%" parameter in the checkout command.
- Version - Optional. The version of the file. The version is only needed if the checkout command will use the version information. This would be substituted to the "%version%" parameter in the checkout command.
- Type - The type of the file. Ensure that correct type is selected for the file entry. The Oracle Applications DBA (AD) patch driver instructions are based on the type selected. For details, please refer to the appendix describing the file types.
- Destination Path - The destination path for the file in the Oracle E-Business Suite instance excluding the language subdirectory relative to the product top. For common file types, a default destination path is provided automatically but this default value can be overridden.

The destination path must be an AD-compliant destination path according to Oracle E-Business Suite standards.

The destination path in the patch driver is automatically suffixed with the language code chosen with exception to "Generic".

Note: For "Generic" files, ensure that the destination path is entered correctly: For example,

```
Product: XXCO
Source Path: forms/US
File Name: IDC.fmb
Destination Path: forms
Language: US
```

The final destination path is "forms/US" but the values are entered separately.

- Language - Optional. The language code for the file. Select the language code as needed to generate the respective NLS patch.

Important: Customization Manager strongly recommends that each file included within a customization package has an Oracle-compliant source header present within the file.

The following is a sample Oracle compliant header:

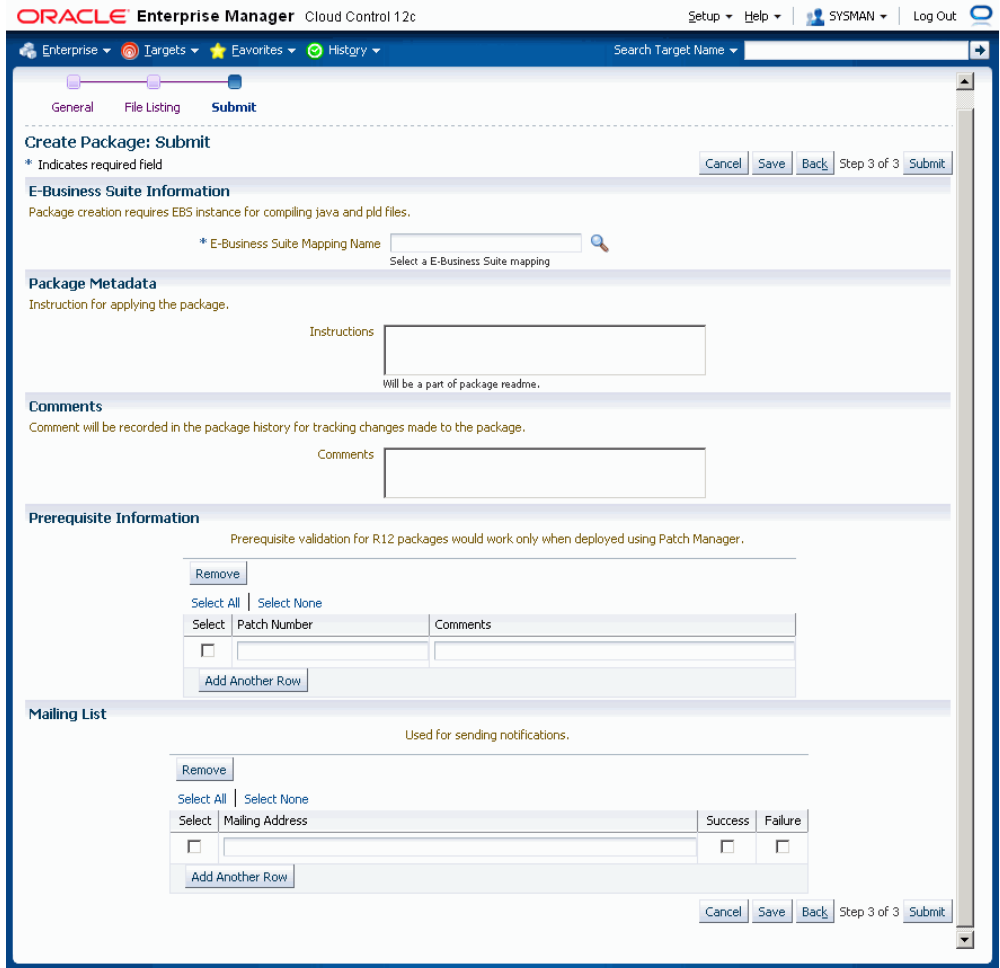
```
$Header: sample.txt 10.1 2012/04/06 09:38 lmathur
noship $
```

The header contains the following elements:

- Filename

- Revision ID - This needs to be incremented every time a file is checked in
- Date and time of checkin
- Author
- Shipment state - ship/noship

3. Enter in additional information for your package.



- Enter the E-Business Suite information (Conditionally required). The E-Business Suite mapping information is only required when the package contains at least one Java or PLD file. You can select the Oracle E-Business Suite Mapping from the list provided.
- Enter the Package Metadata. You can enter the instructions for package application here. These instructions will become part of the package readme.
- Enter Comments. These comments will be recorded as part of the package history for tracking changes made to the package.
- Enter Prerequisite Information.
 For Release 11i packages, you can enter one or more prerequisite patch numbers that can be used for deployment validation with AD utilities.
 For Release 12 (and higher) packages, enter in the prerequisite patch numbers that will be used in validation when the package is deployed through Patch

Manager. Note that this validation is done only if you use the **Check Prerequisites** button in the Patch Details page when creating a patch run in Patch Manager.

Note: Prerequisite information entered here for Release 12 packages is only used in deployment by Patch Manager.

- Enter Mailing List information.

You can enter e-mail addresses for people who should be sent notifications about the package's creation status on the event of success or failure. It is recommended to have e-mail notifications set so that the appropriate users can be notified about the package success or failure.

4. Click **Submit**.

To create a package using the "Create Like" option:

The screenshot shows the Oracle Enterprise Manager interface for creating a package. The page title is "ORACLE Enterprise Manager Cloud Control 12c". The user is logged in as "SYSMAN". The navigation bar includes "Enterprise", "Targets", "Favorites", and "History". The main content area is titled "Create Package: General" and is part of a three-step process (Step 1 of 3). The form includes the following fields:

- Package ID: 100000000052 (Package ID is auto generated)
- * Package Name: Copy of package24 Mar 17, 2012
- Release: R12
- * Product: xxco
- Package Type: AOL
- Description: (empty text area)
- * File Source Mapping: File System on rws3210140 (Select from an existing file source mapping)
- User Name: (empty text field)
- Password: (empty text field)
- Upload Manifest: (empty text field) with a "Browse..." button

The form includes "Cancel" and "Next" buttons at the top and bottom right.

Customization Manager allows you to create a package by copying the details from an existing package. This procedure can be used typically to create a mirror copy of the package or create another package with minor modifications without having to enter all the relevant details about the package.

Note: If you are using a version of Mozilla Firefox higher than 5, the Create Like page is not loaded automatically. To work around this issue, click the **Refresh** button on the page.

To create a package using the Upload option:

The screenshot shows a web application interface for uploading a package. The top navigation bar includes 'Enterprise', 'Targets', 'Favorites', and 'History' menus, along with a search bar for 'Search Target Name'. The main content area is titled 'Upload Package' and contains several sections:

- Upload Package:** A form with the following fields:
 - * Package Name: Text input field.
 - Release: Dropdown menu with '11i' selected.
 - * Product: Text input field.
 - Package Type: Dropdown menu with 'AOL' selected.
 - Description: Large text area.
- Package Metadata:** A section with the instruction 'Instructions for applying the package.' and a text area labeled 'Instructions'.
- Select Patch For Upload:** A section with the instruction 'You may upload related patches from your desktop.' and a text input field labeled 'Upload Patch' with a 'Browse...' button and an 'Upload' button below it.
- Uploaded Patches:** A table with the following columns: File Name, Language, Size, and Delete.

If you have any legacy custom patches, the same can be uploaded to the Customization Manager repository in context to a new customization package. Click the **Upload** button from the package search page to upload an existing custom patch. While uploading a custom patch, the following information is required:

- Package Name
- The release to which the custom patch belongs to.
- The custom product/application associated with the custom patch
- Package type: only for classification purposes
- Description for your reference
- Any specific instructions for applying the custom patch

You can upload one or more custom patches (NLS patches) to this customization package. However, it is important that all of them must be associated with the same unique patch number. Clicking the **Submit** button creates a customization package with the status "Succeeded". This customization package can now be deployed just like any other customization package and can be "Released" or "Obsoleted", when required.

Updating a Package

To update a package, find the package listing in the main Customization Manager page and select the icon in the Update column.

To update a package's definition:

1. Enter general information for the package. The Package ID is an auto-generated unique number and cannot be updated. The Package Name cannot be updated as well.
 - Release - Choose the release for the package.
 - Product - Enter the owning product application. This product can be a custom product created in Oracle E-Business Suite (not in Customization Manager).
 - Package Type - Enter the package type. This value is for your own classification and convenience for searching and cataloging. No validation is performed on this field.
 - Description - For your reference.
 - File Source Mapping - Enter the File Source Mapping for this package. Select from the list of previously-defined mappings.
 - User Name - Enter the user name to connect to the source control system, if required. The User Name and Password (below) will be substituted in the "%user_name%" and "%password%" parameters of the checkout command.
 - Password - Enter the password for the above user name, if required.
 - Upload Manifest - If you have a file manifest as a comma-separated value (CSV) format on your computer, you can upload it here.
2. You may add or remove file entries manually from the File Listing page. Alternatively, you may also include file entries from the File Metadata Repository using the **Include Files** button.

For each file, enter the following:

- Product - The owning product application. This product can be a custom product created in Oracle E-Business Suite (not in Customization Manager).
- Source Path - The source directory for the file on the source control system or file system. This would be substituted in the "%file_path%" parameter in the checkout command.

- File Name - The name of the file. This would be substituted in the "%file_name%" parameter in the checkout command.
 - Version - Optional. The version of the file. The version is only needed if the checkout command will use the version information. This would be substituted in the "%version%" parameter in the checkout command.
 - Type - The type of the file. Ensure that correct type is selected for the file entry. The Oracle Applications DBA (AD) patch driver instructions are based on the type selected.
 - Destination Path - The destination path for the file in the Oracle E-Business Suite instance excluding the language subdirectory. This must be an AD-compliant destination path according to Oracle E-Business Suite standards. The destination path in the patch driver is automatically suffixed with the language code chosen with exception to "Generic". The destination path for a file entry is defaulted to the source path, which may be modified if necessary.
 - Language - Optional. The language code for the file. Select the language code as needed to generate the respective NLS patch.
3. Enter in additional information for the package.
- Enter the E-Business Suite mapping information (Conditionally required). The E-Business Suite mapping information is only required when the package contains at least one Java or PLD file. You may select the E-Business Suite Mapping from the list provided.
 - Enter the Package Metadata. You can enter the instructions for package application here. These instructions will become part of the package readme.
 - Enter Comments. These comments will be recorded as part of the package history for tracking changes made to the package. As a best practice, it is recommended to add comments describing the changes done to the package and other details. Any comments added are tracked with the package history information.
 - Enter Prerequisite Information.
For Release 11*i* packages, you can enter one or more prerequisite patch numbers that can be used for deployment validation with AD utilities.
For Release 12 (and higher) packages, enter in the prerequisite patch numbers that will be used in validation when the package is deployed through Patch Manager. Note that this validation is done only if you use the **Check Prerequisites** button in the Patch Details page when creating a patch run in Patch Manager.

Note: Prerequisite information entered here for Release 12 packages is only used in deployment by Patch Manager.

- Enter in Mailing List information. You can enter e-mail addresses for people who should be sent notifications about the package's update status on the event of success or failure.

4. Click **Submit**.

Saving a Package

If, in the process of creating or updating a package definition, you want to save the package definition before submitting a request to have Enterprise Manager actually build the package, click the **Save** button on the File Listing page or the Submit page of the Create/Update process. Your package definition will be saved and it will appear on the main Customization Manager page with a status of Saved.

Searching for a Package

You can perform an Advanced Search for packages with the following criteria:

- Name
- ID
- Product
- Instruction Contains
- Prerequisite Patch
- Description Contains
- Owner
- Release
- Package Type
- Standards Check Results
- Status
- Language

- Public (Choose whether you want results with only Public packages, no Public packages, or either)
- Contains File
- Contains File with Version (Used in conjunction with "Contains File")
- Updated within (Days)
- File Source Mapping Name
- E-Business Suite Mapping Name
- Last Updated By

Viewing Package Details

View package details by selecting its name in the search results table on the main Customization Manager page.

Package Details

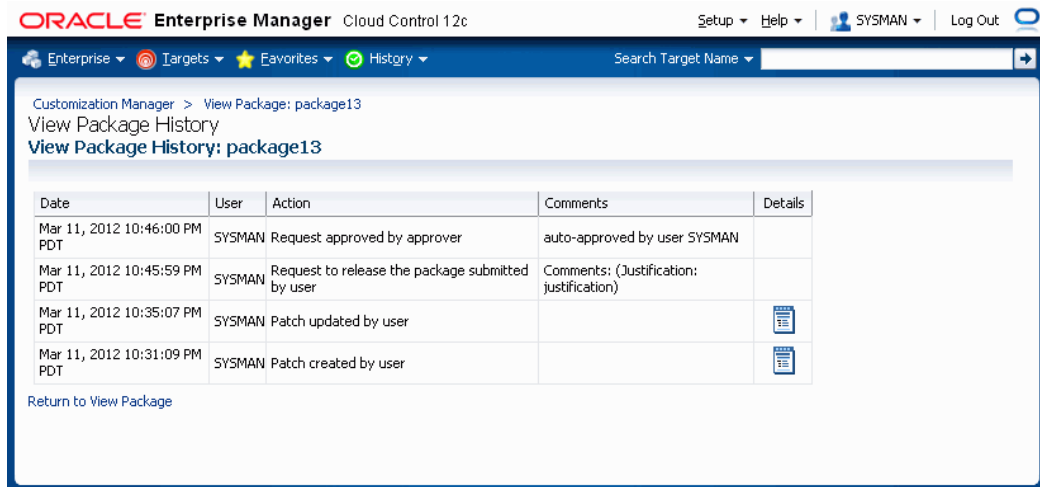
The following details are shown in this region:

- Package ID
- Release
- Standard Checker Results - For detailed results, click on the link.
- Created - The date and time the package was created.
- Last Updated - The date and time the package was last updated.
- Last Updated By - The user who last updated the package.
- Status - The status of the package. Possible values are: In Progress, Succeeded, Saved, Failed, Released, and Obsoleted.
- Product
- Package Type
- E-Business Suite Mapping Name – If applicable.
- File Source Mapping Name

- Owner
- Uploaded: Whether this package was created as a result of a patch upload.
- Public: Whether this package is shared across all users.

History Details (View Package History)

The package history provides a chronological view of all the important events in the lifecycle of a package.



Select the **History Details** button to go to the View Package History page, which provides high-level history tracking of the package, including the timestamp and user-entered comments for the following events:

- Creation of package
- Update of package
- Release of package

You can also drill down to the Oracle Enterprise job details for the package creation and any updates.

View Log

Use the **View Log** button to view the most recent Oracle Enterprise Manager job details for the package.

Description

Any description entered for the package is shown here.

Instructions

Instructions entered in the Package Metadata field are shown here.

Patch Downloads

For each patch generated, the following information is shown here:

- File Name - Click on the patch file name link to download the patch.
- Language - The language of the patch.
- Size - The size of the patch.
- Readme - Click on the icon to download the readme. The readme file is in HTML format and includes the package description and package metadata.

Typically, each customization package could be associated with one or more language patches.

Manifest

The file manifest is shown here. Details for each file include Product, Source Path, File Name, Language, Destination Path, Version, and Last Updated timestamp.

Use the **Download Manifest** button to download the manifest as a comma-separated values (CSV) file, viewable in Microsoft Excel.

You can search for a specific file by entering in the file name in the "Locate File" field and clicking **Go**. Wildcard characters "%" and "*" are supported here.

Technology Stack Details

The Technology Stack details for a package provide a snapshot of the technology stack properties for the Oracle E-Business Suite instance where the package was compiled. Patch Manager, when deploying the patch, checks the compatibility of the details specified here with the environment to which the package is being deployed. You can first check Technology Stack compatibility yourself by running "Instance Comparison" reports.

Attachments

You may add or remove any associated documentation like project plan, design documents, and so on. For each attachment, the following is listed:

- File Name
- Description

- Last Updated timestamp

You can remove an attachment from the package using the Delete icon. If the package is Released or Obsoleted, then the attachments cannot be deleted.

Prerequisite Information

Any prerequisite patches are listed here along with any comments.

Mailing List

View the e-mail addresses for people who should be sent notifications about the package, on the event of success or failure.

Package History

View the history of the package by clicking the **History Details** button. The package history captures a trail of all major actions upon the package with the comments captured.

Updating Package Metadata

The screenshot shows the Oracle Enterprise Manager interface for updating package metadata. The page title is "Update Package Metadata for Package: package24". The form contains the following fields and options:

- Package ID: 100000000050
- Package Name: package24
- Release: R12
- Product: xxco
- Package Type: AOL
- Status: Succeeded (dropdown menu)
- Add file metadata to file repository
- Public (Released/Obsoleted packages are 'Public' by default.)
- Comments: (text input field)

At the bottom of the form, there is a note: "Comment will be recorded in the package history for tracking changes made to the package". There are "Cancel" and "Submit" buttons at the top right and bottom right of the form area.

Package metadata can be updated to change the status of the package or to push the file entries metadata in the package to the File Metadata Repository. The "Update Package Metadata" page enables you to do the following:

- Change the status of the package. You can release or obsolete a package by changing its status to "Released" or "Obsoleted". Once a package is updated to the "Released" status, it can no longer be updated and becomes accessible to other users. Once a package is updated to the "Obsoleted" status, it can no longer be updated or deployed.

Note: With the Change Approval Framework, once an approver approves a request to release/obsolete a customization package from a user, the package is released/obsoleted. The user does not need to release/obsolete the package explicitly after the approval.

Tip: Add comments for future reference when you release or obsolete a package. For example, state the reason why you are obsoleting a package.

- Add file metadata entries to the File Metadata Repository.
- If you are the owner of the package or super administrator, you can mark the package as "Public" which entitles the package to be shared across all users for view/update.
- Add comments which are recorded in the package history for the above changes.

Standards Checker Results

The results of the standards checker can be accessed by clicking on the standards checker status.

The standard checker results can also be downloaded as a CSV format file by clicking the **Download Results** button.

To view details about the standard checker validations for a given file, click on the overall status against each file. The details about the standard checker validations include the standard name, result and the message.

In case the standard checker completes with "Error", the package processing is aborted and there are no patches generated.

Package Reports

Customization Manager offers powerful reporting capabilities to help you document, compare and track your customizations. You can generate three types of reports on packages:

- A Standard report gives you details on a single package, including technology stack requirements and the file manifest. You might use this to document customizations.
- A Comparison report allows you to compare two packages. For example, you might want to compare their technology stack snapshots or the versions of the files included in the packages.

- An Instance Comparison report allows you to compare the details of the package with that of an actual Oracle E-Business Suite instance. The details which are compared include custom application, file driver file entries, file manifest and versions, and the technology stack snapshot of a package to the technology stack properties of a given instance. By doing this comparison you can determine possible compatibility issues of the package with the instance and assess the possible impact/possible issues before actually applying the patch.

The technology stack compatibility information and the report is also available from the Patch Manager interview process by clicking the "Technology Stack Report" icon on the Patch Details page.

Important: Oracle strongly recommends that you generate an Instance Comparison report for each custom package and the instance where it is intended to be deployed to identify any technology stack incompatibilities before actually applying the patch.

Reports can be accessed from the Reports link on the Change Management dashboard, or from the Reports link under Related Links on the Package Search page.

Creating a Report

To create a report, you can

- Select a package from the Package Search results page and click **Report**
- Click **Report** button on the View Package page, or
- Click the **Create** button on the Package Report page.

To create a Standard Report:

A Standard report gives you details on a single package, including technology stack requirements and the file manifest.

The screenshot shows the Oracle Enterprise Manager interface for creating a report. The page title is "ORACLE Enterprise Manager Cloud Control 12c". The user is logged in as "SYSMAN". The main content area is titled "Create Report" and contains the following fields and options:

- Name:** A text input field with an asterisk indicating it is required.
- Report Type:** A dropdown menu currently set to "Standard".
- Package:** A text input field containing "package24" with a search icon. A note below it states: "Reports can be created for only Succeeded, Released, or Obsoleted packages."
- Report Format:** A dropdown menu currently set to "PDF".
- E-Business Suite Mapping:** A text input field with a search icon. A note below it states: "E-Business Suite mapping used for report generation".

There are two "Cancel" and "Submit" buttons, one at the top right and one at the bottom right of the form area.

1. Enter in a user-friendly name for your report.
2. Choose Standard for the Report Type.
3. Enter the package you want the report to be based on in the Package field. This package must have the status of Succeeded, Released, or Obsoleted.
4. Enter the Report Format. Options are:
 - PDF (Portable Document Format)
 - RTF (Rich Text Format)
 - XLS (Microsoft Excel format)
5. Enter the Oracle E-Business Suite Mapping to be used for the report generation.
6. Click **Submit**.

To create a Comparison Report:

A Comparison report allows you to compare two packages. For example, you might want to compare technology stack requirements or versions of the files included in the packages.

1. Enter in a user-friendly name for your report.
2. Choose Comparison for the Report Type.
3. Enter the package name in the Primary Package field. This package must have the status of Succeeded, Released, or Obsoleted.
4. Enter the package name in the Secondary Package field. This package must have the status of Succeeded, Released, or Obsoleted.
5. Enter the Report Format. Options are:
 - PDF (Portable Document Format)
 - RTF (Rich Text Format)
 - XLS (Microsoft Excel format)
6. Enter the Oracle E-Business Suite Mapping to be used for the report generation. Please note that this instance would be only used to publish the report using BI Publisher.
7. Click **Submit**.

To create an Instance Comparison Report:

An Instance Comparison report allows you to compare the technology stack properties of a package to the technology stack properties of a given instance. By doing this comparison, you can tell if the package can be properly deployed on the instance.

In addition, the report lists any missing entries in the file driver file, and compares files

and versions within the package to those of the instance.

