

Oracle® Fusion Middleware

Concepts Guide for Oracle Enterprise Repository

12c Release 1 (12.1.3.0)

E55952-01

October 2014

Documentation for anyone evaluating or implementing Oracle Enterprise Repository. This guide describes concepts related to governance infrastructure, governed assets, visibility, stakeholder identity, asset types and taxonomies, asset lifecycle, and reporting.

Copyright © 2001, 2014, Oracle and/or its affiliates. All rights reserved.

Primary Author: Oracle Corporation

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Contents

Preface	v
Audience	v
Documentation Accessibility	v
Related Documents	v
Conventions	v
What's New in This Guide	vii
New and Changed Features for 12c Release 1 (12.1.3.0)	vii
Other Significant Changes in this Document for 12c Release 1 (12.1.3.0)	vii
1 Introduction to Oracle Enterprise Repository	
1.1 Introducing Oracle Enterprise Repository	1-1
1.2 Introducing Oracle Enterprise Repository Concepts	1-2
1.2.1 Create a Catalog of Services	1-2
1.2.2 Populate Repository with Harvested Assets and Populate Metadata	1-2
1.2.3 Manage the Asset Lifecycle	1-3
1.2.4 Consume Services	1-3
1.2.5 Manage Change	1-3
1.2.6 Monitor Progress with Reports	1-4
1.2.7 Monitor Runtime Performance	1-4
1.3 Next Steps	1-5
2 Getting Started with Oracle Enterprise Repository	
2.1 Installing Oracle Enterprise Repository	2-1
2.2 Configuring Oracle Enterprise Repository	2-1
2.3 Using Oracle Enterprise Repository	2-2

Preface

Oracle Fusion Middleware Concepts Guide for Oracle Enterprise Repository describes the concepts behind the Governance infrastructure and processes.

Audience

This document is intended for customers who are implementing or are interested in implementing Oracle Enterprise Repository.

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>.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Related Documents

For more information, see the following documents in the Oracle Enterprise Repository 12c documentation set:

- *Oracle Fusion Middleware Installation Guide for Oracle Enterprise Repository*
- *Oracle Fusion Middleware Upgrade Guide for Oracle Enterprise Repository*
- *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository*
- *Oracle Fusion Middleware Developer's Guide for Oracle Enterprise Repository*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.

Convention	Meaning
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

What's New in This Guide

This preface introduces the new and changed features of Oracle Enterprise Repository and other significant changes that are described in this guide, and provides pointers to additional information.

For a list of known issues (release notes), see the "Known Issues for Oracle SOA Products and Oracle BPM Products for 12c Release 1 (12.1.3.0.0)" at <http://www.oracle.com/technetwork/middleware/soasuite/documentation/release-notes121300-2124738.html>.

New and Changed Features for 12c Release 1 (12.1.3.0)

For Oracle Enterprise Repository 12c Release 1 (12.1.3.0), this guide has simplified to aid in the understanding of basic concepts of Oracle Enterprise Repository. [Chapter 1](#), "Introduction to Oracle Enterprise Repository" describes basic OER concepts and a basic implementation scenario. [Chapter 2](#), "Getting Started with Oracle Enterprise Repository" lists resources to help you get started using OER.

Other Significant Changes in this Document for 12c Release 1 (12.1.3.0)

This guide has no other significant changes for 12c Release 1 (12.1.3.0).

Introduction to Oracle Enterprise Repository

This chapter introduces Oracle Enterprise Repository (OER), describes basic OER concepts, provides a basic usage scenario via use cases, and provides the next steps to get started with your OER installation.

This chapter contains the following sections:

- [Section 1.1, "Introducing Oracle Enterprise Repository"](#)
- [Section 1.2, "Introducing Oracle Enterprise Repository Concepts"](#)
- [Section 1.3, "Next Steps"](#)

1.1 Introducing Oracle Enterprise Repository

Oracle Enterprise Repository (OER) provides design-time governance support for the service lifecycle, enabling storage and management of extensible metadata for composites, services, business processes, and other IT-related assets. Oracle Enterprise Repository acts as the central source of SOA information, allowing you to find planned, existing and retired services.

Oracle Enterprise Repository provides vital information to service producers, providers, and consumers who enhance applications or deliver new service capabilities. In addition, portfolio managers and business architects use the repository to understand business capabilities and to assist with strategic planning.

