

# Oracle® Fusion Middleware

## Administering Oracle WebCenter Enterprise Capture



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Oracle Fusion Middleware Administering Oracle WebCenter Enterprise Capture, 12c (12.2.1.4.0)

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# Preface

This guide describes how to administer Oracle WebCenter Enterprise Capture using Oracle Enterprise Manager, including how to start and stop Oracle WebCenter Enterprise Capture, how to monitor key performance metrics, how to configure the Capture system, and how to configure and view log files.

## Audience

This document is intended for administrators whose task is the installation and configuration of Oracle WebCenter Enterprise Capture. Oracle WebCenter Enterprise Capture administrators are also responsible for creating Capture users and groups, monitoring and troubleshooting Oracle WebCenter Enterprise Capture issues, and configuring log files.

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## Related Documents

The complete Oracle WebCenter Content documentation set is available from the Oracle Help Center at <http://www.oracle.com/pls/topic/lookup?ctx=fmw122140&id=wcc-books>.

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.

<b>Convention</b>	<b>Meaning</b>
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

# 1

## Capture System Administration Overview

This chapter provides a general introduction to Oracle WebCenter Enterprise Capture system administration, including an introduction to Oracle WebCenter Enterprise Capture, workspaces, system administrator and user roles, and typical system administrator tasks. This chapter includes the following sections:

- [About Oracle WebCenter Enterprise Capture and Workspaces](#)
- [About Capture Architecture](#)
- [About System Administrator and User Roles](#)
- [System Administrator Tasks](#)

### About Oracle WebCenter Enterprise Capture and Workspaces

Oracle WebCenter Enterprise Capture provides scalable document capture focused on process-oriented imaging applications and image-enabling enterprise applications. With a web interface for centralized or distributed environments, Capture streamlines the capture process for paper and electronic documents. It is fully integrated with Oracle WebCenter Content: Imaging and Oracle WebCenter Content to provide organizations with one system to capture, store, manage, and retrieve their mission critical business content.

A Capture workspace represents a complete capture system, providing a centralized location for metadata definition, configuration profiles, batch and document data, and batch processor jobs for a particular environment. Workspace managers configure and manage workspaces they have been granted access to and control others' access to the workspace.

Oracle WebCenter Enterprise Capture provides a central configuration console, called the Oracle WebCenter Enterprise Capture workspace console, in which workspace managers create and manage workspaces and their elements for use throughout Capture. For example, workspace managers create metadata fields, choice lists, and database lookups in the console, then use them in multiple areas in Capture, such as client profiles and processor jobs.

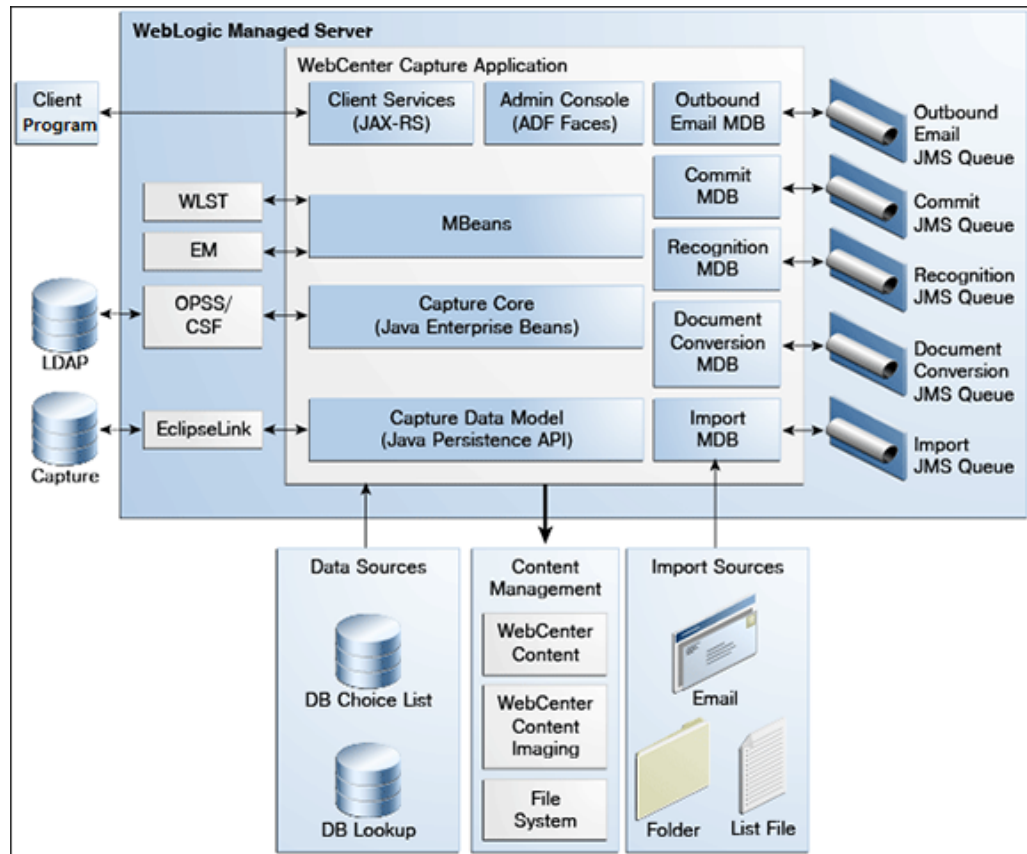
The Capture client is the end-user application that a knowledge worker or production user uses to create batches using document imaging scanners or document files imported from the user's system. The client is also used to index documents (apply metadata values).