The screenshot shows the Oracle Enterprise Manager interface for creating a report. The page title is "ORACLE Enterprise Manager Cloud Control 12c". The user is logged in as "SYSMAN". The navigation menu includes "Enterprise", "Targets", "Favorites", and "History". The main content area is titled "Create Report" and contains the following fields:

- Name:** A text input field with an asterisk indicating it is required.
- Report Type:** A dropdown menu currently set to "Instance Comparison".
- Package:** A text input field containing "package24" with a magnifying glass icon. Below it, a note states: "Reports can be created for only Succeeded, Released, or Obsoleted packages."
- Report Format:** A dropdown menu currently set to "PDF".
- E-Business Suite Mapping:** A text input field with a magnifying glass icon. Below it, a note states: "E-Business Suite mapping used for comparison against the package".

There are "Cancel" and "Submit" buttons at the top right and bottom right of the form area.

1. Enter in a user-friendly name for your report.
2. Choose Instance Comparison for the Report Type.
3. Enter the package you want the report to be based on in the Package field. This package must have the status of Succeeded, Released, or Obsoleted.
4. Enter the Report Format. Options are:
 - PDF (Portable Document Format)
 - RTF (Rich Text Format)
 - XLS (Microsoft Excel format)
5. Enter the Oracle E-Business Suite Mapping to be used for the report comparison. The Oracle E-Business Suite instance referred by this mapping would be the one which would be compared against the package. As a best practice, it is recommended to generate an instance comparison report for every instance where you intend to deploy the package, to identify any possible incompatibilities/issues before actually applying the package.
6. Click **Submit**.

Viewing a Report

To access reports, navigate to the Change Management tab > Package Report, or to the Customization Manager home page > Package Report (under Related Links).

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Customization Manager Page Refreshed Mar 17, 2012 11:28:39 PM PDT

Package Report Search Go Advanced Search

Name	Type	Primary Package	Secondary Package	E-Business Suite Mapping	Format	Status	Owner	Last Updated	Download	Details	Delete
report3R12	Comparison	package12	package17	E-bizR12_1		Succeeded	SYSMAN	Mar 14, 2012 2:09:49 AM PDT	report3R12.zip		
report2R12	Comparison	package16	package17	E-bizR12		Succeeded	SYSMAN	Mar 14, 2012 1:51:03 AM PDT	report2R12.zip		
report1R12	Standard	package16		E-bizR12		Succeeded	SYSMAN	Mar 14, 2012 1:47:17 AM PDT	report1R12.zip		
report4I1i	Instance Comparison	package1		E-biz311i		Succeeded	SYSMAN	Mar 7, 2012 10:53:54 PM PST	report4I1i.zip		
report111i	Standard	package1		E-biz311i		Succeeded	SYSMAN	Mar 7, 2012 10:49:28 PM PST	report111i.zip		
report311i	Comparison	package7	package5	E-biz311i		Succeeded	SYSMAN	Mar 7, 2012 10:47:16 PM PST	report311i.zip		
report211i	Comparison	package2	package4	E-biz111i		Succeeded	SYSMAN	Mar 7, 2012 10:15:33 PM PST	report211i.zip		

Related Links
[File Source Mapping](#)
[File Metadata Repository](#)
[Packages](#)
[E-Business Suite Mapping](#)
[Custom Applications](#)
[Custom Application Requests](#)

In the Package Report search results table, the following is shown for each report:

- Name - The name of the report.
- Type - The type of the report; either Standard, Comparison, or Instance Comparison.
- Primary Package - The primary package on which the report is based.
- Secondary Package (if any) - For Comparison reports, the second package used in the comparison.
- E-Business Suite Mapping - The E-Business Suite Mapping used in the report generation or comparison.
- Format - The format of the report; either PDF, RTF, or XLS.
- Status - The status of the report.
- Owner - The user who created the report.
- Last Updated - The Last Updated timestamp for the report.
- Download - Click on the link provided to download a ZIP file containing the report.
- Details - Click on the Details icon to view details on the report submission job. This link takes you to the Oracle Enterprise Manager Deployments Status page for the report submission.
- Delete - Click on the Delete icon for the report to delete the report.

Standard Report Output File

The Standard Report output file has three sections:

- Package Details - Information pertaining to the package's definition.
- Technology Stack Information - Properties and values of the technology stack of the instance mapped through the Oracle E-Business Suite Mapping for the package.
- File Manifest - The listing of the files in the package, including their respective product, source path, name, version, language, and type.

Comparison Report Output File

The Comparison Report output file has three sections:

- Package Details - Information pertaining to the packages' definitions.
- Technology Stack Information - This section shows a comparison of the values of the two packages' technology stack details.
- File Manifest - This section shows a comparison of the versions of each given file in the two packages.

Instance Comparison Report Output File

The Instance Comparison Report output file has six sections:

- Package Details - Information pertaining to the package's definition.
- Oracle E-Business Suite Instance Information - Basic information for the instance used in the report comparison. Information includes name, patch level for Applications DBA (AD), patch level for Oracle Application Object Library (FND), and the database release information.
- Missing custom products/applications.
- Missing entries in file driver file.
- File comparison to report missing files or version differences.
- Technology Stack Details - For each given property, this table lists the value for the package and the Oracle E-Business Suite instance, and how they compare to each other.

Searching for a Report

You can search for a report by its name on the main Package Report page, or click the Advanced Search link to search based on additional criteria, including:

E-Business Suite Mapping - The E-Business Suite mapping used for the report generation or comparison.

- Primary Package - The primary package for the report.
- Secondary Package - The secondary package, if any. The secondary package would be used in Comparison Reports.
- Type - The type of report; either Standard, Comparison, or Instance Comparison.
- Report Format - The format chosen for the report; either PDF, RTE, or XLS.

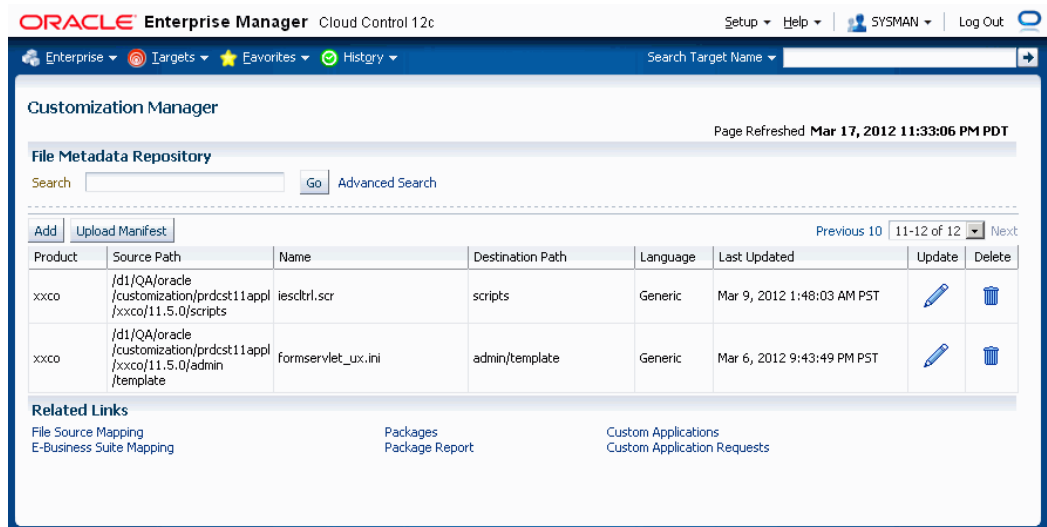
Releasing and Sharing a Package

After a package is released, it is implicitly shared with other users to deploy. Use the Update Package Metadata page to release a package. See: Updating Package Metadata, page 11-36.

Note: With the Change Approval Framework, once an approver approves a request to release a customization package from a user, the package is released. The user does not need to release the package explicitly after the approval.

Before you deploy a custom package in Patch Manager, you should run the Instance Comparison Report to compare the technology stack properties of the package with those of the instance to which the package is being deployed. Patch Manager does not stop the deployment of a patch if the technology stack properties are not compatible, so you should make your best judgement based on the Instance Comparison Reports.

Maintaining the File Metadata Repository



The File Metadata Repository stores metadata information on each file. It can be used as a cataloging repository for all custom files within your enterprise.

The File Metadata Repository is also aware of the objects within the custom files. This capability typically applies to SQL scripts and PL/SQL packages where the objects are tables, indexes, sequences, views, and so on.

The system can parse and discover objects within custom files when added to the File Metadata Repository. This can be initiated from the "Update Package metadata" screen on clicking the box "Add file metadata to file repository".

Examples of custom objects include:

- Tables
- Views
- Mviews and Mview logs
- Triggers
- PL/.SQL package names
- Indexes

You can view and updates objects populated for a give file. You can also search for files containing specified objects and include them during package creation or update.

Search capabilities are limited to:

- PL/SQL spec and body (all formats)
- SQL files
- Oracle Application Framework XML files
- XDF

The information on a file can be uploaded to the repository in one of three ways:

- By uploading a package's file manifest in CSV format to the repository.
- By adding metadata for an individual file manually to the repository.
- By updating the metadata for a file already in the repository.

You can add metadata to the repository using the "Add file metadata to file repository" option in the Update Metadata page.

The File Metadata Repository can be accessed from its link on the Change Management Dashboard under Customization Manager.

You can search for a file by entering the filename in the Search field on the main File Metadata Repository page. Alternatively, use Advanced Search to search for its file using one or more of the following: Filename, Product, Language, Source Path, Destination Path, or Object Name.

Also, during the package create/update flow, you can search for files or files referring to objects within the file metadata repository using the **Include Files** button.

To upload a file manifest:

1. Select the **Upload Manifest** button from the main File Manifest Repository page.
2. Select your file manifest file using the **Browse** button for the File Manifest field.
3. Optionally add a description.
4. Click **Submit**.

To upload an individual file:

1. Enter the name of the file.
2. Enter the product to which the file belongs.
3. Enter its source path.
4. Enter the destination path.

5. Enter the language for the file.
6. Optionally enter a description.
7. Click **Submit**.

To update the metadata for a file already in the File Metadata Repository:

1. Select the Update icon for the file in the Search results table in the main File Metadata Repository page.
2. Update the file name, product, source path, destination path, language, and/or description as desired.
3. Click **Submit**.

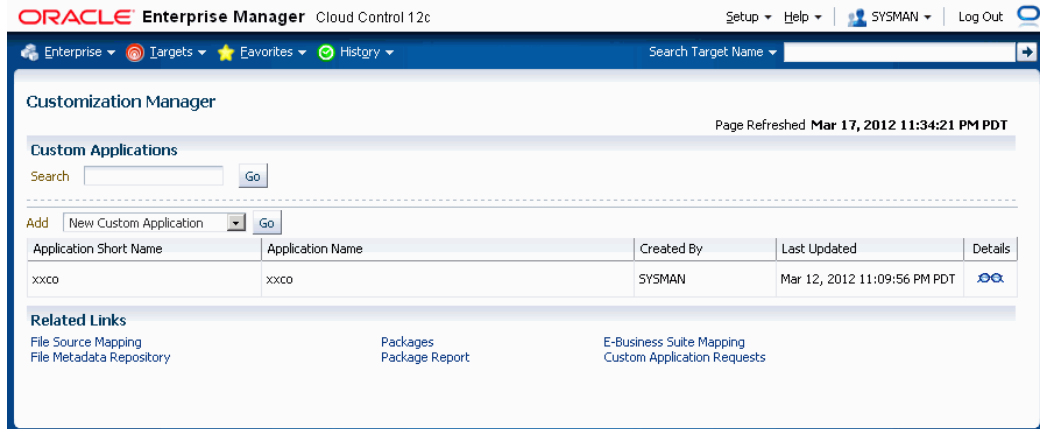
You can associate one or more customization objects to a given file in the Related Objects region. For instance, a PLS file might be associated with a PL/SQL procedure name as one of the objects. You might update a given file entry to associate one or more customization objects to it. This capability allows you to catalog and later search for customization objects using the Advanced Search option within the File Metadata Repository. However, there are currently no validation checks built into the system that use this information during package creation or deployment.

Managing Custom Applications

You can manage your custom applications via the dashboard. The common dashboard allows you to:

- View custom applications and instance associations
- Register a new custom application
- Validate an already registered custom application

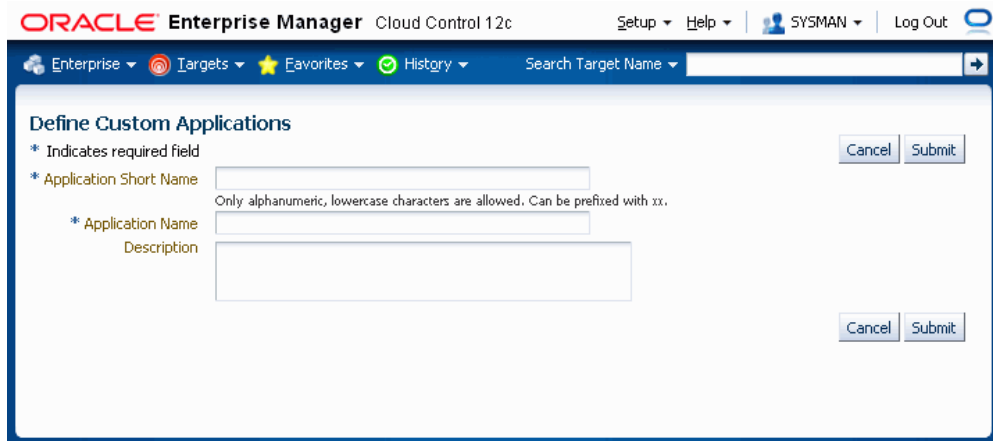
Navigation: The Custom Applications page is accessible from the Change Management Dashboard > Customization Manager region > Custom Applications link.



Note that a custom application "definition" is de-coupled from registration. Once an application is defined, it can be registered on one or more instances.

To define a new custom application:

1. Navigate to the Custom Applications page. Select "New Custom Application" from the Add drop-down list and click **Go**. The Define Custom Applications page appears.

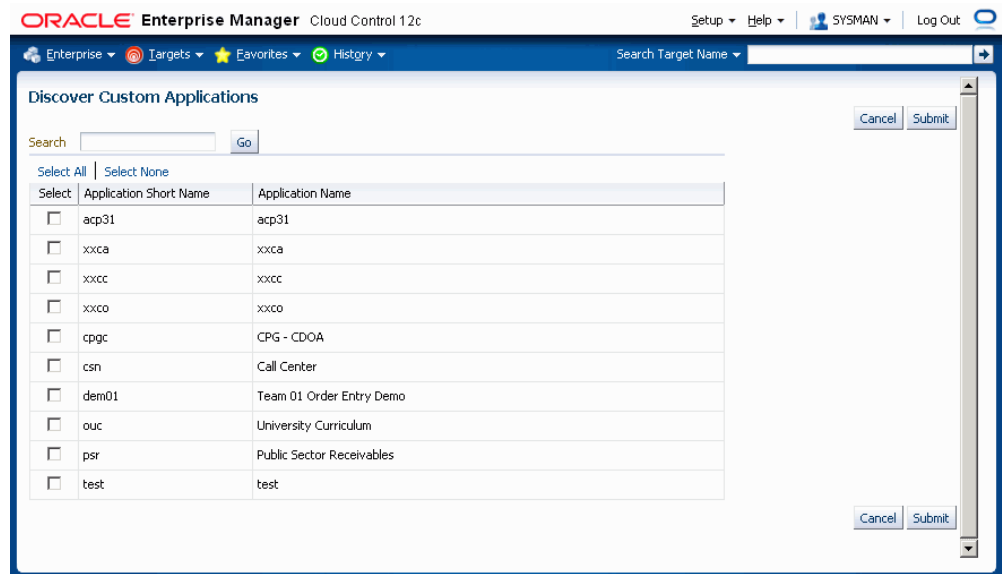


2. Specify an Application Short Name for your application. Note that only alphanumeric characters are allowed, and letters must be lowercase. The application short name is recommended to be prefixed with "xx".
3. Specify an Application Name for your application.
4. Optionally provide a description.
5. Click **Submit** to save your work.

Note that a custom application definition is not associated with any specific Oracle E-Business Suite instance but can be used to register the given custom application on one or more Oracle E-Business Suite instances.

To discover an existing custom application:

1. Navigate to the Custom Applications page. Select "Existing Custom Application" from the Add drop-down list and click **Go**. The Discover Custom Applications page appears.



2. Select the custom application you wish to discover and click **Submit**. You can use the Search feature to narrow down the results the table.

To validate a custom application:

The screenshot shows the Oracle Enterprise Manager Cloud Control 12c interface. The top navigation bar includes 'ORACLE Enterprise Manager Cloud Control 12c', 'Setup', 'Help', 'SYSMAN', and 'Log Out'. Below this is a search bar for 'Search Target Name'. The main content area is titled 'Customization Manager' and shows 'Page Refreshed Mar 17, 2012 11:42:46 PM PDT'. Under 'Custom Application Requests', there is a search section with a dropdown for 'E-Business Suite Instance' and a 'Go' button. Below the search are buttons for 'Execute', 'View', 'Validate', and 'Register'. A table lists application requests with columns: Select, Application Short Name, E-Business Suite Instance, Type, Status, Owner, Last Updated, and Job Details. One entry is visible: 'xxco' with 'E-Business Suite Instance' 'ebs11107-Oracle E-Business Suite', Type 'Register', Status 'Completed Error', Owner 'SYSMAN', and Last Updated 'Mar 12, 2012 11:29:59 PM PDT'. Below the table are 'Related Links' for 'File Source Mapping', 'File Metadata Repository', 'Packages', 'Package Report', 'Custom Applications', and 'E-Business Suite Mapping'.

Existing registered applications can be validated.

1. Navigate to the Custom Applications page. Click the "Custom Application Requests" link under Related Links. The Custom Application Requests page appears. Click the **Validate** button. Alternatively, you can also select the instance and click the **Validate** button from the custom application view details screen.
2. Enter in the Application Short Name for the application. You can use the LOV provided. Note that the Application Name defaults in.
3. Enter in the Oracle E-Business Suite instance. You can use the LOV provided. Note that the Preferred Credentials need to be set for this Oracle E-Business Suite instance.
4. Click **Submit**. A job to validate the custom application will be submitted. Validation is based on certain standards and is provided by Oracle Applications DBA (AD) utilities.

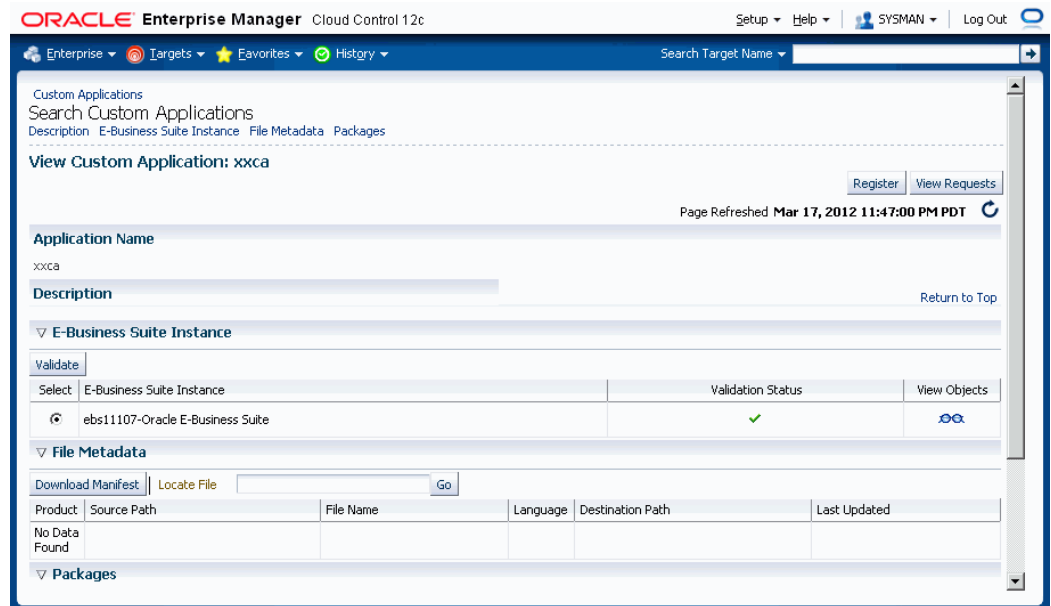
To register a custom application on an Oracle E-Business Suite instance:

1. Navigate to the Custom Applications page. Click the "Custom Application Requests" link at the bottom of the page. The Custom Application Requests page appears. Click the **Register** button. Alternatively, you can also click the **Register** button on the Custom Application details page.
2. Enter in the Application Short Name for the application. You can use the LOV provided. Note that the Application Name defaults in.
3. Enter in the Oracle E-Business Suite instance. You can use the LOV provided. Note that the required APPLSYS schema, APPS schema and system schema Preferred

Credentials need to be set for this Oracle E-Business Suite instance.

4. Enter in an Application ID. Oracle recommends you use an application ID greater than 50000. Customization Manager automatically generates and defaults the recommended application ID.
5. Select "Run AutoConfig" if desired. AutoConfig execution is necessary for the custom application to be available for patching. Please run AutoConfig manually if you do not chose to run it during the custom application registration.
6. When change approval is enabled, enter e-mail addresses for Notification E-mail(s). In registering a custom application, you first submit a request to register the application. This request must then be approved (either automatically or manually, depending on your Change Approval Framework setup).
7. Enter a justification.
8. Click **Submit**. A request to register the custom application will be submitted.

To view details of custom application:



View details of a custom application by navigating to Custom Applications, selecting the application name, and clicking the **View** button. Details include:

- List of instances where custom application is present with status validated/not validated. If the status is not validated, it is recommended to use the **Validate** button to launch a validation request. A valid status ensures that custom patches for the given custom application can be applied on that instance.

- Custom objects associated with the given custom application which are present on the given instance can be viewed by clicking on the "View Objects" icon. Customization Manager automatically discovers and relates the following objects associated with a custom application:
 - Custom Forms
 - Profile Options
 - Request Sets
 - Custom Database Objects
 - Alerts
 - Audit Group Information
- All files in the File Metadata Repository for the given custom application.
- List of packages that have been created for the custom application.