Oracle Enterprise Repository provides role-based links to asset artifact stores and links to design documents, justification documents, test plans, support plans, policies, and so on. Approvers in the lifecycle process can reference and upload documentary evidence to support their approvals, and consumers can reference information to support their service choices. Oracle Enterprise Repository features that help automate service lifecycle governance include:

- An Asset Harvester that automatically populates OER with SOA assets and tracks updates to artifacts automatically.
- Direct integration with Oracle JDeveloper, allowing easy browsing and consumption of existing assets.
- Reporting on reuse, compliance, and other portfolio management metrics.
- A process engine with automatable processes to meet an organization's governance process workflows.
- Built-in automated notification about a selection of lifecycle events, plus discretionary notification of asset subscribers.

- An event engine that can publish repository events to any process service endpoint.
- A rich SOAP-based API that allows organizations to programmatically update the repository, keeping it synchronized with the IT and business environment that it describes.

In addition, Oracle Enterprise Manager SOA Management Pack Enterprise Edition provides Oracle Enterprise Repository with a summary of runtime performance metrics. These metrics help service providers judge portfolio performance and service consumers judge runtime performance.

Oracle Enterprise Repository also tracks asset usage and provides robust reports that help organizations determine the ROI on asset reuse. Oracle Enterprise Repository's interface integrates with JDeveloper to promote developer adoption.

1.2 Introducing Oracle Enterprise Repository Concepts

This section describes a basic Oracle Enterprise Repository implementation scenario:

- [Section 1.2.1, "Create a Catalog of Services"](#)
- [Section 1.2.2, "Populate Repository with Harvested Assets and Populate Metadata"](#)
- [Section 1.2.3, "Manage the Asset Lifecycle"](#)
- [Section 1.2.4, "Consume Services"](#)
- [Section 1.2.5, "Manage Change"](#)
- [Section 1.2.6, "Monitor Progress with Reports"](#)
- [Section 1.2.7, "Monitor Runtime Performance"](#)

1.2.1 Create a Catalog of Services

After installing OER, the first task is to configure OER for use as a catalog for your organization's services and interfaces.

The initial step is to identify the types of assets that will be included in your OER instance. After these types are identified, you must define the metadata to be associated with these asset types. Next, you will build taxonomies to organize the assets and establish relationships to connect assets.

The benefits of cataloging your services are:

- You now know what types of assets your organization has
- You can see redundancies and begin to address them

See "Administering the Asset Lifecycle" in *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository* for more information about configuring Oracle Enterprise Repository to manage your organization's assets.

1.2.2 Populate Repository with Harvested Assets and Populate Metadata

Before you begin using the other features of OER, you must populate OER with your organization's services. OER includes Harvesters, which are used to automate the capture and update of assets.

The initial step is to identify sources from which to harvest assets. See "Configuring and Using Automated Harvesting" in *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository* for information about from which sources OER can

harvest assets. After these sources are identified, the harvesting tools must be configured. Finally, run the harvesters to populate OER with the services from the sources you chose.

The benefits of populating the repository with harvested assets are:

- More services can be harvested into a growing catalog of assets
- Lower costs to populate OER
- Understanding of how and when to harvest from particular sources

1.2.3 Manage the Asset Lifecycle

After populating OER with your organization's services, you can establish and manage the asset lifecycle in OER. An asset lifecycle process flow becomes the foundation for process automation.

Managing the Asset lifecycle allows you to align it with your organization's software development lifecycle. An important part of this process is defining or modifying user roles and responsibilities relating to the asset lifecycle.

After the user roles have been defined or modified, your organization can establish processes for asset assignment, editing, approval, subscription, and notification.

The benefits of managing the asset lifecycle include:

- Aligning the asset lifecycle with your software development lifecycle
- An approval process to ensure that the information in OER is complete and correct
- Providing the foundation for future process automation

See "Administering the Asset Lifecycle" in *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository* for more information about the lifecycle administration tasks available in OER.

1.2.4 Consume Services

After managing the lifecycle of assets registered to OER, users can consume the services cataloged in OER for use in their applications.

The benefits of managing the consumption process include:

- Service consumption is aligned with your software development lifecycle
- Automation makes consumption easy and transparent
- Better reuse of services means greater return on investment

The *Oracle Fusion Middleware Developer's Guide for Oracle Enterprise Repository* describes how developers consume assets from both the OER console and the Oracle JDeveloper OER plug-in.