See *Capture Workspaces Overview* in *Managing Oracle WebCenter Enterprise Capture*.



# About Capture Architecture

Figure 1-1 Oracle WebCenter Enterprise Capture Architecture Overview



Oracle WebCenter Enterprise Capture application is a standard Java EE application that runs in the Oracle WebLogic Server managed server environment. Java Enterprise Beans (EJBs) represent the core system logic of the Capture application. Capture uses Oracle Platform Security Services (OPSS) to manage security for the application. The Oracle Credential Store Framework (CSF) is used to manage security credentials for external systems securely.

To configure and manage the Capture application, system administrators use Capture Managed Beans through Oracle Enterprise Manager and Weblogic WLST commands.

The Capture Workspace Console is an Oracle Application Development Framework (ADF) application which the Workspace Managers use to configure Capture elements within a workspace. See About the Capture Workspace Console in *Managing Oracle WebCenter Enterprise Capture*.

Capture uses Java API for RESTful Web Services (JAX-RS) to provide client services. The end-user uses the Client Program to scan or import documents into batches. Within a batch, end-users can organize pages into documents and index documents by applying metadata values. The Client Program uses RESTful web services to communicate with the WebLogic server. The Capture application uses MDB and JMS queues to run system and batch processing logic - import, document conversion,

recognition, and commit. The Import Processor can automate ingestion of files from various sources such as an email inbox, from a folder on the network, or from a list file. Documents processed through Capture can be committed to WebCenter Content Server, WebCenter Content: Imaging, or to a file system. See Understanding Capture basics in *Using Oracle WebCenter Enterprise Capture*.

### JavaScript Extension

Oracle WebCenter Enterprise Capture provides an extension library called JavaScript Extension that facilitates customization through a JavaScript, which is supported by the Capture client and processors. See Introduction to Developing Scripts with Oracle WebCenter Enterprise Capture in *Developing Scripts for Oracle WebCenter Enterprise Capture*.

## About System Administrator and User Roles

Capture provides the following user and administrator roles, each with varying access and privileges:

- **System Administrators** provide high level configuration, administration, and monitoring of the Capture environment. System administrators are typically responsible for the following tasks:
  - Installing Oracle WebCenter Enterprise Capture
  - Configuring Capture
  - Creating Capture users and groups
  - Assigning users from the LDAP domain to the various Capture application roles (CaptureUser, CaptureWorkspaceManager, and CaptureWorkspaceViewer)
  - Monitoring and troubleshooting Capture issues
- **Capture Workspace Managers** have control of the workspaces they create and to those workspaces to which they have been granted access. They can add, edit, copy, and delete workspaces. See Managing Workspaces in *Managing Oracle WebCenter Enterprise Capture*. To access workspaces, the user must be assigned the **CaptureWorkspaceManager** role.
- **Capture Workspace Viewers** have read-only access to workspaces to which they have been granted access. For example, support personnel might be granted this privilege in order to review workspace configurations such as client profiles and processor jobs for troubleshooting. Workspace viewers cannot make changes to workspaces. To have read-only access to workspaces, the user must be assigned the **CaptureWorkspaceViewer** role.
- **Capture Users** have client access to workspaces to which they have been granted access. Users are further granted access to specific client profiles. See Getting started with Capture in *Using Oracle WebCenter Enterprise Capture*. Any user that needs access to the client needs to be assigned the CaptureUser role in Oracle Enterprise Manager.
- **Developers** who write customization scripts for use in Capture components may either be granted the workspace manager role or they may provide scripts to workspace managers who load, reference, and test them in Capture components. See Introduction to Developing Scripts with Oracle WebCenter Enterprise Capture in *Developing Scripts for Oracle WebCenter Enterprise Capture*.