To track details of a custom application request:

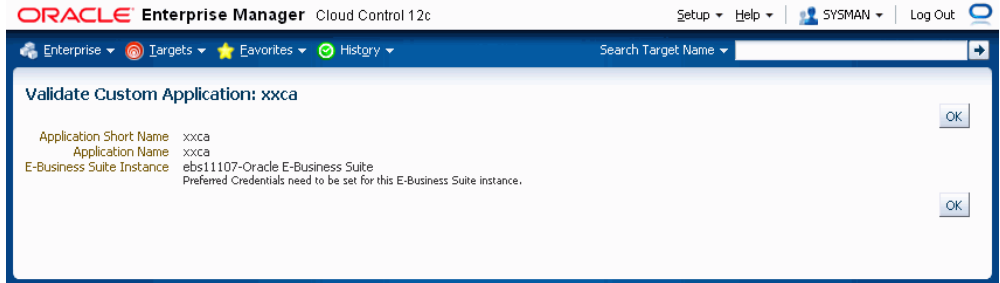
The screenshot shows the Oracle Enterprise Manager interface for Customization Manager. The page title is "Customization Manager" and it indicates the page was refreshed on Mar 17, 2012 11:42:46 PM PDT. The main section is "Custom Application Requests" with a search bar set to "E-Business Suite Instance". Below the search bar are buttons for "Execute", "View", "Validate", and "Register". A table lists the requests:

Select	Application Short Name	E-Business Suite Instance	Type	Status	Owner	Last Updated	Job Details
<input type="checkbox"/>	xxco	ebs11107-Oracle E-Business Suite	Register	Completed Error	SYSMAN	Mar 12, 2012 11:29:59 PM PDT	

Below the table, there are "Related Links" for File Source Mapping, File Metadata Repository, Packages, Package Report, Custom Applications, and E-Business Suite Mapping.

A custom application request can be used to register or to validate a custom application on a given instance.

1. Navigate to the Custom Applications page. Click the "Custom Application Requests" link at the bottom of the page. The Custom Application Requests page appears. Select a custom application request from the table and click **View**.
2. Details for the request will be shown.



Tip: To debug or view logs of a custom application request, click on "Job Details" icon against the specific custom application request. This would navigate to the EM job log associated with the custom application request. Click and view details on the "DO_JOB" step to view the detailed log of the given custom application request. In case of a failure of a custom application request, a new request should be submitted after rectifying the errors/failures listed in the job details log.

To execute a job to register or validate a custom application when the change approval system is enabled:

1. Confirm that the request to execute the job to register or validate the custom application has been approved. To do this, navigate to the Custom Applications page. Click the "Custom Application Requests" link at the bottom of the page. The Custom Application Requests page appears. Approved requests will be listed with the Status "Approved".
2. Select an Approved custom application request from the table and click **Execute**.
3. The system will attempt to execute a job to register or validate the custom application. If the system cannot execute the job, details regarding the job will be shown.

Known Limitations

Known limitations with Customization Manager include:

- When using the "Create Like" feature for a package, the Create Like page is not getting automatically refreshed if the browser used is a version higher than 5 of Mozilla Firefox. The workaround is to manually click the **Refresh** button on the page.

Setup Manager

Introduction

Setup Manager is the next generation of an existing Oracle E-Business Suite tool called Oracle iSetup. Setup Manager extends the capabilities of Oracle iSetup in a number of important ways, including the ability to create reusable templates and projects, enforce dependencies, and perform simultaneous, multi-node loads, among others.

Key Features

Setup Manager allows you to do the following:

- Migrate functional configuration/setup data across point releases of Oracle E-Business Suite. Group extracts, loads, transforms, and reports into projects for easier management and reuse.
- Use out-of-box project templates to quick-start an implementation based on project types.
- Use out-of-box support to orchestrate loads on an instance based on template dependency.
- Orchestrate extracts, loads, transforms, and reports that are dependent on each other.
- Set simple or advanced filters to narrow down the extracted records.
- Manage multiple extracts, transforms, reports, and loads on the same instance or on different instances.
- Transform the extracts offline using Microsoft Excel templates and reuse and load on the same or difference instances.

- Cascade the changes from the master to detail objects while transforming the extracts.
- Create your own attribute mapping to cascade attribute values from master to detail setup objects in addition to default ones.
- Synchronize Oracle E-Business Suite instances at regular intervals.
- Share the Projects with other users.
- Attach project-related documents to projects.
- Upload extracts from your desktop.
- Notify users of the status of the project plan execution.
- Execute same project plan multiple times.
- Schedule a project plan for a future date.
- Control administrator access to functions using the Enterprise Manager security features of privileges and roles
- Control administrator actions on Oracle E-Business Suite targets using the role-based access control (RBAC) of the targets themselves

Prerequisites

- You must assign the 'LCM EM' Client responsibility to the Oracle E-Business Suite users whose Preferred Credentials would be provided in Oracle Enterprise Manager for Setup Manager. You must also assign the 'Oracle iSetup' responsibility (for Release 11i) or the 'iSetup' (for Release 12) responsibility to those users as well.
- Ensure that you have followed the steps for "Importing an Oracle E-Business Suite SSL Certificate to the OMS" in the section Configuring Monitoring of HTTPS/SSL Targets, page 3-29 if your Oracle E-Business Suite instances are SSL-enabled.

Major Features and Definitions

Instances

There are two types of instances used with Setup Manager:

- Source instance: The instance from which data is extracted.
- Target instance: The instance where data is to be loaded.

Project

A project is defined as a grouping of related extracts, transforms, loads, and reports. Projects are a key enhancement in Setup Manager and are designed to dramatically reduce the amount of time and effort associated with the management of configuration/setup data. A key feature of projects is the ability to sequence individual loads into the target instance, thus enforcing the proper order that respects the relationships that exist between configuration/setup data. A project can be scheduled to execute at a future specified time. The same project can be executed multiple times. Project executions are integrated with the change approval system.

Project Plan

You can create a project plan to add one or more tasks as you choose. A project plan binds the various tasks together so that they can be executed together multiple times. A project plan gives you the ability to orchestrate the tasks according to your needs.

Tasks

You can define Extract (including Uploaded Extracts and Transformed Extracts) tasks, Load tasks, and Report tasks.

Selection Set

A selection set is a logical set of related configuration/setup data. Oracle creates, delivers, and supports over 15 different selection sets in Releases 11i and 12, for data from multiple products, including Oracle Application Object Library, Financials, Human Resources, and Manufacturing. You use selection sets to define which type of configuration data that you want to extract from a source instance, and then load the resultant extract into one or more target instances.

Custom Selection Set

You can create selection set by selecting setup objects of your choice. Custom selection sets are useful when you want to sequence load order of setup objects or pull setup objects across product families such as Financials and Manufacturing.

Extracts

Extracts are specific sets of data extracted from a source instance, according to the definition of the selection set used.

Uploaded Extracts

You can download extract zip files from Setup Manager to your desktop to archive or to

manipulate the enclosed files. These files can then be re-zipped and uploaded back into Setup Manager for a project. You can reuse these uploaded extracts when creating a project plan. Alternatively, you can also upload an extract from a stage directory.

Transform

Transforms are editable extracts in which data is presented to you as reusable Microsoft Excel templates. You can make changes to setup data offline and upload it back to Setup Manager. Setup Manager can create extracts out of the modified Microsoft Excel data and this modified data can be loaded to the same Oracle E-Business Suite instance or other Oracle E-Business Suite instances.

Loads

A load is extracted or transformed data being loaded into a target instance.

Reports

Reporting is a powerful aspect of Setup Manager. Reports can be created in one of several formats (Microsoft Excel, PDF, and RTF), and types (deployment reports, standard, and comparison).

In addition, standard reports (in PDF and RTF formats) support the BR100 style, called the "Setup Document Style", used in Oracle iSetup.

Attachments

You can add project-related documents as attachments to a project.

Executions

The instance of an execution of a project is referred to as an execution. You can execute a project multiple times. You can also schedule the project execution as needed. Project execution is integrated with the change approval system, which means you can control who executes which project.

Execution Sequence

Execution Sequence is the sequence in which the tasks are executed. Tasks having the same execution sequence are executed in parallel in a batch. The next batch would start only after successful completion of the current batch. You can also update the execution sequence while submitting the project for execution.

Requirement for Tasks Running in Parallel

You can create a project with tasks to be executed as jobs running in parallel. . If you do so, the maximum number of threads for the Standard Manager or Concurrent Manager

on the Oracle E-Business Suite instance (the target on which the project is created) must be at least one greater than the number of jobs submitted. Otherwise, the project will always be in Running status because the threads will wait for each other.

For example, say a project is defined to have two extract tasks and two report tasks to be executed in parallel. When the execution request is submitted, four jobs will be submitted in parallel. In this case the maximum number of threads for the Standard Manager or Concurrent Manager on the Oracle E-Business Suite instance (the target on which the project is created) must be at least five, or one greater than the number of jobs submitted (four).

Typically, the default value for the number of threads for the Standard Manager or Concurrent Manager is three, so projects with two tasks in parallel can be executed without issues.

Note that if the tasks are submitted in sequence by the use of prerequisites, then the tasks are executed sequentially and there is no issue. The maximum number of threads defined for the manager is typically only an issue with parallel execution with three or more tasks.

To update the maximum number of threads (worker threads) for the Standard Manager, follow these steps:

1. Log in to the Oracle E-Business Suite instance that is the target given for the project in Setup Manager as a user with the System Administrator responsibility.
2. Navigate to System Administrator > Concurrent > Manager > Define.
3. Query up the Standard Manager.
4. Click on **Work Shifts**.
5. For the row where Work Shift is "Standard", change the value in the Processes column. This value must be at least 1 greater than the number of jobs to be submitted.
6. Save your work.

Diagnostic Tests for Setup Manager

You should run diagnostic tests on your system in preparation for using Setup Manager to ensure your system is set up correctly. These tests can be accessed from the Diagnostics dashboard, available from the Pack Diagnostics link on the Oracle Applications page. For more information on running diagnostic tests, see: Running Pack Diagnostics Tests, page 6-3.

The following tables list tests related to Setup Manager:

Generic Diagnostic Tests for Setup Manager

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EMGC	CheckForPOILibrary	Check if the Apache POI library is present on the OMS.	The Apache POI Library is shipped by Apache and is used for reading and writing Microsoft Excel files through Java. These Microsoft Excel files are used in the transformation functionality.
EMGC	CheckOMSStage	Determine if a stage directory is defined on the OMS. Determine if the OMS owner has read/write permissions to that directory.	Expected results are: the OMS Stage Directory Location and the OMS user with read/write permissions.
EMGC	Summary	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	
EBS	CheckAgentStage	Check if the stage directory is defined and has the right permissions.	
EBS	Check Setup Manager Patches for 12.0.X Release	Check for the required patch: 9444540:R12.AZ.A for Setup Manager on the Oracle E-Business Suite instance.	For Release 12.0.X targets
EBS	Check Setup Manager Patches for 12.1.X Release	Check for the required patch: 9444535:R12.AZ.B for Setup Manager on the Oracle E-Business Suite instance.	For Release 12.1.X targets

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EBS	CheckAgentHome	Check permissions within the Agent home directory.	
EBS	CheckEBSHome	Check permissions for APPL_TOP.	
EBS	CheckRESTHealth	Ensure that all the required interop patches are applied and REST services are available.	
EBS	Summary	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	

User-Specific Diagnostic Tests for Setup Manager

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EBS	CheckPrivilege	Check if the logged-on user has the SM_RAISE_REQ_EBS privilege.	
EBS	CheckPrivilege	Check if the logged-on user has the SM_APPRV_REQ_EBS privilege.	
EBS	CheckEBSResponsibilities	Check for the iSetup responsibility on the Oracle E-Business Suite instance.	

Step	Test Group	Description	Notes/Expected Results/Corrective Measures
EBS	CheckEBSRole	Check for the LCM EM Client role on the Oracle E-Business Suite instance.	
EBS	CheckEBSGlobalCred	Check Oracle E-Business Suite preferred credentials. It is required to set the APPS schema user and Applications Login User credentials.	
EBS	Summary	A summary of all of the diagnostic tests that have been executed, in the following groups: Successful, Failed, With Warning, Aborted, and Total.	

Searching for a Project

You can search for a project from the Setup Manager section of the Change Management Dashboard or the main Projects page. Search on the project name in Simple Search or on the name and/or release in the Advanced Search page (Advanced Search is only accessible from main Projects Page).

A Super Administrator is able to see all projects created by all users.

Creating a Project

Use the Create Project pages to create a project.

To begin, navigate to the Projects page within Setup Manager and select the **Create** button.

Note: You can create a project with tasks to be executed as jobs running in parallel. . If you do so, the maximum number of threads for the Standard Manager or Concurrent Manager on the Oracle E-Business Suite instance (the target on which the project is created) must be at least 1 greater than twice the number of jobs submitted. Otherwise, the

project will always be in Running status because the threads will wait for each other. For more information, see Execution Sequence, page 12-4.

To create a project:

1. Enter General information for the project:

The screenshot shows the Oracle Enterprise Manager interface for creating a project. The main title is "Create Project: General". The form is divided into several sections:

- General Information:** Includes fields for "Name", "Release" (set to "11i"), and "Description".
- Targets:** A section with an "Add" button and a table with columns: Name, Release, Stage Directory, and Delete. The table currently shows "No Targets Added".
- Notifications:** A section with an "Add" button and a table with columns: Select, E-mail Address, Success, and Failure. The table currently shows "No E-mail Addresses Added".

Navigation buttons include "Cancel", "Save", and "Next" at the bottom right of the form.

- Name - User-defined name for the project.
- Release - Either 11i or R12.
- Description - User-defined description of the project.
- Targets - Add all of the instances, both source and target, that might be involved in this project. The instances that have been discovered and available to you based on your role privileges will appear in the LOV field.

For Super Administrators, all discovered targets for a particular release would be displayed.

Search and Select: Oracle E-Business Suite Targets



Search

To find your item, enter a word in the text field then select the "Go" button. To see a list of all items, clear the search box and click the "Go" button

Search By

Results

[Select All](#) | [Select None](#)

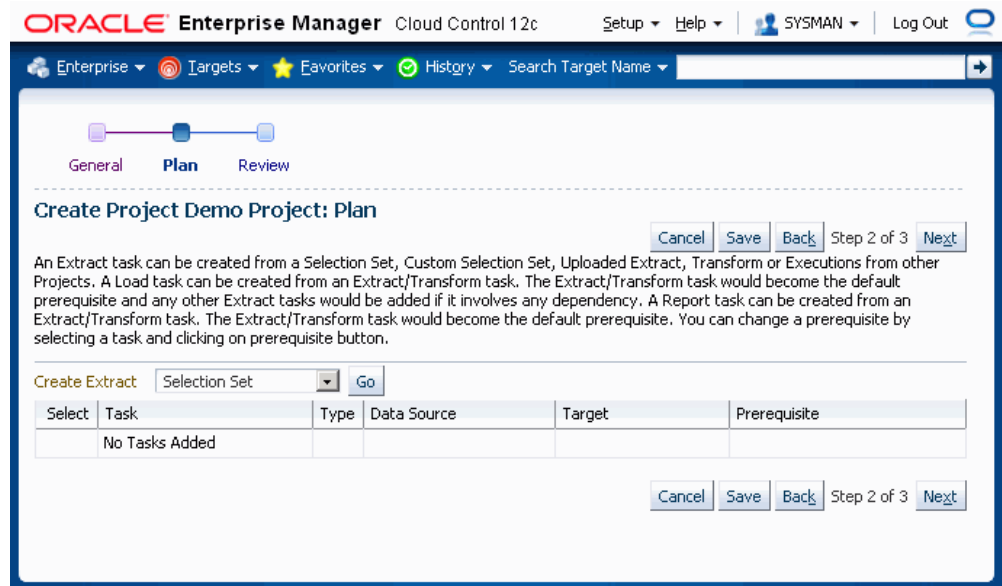
Select	Name	Release	Status
<input checked="" type="checkbox"/>	amp1206-Oracle E-Business Suite	12.0.4	
<input type="checkbox"/>	amprac-Oracle E-Business Suite	12.1.1	

Enter a Stage Directory for each target.

- Notifications - Add the e-mail addresses for users who should be notified when a project is completed with the status of Success and/or Failure.

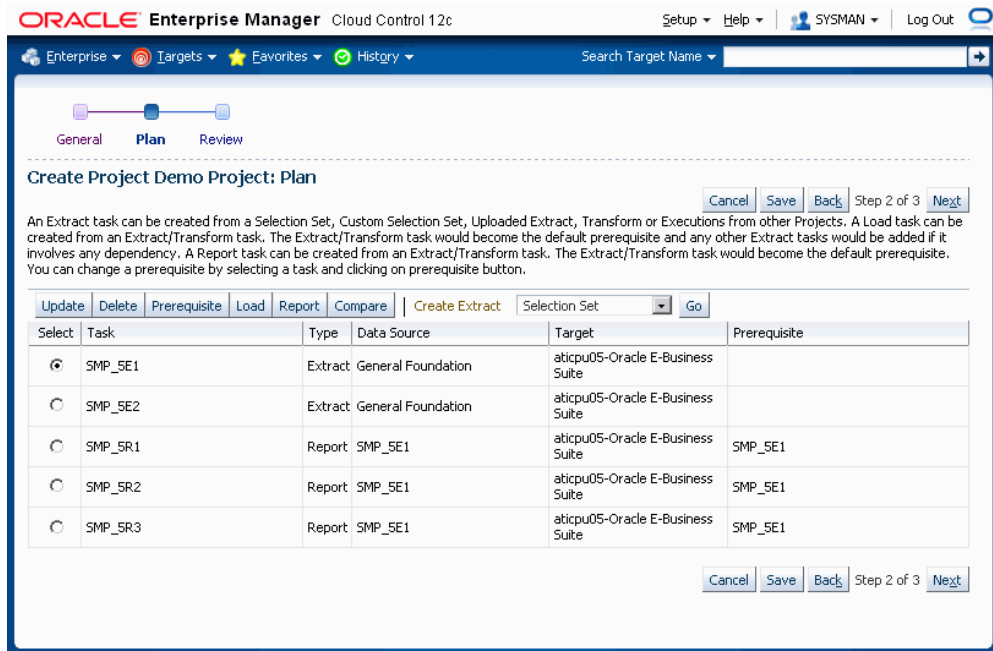
Click on **Next** to create the project plan.

2. Create the project plan. The first step to creating a project plan is defining the type of extract. The five options are:
 - Selection Set - This will be the most common type. You can create your extract based on the delivered Selection Sets.
 - Custom Selection Set - You can choose individual entities to create a unique combination of extracts.
 - Uploaded Extracts - You can use an uploaded extract to define the operation.
 - Transform - You can add a transform which has been created using extracts.
 - Execution - You can use an extract from an execution.



Detailed information on creating an extract task is in the section *Creating an Extract Task*, page 12-12. For information on adding a transform to a project, see: *Adding a Transform to a Project Plan*, page 12-20.

3. Once you have created the first project plan that contains the extract task as mentioned above, you can take the following additional actions on the existing project:
 - Update - Update an existing extract, transform, load, or report.
 - Delete - Delete an existing extract, transform, load, or report.
 - Prerequisite - Modify the order in which the project will execute its contents.
 - Load - Create a Load for a designated extract/transform.
 - Report - Create a Report for a designated extract/transform.
 - Compare - Create a Comparison Report for two designated extracts/transforms.
 - Create Extract - By selecting an option from the Create Extract list and clicking the **Go** button, you can create additional extracts for your project.



Click on **Next** to review the Project Details.

4. Review the project details and select **Finish**.

Creating an Extract Task

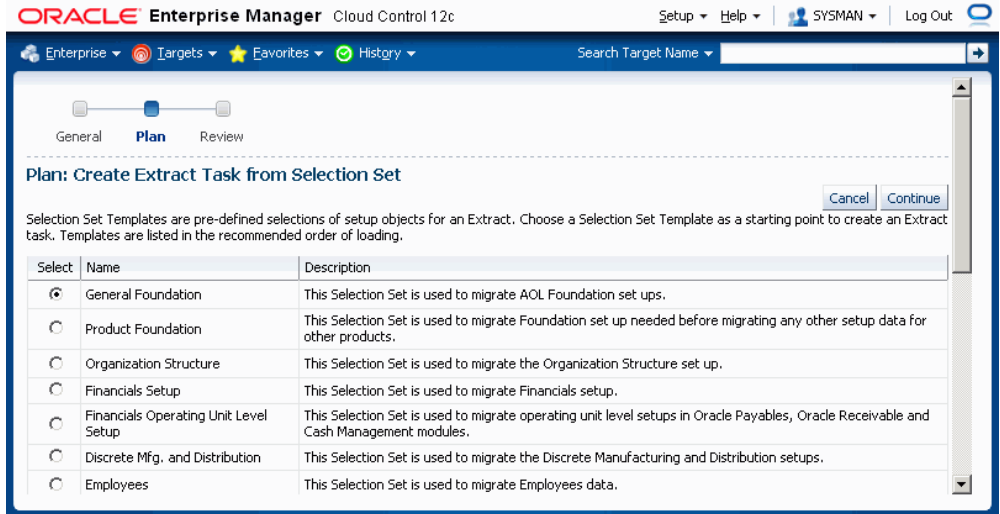
You can create an extract using any one of the following procedures:

- Creating from a Selection Set
- Creating from a Custom Selection Set
- Creating from an Uploaded Extract
- Using a Transform (described in the next section)
- Creating from an Execution

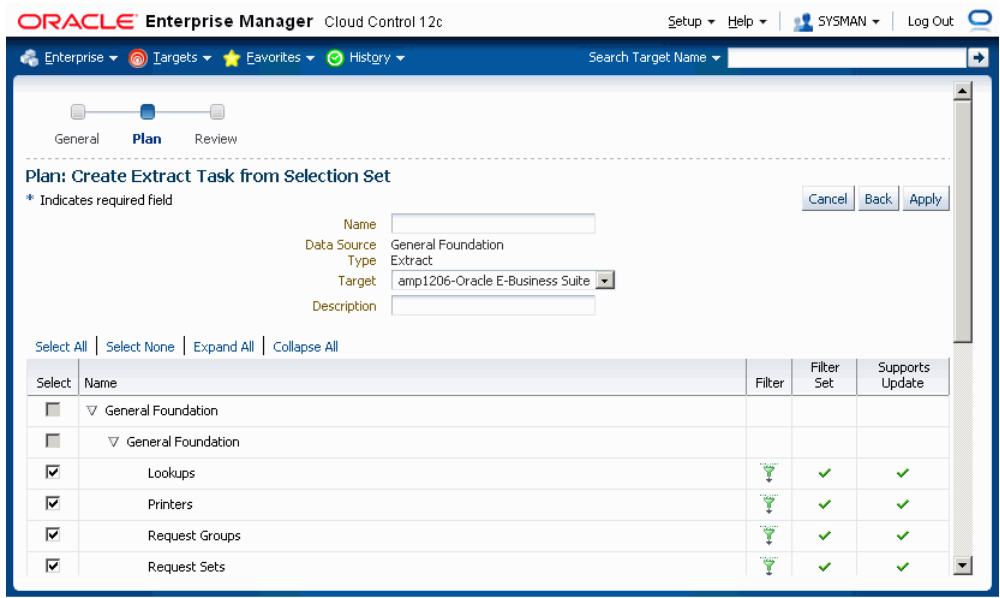
To create an extract from a Selection Set:

Use these steps to create an extract using a predefined selection set.