1.2.5 Manage Change

After users begin consuming OER assets into their applications, it is important to manage and understand the impact of change. OER manages complex networks of project and asset relationships.

You must be familiar with the Harvester's behavior when assets are updated; this ensures that you are prepared for the effect on assets in OER.

You must also identify and implement any custom asset relationships that your organization needs. You should know the difference between technical relationships, which connect services and other service artifacts, and organizational relationships, which describe which projects produce and use which services.

You can also implement subscriptions and notifications, as appropriate to your organization.

The benefits of managing change include:

- Greatly reducing risk by understanding the impact of change
- Automatic notifications improving visibility and communication

See "Understanding Versioning of Assets" in *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository* for information about the harvester's behavior when assets are updated.

See "Configuring Relationships" in *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository* for information about implementing relationships.

See "Configuring E-Mail Notifications and Distribution Lists" in *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository* and "Subscribing to Asset Information" in *Oracle Fusion Middleware Developer's Guide for Oracle Enterprise Repository* for implementing subscriptions.

1.2.6 Monitor Progress with Reports

Stakeholders can review reports documenting the project process and the reuse of assets cataloged in OER.

First, you must install and configure BI Publisher and configure reporting in OER. After this is completed, you can run reports and interpret the data therein. After the reports have been analyzed, you can define a formula to determine the value of each service.

The benefits of monitoring progress with reports include:

- The ability to demonstrate the return on investment of the program
- The ability to monitor trends and the progress of the program
- A uniform service value assessment provides consistency

"Configuring Reporting with BI Publisher" in *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository* provides information about setting up reports with BI Publisher in OER.

1.2.7 Monitor Runtime Performance

Stakeholders can review runtime performance metrics for deployed services in OER for use at design time. These metrics help can help you evaluate the fit of a service for your application.

The first step is to configure the tooling required to post the metrics. Next, you run the utility to populate the metrics. Finally, you analyze the metrics.

The benefits of monitoring runtime performance include:

- The ability to see metrics helps stakeholders gain trust in the services
- Automation makes posting the metrics to OER easy

"Enterprise Manager Integration Utility" in *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository* provides information about integrating OER with Oracle Enterprise Manager.

"Configuring Metrics" in *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository* provides information about using metrics with OER.

1.3 Next Steps

See [Chapter 2, "Getting Started with Oracle Enterprise Repository"](#) to get started with Oracle Enterprise Repository.

Getting Started with Oracle Enterprise Repository

This chapter describes how to install, configure, and use Oracle Enterprise Repository.

This chapter includes the following sections:

- [Installing Oracle Enterprise Repository](#)
- [Configuring Oracle Enterprise Repository](#)
- [Using Oracle Enterprise Repository](#)

2.1 Installing Oracle Enterprise Repository

Start by installing Oracle Enterprise Repository connecting OER to an Oracle Database instance, and deploying OER to an Oracle WebLogic Server instance.

The following resources can help you when installing Oracle Enterprise Repository:

- [Choose a platform from the Oracle Enterprise Repository Supported Platforms](#)
For more information, see <http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html>.
- [Install Oracle Enterprise Repository](#)
For more information, see *Oracle Fusion Middleware Installation Guide for Oracle Enterprise Repository*.
- [Upgrade from previous Oracle Enterprise Repository versions](#)
For more information, see *Oracle Fusion Middleware Upgrade Guide for Oracle Enterprise Repository*.
- [Run Oracle Enterprise Repository in a clustered environment](#)
For more information, see "Install Oracle Enterprise Repository into a Clustered Environment" in *Oracle Fusion Middleware Installation Guide for Oracle Enterprise Repository*.

2.2 Configuring Oracle Enterprise Repository

After Oracle Enterprise Repository is installed and running, administrators can configure the OER infrastructure, configure the harvester, and perform other administration activities, such as creating users and departments.

For more information about configuring Oracle Enterprise Repository see the *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository*.

2.3 Using Oracle Enterprise Repository

After OER is installed and configured, it must be populated with assets. For more information about harvesting and publishing assets, see the *Oracle Fusion Middleware Administrator's Guide for Oracle Enterprise Repository*.

Developers then search OER for assets to use in their applications. They can rate each asset, providing feedback to other users.

For more information about searching for assets and incorporating them into your applications, see the *Oracle Fusion Middleware Developer's Guide for Oracle Enterprise Repository*.