See [Managing Users and Security](#) for more information on how to create Capture users and assign roles to them.

# System Administrator Tasks

The following provides a summary of the steps to initially configure and monitor an Oracle WebCenter Enterprise Capture system environment:

1. Install and perform initial configuration of Oracle WebCenter Enterprise Capture. See *About Completing the Oracle WebCenter Enterprise Capture Configuration* in *Installing and Configuring Oracle WebCenter Content*.
  - Use Enterprise Manager to make changes to system settings. See [Managing Capture Settings in Enterprise Manager](#).
  - Use Enterprise Manager to assign LDAP users and groups to Capture application roles. See [Assigning Capture Roles in Oracle Enterprise Manager](#).
  - Use the Oracle WebLogic Server Administration Console to manage data sources for database choice lists and database lookups. See *Configuring JDBC Data Sources* in *Administering JDBC Data Sources for Oracle WebLogic Server*.
2. Apply SSL security to the website. See [About SSL](#).
3. Monitor the Capture environment and manage log and audit files. See [Monitoring Capture](#).

# 2

## Getting Started Administering Capture

This chapter describes the initial steps you need to take to administer Oracle WebCenter Enterprise Capture. It includes information on how to access Capture functions using Oracle Enterprise Manager and the Oracle WebLogic Server Administration Console.

This chapter includes the following sections:

- [Initial Steps to Begin Administering Capture](#)
- [Starting Capture Functions in Enterprise Manager](#)
- [Starting and Stopping Oracle WebCenter Enterprise Capture](#)
- [Using Oracle Enterprise Manager Help](#)
- [Starting Capture Functions in the WebLogic Server Console](#)

### Initial Steps to Begin Administering Capture

The `weblogic` user is assigned the **CaptureWorkspaceManager** role when the domain is created. The system administrator can add other users to the **CaptureWorkspaceManager** role using Oracle Enterprise Manager.

Use the following tools to administer Capture:

- Use Oracle Enterprise Manager Fusion Middleware Control to configure system settings, monitor the overall Capture environment, and assign security roles. For more information, see the Enterprise Manager documentation.
- Use Oracle WebLogic Server Administration Console to manage database connections for database lookups, and manage users and groups. See *Using the WebLogic Server Administration Console* in *Understanding Oracle WebLogic Server*.
- Use the Oracle WebLogic Scripting Tool (WLST), a command-line scripting tool, to create, manage, and monitor Oracle WebLogic Server domains. You can use WLST commands to configure Capture parameters, review log files, and more. See Oracle WebCenter Enterprise Capture Custom WLST Commands in *WebCenter WLST Command Reference*.

### Starting Capture Functions in Enterprise Manager

Oracle Enterprise Manager Fusion Middleware Control is a browser-based management application that is deployed when you install Oracle WebCenter. From Oracle Enterprise Manager, you can monitor and administer a farm (such as one containing Oracle WebCenter and Oracle WebCenter applications).

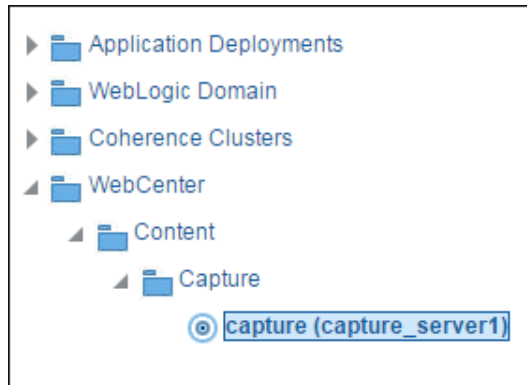
To navigate to Oracle WebCenter Enterprise Capture pages in Oracle Enterprise Manager:

1. Enter the Oracle Enterprise Manager Fusion Middleware Control URL, which includes the name of the host and the port number assigned to Oracle Enterprise Manager during the installation. The following shows the format of the URL.