1. Select "Selection Set" from the **Create Extract** list and click **Go**.
2. In the Plan: Create Extract Task from Selection Set page, select the desired selection set template for the implementation and click the **Continue** button.



3. In the next page, you can view and/or update information on the selection set:



- Name - User-defined name for the extract.
- Data Source - The name of the Selection Set that you are using. This field cannot be updated.
- Type - "Extract" will be displayed. This field cannot be updated.
- Target - The instance that you want to extract the data from (that is, the source instance).

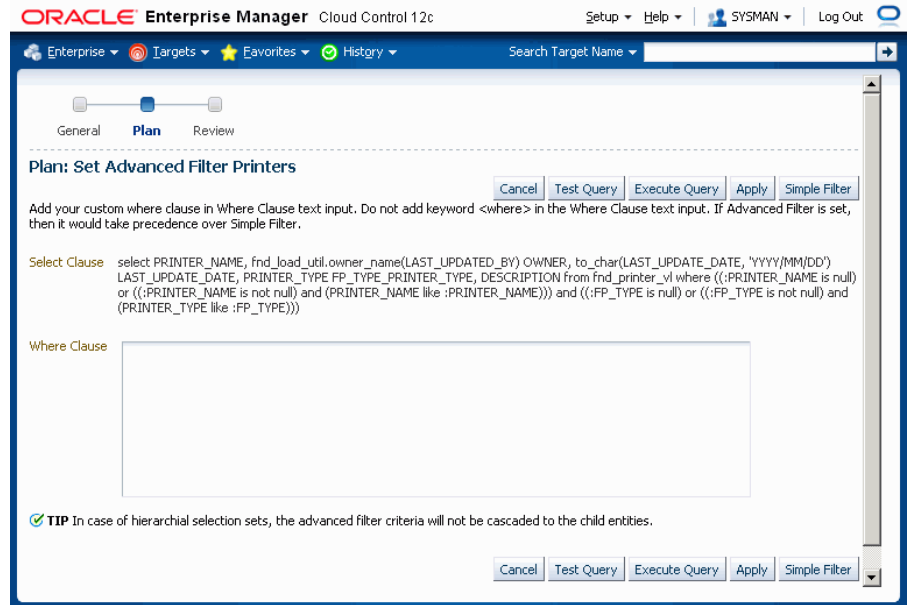
- Description - User-defined description of the extract.
- Selection Set components - All the configuration/setup data components that comprise of the Selection Set will be displayed in a table. You can then perform the following steps:
 1. Select which entities need to be included in the extract.
 2. Use the filter icon (to the right of each component) to further refine and tailor the configuration or setup data that you want to extract by using predefined filtering parameters or by providing your own filtering criteria.

Note: If you are using Internet Explorer and find that the Set Filter page is not loading, use the following workaround:

1. Navigate to Tools, then select Developer Tools.
2. Select the Scripts tab.
3. Click on Start Debugging.

The Set Filter page should then load.

3. In the Set Filter page you can click on the Advance Filter button and set your own WHERE clause.



The Advanced Filter setting would take precedence over Simple Filter if it has been set. Avoid using the Advanced Filter setting in a hierarchical selection set such as Financial Operating Unit Level Setup and Payroll Element where automatic cascading of filter values would not happen for advanced filter values.

Use the **Test Query** button to test if your WHERE clause produces a well-formed query. Note that this button only tests whether the clause is well-formed, and not whether the desired results are returned.

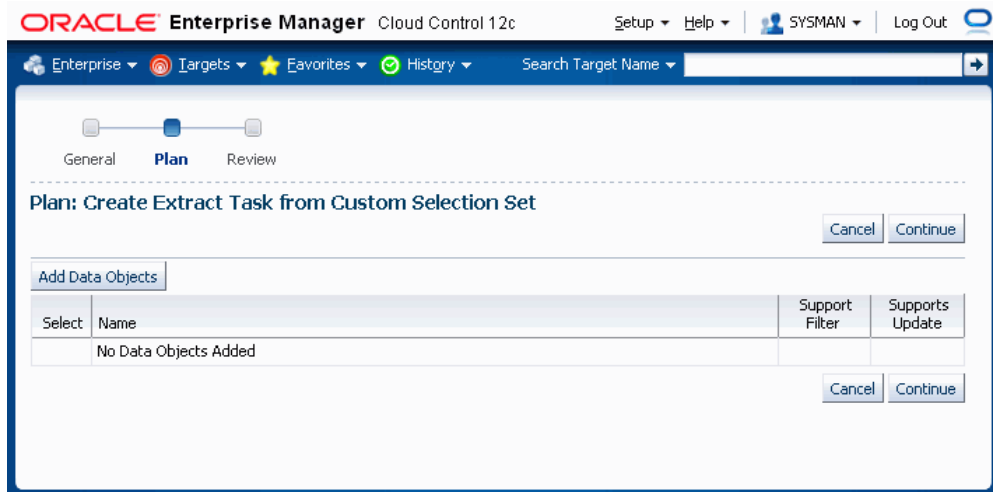
Use the **Execute Query** button to preview what your query results would be. When you execute the query here, the first 200 records for the query are returned, and you can check if they match what you expect from the query.

4. Click **Apply** to save your changes and go back to the Create Project Page.

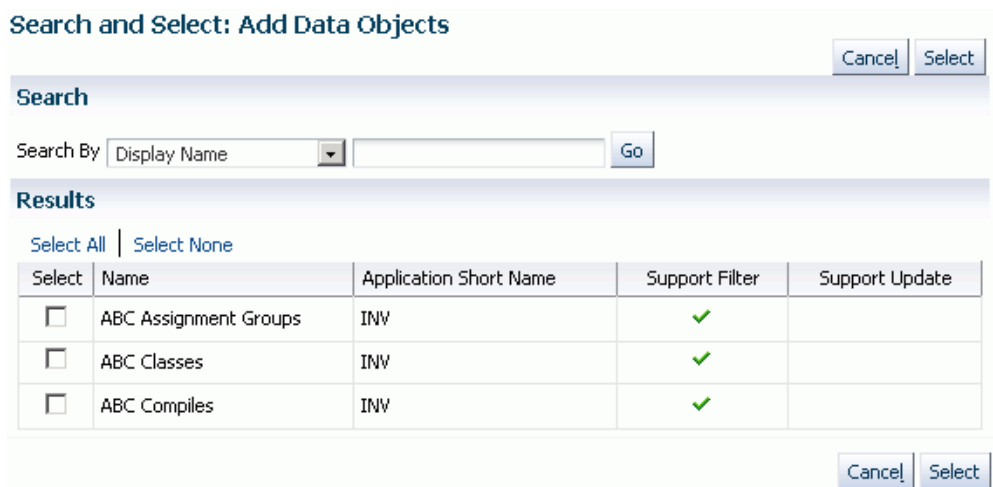
To create an extract from Custom Selection Set:

You can create an extract using a custom selection set. You might want to do this if you have different APIs from multiple existing selection sets that you want to mix and match for a custom selection set.

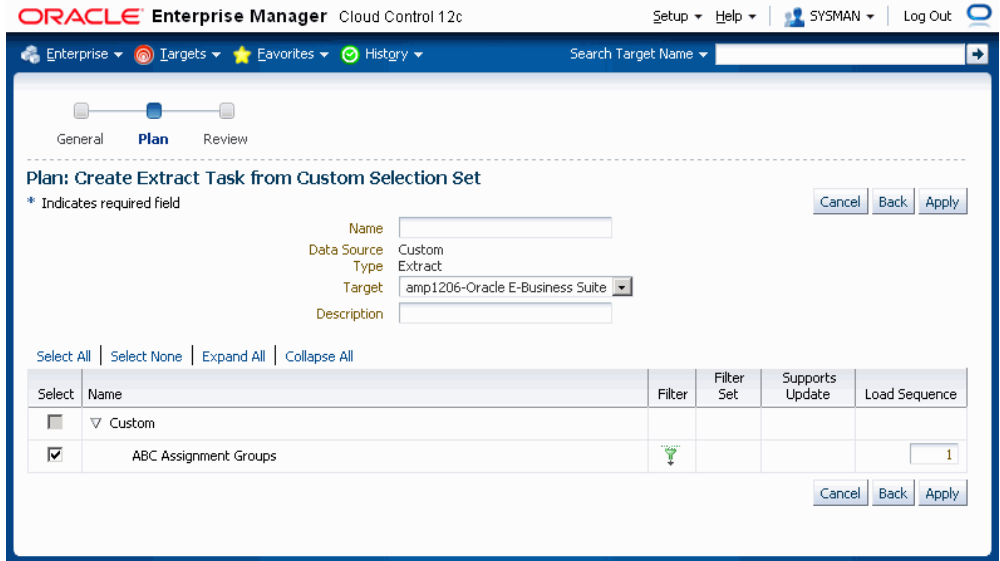
1. Select "Custom Selection Set" from the Create Extract list and click **Go**.



2. Click the **Add Data Objects** button and select the individual components that you wish to add.



3. Click **Continue**.
4. In the next page, you can view and/or update information on the selection set:



- Name - User-defined name for the extract.
- Data Source - "Custom" will be displayed. This field cannot be updated.
- Type - "Extract" will be displayed. This field cannot be updated
- Target - The instance that you want to extract the data from (that is, the source instance)
- Description - User-defined description of the extract.
- Setup Objects/Components - All the setup objects that were selected will be displayed in a table. The filter feature allows you to refine and tailor the configuration/setup data that you want to extract by using predefined filtering parameters or by providing your own filtering criteria. The Load Sequence, which controls the order in which loading of data objects will occur, can be updated.

5. Click **Apply** to save your changes and go back to the Create Project Page.

To create an extract from an Uploaded Extract:

You can create an extract based on a previously-uploaded extract. Note that you cannot change the setup objects selected. A scenario in which you might want to do this is if your existing extract complies with a complex security policy, and you want your new extract to comply with the same security policy. Creating the new extract based on the old uploaded extract helps you accomplish this task.

For information on uploaded extracts, see: Managing Uploaded Extracts, page 12-26.

1. Select "Uploaded Extract" from the **Create Extract** list and click **Go**.

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

General **Plan** Review

Plan: Create Extract Task from Uploaded Extract

* Indicates required field

Cancel Apply

List of values for 'Project Name' contains all Projects created by you and others public projects. List of values for 'Data Source' contains all extracts which are uploaded to the selected Project. Navigate to Setup Manager home page to upload an Extract to the current Project.

* Name

* Project Name

* Data Source

Type Extract

Description

Select	Name	Filter	Filter Set	Supports Update
	No Entities Found			

Cancel Apply

2. In the next page, you can view and/or update the following information
 - Name - User-defined name for the extract.
 - Project Name - Use the LOV to find projects created by you and public projects created by others.
 - Data Source - Use the LOV to choose from the list of extracts that are uploaded to the selected Project.
 - Type - "Extract". This field cannot be updated.
 - Description - User-defined description of the extract.
 - Selection Set Details of the uploaded extract. These cannot be updated.
3. Click **Apply** to save your changes and go back to the Create Project Page.

To create an extract from an Execution:

You can create an extract task from an existing project plan execution. This method offers the following benefits:

- You can reuse extracts that have been already executed, instead of fetching the same extract data again from the Oracle E-Business Suite instance
- The new extract task gets the data from the execution and not the Oracle E-Business

Suite instance.

This method is the most efficient method for getting the extract data for a selection set, if a corresponding extract execution is already available.

Note: The selection set and filtering parameters for the new extract will be the same as that in the execution's definition, and cannot be modified.

Because the data in the new extract task is not fetched from the Oracle E-Business Suite instance, the extract data might not be synchronized with the Oracle E-Business Suite instance.

1. Select "Execution" from the **Create Extract** list and click **Go**.

The screenshot shows the Oracle Enterprise Manager Cloud Control 12c interface. The top navigation bar includes 'Enterprise', 'Targets', 'Favorites', 'History', and a search field for 'Search Target Name'. The user is logged in as 'SYSMAN'. The main content area is titled 'Plan: Create Extract Task from Execution' and has tabs for 'General', 'Plan', and 'Review'. Below the title, there is a note: '* Indicates required field'. A list of values for 'Project Name' and 'Data Source' is provided. The form fields are: '* Name' (text input), '* Project Name' (dropdown with search icon), '* Data Source' (dropdown with search icon), 'Type' (text input with value 'Extract'), and 'Description' (text input). Below the form is a table with columns: 'Select', 'Name', 'Filter', 'Filter Set', and 'Supports Update'. The table contains one row with the text 'No Entities Found'. 'Cancel' and 'Apply' buttons are present at the top right and bottom right of the form area.

2. In the next page, enter the following information:

- Name - User-defined name for the extract.
- Project Name - Use the LOV to find projects created by you and public projects created by others.
- Data Source - Use the LOV to choose from the list of executions of the selected project.
- Type - "Extract". This field cannot be updated.
- Description - User-defined description of the extract.

Note that you cannot change the setup objects selected.

3. Click **Apply** to save your changes and go back to the Create Project Page.

Adding a Transform to a Project Plan

To add a transform to a project plan:

You can add a task to add a transform to a project plan. Note that you can add only Transforms that are in the Freeze state to a project plan. The Transform LOV restricts searches by Release and Published status by default. A Super Administrator would be able to select any transform.

1. In the Project Plan page, navigate to the option in the Create Extract list to add a transform to a project plan. Select "Transform" and click **Go**.
2. In the Add Transform Task Page, provide the details listed below.

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History

General **Plan** Review

Plan: Add Transform Task Cancel Apply

* Indicates required field

List of values for 'Data Source' contains all Transforms that are in Freeze state created by you and public Transforms of other users.

* Name
* Data Source
Type Transform
Description

Select	Name	Filter	Filter Set	Supports Update
	No Entities Found			

Cancel Apply

- Name - Name of the transform task.
- Data Source - The data source is the transform that you created earlier. Only transforms that are in the Freeze state and are for belong to the same release as the current project appear in the LOV. This search will also bring up other users' Published transforms in the Freeze state. A Super Administrator is able to add any transform in the Freeze state (regardless of the user associated with it).
For more information on transforms, see Managing Transforms and Templates,

page 12-33 and subsequent sections in this chapter.

- Description - Description of the extract.
 - Setup Objects - All the setup objects of the template selected above are displayed. You can view the template and save it in creating a task.
3. Click **Apply**. You will be redirected to the Project Create Page. The transform task is similar to any other extract tasks, so you are able to create Load, Report, and Comparison Report tasks on it.

Creating a Load Task

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

General **Plan** Review

Plan: Create Load Task

* Indicates required field

Name

Data Source All Extracts

Type Load

Target amp1206-Oracle E-Business Suite

Description

Cancel Apply

Select All | Select None | Expand All | Collapse All

Select	Name	Deployment Report	Update Records
<input type="checkbox"/>	General Foundation		
<input type="checkbox"/>	General Foundation		
<input checked="" type="checkbox"/>	Lookups		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Printers		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Request Groups		<input checked="" type="checkbox"/>

Load tasks are created within an existing project, and after the corresponding extract has been defined.

To create a load task:

1. To create a load task, select any one of the extracts or transforms in the current project and click **Load**.
2. In the Create Load Task page, enter into the following fields:
 - Name - Enter a user-friendly name for the load.
 - Data Source - The name of the extract or transform that you selected in Step 1.

This field cannot be updated.

- Type - "Load". This field cannot be updated.
- Target - The instance name where you want to load the data (that is, the Target instance).
- Description - Enter a description of the load.
- Setup Objects/Components - Setup objects/components of the extract or transform will be displayed in the HGrid. Some but not all setup objects/components support a Deployment Report. For each setup object/component that supports it, you can select a check box to enable a Deployment Report. The Update Records check box, when checked, indicates that if a record exists, then the system will update the existing data.

3. Click **Apply** to save your changes and go back to the Create Project page.

Creating a Report Task

The screenshot shows the Oracle Enterprise Manager Cloud Control 12c interface. The main content area is titled "Plan: Create Report Task". It contains several configuration fields:

- Name: [Text Input]
- Data Source: All Extracts
- Type: Report
- Target: amp1206-Oracle E-Business Suite
- Downloadable Report Format: PDF
- Report Download Layout: Hierarchical
- Description: [Text Input]

Below the form is a table with columns "Select", "Name", and "Report". The table contains the following rows:

Select	Name	Report
<input type="checkbox"/>	General Foundation	
<input type="checkbox"/>	General Foundation	
<input checked="" type="checkbox"/>	Lookups	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Printers	<input type="checkbox"/>

Report tasks are based on existing extracts or transforms. Report tasks are created within an existing project and after the respective extract or transform has been defined.

To create a report task:

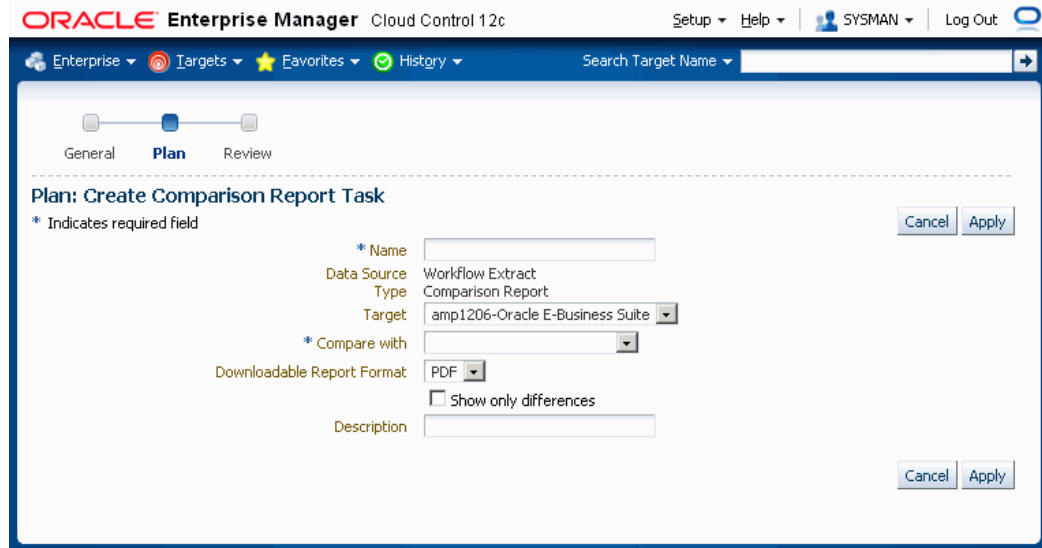
1. To create a report task select any one of the extracts or transform in the current

project and click on the **Report** button.

2. Enter in the following information:
 - Name - User-defined name for the standard report.
 - Data Source - The name of the extract or transform that you selected in Step 1. This is display-only.
 - Type - "Report". This is display-only.
 - Target - The instance name where you want to run the report.
 - Downloadable Report Format - Choose PDF, RTF, or Excel.
 - Report Download Format - If you have chosen a report format of PDF or RTF above, you can choose between "Hierarchical" or "Setup Document Style" (BR100 style) for this field.
 - Description - User-defined description of the report.
3. Specify which components you want included in the report in the Report column of the HGrid. Only components that were in the original extract or transform are available here.
4. Click **Apply** to save your changes and go back to the Create Project page.

Creating a Comparison Report Task

1. Comparison report tasks are based on existing extracts or transforms. Two extract or transform tasks are required for comparison. A comparison report task is created within an existing project after the respective extracts or transforms have been defined.



To create a comparison report task:

1. To create a comparison report task, select any one of the extracts or transforms in the current project and click on the **Compare** button.
2. Enter in the following information:
 - Name - Enter a name for the comparison report task.
 - Data Source - The name of the first extract or transform that is selected for comparison (Step 1). This is display-only.
 - Type - "Comparison Report". This is display-only.
 - Target - The instance on which you want to run the comparison report.
 - Compare with - The name of the "second" extract or transform. The comparison report will compare the "first" and "second" extracts/transforms.
 - Downloadable Report Format - Choose PDF or RTF.
 - Show only differences - This check box instructs the comparison report to display only those records that are different in the extracts or transforms.
 - Description - Enter a description for the comparison report task.
3. Click **Apply** to save your changes and go back to the Create Project page.

Editing Task Prerequisites

You can provide instructions so that project tasks execute in a certain order or sequence. Tasks can execute both in parallel and serially. Note that a task can have multiple prerequisite tasks.

The instructions for the sequence can be set within the project, or they can be modified just prior to executing the project.

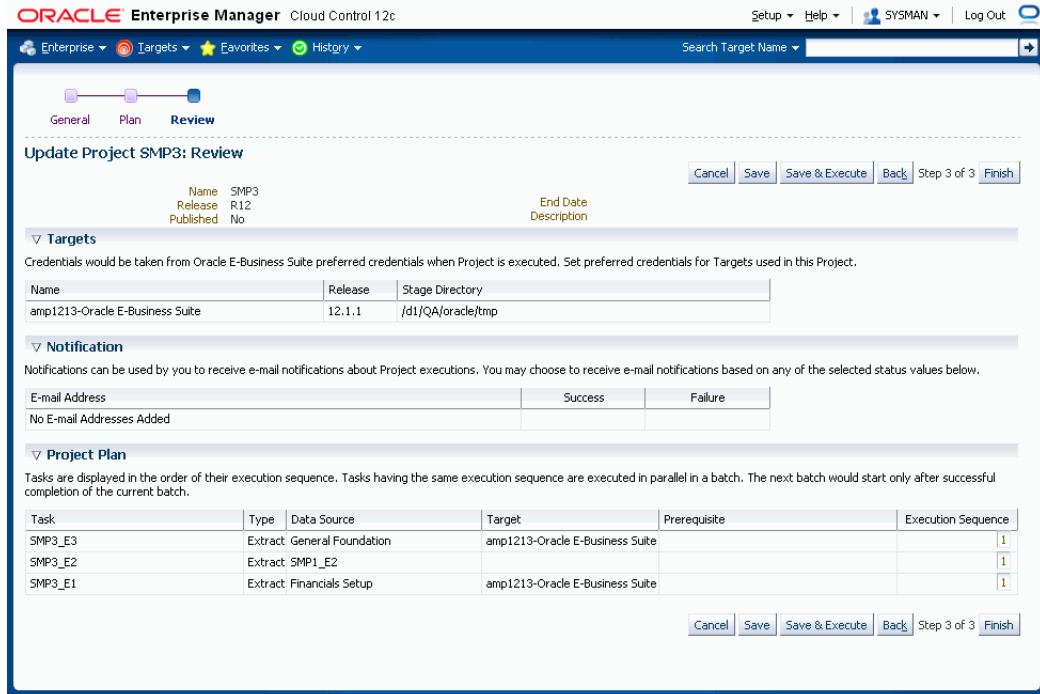
The instructions in this section illustrate how to provide sequencing instructions from within the project.

To edit prerequisites:

1. Select a task. Click on **Prerequisite**.
2. A window with a list of the other project tasks appears. Select the task that must precede the task specified in Step 1.
3. Click **OK**. The prerequisite task will appear in the project plan table.

Reviewing a Project

After you edit prerequisites, you can review your project details and check the execution sequence. You can simply save your project, or save and execute it, and then return to the main Projects page.



Managing Uploaded Extracts

You can upload extracts that are needed for the project.

To upload an extract from your desktop:

1. From the Setup Manager landing page, select a saved project and click the **Upload Extracts from Desktop** button.

Alternatively, select a saved project and click the Uploaded Extracts icon for that project to access the Uploaded Extracts page find any extracts already uploaded for the project. Then click the **Upload Extract from Desktop** button to upload extracts from this page.

2. Enter the following:
 - Name - A name for the extract.
 - Data Source - Location and name of the file that you want to upload.
 - Description
3. Click **Upload**.

To upload an extract from a stage directory:

1. From the Setup Manager landing page, select a saved project and click the Uploaded Extracts icon. Here you can see all the uploaded extracts for the project. Click on the **Upload Extract from Stage Directory** button.
2. Enter the following:
 - Name - A name for the extract.
 - Stage Directory on Server - The absolute zip file path.
 - Description
3. Click **Upload**.

To view uploaded extracts for a project:

1. From the Setup Manager landing page, click on the Uploaded Extracts icon for the project.
2. The next page will list the extracts uploaded for the project.
Click on the filename link in the Download column to download the uploaded extract.

To delete an uploaded extract for a project:

1. From the Setup Manager landing page, click on the Uploaded Extracts icon for the project.
2. The next page will list the extracts uploaded for the project.
3. Select an uploaded extract and click the **Delete** button.

Managing Attachments

You can attach one or more documents that are relevant to the project (for example, background, Project Contents, pre/post instructions, advice, and so on).

To add an attachment:

1. From the Setup Manager landing page, select a saved project and click the Add Attachment button.
2. Enter in the following:

- Name - A name of the attachment.
- Data Source - Location and name of the file that you want to attach.
- Description.

3. Click **Upload**.

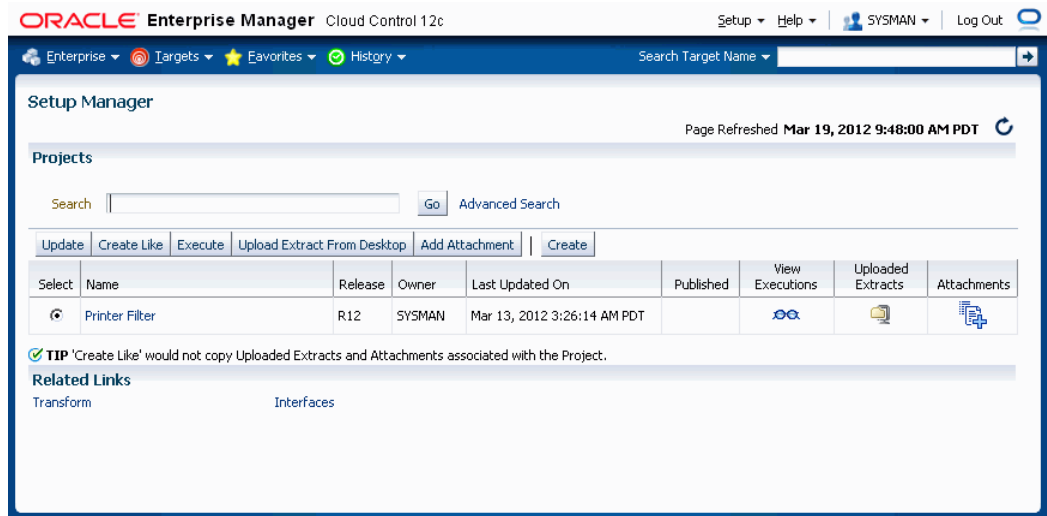
To view attachments for project:

1. From the Setup Manager landing page, click on the Attachments icon for the project.
2. The next page will list the attachments for the project.
3. Click on the link in the Download column to download the attachment.

To delete an attachment for a project:

1. From the Setup Manager landing page, click on the Attachments icon for the project.
2. The next page will list the attachments for the project.
3. Select an attachment and click the **Delete** button.

Viewing a Project



The Setup Manager landing page displays the saved projects in a grid with the following columns.

- Name - Project name.
- Release - 11i or R12. Defined when creating the project.
- Owner - The name of the user that created the project.
- Last Updated On - The date (and time) on which the project was last updated.
- Published - Denotes if a certain project is accessible to all users. If a project is not published, then the project is accessible to only the owner and any Super Administrator.
- View Executions - View historical runtime executions of a project.
- Uploaded Extracts - View uploaded extracts (in ZIP format) in the Setup Manager secure repository, or upload new extracts.
- Attachments - View/Attach additional document(s) for a specific project.

Allowable Actions

From the Setup Manager landing page, you can perform the following actions on the selected projects.

Please note that other users can update or execute a public project only if those users

have privileges on the targets used in that project. Other users cannot add targets to public projects.

- Update - Many of the components of an existing project can be modified or changed, notably targets and Selection Sets.

You can add new targets to your own projects only; not the projects of other users. The exception to this rule is that Super Administrators can add targets to other users' projects.

- Create Like - This feature allows you to create a new project based on an existing project. This feature is useful if the majority of the parameters of the project are the same, and you wish to change only a few selections. Also, if the project owner had published the current project, then another user can create a new project using the "Create Like" feature.
- Execute - Execute a selected project.
- Upload Extract From Desktop - Upload a Setup Manager or Oracle E-Business Suite Extract zip file from the desktop into the Setup Manager repository.
- Add Attachment - Add an attachment to a project.

Executing a Project

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Execute Project: R12 Project

* Indicates required field

* Execution Name
Description

Cancel Submit

Schedule

Type One Time(Immediate) One Time(Later) Repeating

Project Details

Name	R12 Project	End Date	
Release	R12	Description	
Published	No		

Targets

Notification

Project Plan

Tasks are displayed in the order of their execution sequence. Tasks having the same execution sequence are executed in parallel in a batch. The next batch would start only after successful completion of the current batch.

Task	Type	Data Source	Target	Prerequisite	Execution Sequence
Lease Management Extract	Extract	Lease Management Setups	amp1206-Oracle E-Business Suite		1

Please note the following about executing Projects:

- All executions would be audited even if Approval is turned off.
- There can be only one execution request in "Pending Approval". A user is not allowed to submit a new approval request until the old one has been approved or rejected by an approver. To execute an approved request, user should navigate to Execution Summary screen and submit from there by selecting the request.
- Only a Super Administrator can delete completed executions.
- The drilldown capability to Transform > Generate templates is available from the Execution Detail > View Task Extract page. This button would appear only for successful executions.
- A Project cannot be executed after its end date. If there are any schedules associated with the Project, then those schedules which appear after the end date will not be picked up.
- If the current user does not have the necessary approval role, the above screen will show a "Submit For Approval" button instead of a "Submit" button.

To execute a project:

1. From the Project Search page, select a project and click the **Execute** button. Alternatively, click on a project name (link) and click **Execute** on the View Project page.
2. Enter an Execution Name and description for the execution of the project. You can review information on the project as well, and if needed, update the Execution Sequence numbers for the tasks.
3. The execution can also be scheduled with the following available Schedules
 - One Time (Immediate)
 - One Time (Later)
 - Repeating
4. Click **Submit**.

Viewing Project Executions

After you submit an execution request, the View Execution page appears.

Click on the execution name link to view details for the execution.

You can perform the following tasks for a selected execution:

- View log - View the log file for the execution.
- Restart - Start another execution of this project if and only if the prior execution has failed.
- Delete - Delete the execution. This capability is available only for a Super Administrator.
- View task details and download any ZIP files generated by the task.
 - You can download the extract content ZIP file and deployment report file from the View Execution Details page. You can also download any standard report or comparison report files as well from this page.
 - Click on the task name to see the task details. For an extract task, the task details page will show the total number of records extracted and loaded.

Managing Transforms and Templates

Transforms are simply editable extracts. Setup Manager can provide you the XML or LDT configuration data as an XSL template so that you can edit and transform the functional configuration data offline. The Setup Manager framework handles the conversion of an XML/LDT files to an XLS file and vice versa. Note that this transformation capability is restricted to Generic Loader and iSetup framework APIs only.

The following sections describe how you can transform, edit, or add functional configuration data offline and then add the transform to a project plan.

A Super Administrator can see all transforms created by all users. Other users can delete and "unshare" public transforms they created. Transforms added to a project plan will not be overwritten by changes that are later done to the original transform.

Navigation: From the Change Management Dashboard, select the Transform link from the Setup Manager region.

Restrictions on using Microsoft Excel for Transformation

The following list outlines some of the restrictions for working with an Excel workbook for a transformation.

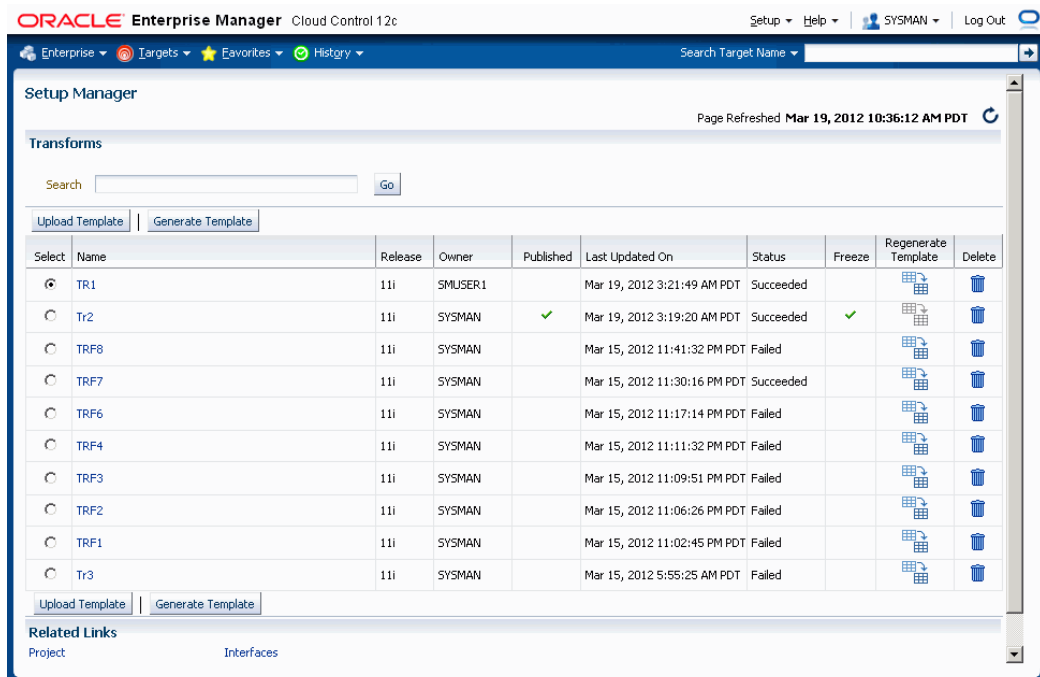
- All attribute values in Excel are of type plain text only even though some may have the attribute data type of Number or Date in the database. Therefore it is highly recommended that you not change these to any type other than text.
- Do not format Dates.
- The number of records per Excel workbook is 10000.. If the actual record count exceeds 10K, then the data would be written in multiple Excel workbooks. The maximum value that can be given is 65536 as the maximum number of rows allowed in Microsoft Excel 2000 is 65536.)
- Bandwidth between the master and details IDs is 1000000.
- A maximum of 4K characters is supported per Excel sheet and if a column value exceeds 4K, then SM_LONG_COLUMN would be shown in Excel. If a user overrides the SM_LONG_COLUMN with other text, then the user-entered text would be considered.
- The first five columns that appear in the Excel sheet are metadata columns: -ID, PARENT ID, STATUS, TRANSFORMED, DELETE. The actual data column will proceed after these columns.
- Editing the Excel header which contains the attribute names is not supported. The

first row must be the attribute names and users must not modify this row.

- Users must ensure validity of IDs * Parent IDs. If the appropriate link is not provided, then newly/edited records will not be considered when Setup Manager creates an extract file from the transformed values.

Searching for a Transform

This page allows you to search for a transform, as well as generate a template for a new transform and upload a template.



The screenshot shows the Oracle Enterprise Manager Setup Manager interface. The page title is "Setup Manager" and it indicates "Page Refreshed Mar 19, 2012 10:36:12 AM PDT". The main content area is titled "Transforms" and contains a search bar with a "Go" button. Below the search bar are two buttons: "Upload Template" and "Generate Template". A table lists various transforms with columns for Select, Name, Release, Owner, Published, Last Updated On, Status, Freeze, Regenerate Template, and Delete. The table contains 11 rows of data, including TR1, Tr2, TRF8, TRF7, TRF6, TRF4, TRF3, TRF2, TRF1, and Tr3. The "Published" column has a green checkmark for Tr2. The "Status" column shows "Succeeded" for TR1, Tr2, and TRF7, and "Failed" for the others. The "Freeze" column has a green checkmark for Tr2. The "Regenerate Template" and "Delete" columns contain icons for each transform.

Select	Name	Release	Owner	Published	Last Updated On	Status	Freeze	Regenerate Template	Delete
<input checked="" type="radio"/>	TR1	11i	SMUSER1		Mar 19, 2012 3:21:49 AM PDT	Succeeded			
<input type="radio"/>	Tr2	11i	SYSMAN	✓	Mar 19, 2012 3:19:20 AM PDT	Succeeded	✓		
<input type="radio"/>	TRF8	11i	SYSMAN		Mar 15, 2012 11:41:32 PM PDT	Failed			
<input type="radio"/>	TRF7	11i	SYSMAN		Mar 15, 2012 11:30:16 PM PDT	Succeeded			
<input type="radio"/>	TRF6	11i	SYSMAN		Mar 15, 2012 11:17:14 PM PDT	Failed			
<input type="radio"/>	TRF4	11i	SYSMAN		Mar 15, 2012 11:11:32 PM PDT	Failed			
<input type="radio"/>	TRF3	11i	SYSMAN		Mar 15, 2012 11:09:51 PM PDT	Failed			
<input type="radio"/>	TRF2	11i	SYSMAN		Mar 15, 2012 11:06:26 PM PDT	Failed			
<input type="radio"/>	TRF1	11i	SYSMAN		Mar 15, 2012 11:02:45 PM PDT	Failed			
<input type="radio"/>	Tr3	11i	SYSMAN		Mar 15, 2012 5:55:25 AM PDT	Failed			

Below the table are two buttons: "Upload Template" and "Generate Template". At the bottom, there is a "Related Links" section with links for "Project" and "Interfaces".

To search for a transform:

1. Navigate to the Transform Search page from the Setup Manager section of the Change Management Dashboard. Alternatively, click on the Transform link under Related Links on the Setup Manager home page.
2. Enter a name of a transform and click **Go**.
3. The search results will be shown in the table. The following columns are shown:
 - Name - Name of the transform.
 - Release - The Oracle E-Business Suite release on which the transform was created.

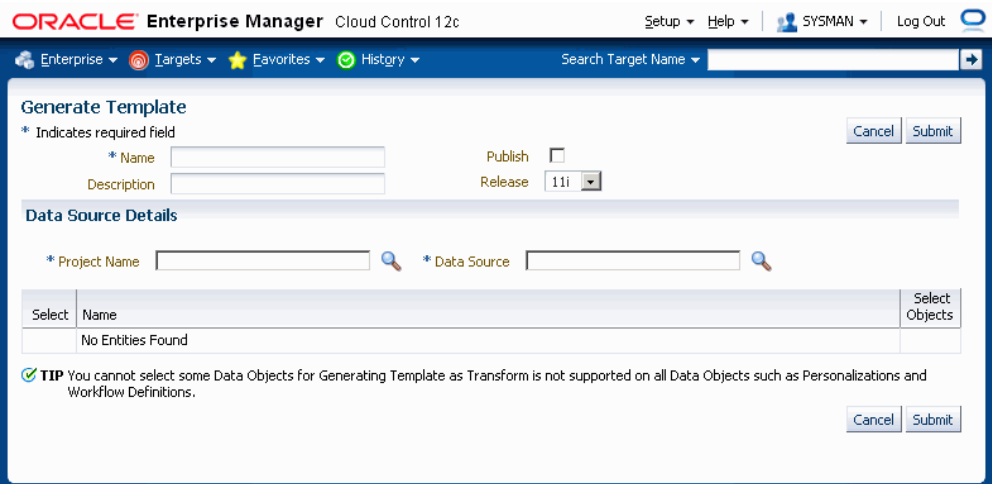
- Owner - The owner of the project.
- Published - If another user can access the transform, then a tick would appear.
- Last Updated On - The date (and time) the transform was last updated.
- Status - The status of the transform.
- Freeze - This column indicates the Freeze state of the transform. Transforms that are in the Freeze state can be added to a project plan for the same release.
- Regenerate Template - Click on this icon to regenerate templates again.
- Delete - Click on this icon to delete a Transform.

Generating and Regenerating a Template

To generate a template:

Provide information in this step that Setup Manager will collect while generating the template in a transform.

1. Navigate to Transform Search page. Click on the **Generate Template** button on Transform Search table.



ORACLE Enterprise Manager Cloud Control 12c

Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Generate Template

* Indicates required field

* Name Publish

Description Release 11i

Data Source Details

* Project Name * Data Source

Select	Name	Select Objects
	No Entities Found	

TIP You cannot select some Data Objects for Generating Template as Transform is not supported on all Data Objects such as Personalizations and Workflow Definitions.

2. Enter in the following information for the template:
 - Name - Name for the transform.
 - Description - Description for the template.

- Publish - Select the check box if you want to share the transform with other users.
- Release - Choose the Oracle E-Business Suite release for which data is to be migrated.
- Project Name - Use the LOV to pick a project.
- Data Source - Use the LOV to pick uploaded extracts or executions from the selected project.
- The Transform Objects Hgrid has the following headers:
 - Select - Indicates if the entity is selected for the transform.
 - Name - Name of the entities.
 - Select Objects - Indicates if objects should be selected for the transform.

To regenerate a template:

Setup Manager collects the information provided in this step while regenerating the template in a transform.

1. Navigate to Transform Search page. Click on the Regenerate Template icon for a transform in the Transform Search table.
2. Enter in the following information for the template.
 - Publish - Select the check box if you want to share the transform with other users.
 - Description - Description for the template.
3. Select objects for the transform under Data Source Details.
4. Click **Save** to save your template definition, or **Submit** to submit a request to regenerate the template.

Downloading a Transform

To download a transform:

1. Click on the name of the transform in the Transforms page.
2. In the Transform Details page, click on the ZIP file in the Download Template

column.

3. Save the ZIP file to your desktop.

Updating a Transform

To update a transform:

Navigate to the Transform page by clicking the Transforms link under Setup Manager from the Change Management Home page, then selecting a Transform.

The screenshot shows the Oracle Enterprise Manager Cloud Control 12c interface. The page title is 'Setup Manager: Transform > Transform' and the specific transform is 'Printers'. The page includes a 'View log' and 'Freeze' button. Below this, there are sections for 'Data Source Details' and a table of transform items.

Data Source Details

Name	Printers	Publish	<input type="checkbox"/>
Description		Release	R12

Data Source Details

Project Name	Printers	Data Source	Printers
Status	Succeeded		

Select All | Select None | Expand All | Collapse All

Select	Name	User Selection	Download Template	Upload Template
<input type="checkbox"/>	General Foundation			
<input type="checkbox"/>	General Foundation			
<input type="checkbox"/>	Lookups			
<input checked="" type="checkbox"/>	Printers			
<input type="checkbox"/>	FND Printer	✓	FNDPrinter.zip	
<input type="checkbox"/>	FND Printer Types	✓	FNDPrinterTypes.zip	
<input type="checkbox"/>	FND Printer Styles	✓	FNDPrinterStyles.zip	
<input type="checkbox"/>	Request Groups			
<input type="checkbox"/>	Request Sets			

The next few sections describe how to update a transform.

To upload a template:

You can select a Template from your Desktop and upload it. You can choose Cascade Changes from the current entity down to its children. This option appears only in the case of a hierarchical selection set.

1. To upload a template, click on the Upload Template icon for a given entity listed on the Transform page.
2. If desired, select the Cascade Changes option.

The Cascade Changes option applies only to root setup objects.

Attribute values would be cascaded from master to detail data objects as they

appear in the selection set. Attribute values would not be cascaded between sibling data objects in the selection set even if you have provided an Attribute Mapping using the Cascade Changes option.

By default, the value would be cascaded for the setup objects having one or more child setup objects even if they appear in a flat selection set. For example, the Accounting Calendar has Period Types and Period Sets as child objects. If a user changes an attribute value in Period Types and uploads it back, then if there is a valid attribute mapping between Period Types and Period Sets, then the attribute value would flow from Period Types to Period Sets if the criteria match.

3. Select a Data Source.
4. Click **Upload**.

Example of Editing a Microsoft Excel Spreadsheet for Transformation

This section describes an example of editing a Microsoft Excel spreadsheet for transformation of a financial operating unit level selection set. The extract contains Operating Units and Inventory Organizations APIs. The transform is created using this extract. After the transform is completed successfully, a ZIP file is created for each entity in the extract, named "OperatingUnits.zip" and "InventoryOrganizations.zip", respectively.

Perform the following steps to download and edit the transform Excel spreadsheet.

1. Navigate to the Transforms page and select the transform. In this example the transform contain is for a financial operating unit level selection set.
2. In the Transform page, click the ZIP file name to download the OperatingUnits ZIP file to the desktop and unzip it.

The downloaded template ZIP file has the following contents:

- driver.xml
 - One or more Excel files (Here, HR_OU_1.xls)
3. Click on the .xls file. The Excel workbook appears as shown in the figure below:

	A	B	C	D	E	F	G	H	I	J	K
1	Id	ParentId	Status	Transformed	Delete	Name	Group Name	Location	Date From	Date To	Internal External
2	10000000	1		N		OU100-test1	BG100 - Primary Business Group	HQ	1951-01-01		INT
3	10000001	1		N		OU100	BG100 - Primary Business Group	HQ	1951-01-01		INT
4											
5											
6											
7											
8											
9											
10											
11											

The "OperatingUnits" workbook has four sheets, one for each data source for Operating Unit API (Operating Unit, Classification, Classification Type and Organization TI).

The structure of the Operating Unit API is as follows:

- Operating Unit
 - Classification
 - Classification Type
- Organization TI

The first five columns in the Excel sheet are metadata columns: ID, ParentID, Status, Transformed and Delete:

- ID - Unique Identifier for a record in the API
- ParentID - ID of the Parent record
- Status - Status of the record in the Transform. It can be Updated, Inserted, Updated with Warning, or Inserted with Warning
- Transformed - Y or N. Y if any of the attributes in that particular record is transformed.
- Delete - Yes or No. To delete records, select Yes.

Next to the metadata columns are the attribute names for a data source.

The following three operations can be performed and are described below:

- Update existing records
- Insert new records

- Delete existing records

Updating existing records

To update existing records in the database, just update the value in the Excel sheet.

For example, in the Operating Unit data source, the operating unit name has to be changed from OU100-test1 to OU200, as shown in the figure below.

	A	B	C	D	E	F	G	H	I	J	K
	Id	ParentId	Status	Transformed	Delete	Name	Group Name	Location	Date From	Date To	Internal External Fla
2	10000000	1		N		OU200	BG100 - Primary Business Grou	HQ	1951-01-01		INT
3	10000001	1		N		OU100	BG100 - Primary Business Grou	HQ	1951-01-01		INT
4											
5											
6											
7											
8											
9											
10											

1. Zip the files (One or more Excel files along with driver.xml) and upload it by clicking on Upload Template icon corresponding to Operating Units in the Transform page.
2. Select the Cascade Changes box if the changes need to be cascaded down to Inventory Organizations API.
3. Select your ZIP file as the Data Source.
4. Click **Upload**.

Cascade Changes

Cascade changes between two Interfaces can occur if and only if there is an attribute mapping defined between these two Interfaces.

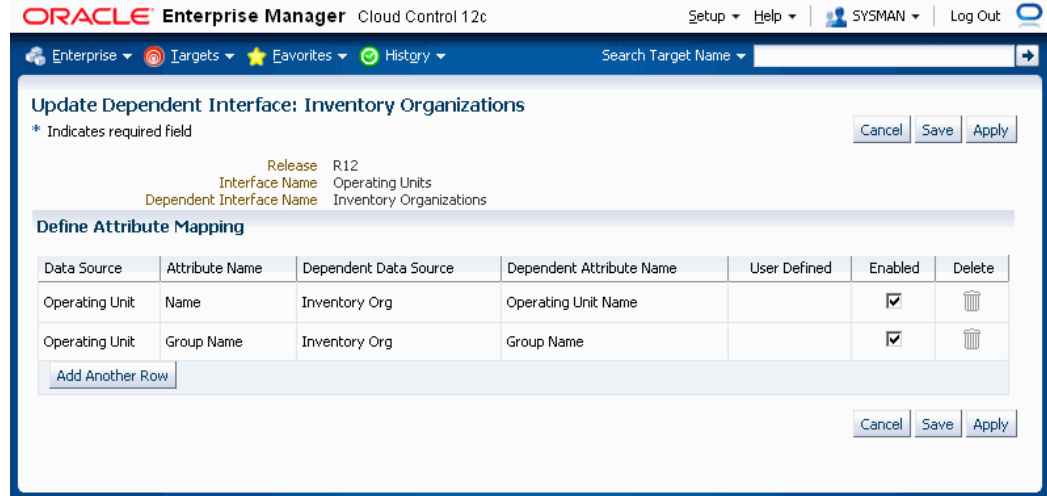
Cascade changes happen within the master entity object (for example, Operating Units) as well as to the detail entity object (for example, Inventory Organizations). There are two types of cascade operations that take place:

- Cascade due to attribute mapping
- Cascade due to name-value match

Cascade due to attribute mapping

Here is an example: The following figure shows the attribute mappings between

Operating Units and Inventory Organizations. The navigation path for this page is Setup Manager home (or region on the Change Management Dashboard) > Interfaces > Interface Dependencies icon for a specific interface > Update icon for a specific dependent interface.



The Name and Group Name of Operating Unit are mapped to Operating Unit Name and Group Name, respectively.

In this example, if you open the Inventory Organization Excel sheet, you see that the Operating Unit Name was changed to OU200 for the records having IDs '10000000', '10000001' and '10000002', as shown in the figure below.

AH	AI	AJ	AK	AL	AM	AN	AO
Attribute 20	Cost Allocation	Soft Coding	Set Of Books Name	Legal Entity Name	Operating Unit Name	Organization Code	Classification
			PL100	US12-3456789	OU200		INV
			PL100	US12-3456789	OU200		INV
			PL100	US12-3456789	OU200		INV
			PL100	US12-3456789	OU100	100	INV
			PL100	US12-3456789	OU100	101	INV
			PL100	US12-3456789	OU100	102	INV

Cascade due to name-value match

Within the API, the system does a name and value match to find out if there are any eligible records to be transformed. For example, within the Operating Unit API: Operating Unit and Organization TL are linked through a view link. Even though there is no attribute mapping defined between these two entities, the transform does a name-value match between these two data sources, finds out the mapping, and cascades the data.

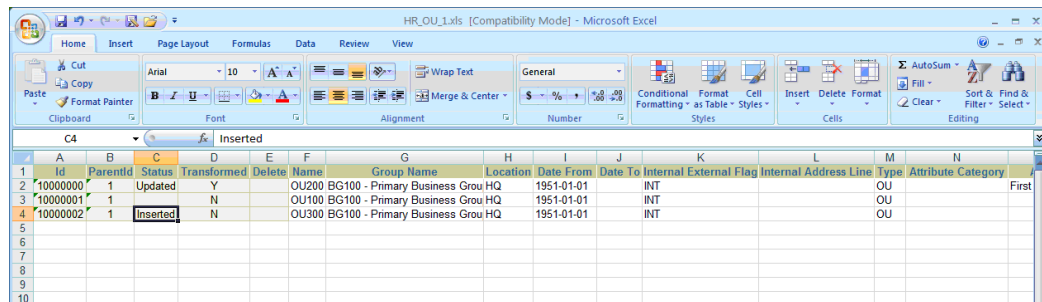
Also, across the APIs within a hierarchical selection set, a name and value match is performed during the transform for the attributes that have been changed.

Inserting new records

To insert a new record to the API, first the record needs to be inserted at the master object level (Operating Unit), then at the detail level (Organization TI, Classification, Classification Type). If any records are inserted at the detail without inserting records at master, the details records will be 'Skipped'. Also, if the records are inserted only at the master and not inserted at the detail level, then the records at the master will have the status as 'Inserted with Warning'.

While inserting new record to any data source, both the unique ID and proper ParentID need to be specified.

In the above example, say we insert new operating unit OU300. As the Operating Unit already have records with ID '10000000' and '10000001', the new record should be given an ID as '10000002' and an ParentID as '1', as shown in the figure below:



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	Id	ParentId	Status	Transformed	Delete	Name	Group Name	Location	Date From	Date To	Internal External Flag	Internal Address Line	Type	Attribute Category
1														
2	10000000	1	Updated	Y		OU200	BG100 - Primary Business Grou HQ		1951-01-01		INT	OU		First
3	10000001	1		N		OU100	BG100 - Primary Business Grou HQ		1951-01-01		INT	OU		
4	10000002	1	Inserted	N		OU300	BG100 - Primary Business Grou HQ		1951-01-01		INT	OU		
5														
6														
7														
8														
9														
10														

Now the detail information needs to be added to Organization TI, Classification, and Classification Type data sources with the proper ID and ParentID. The data appears as follows after insertion.

For Classification, note in the figure below the record with ID '20000002', ParentID '10000002', and Status 'Inserted'.

Classification

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Id	ParentId	Status	Transformed	Delete	Classification	Org Information 2	Org Information 3	Org Information 4	Org Information 5	Org Information 6	Org Information 7	Org Information 8
2	2000000	1000000	N			OPERATING UNY							
3	3000001	1000001	N			OPERATING UNY							
4	2000002	1000002	Inserted	N		OPERATING UNY							

For Classification Type, the following records are inserted, as shown in the figure below:

- ID '3000004', with ParentID '2000002', Status 'Inserted', and Classification Type 'Operating Unit Information'
- ID '3000005', with ParentID '2000002', Status 'Inserted', and Classification Type 'ASO_ORG_INFO'

Classification Type

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Id	ParentId	Status	Transformed	Delete	Classification Type	Org Information 1	Org Information 2	Org Information 3	Org Information 4	Org Information 5	Org Information 6	Org Information 7
2	3000000	2000000	N			Operating Unit Information		LE100	PL1002021(USD)				
3	3000001	2000000	N			ASO_ORG_INFO						OU100	
4	3000002	2000001	N			Operating Unit Information		LE100	PL1002021(USD)				
5	3000003	2000001	N			ASO_ORG_INFO						OU100	
6	3000004	2000002	Inserted	N		Operating Unit Information		LE100	PL1002021(USD)				
7	3000005	2000002	Inserted	N		ASO_ORG_INFO						OU100	

For Organization TI, note the record with ID '4000002', ParentID '1000002', Status 'Inserted', and Name 'OU300', as shown in the figure below:

Organization TI

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Id	ParentId	Status	Transformed	Delete	Language	Source	Lang	Name									
2	40000000	10000000		Y		US	US		OU200									
3	10000001	10000001		N		US	US		OU100									
4	10000002	10000002	Inserted	N		US	US		OU300									
5																		
6																		
7																		
8																		
9																		
10																		

Zip the files (One or more Excel files along with driver.xml) and upload it by clicking on the Upload Template icon for Operating Units.

Deleting existing records

To delete existing records from the extract select 'Yes' from the delete dropdown list box in the Excel file for the IDs that need to be deleted. After the deletion is selected at the master level, the detail records are also deleted. If we delete the record with Name 'OU100' (for example, with ID '10000001' in Operating Unit), the related detail records in Classification, Classification Type, and Organization TI are also deleted.

1. Select 'Yes' in the dropdown Delete Column for the ID '1000000' in Operating Unit.
2. Zip the files (One or more Excel files along with driver.xml) and upload it by clicking on Upload Template icon for Operating Units.

In the following example, the record with the ID '10000001' is marked with "Yes" in the Delete column as shown in the figure below.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	Id	ParentId	Status	Transformed	Delete	Name	Group Name	Location	Date From	Date To	Internal External Flag	Internal Address Line	Type	Attribute Category
2	10000000	1	Updated	Y	N	OU200 BG100 - Primary Business Grou HQ	BG100 - Primary Business Grou HQ	1951-01-01		INT		OU	First	
3	10000001	1	N	N	Yes	100 BG100 - Primary Business Grou HQ	BG100 - Primary Business Grou HQ	1951-01-01		INT		OU	First	
4														
5														
6														
7														
8														
9														
10														

After the transform is completed successfully, the data looks as shown in the following figures for Operating Unit, Organization TI, Classification, and Classification Type data

sources. Note that the record with the ID '10000001' is no longer listed in the Operating Unit figure below.

Operating Unit

Id	ParentId	Status	Transformed	Delete	Name	Group Name	Location	Date From	Date To	Internal External Flag	Internal Address Line	Type	Attribute Category
10000000	1	Updated	Y		OU200	BG100 - Primary Business Group	HQ	1951-01-01		INT		OU	First

For Organization TI, note that the record with the Parent ID of '10000001' is not listed in the figure below.

Organization TI

Id	ParentId	Status	Transformed	Delete	Language	Source Lang	Name
10000000	10000000	Y	Y		US	US	OU200

The related detail record for Classification is deleted, as shown in the figure below.

Classification

	A	B	C	D	E	F	G	H	I	J	K	L	M	
	Id	ParentId	Status	Transformed	Delete	Classification	Org Information 1	Org Information 2	Org Information 3	Org Information 4	Org Information 5	Org Information 6	Org Information 7	Org Information 8
1														
2	20000000	10000000	Updated	N		OPERATING_UN Y								
3														
4														
5														
6														
7														
8														
9														
10														

The related detail record for Classification Type is also deleted, as shown in the figure below.

Classification Type

	A	B	C	D	E	F	G	H	I	J	K	L	M
	Id	ParentId	Status	Transformed	Delete	Classification Type	Org Information 1	Org Information 2	Org Information 3	Org Information 4	Org Information 5	Org Information 6	Org Information 7
1													
2	30000000	20000000	Updated	N		Operating Unit Information	LE100	PL1002021(USD)					
3	30000001	20000000	Updated	N		ASO_ORG_INFO						OU100	
4													
5													
6													
7													
8													
9													
10													

Freezing a Transform

To freeze a Transform:

1. If you are finished with the transform process, you can freeze the transform by clicking the **Freeze** button. Transforms that are in a Freeze state can be added to a project plan for the same release.

You cannot edit a transform in the Freeze state, but you can unfreeze a transform for further progress. However, these later changes do not affect the transform content added previously to a project plan.

Note: If any errors occur while uploading or cascading the transform and if you still wish to continue with the Freeze option,

then XML data from the original extract will be copied for those setup objects that have errors.

2. Click **View Log** to view details of the job in which the transform was done.

Discovering Interface Metadata

To discover Interface Metadata:

Before creating a transform, you must discover the interface metadata for the specific Oracle E-Business Release. To do this, perform the steps below for the Discover Interface Metadata page.

You can also use the Discover Interface Metadata to manage your Interface Metadata targets.

You can refresh the Interface Metadata by selecting any target and clicking on the **Rediscover** button on the Discover Interface Metadata page. The currently selected refreshed target will then become active.

Note: You can add multiple Release 11*i* or Release 12 targets but at any given time only one Release 11*i* target and one Release 12 target would be active.

1. Navigate to Interfaces > Discover Interface Metadata.

ORACLE Enterprise Manager Cloud Control 12c Setup Help SYSMAN Log Out

Enterprise Targets Favorites History Search Target Name

Discover Interface Metadata

Page Refreshed Mar 19, 2012 11:27:44 AM PDT

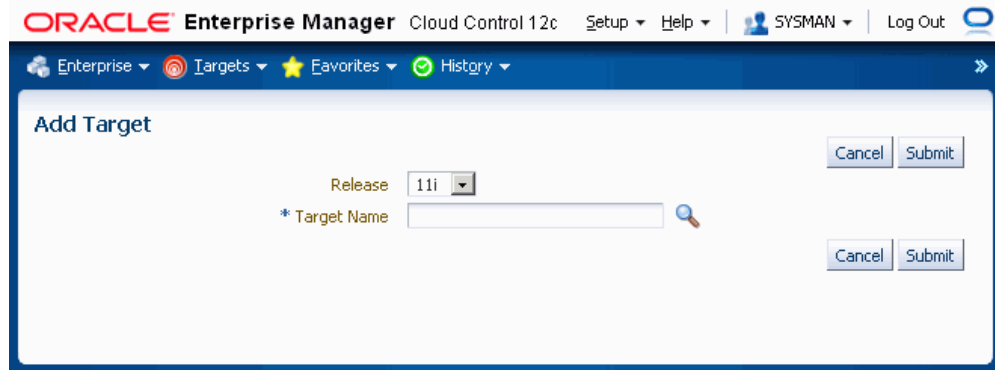
Rediscover Add

Select	Target	Release	Created By	Last Updated By	Last Updated On	Active	Status
<input checked="" type="radio"/>	amp1206-Oracle E-Business Suite	12.0.4	SYSMAN	SMUSER	Mar 19, 2012 1:43:45 AM PDT	✓	Failed
<input type="radio"/>	ebs11107-Oracle E-Business Suite	11.5.10.2	SYSMAN	SYSMAN	Mar 15, 2012 12:48:01 AM PDT	✓	Failed

Return to Interfaces

Click **Add** to add a target.

2. On the next page, specify the Release of the target. Use the LOV to specify the Target Name.



3. Click **Submit**.

Only one request to discover Interface Metadata can be in the status Pending or Running at a time.

Managing Interfaces

An Interface Attribute mapping can be created between data sources of same or related (dependent) interfaces; for example, Base Data Source -> Translated Data Source.

Attribute mapping between two interfaces will not be used if the two interfaces appear in the Selection Set as siblings.

A dependent Interface Attribute Mapping is used between master to detail interfaces as they appear in hierarchical selection sets such as the Oracle Financials Operating Unit Level Setup and Payroll Element. To define the relation between two interfaces, a minimum of one attribute mapping is mandatory.

Dependent Interface Mappings are not user specific; that is, a mapping created by one user can be used in another user's transform. If a user does not want to use some or all interface mappings, he or she can uncheck the Enabled box in the Define Attribute Mapping screen.

User-defined mappings can be deleted by any user. Seeded mappings can only be enabled or disabled; they cannot be deleted.

Use the following procedure to search for interfaces.

To search for an interface:

The screenshot shows the Oracle Enterprise Manager Setup Manager interface. At the top, there is a navigation bar with 'Enterprise', 'Targets', 'Favorites', and 'History' menus. A search bar for 'Search Target Name' is present. The main content area is titled 'Setup Manager' and contains a 'Discover Interface Metadata' button. Below this is the 'Interfaces' section, which includes a search form with a 'Release' dropdown menu set to 'Any' and an 'Interface Name' text input field, followed by a 'Go' button. A table displays the search results with the following columns: Name, Release, Application Short Name, Interface Type, and Interface Dependencies. The table contains three rows of data. Below the table is a 'Related Links' section with links for 'Project' and 'Transform', and another 'Discover Interface Metadata' button.

Name	Release	Application Short Name	Interface Type	Interface Dependencies
ABC Assignment Groups	R12	INV	BC4J	
ABC Classes	R12	INV	BC4J	
ABC Compiles	R12	INV	BC4J	

You can search for an interface on the following:

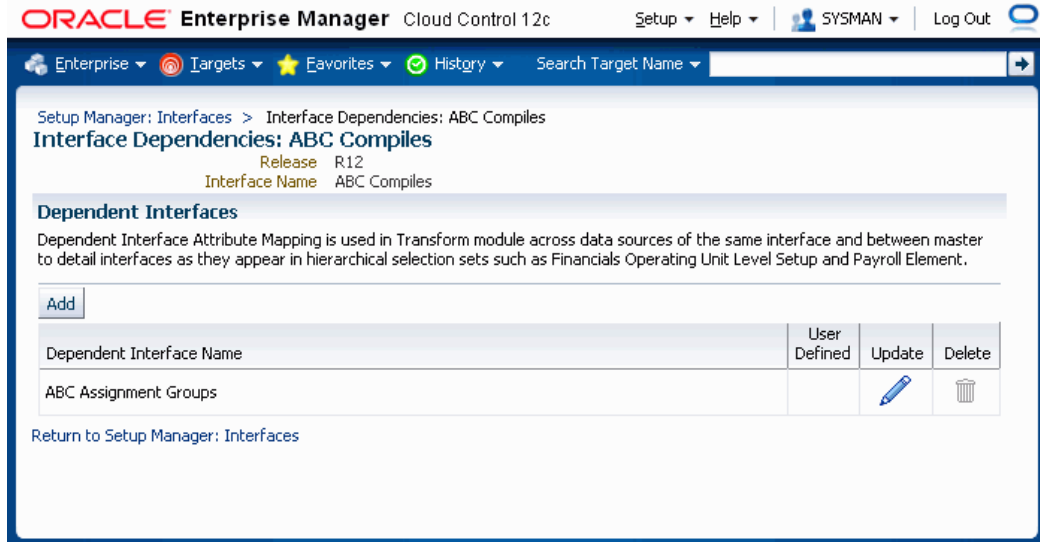
- Release - You can search for interfaces on Release 11*i*, Release 12, or both. The search results will include only records for configured releases.
- Interface Name - Name of the interface.

The results table has the following columns:

- Name - Name of the interface.
- Release - Oracle E-Business Suite release to which this API belongs.
- Application Short Name - Application Short Name.
- Interface Type - BC4J indicates iSetup framework. FNDLOAD indicates Generic Loader.
- Interface Dependencies - Icon to update or add more dependent interfaces and to provide more attribute mappings between the required and the dependent interfaces.

Updating Interface Dependencies

To update interface dependencies:



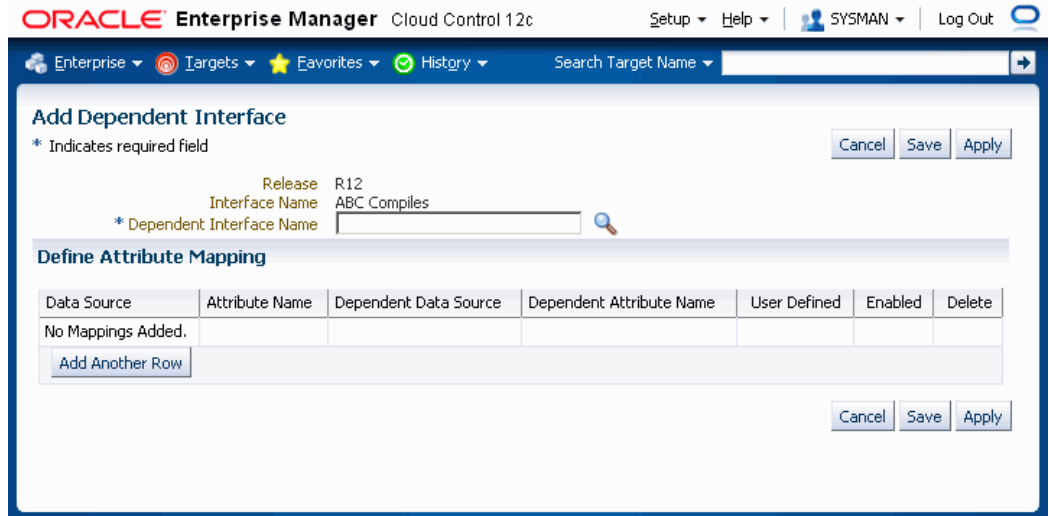
You can navigate to this page from the Interface Search page by clicking on the Interface Dependencies icon for an interface.

This page lists dependent interfaces for the selected interface. Table columns are:

- Dependent Interface Name - Name of the dependent interface.
- User Defined - Tick mark would appear if a user has created it.
- Update - The icons in this column allow you to update or add an attribute mapping between the current interface and the dependent interface.
- Delete - The icons in this column allow you to delete a dependent interface.

The icons in this column are disabled for seeded interface dependencies.

You can add an additional dependent interface by clicking the **Add** button.

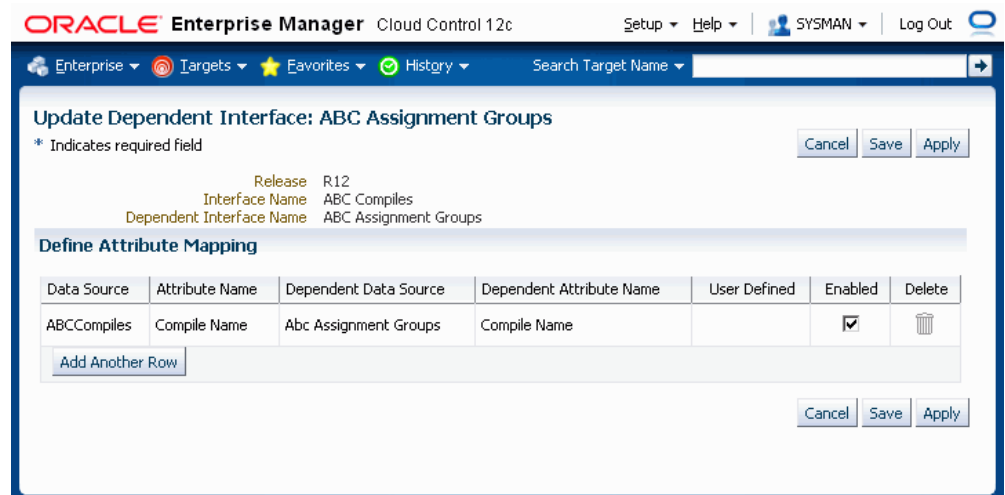


Updating Dependent Interfaces

To update a dependent interface:

1. Navigate to the Interfaces page and then click the Interface Dependencies icon for a specific interface. The dependent interfaces are listed in the Interface Dependencies: [Interface Name] page.

Click the Update icon for a specific dependent interface to update it.

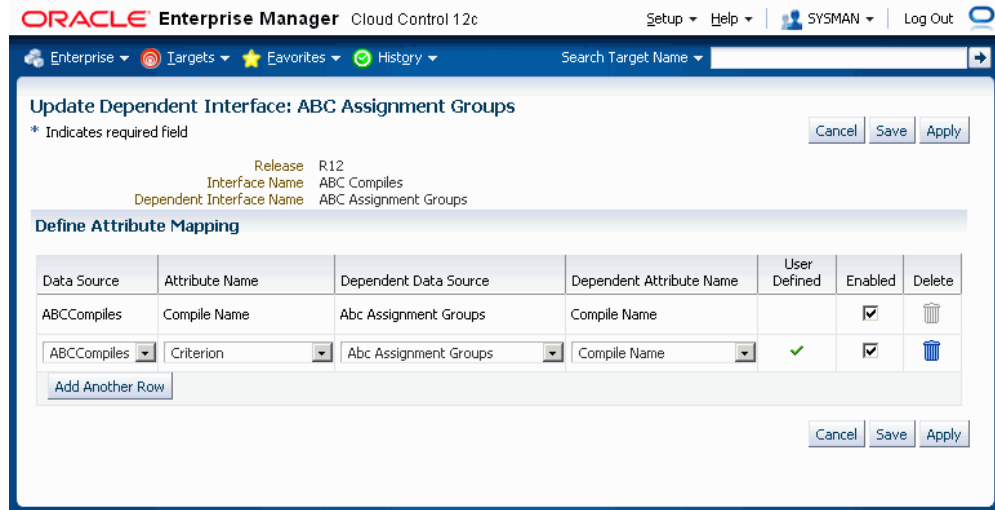


2. You can disable an attribute mapping by de-selecting the Enabled box.
3. Click **Add Another Row** to add a new attribute mapping.

Defining an Attribute Mapping

To define an attribute mapping:

1. Click on the **Add Another Row** button in the Define Attribute Mapping region in the Update Dependent Interfaces page.



Enter the following:

- **Data Source** - Data source of the required interface. The data source is a Java/SQL object that contains the SQL query for extraction. The system gets the SQL query from the data source and uses it as a query against the database. Then the system iterates over the records and writes them as XML or LDT depending on the nature of the API. In other words, a data source is simply a combination of one or more tables using data which is extracted. A data source can be compared to a table.
- **Attribute Name** - Attribute name of the data source of the required interface. An attribute name can be compared to a table column name.
- **Dependent Data Source** - Data source of the dependent interface.
- **Dependent Attribute Name** - Attribute name of the data source of the dependent interface.
- **User Defined** - A tick mark appears for those rows for which you have created a mapping.
- **Enabled** - You can enable or disable an attribute mapping. If you have disabled a mapping, then it will not be used at the time for cascading a value from master to detail.

For example, say there are two setup objects named Employee and Department. The Department table's column 'department_name' is linked to the Employee table's column 'department_name'. If you change the value of department_name in the Department Microsoft Excel file and upload it, then the cascade feature works in one of two ways: If you have enabled attribute mapping between the Department table's and the Employee table's column department_name, then the value that you have changed in the Department table would automatically be reflected in the Employee table. If you have disabled attribute mapping, then this cascading would not happen.

- Delete - You can delete only user-defined attribute mappings.
2. Click **Save** to save your changes and remain on this page. Alternatively, you can click **Apply** to save your changes and go back to the previous page. Click **Cancel** to cancel your updates and return back to the previous page.

Command Line Discovery for Oracle E-Business Suite Systems

Command-Line Discovery for Oracle E-Business Suite Systems

The Oracle Application Management Pack for Oracle E-Business Suite provides a command-line interface for the batch discovery of multiple Oracle E-Business Suite systems. Command-line discovery is executed using the script `ebsdiscovery.sh` which is located under `$PLUGIN_HOME/scripts/cli`.

Note: Command line discovery is currently not certified on MS Windows platforms.

Prerequisites

The operating system user who runs command-line discovery must have the full permissions on the OMS `ORACLE_HOME`. Before running command-line discovery, set the following environment variables:

- `ORACLE_HOME`: This environment variable must be set to OMS Home.
- `JAVA_HOME`: This environment variable must be set to a valid JDK directory. The OMS `ORACLE_HOME` ships with one under `$ORACLE_HOME/jdk`. Once the OMS `ORACLE_HOME` is set, `JAVA_HOME` may be set simply by reference to the `ORACLE_HOME` variable:

```
export JAVA_HOME=$ORACLE_HOME/jdk
```
- `PLUGIN_HOME`: This environment variable must point to the folder returned by the query `"select plugin_home from GC$CURRENT_DEPLOYED_PLUGIN where plugin_id='oracle.apps.ebs' and destination_type='OMS'"`.

Before running discovery for multiple instances, it is highly recommended that you first

try discovering a single Oracle E-Business Suite system.

Discovery

The `ebsdiscovery.sh` script can be run with the following parameters:

- `inputfile=<ebslist>`

This option, when passed to the `ebsdiscovery.sh` script, will allow for the use of an input file which may contain details for the discovery of several Release 11*i* or Release 12 Oracle E-Business Suite systems (Oracle Applications environments). See: The `ebsList.txt` file, page A-2 for more information.

How this option works: Information will be taken from the file specified as `<ebslist>` and submitted as separate Enterprise Manager jobs for discovering each Oracle E-Business Suite system described in the file. If this "inputfile" option is not provided, then the default value is `ebsList.txt`. Please see `ebsList.txt` under `$OMS_HOME/sysman/admin/scripts/ebs/cli/amp/disc/` for a sample input file.

- `omscred=<oms credentials file>`

OMS Credentials will be taken from this file. This file is machine-generated and should not be edited. If this file does not exist, the `ebsdiscovery.sh` script will create it after prompting for the necessary input values. If this "omscred" option is not provided, then the default value is `omscred.conf`.

- `logdir=<log directory>`

This option determines the location where the log files will be written.

An example of running the command is:

```
./ebsdiscovery.sh inputfile=ebsList.txt omscred=omscred.conf logdir=/tmp
```

After the discovery job is started, you can view its status on the Oracle Management Server. From the Oracle Enterprise Manager console, navigate to Enterprise (menu) > Job > Activity. The status of the job is shown in the Status field. Click on the job name link to drill down to details on the discovered Oracle E-Business Suite instance.

The `ebsList.txt` file

The `ebsList.txt` file contains parameters and values for the discovery process.

The ebsList.txt file

```
oraem@lcmdev01:/u01/emgc01/oms10g/oaem/di
[oraem@lcmdev01 cli]$ cat ebsList.txt
DEFAULT=> [[
    DISCOVER_FORMS=> Y;
    DISCOVER_FORMS_SERVICE=> Y;

    DISCOVER_WORKFLOW=> Y;
    DISCOVER_WORKFLOW_SERVICE=> Y;

    DISCOVER_SSA=> Y;

    DISCOVER_MWA=> N;
    DISCOVER_JFF=> N;

    DISCOVER_CUSTOM_OBJECTS=> Y;
    DISCOVER_PATCHING=> Y;

    ADD_CUSTOMER_GROUP=> Y;

    CUSTOMER_INST_GRP_NAME=> IDC;
    CUSTOMER_GRP_NAME=> IDCRI2VIS04;

    APPS_USER=> apps;
    APPS_PASSWD=> apps;

    APPS_MONITORING_USER=> apps;
    APPS_MONITORING_PASSWORD=> apps;

]]
# We can write ne thing here
R12VIS04=> [[
    DB_TARGET=> R12VIS04;
]]
[oraem@lcmdev01 cli]$
```

The format for the ebsList.txt file is:

```
DBTARGET=> [[
    DBTARGET=><DBTARGET>;
    DBTYPE=><oracle_database | rac_database>;
    APPS_USER=><apps db user>;
    APPS_PASSWORD=><apps password>;
]]
```

Extra parameters can be provided as <key>=><value> pairs delimited by a semi-colon (;).

For ENCRYPTED_PASSWORD=><encrypted apps password>, the encrypted password will be used to decrypt the password on successive usage of the ebsList.txt file. To override the old password, change the input and add APPS_PASSWORD key value pair again with the new, changed password.

ebsList.txt Parameters

The following table describes the ebsList.txt parameters and their valid values.

Key	Supported Release	Valid Values	Description	Default
DB_TARGET	All	DB Target Name	Database Target name of the Apps you want to discover	N/A
DB_TYPE	All	oracle_database or rac_database	Database type	oracle_database
APPS_USER	All	Apps username		apps
APPS_PASSWD	All	Apps password	This will be replaced by ENCRYPTED_APPS_PASSWD	apps
APPS_MONITORING_USER	12.0 or higher	Apps Monitoring username	This is used for out-of-box service monitoring	
APPS_MONITORING_PASSWORD	12.0 or higher	Apps Monitoring password	This will be replaced by ENCRYPTED_APPS_MONITORING_PASSWORD	
DISCOVER_WORKFLOW	All	Y or N	Whether to Discover Workflow targets	Y
DISCOVER_WORKFLOW_SERVICE	12.0 or higher	Y or N	Whether to Discover Workflow Service if DISCOVER_WORKFLOW is Y	Y
DISCOVER_FORMS	12.0 or higher	Y or N	Whether to Discover Forms or not	Y

Key	Supported Release	Valid Values	Description	Default
DISCOVER_FOR MS_SERVICE	12.0 or higher	Y or N	Whether to Discover Forms Service if DISCOVER_FOR M is Y	Y
DISCOVER_SSA	12.0 or higher	Y or N	Whether to discover SSA Service or not	Y
DISCOVER_CUS TOM_OBJECTS	12.0 or higher	Y or N	Whether to Discover Custom Objects or not	Y
DISCOVER_PAT CHING	12.0 or higher	Y or N	Whether to discover Patching Configuration target	Y
PROTOCOL	11i	http or https	Whether to have http or https	http
SRVLT_URL_FR OM_CTXFILE	11i	Y or N.	Whether to take Servlet URL from Context file or Not. If this value is N, Value for Servlet url will be "/servlet/oracle.f orms.servlet.List enerServlet"	Y
ADD_CUSTOM ER_GROUP	12.0 or higher	Y or N	Shall Add Customer Group	N
CUSTOMER_IN ST_GRP_NAME	12.0 or higher	Text	Customer Instance Group Name	N/A
CUSTOMER_GR P_NAME	12.0 or higher	Text	Customer Group Name	N/A

Key	Supported Release	Valid Values	Description	Default
DELETE_REMOVED_TARGETS	All	Y or N	Whether or not to delete removed targets. Default is N	N
DISCOVER_DISCOVERER	11i	Y or N	Whether or not discover discoverer	Y
FORMS_Servlet_PROTOCOL	11i	http or https	Whether to have http or https for forms servlet mode	http
DISCOVER_JVM_USAGE	12.0 or higher	Y or N	Whether or not to discover JVM usage target	Y

Customer Groups Created by Discovery

Groups are an optional feature in Enterprise Manager that allows the logical organization of targets in accordance to user preference. Command line discovery allows the definition of target groups and placement of Oracle E-Business Suite systems in these groups at time of discovery. Groups can also be created using the normal discovery process available in the management console, as well as after discovery.

To view these groups, navigate within the Enterprise Manager console to Targets (menu) > Groups.

Supported File Types in Customization Manager

Supported File Types

The following table lists the supported file types in Customization Manager. You can include files of only these types in your custom packages. The Object Action column lists the action that AutoPatch performs on files of the given type.

File Type Name	Source Extension	Description	Object Action
fmb	fmb	Oracle Forms	copy and genform
prt	prt	Oracle Reports driver	copy
rdf	rdf	Oracle Reports	copy and genrep
pld (Forms)	pld	Forms Library	compile to pll; copy and genfppl
pld (Reports)	pld	Reports Library	compile to pll; copy and genrppl
pdf	pdf	document file (Portable Document Format (PDF))	copy
pdf	pdf	XMLP PDF notrans	copy and load using XDOLoader

File Type Name	Source Extension	Description	Object Action
xls	xls	Microsoft Excel file	copy
mmb	mmb	menu file	copy
java	java	Java file	compile and deploy under \$JAVA_TOP
zip	zip	zipped file	copy
class	class	Java class file	copy
jpg	jpg	JPEG image file	copy
bmp	bmp	bitmap image file	copy
dbc	dbc	file used for database connection	copy
doc	doc	Microsoft Word document file	copy
dot	dot	Microsoft Word template file	copy
drv	drv	driver file	copy
fmx	fmx	compiled form	copy
software htm	htm	Hypertext Markup Language	copy
html	html	Hypertext Markup Language	copy
odf	odf	object definition file	copy
pkh	pkh	package header	copy and execute as APPS
plb	plb	package body	copy
RTF File	rtf	rich text format	copy
XMLP RTF notrans	rtf		copy and load using XDOLoader

File Type Name	Source Extension	Description	Object Action
sql	sql	SQL script (copy only)	copy
wft	wft	Workflow Text	copy and upload using WFLOAD
XML	xml	Extensible Markup Language file	copy
BC4J XML	xml	Oracle Application Framework - BC4J XML file customizations	compile and deploy under \$JAVA_TOP
dll	dll	dynamic link library	copy
mmx	mmx	a kind of menu file	copy
sym	sym	always accompanies a dll	copy
tif	tif	image file (Tagged Image File Format)	copy
sh	sh	Bourne or Korn shell script	copy
jlt	jlt	Java Loader Text - used by AKLOAD.java	copy
eex	eex	Oracle Discoverer	copy
dis	dis	Discoverer Export	copy
lct	lct	Application Object Library Generic Loader control file	copy
software ldt	ldt	used in software patches	copy and upload using FNDLOAD
sqlj	sqlj	SQLJ file	copy
ini	ini	Java Parameter File	copy

File Type Name	Source Extension	Description	Object Action
xsl (non-dbdrv)	xsl	XML Style Sheets (not used in database driver)	copy
create_view	sql	Create or Replace View Script	copy and execute as APPS
create_trigger	sql	Create or Replace Trigger Script	copy and execute as APPS
create_type	sql	Create or Replace Type Script	copy and execute as APPS
create_index	sql	Create Index Script	copy and execute as APPS
seed_data	sql	Custom Seeded Data SQL script	copy and execute as APPS
create_synonym	sql	Create View Synonym Script	copy and execute as APPS
jsp	jsp	Java server page	copy
res	res	resource file to store WF messages and used by WF Resource Generator	copy
ps	ps	Postscript Pages	copy
properties	properties	Java Property Class	copy
pll (Forms)	pll	compiled Forms library	copy and run genfppl
pll (Reports)	pll	compiled Reports library	copy and run genrppl
ogd	ogd	Oracle Graphics	copy
env	env	environment file	copy
js	js	Javascript file	copy
rpt	rpt	Oracle Reports file	copy

File Type Name	Source Extension	Description	Object Action
jar	jar	Java archive file	copy
Pls	pls	PL/SQL package specification	copy and execute as APPS
Pks	pks	PL/SQL package specification	copy and execute as APPS
so	so	UNIX shared library	copy
Jpx	jpx	BC4J Substitution	copy
vsd	vsd	source file for gif files used in translations	copy
dtd	dtd	XML Document Type Definition	copy
xss	xss	Extensible Style Sheet definition	copy
wbmp	wbmp	bitmap file for wireless devices	copy
xgm	xgm	XML Gateway Mapping file	copy
xgd	xgd	XML Gateway Data definition file	copy
pl	pl	Perl Scripts	copy
pm	pm	Perl Modules	copy
drvx	drvx	database driver exception file	copy
pkb	pkb	package body	copy and execute as APPS
software css	css	used in software patches	copy
mac	mac		copy
cfg	cfg	configuration file	copy

File Type Name	Source Extension	Description	Object Action
txt	txt	plain text file	copy
uix	uix	user interface XML	copy
hct	hct	HRMS fast formula loader control file	copy
hdt	hdt	HRMS fast formula loader data file	copy
pdt	pdt	HRMS legislative loader data file	copy
wfx	wfx	Workflow XML loader files	copy
csv	csv	file from which user-needed data is imported	copy
ear	ear	an EJB .jar archive with XML contents in the META-INF	copy
xdf	xdf	XML files containing object definitions	copy and execute using FNDXDFCMP
JRAD/MDS File	xml	JRAD Files are xml extensions. These extensions should be used for Oracle Application Framework objects under the mds directory.	copy and load using XMLImporter
xlf	xlf	XLf files are generated from xml files	copy
document gif	gif	used in document patches; image files	copy
document htm	htm	used in document patches; HTML files	copy
document ldt	ldt	used in document patches; navigation library files	copy and upload using FNDLOAD

File Type Name	Source Extension	Description	Object Action
document css	css	used in document patches; cascading stylesheet file	copy and execute using FNDGFU
tld	tld	tag library definition file	copy
xsd	xsd	XML Schema provides a means for defining the structure of XML documents	copy
XMLP XSL notrans	xsl	XML Publisher (XDO) non-translatable XSL templates	copy
interface ldt	n	Interface Repository loader file	copy
XMLP RTF template	rtf	XML Publisher (XDO) translatable templates	copy
XMLP xlf	xlf	xlf files generated from translatable XMLP templates	copy
xdf(AW) xlf	xlf	Analytic Workspaces XML files containing object definitions	copy
pkh (no n)	pkh	package definition	copy
wsdl	wsdl	Web Services Description Language File	copy
XMLP RTF notrans	rtf	XML Publisher (XDO) non-translatable RTF templates (recommended)	copy
XMLP PDF notrans	pdf	XML Publisher (XDO) PDF templates	copy
XMLP XML notrans	xml	XML Publisher (XDO) non-translatable XML templates	copy

File Type Name	Source Extension	Description	Object Action
XMLP XSD notrans	xsd	XML Publisher (XDO) non-translatable XML templates	copy
jspx	jspx	JSP document	copy
java_lib	jar	Java library (for compilation only)	Use jar only for compiling; jar is not included into the patch
package_spec	sql	package specification	copy and execute as APPS
package_body	sql	package body	copy and execute as APPS
create_table	sql	Create Table Script	copy and execute as APPS
alter_table	sql	Alter Table Script	copy and execute as APPS
create_sequenc e	sql	Create Sequence Script	copy and execute as APPS
alter_sequence	sql	Alter Sequence Script	copy and execute as APPS
create_table_o wner	sql	Create Table Schema Owner Script	copy and execute as schema owner
alter_table_ow ner	sql	Alter Table Owner Script (run as schema owner)	copy and execute as schema owner
create_index_o wner	sql	Create Index Owner Script	copy and execute as schema owner
sql_owner	sql	Generic SQL Owner Script (copy only)	copy and execute as schema owner
create_view_o wner	sql	Create View Owner Script	copy and execute as schema owner
create_synony m_owner	sql	Create Synonym Owner Script	copy and execute as schema owner

File Type Name	Source Extension	Description	Object Action
plx	plx	Oracle Forms library file executable	copy
dat	dat		copy
ico	ico	icon file	copy
dmp	dmp		copy
exp	exp		copy
fdo	fdo		copy
frm	frm		copy
hlp	hlp	help file	copy
inc	inc		copy
inp	inp		copy
msb	msb	Message Dictionary file	copy
obd	obd	online help file	copy
cmd	cmd	NT Command File	copy
csb	csb	shell script file	copy
dbt	dbt	database text file	copy
def	def		copy
flt	flt		copy
fmt	fmt	Oracle Forms form source text file	copy
fpp	fpp		copy

File Type Name	Source Extension	Description	Object Action
fxp	fxp		copy
imp	imp		copy
mk	mk	make file	copy
mmt	mmt	menu text file	copy
pc	pc	Pro*C program	copy
Scr	scr	script file generated by the Oracle Scripting Script Builder" tool"	copy
MSI	xml	Manual Step File	copy
ttf	ttf	TrueType font definition file	copy
conf	conf	configuration file to be released along the product	copy
mdl	mdl	text file created by Oracle Warehouse Builder (OWB) metadata loader file for data import	copy
thtml	thtml	template toolkit for ISD	copy
uit	uit	custom renderer for the FWK header component	copy
mif	mif	XML file that contains schematic information about graphical representation of the structure (RMIM)	copy
coremif	coremif	XML file that contains schematic information about graphical representation of the structure (RMIM)	copy

File Type Name	Source Extension	Description	Object Action
xcfg	xcfg	ADF XML configuration file	copy
rts	rts	resource bundle file for java related tool is Tecate	copy
x2h	x2h	X2h format file for ISD	copy
PPP	PPP		copy
tag	tag		copy
ora	ora	Net8 configuration files (listener.ora, tnsnames.ora)	copy
inf	inf	used for applying updates to windows registry	copy
app	app	used to configure the apache single listener (modplsql)	copy
tcl	tcl	TCL scripts called by Oracle Enterprise Manager's Intelligent Agent for hosted Exchange products	copy
fdi	fdi		copy
clx	clx	spell-checking dictionary file in compressed lexicon format	copy
tlx	tlx	spell-checking dictionary file in text lexicon format	copy
Z	Z	Adaptive Lempel-Ziv compressed file	copy
tpl	tpl	template files	copy
amx	amx	standard XML file	copy
ftg	ftg		copy

File Type Name	Source Extension	Description	Object Action
rlt	rlt		copy
ctl	ctl	SQL*Loader file	copy
rsp	rsp	Rapid Install response file	copy
prc	prc	Palm Pilot application file	copy
odb	odb	Oracle Lite database file required from Mobile Applications	copy
llt	llt		copy
software gif	gif	image file (Graphics Interchange Format)	copy
msg	msg	FND Message Loader Text	copy
OAF Component	java	Oracle Application Framework customizations	compile and deploy under \$JAVA_TOP

Recommended Locations for Common File Types

The following table lists recommended locations for some commonly-used file types.

File Types	Description	Recommended destination path (relative to product top)
sql, package_spec, package_body, create_table, alter_table, create_sequence, alter_sequence, create_view, create_trigger, create_type, create_index, seed_data, create_synonym, pkh, plb, pls, pkb, create_table_owner, alter_table_owner, create_index_owner, sql_owner, create_view_owner, create_synonym_owner	SQL, PL/SQL files	patch/115/sql
software ldt	All Generic Loader (FNDLOAD) files	patch/115/import/<LANG>; for example, 'patch/115/import/US'
sh	Shell script	bin
xdf	XDF file	patch/115/xdf
pl	Perl script	bin
fmb	Forms	forms/<LANG>; for example, forms/US
rdf	Report	reports/<LANG>; for example, reports/US
html,xsl,xss,css	HTML and style sheets	html
jsp	JSP	html
XML Publisher templates	XML Publisher templates	patch/115/publisher/templates
java	Java files	java/<package path>; for example, java/test for the file oracle/apps/newprod/test/hello.java

File Types	Description	Recommended destination path (relative to product top)
JRAD/MDS file	Oracle Application Framework-related XML files	mds/<path>
gif	Image files	media
pm	Perl module	perl/<path>

Execution Sequence of SQL File Types

The following table lists the execution sequence of SQL file types.

File Type	Description	Order Of Execution
create_sequence	Create sequence script	1
create_table	Create table script	2
create_table_owner	Create table in custom schema	2
alter_table	Alter table script	3
alter_sequence	Alter sequence script	3
alter_table_owner	Alter table in custom schema	3
create_type	Create or replace type script	4
package_spec	Package specification	5
create_view	Create or replace view script	6
create_synonym	Create view synonym script	6
create_view_owner	Create view in custom schema	6
create_synonym_owner	Create synonym in custom schema	6

File Type	Description	Order Of Execution
package_body	Package body	7
seed_data	Custom seeded data SQL script	8
create_index	Create index script	9
create_index_owner	Create index in custom schema	9
create_trigger	Create or replace trigger script	10
sql	Generic	11
sql_owner	Run SQL in custom schema	11

For example, the type `create_sequence` will execute before the type `create_table` or `create_table_owner`. The types `create_table/create_table_owner` will execute in parallel before the types `alter_table/alter_sequence/alter_table_owner`.

Customization Manager Coding Standards

Customization Manager Coding Standards

Customization Manager has a standards checker to check that the files included in a custom package meet certain coding standards. This checker tests all code for standards compliance and cannot be turned on or off.

Some standards are mandatory and will result in failure when Customization Manager attempts to build the package. Other standards are recommended, and the standards checker will give a warning but the package will be built.

Mandatory Standards

The standards in the following table must be met. If a file does not meet these standards then Customization Manager will not build the package containing it.

Standard Name	Description
Header Check	Each file must have an Oracle-compliant source header present.
PLD File Location Standard	PLD files must be located somewhere under one of following directories: resource, plsql, graphs.
SQL using CONNECT Standard	SQL files using a "connect" statement must have a valid dbdrv hint provided within the file.
Java Destination Path Standard	For Java files within a package, the destination path must start with "java".

Standard Name	Description
Java Package Path Standard	For Java files within a package, the destination path for the Java file must match its package structure.

Other Standards

The following table lists standards that if not met, will result in a Warning but the package will still be built.

Standard Name	Description
Java SOP Check	Java files must not use System.out.print
Java System.gc() Check	Java files must not use System.gc
SQL dual reference check	SQL files must not use System.dual, instead use dual
PERL module location	Perl module must be located anywhere under perl directory
PERL file location	Perl files must be located under one of following directories: bin, patch/[release]/bin,admin/template,admin/template/*.
SQL comment standard	SQL file should not have -- as comment
SQL file (!) check	SQL file should not have ! character
PLS (!) check	PLS file should not have ! character
JRAD halign check	JRAD XML files should not contain hAlign
Java package name check	All Java classes must be in packages beginning with: oracle.apps.[prod_name]
Java System.err Check Standard	Java files must not use System.err
SQL file location check	SQL files must be located under one of following directories: admin/sql,admin/template,admin/template/*,patch/ [some dir]/sql,sql

Standard Name	Description
DrvX file location check	DrvX files must be located under one of following directories: patch/[some dir]/driver, admin/template,admin/template/*
Driver File Location Standard	Driver files must be located under one of following directories: admin/driver,patch/[some dir]/driver, admin/template,admin/template/*
LCT File Location Standard	LCT files must be located under one of following directories: admin/import,patch/[some dir]/import,upgrade/[some dir]/import,admin/template,admin/template/*
LDT File Location Standard	LDT files must be located under one of following directories: admin/import,patch/[some dir]/import,help,,admin/template,admin/template/*
PKG File Location Standard	Package files must be located under one of following directories: admin/sql,patch/[some dir]/sql,admin/template,admin/template/*
RTF File Location Standard	RTF files must be located under : patch/115/publisher/templates
XSS Location Standard	XSS files must be located under one of following directories: html,admin/template,admin/template/*
HCT Location Standard	HCT files must be located under one of following directories: patch/[some dir]/import,admin/template,admin/template/*
HDT Location Standard	HDT files must be located under one of following directories: patch/[some dir]/import,admin/template,admin/template/*
PDT Location Standard	PDT files must be located under one of following directories: patch/[some dir]/import,admin/template,admin/template/*
JavaScript Location Standard	JavaScript files must be located under one of following directories: html,patch/[some dir]/html,upgrade/[some dir]/html,admin/template,admin/template/*
PrintStackTrace Check	Using printStackTrace is not recommended
Workflow Location Standard	Workflow files must be located under one of following directories: admin/import,patch/[some dir]/import,admin/template,admin/template/*

Standard Name	Description
XDF Location Standard	XDF files must be located under one of following directories: admin/xdf,patch/[some dir]/xdf,patch/[some dir]/xdf/aw/US
Absolute URL Check Standard	Check for absolute URLs
Report Printer Def File	Report printer files must be located under one of following directories: reports,admin/template,admin/template/*
Form Location Standard	Form files must be located under one of following directories: forms,admin/template,admin/template/*
JAR Location Standard	Jar files must be located under one of following directories: java/3rdparty,java/3rdparty/stdalone,admin/template,admin/templa te/,patch/115/jar/bpel
JSP Location Standard	JSP files must be located under one of following directories: html,html/jsp/[PROD],html/jsp/[PROD]/[MOD],html/jsp/[PROD]/[MOD]/[sub MOD],admin/template,admin/template/*
Dependency Files Location Standard	Dependency files must be located under one of following directories: java/make,admin/template,admin/template/*
Cmd file Location Standard	CMD files must be located under one of following directories: admin/template,admin/template/*,bin
XML Location Standard	XML files must be located under one of following directories: html,java,mds,patch/115/publisher/defs,admin/template,admin/tem plate/*,patch/115/manualsteps.
XGM Location Standard	XGM files must be located under one of following directories: patch/[some dir]/xml/US,admin/template,admin/template/*
XSL Location Standard	XSL files must be located under one of following directories: html,admin/xdf/xsl,patch/[some dir]/xdf/xsl,patch/[some
ForceViewCheck	One must use FORCE in CREATE statements in view creation scripts
Show Error Check	SQL scripts must not contain the Show errors command
Absolute URL Check	Having absolute URLs is not recommended

Standard Name	Description
Pkg Replace Check	Use CREATE OR REPLACE PACKAGE for package creation. Do not omit OR REPLACE
Pkg Create IS Check	Package creation must not use IS. Instead should always use AS
Xml Parse Standard	XML files should be well-formed
Control M Standard	Text files should not have control M [^M] character
SQL NoLogging Check	Using NOLogging in SQL scripts is not recommended
SQL Serveroutput Check	Using set serveroutput on in SQL scripts is not recommended
Wfx File Naming Standard	WFX filename must end in s, e, or a, ie. [s e a].wfx.
16.3 File Naming Standard	Filename should adhere to the 16.3 naming standard
Set Scan Off Standard	Package creation scripts containing ampersand must have SET SCAN OFF
Drop Table check	Drop table should not be used in SQL/PLSQL files as it can result in loss of data
SQL Max Line LengthStandard	No line in a SQL file should be longer than 255 characters
FNDSLOAD Check Standard	FNDSLOAD is obsolete. No dbdrv: hints should refer to FNDSLOAD
Drop Column check	Drop Column should not be used in SQL/PLSQL files
Long Raw check	LONG or LONG RAW columns should not be used
Insert Column check	INSERT SQL statements, should explicitly list the columns about to insert
FNDLOAD/FNDLOADS O syntax check	FNDLOAD/FNDLOADSO must have correct syntax

Standard Name	Description
Admin Dbdrv none check	All files under [PROD_TOP]/admin must have only dbdrv: none
NLADD Sql Check	There should be no [PROD]NLADD.sql files in R12 patches
FNDLOAD ldt phase	dbdrv: FNDLOAD ldt files must have correct phase
Menu file location	Menu files must be located under one of following directories: resource,admin/template,admin/template/*
WFX file location check	WFX files must be located under one of following directories: patch/[some dir]/xml,admin/template,admin/template/*
Create single line check	In SQL files, CREATE command must occur on one line only.
SQL exit check	SQL files must end with exit
Package SpecBody Same file	The package specification and body should be in different files
SQL Absolute path Check	SQL files should not have absolute path in a @ or @@ statements
Calling SQL script check	Use start or @ when calling a SQL script within a SQL script. Do not use @@.
Applsypub Schema Check	Custom scripts are not allowed to modify APPLSYSPUB schema
Custom File Naming Standard	All files involved in the package must be for a product prefixed with xx'''
Pkg body creation Standard	Package body creation scripts should not be in pkh files
Pkg spec creation Standard	Package Spec creation scripts should not be in pkb and plb files
Mview Build deferred Standard	Materialized Views must be created with BUILD DEFERRED option

Standard Name	Description
Mview Parallel Standard	Materialized Views should not be created with parallel command
Mview prebuilt Standard	Materialized Views must not be created with ON PREBUILT TABLE option
Report Location Standard	Report files must be located under one of following directories: reports,admin/template,admin/template/*
Import stmt Check	Java import statements must reference fully qualified Class names
Language check in destination path	The destination path for a file entry in the package creation process should not have the language code as a suffix. The language should be specified separately.
JRAD XML file type	During the package creation process, if an XML file is included with the file type as 'JRAD XML' (File type ID is 1005), then the destination path should start with 'mds'.
Control-M characters in PLD files	If a PLD file contains a control-M character, then some issues may arise while applying a patch containing this PLD file.
SQL whenever sqlerror exit failure rollback	A SQL Script should contain "WHENEVER SQLERROR EXIT FAILURE ROLLBACK;".
Java file empty catch block	An empty <code>catch</code> Block finds instances where an exception is caught, but nothing is done.
Avoid returning from a finally block	In Java code, one should avoid returning from a <code>finally</code> block - this can discard exceptions. There should be no return statement from a <code>finally</code> block.
Avoid catching null pointer exception	Java code should never catch a null pointer exception. A <code>catch</code> block may hide the original error, resulting in other more subtle errors.
Java throwing exception in finally block	In Java, throwing exception in a <code>finally</code> block is confusing. It may mask an exception or a defect in the code, and it can also make code cleanup unstable.
Java catching throwable	In Java, one should avoid catching <code>throwable</code> . This action is dangerous because such a catch can catch other things like <code>OutOfMemoryError</code> .

Standard Name	Description
Java class should not extend error	Errors are system exceptions. Classes should not extend them.
Java files must have rcs_id	All Java files must have the following for source control ID: <pre>public static final String RCS_ID = \$Header\$</pre>
Java class name check	All Java files should have a class with a name that is the same as that of the file name.
Java empty if check	There should be no empty <code>if</code> statements in Java code. An empty <code>if</code> statement finds instances where a condition is checked but nothing is done about it.
Java empty while check	There should be no empty <code>while</code> statements in Java code.
Java empty finally block	There should be no empty <code>finally</code> blocks in Java code. Avoid empty <code>finally</code> blocks; these can be deleted.
Java if without braces	In Java, <code>if</code> statements must use curly braces. Avoid using <code>if</code> statements without curly braces.
Java while without braces	In Java, <code>while</code> statements must use curly braces. Avoid using <code>while</code> statements without using curly braces. Formats without curly braces are error-prone.
Java switch must have default label	In Java files, <code>switch</code> statements should have a default label.
Java empty synchronized	There should be no empty <code>synchronized</code> blocks.
Java empty static initializer	There should be no empty <code>static</code> initializer blocks.
JRAD files language must be US English	In a JRAD XML file, the language of the XML file should be US English and specified as <code>"xml:lang = 'en-US'"</code>
Java Parameter (INI) extension and location standard	Java Parameter files should follow these standards: <pre>-Identified by file extension: .ini -Location standard: 1.\$<PROD_TOP>/admin/template 2.\$<PROD_TOP>/admin/template/*</pre>

Standard Name	Description
JDBC TimeStamp Compliance	The proper column bind type should be used when sending/fetching DATE columns. Do not use <code>Types.TIMESTAMP</code> or <code>OracleTypes.TIMESTAMP</code> .
Do not use ~FILE or ~PATH in .drvX files	~FILE and ~PATH cannot be used in a <code>dbdrv:</code> command in a .drvX file, even within <code>checkfile</code> . A .drvX file is not loaded into the database.
dbdrv: fdfcmp should not be called	The database driver should not call <code>fdfcmp</code> .
Files with .drvX extension must contain 'dbdrv: command'	For each driver exception (.drvX) file the line <code>dbdrv: command</code> must exist. The command must be in all lowercase. The line <code>dbdrv: none</code> commands fail also.
No drvX files should contain XDOLoader	For all new patches containing Oracle XML Publisher files, the <code>dbdrv</code> command should be added to the file directly instead of using a separate drvX file.
No drvX files should contain dbdrv: PYLOAD	PYLOAD should not be in any automatically generated database driver.
dbdrv: FFXBCP must have correct syntax	dbdrv: FFXBCP must have correct syntax: <pre>exec ff bin FFXBCP bin &phase=last(+#) &ui_apps 0 Y(-S -U -SU)</pre>
dbdrv: FFXMLC must have correct syntax	FFXMLC command must contain the following syntax: <pre>exec ff bin FFXMLC bin (&phase=dat(+#)) &ui_apps 0 [yY]</pre>
dbdrv: FNDLIBR must have correct syntax	FNDLIBR command must contain the following syntax: <pre>exec fnd bin FNDLIBR bin <phase> FND FNDPCBWV &ui_apps SYSADMIN 'System Administrator' SYSADMIN</pre>
dbdrv: java htmlLoad.class must have correct syntax	Java <code>htmlLoad.class</code> command must contain the following syntax: <pre>exec java oracle/apps/per htmlLoad.class java -username &un_apps -password &pw_apps -database &jdbc_db_addr -file <.html file></pre>

Standard Name	Description
dbdrv: java UnzipFile.class must have correct syntax	Java UnzipFile.class command must contain the following syntax: <pre>exec java oracle/apps/ad/jri UnzipFile.class java</pre> The file must also have the .zip extension.
dbdrv: LoadMap.class must have correct syntax	The syntax for LoadMap.class must be as follows: <pre>exec java oracle/apps/ecx/loader LoadMap.class java &phase=dat &un_apps &pw_apps &jdbc_db_addr &fullpath_prod_path_file</pre>
JRAD XML files must have file-version attribute	JRAD XML files must have a file-version attribute to indicate the version of the file. Following is a sample definition of file-version. <pre><page xmlns:jrad='http://xmlns.oracle.com/jrad' xmlns:oa='http://xmlns.oracle.com/oa' xmlns:ui='http://xmlns.oracle.com/uix/ui' version='9.0.3.7.0_428' xml:lang='en-US' file-version='\$Header: AkTestAttachLinkPG.xml 115.0 2003/02/10 18:18:10 tmak noship \$' xmlns='http://xmlns.oracle.com/jrad'></pre> Note that the file-version attribute must have the correct filename and a version.
Translation standard for JRAD files	In JRAD xml files the encoding should be UTF-8 and specified as: "encoding = 'UTF-8'"
Do not end comments with the '-' character	Do not end comments with the '-' character, as this is the default Sql*Plus line continuation character. For lines with a series of '-', end the line with a '+' sign.

Known Product Limitations

Known Product Limitations

1. Use of the native Oracle Enterprise Manager patch mechanism to apply core technology patches (Developer Forms, Application Server, Database or other standalone technologies) against Oracle E-Business Suite managed targets should NOT be done under any circumstances.

While Enterprise Manager can be used to apply such patches to standalone installations of Developer Forms, Application Server and the RDBMS products, when these components are part of an Oracle E-Business Suite environment (installed at the same time via the Rapid Install Wizard), they must not be patched using Oracle Enterprise Manager.

Failure to acknowledge this caveat could result in unrecoverable system status.

2. Start and Stop features present in some of the Enterprise Manager console pages should NOT be used against individual Oracle E-Business Suite sub-targets. One example is starting and stopping the Oracle E-Business Suite database. While Oracle Enterprise Manager has no problems starting and stopping individual standalone product services, doing the same with Oracle E-Business Suite components will produce unexpected and inconsistent results. The one exception to this rule is that the Oracle Application Management Pack for Oracle E-Business Suite's administration feature can be used to start and stop the application tier service from the Enterprise Manager console.
3. The only mechanisms for cloning an Oracle E-Business Suite system from within the Oracle Enterprise Manager Cloud Control console are those provided in the cloning chapter of this guide. Alternatively, for more information on cloning, refer to the following Oracle E-Business Suite documents on My Oracle Support: Knowledge Document 230672.1, "Cloning Oracle Applications Release 11*i* with Rapid Clone", and Knowledge Document 406982.1, "Cloning Oracle Applications Release 12 with Rapid Clone".

4. Creating copies of the out-of-box cloning procedures is not supported. The "Create Like" feature is provided for customers to extend the cloning functionalities based on their own specific business needs.
5. In discovery and monitoring, Oracle Application Management Pack for Oracle E-Business Suite does not support multiple Oracle E-Business Suite instances with the same name across different hosts on a given Oracle Management Server; that is, instances are differentiated only by the Oracle System Identifier (SID) and not the CONTEXT_NAME values.
6. Because Enterprise Manager Cloud Control 12c uses an https OMS port by default, all links used in the Change Management modules use https mode. Due to a known limitation with Internet Explorer and https-enabled websites, the Change Management modules cannot download files, including patches, readmes, file manifests, and package reports in Internet Explorer. Another browser such as Mozilla Firefox should be used instead.

Third-Party Product License Information

Third-Party Product License Information

This section includes third-party license information for certain third-party products that are part of Oracle Application Management Pack for Oracle E-Business Suite Release 12.1.0.1.0. Oracle acknowledges that the following third-party proprietary and open source software are used in the provided programs covered by this documentation.

Apache Software Foundation

Notice

Apache POI

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This product includes software developed by The Apache Software Foundation (<http://www.apache.org/>).

Unit testing support is provided by JUnit, under the Common Public License Version 1.0:

<http://www.opensource.org/licenses/cpl.php>

See <http://www.junit.org/>

A single resource file of the POI scratchpad component HDGF is taken from VSDump, and is under the GNU General Public License version 3 (GPL v3):

<http://gplv3.fsf.org/>

Since this is a data file, and has no compiled version (the original file is distributed in both source and binary versions of POI), there should be little difference in licencing requirements compared to the ASL. For those wishing to avoid this component, the HDGF part of the POI scratchpad should be omitted.

See http://www.gnome.ru/projects/vsdump_en.html

The Office Open XML experimental support had additional dependencies, with their own licensing:

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