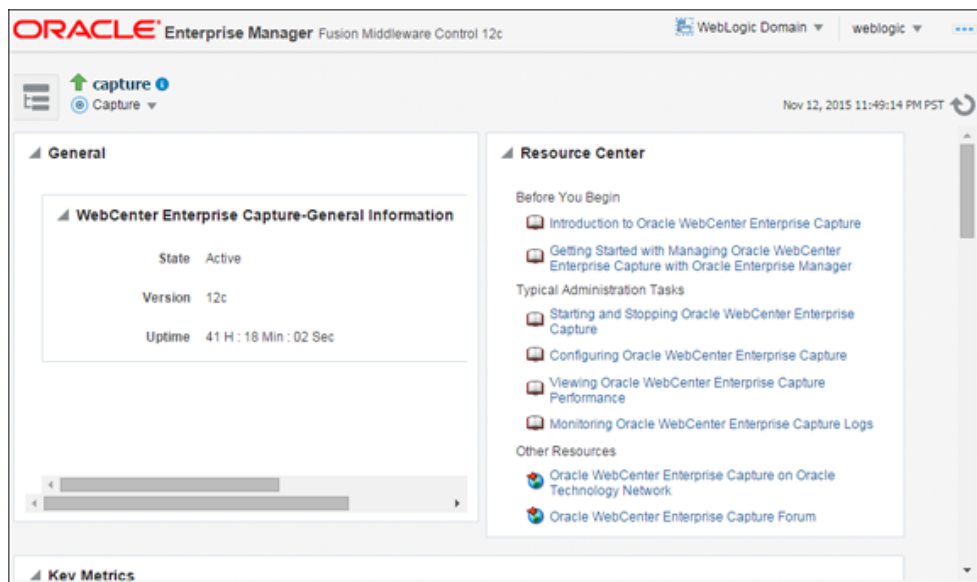
```
http://hostname.domain:port/em
```

Port is the IP port number of the Administration Server running on Oracle WebLogic Server. By default, the port number is 7001.

2. Enter the system administrator user name and password, and click **Login**.
3. From the navigation pane, expand the farm and then **WebCenter**, select **Content**, then **Capture**, and then select the Capture server node.



The WebCenter Capture home page displays.



4. Click **Capture** in the top left pane to display the **Capture Server** menu.

Home
Monitoring ▶
Control ▶
Logs ▶
Configuration ▶
System MBean Browser
Target Sitemap
Target Information

The following table lists all the configuration parameters that you can set in this page.

**Table 2-1 Capture Server Menu Options**

Menu Option	Description
Home	Use this option to navigate to the Oracle WebCenter Enterprise Capture home page. See <a href="#">Viewing Capture Status</a> .
Monitoring	Use this option to monitor key performance metrics for the Oracle WebCenter Enterprise Capture system. See <a href="#">Monitoring Capture</a> .
Control	Use this option to start or stop the Oracle WebCenter Enterprise Capture application deployed on the server. See <a href="#">Starting and Stopping Oracle WebCenter Enterprise Capture</a> .
Logs	Use this option to view the logs or to control the log level. See <a href="#">Configuring and Viewing Capture Log Files</a> .
Configuration	Use this option to change the system configuration and manage client bundles. See <a href="#">Configuring Capture</a> .
System MBean Browser	The System MBean Browser lists all the configured, runtime and application defined MBeans. Use this option to access the attributes of the MBeans and to perform operations on them. See <a href="#">Browsing Capture MBeans</a> .
Target Sitemap	Use this option to view the sitemap.
Target Information	Use this option to view basic information about the Oracle WebCenter Enterprise Capture server.

## Starting and Stopping Oracle WebCenter Enterprise Capture

To start or stop Oracle WebCenter Enterprise Capture from Oracle Enterprise Manager:

1. Log in to Oracle Enterprise Manager using the steps listed in [Starting Capture Functions in Enterprise Manager](#).
2. Click the Capture server in the top left pane to display the Capture menu options.

3. To start or stop Oracle WebCenter Enterprise Capture, select **Control** and then **Start** or **Shut Down**.

## Using Oracle Enterprise Manager Help

At any time while using the Oracle Enterprise Manager Fusion Middleware Control, you can use the links available in the Resource Center on the Capture home page to get help on typical system administrator tasks.



The Resource Center provides information in the following categories:

- **Before You Begin** – Lists topics that provide an introduction to Capture and how to get started administering Capture using Oracle Enterprise Manager.
- **Typical Administration Tasks** – Lists topics related to typical administrator tasks such as starting and stopping Capture, configuring Capture, viewing Capture performance metrics, and configuring and viewing Capture log files.
- **Other Resources** – Contains the following links:
  - Oracle WebCenter Enterprise Capture on Oracle Technology Network
  - Oracle WebCenter Enterprise Capture Forum

## Starting Capture Functions in the WebLogic Server Console

The Oracle WebLogic Server Administration Console is a browser-based user interface that you use to manage a WebLogic Server domain. The Administration Server hosts the Administration Console, which is a Web application accessible from any supported Web browser with network access to the Administration Server.

To navigate to Oracle WebCenter Enterprise Capture functions in WebLogic Server:

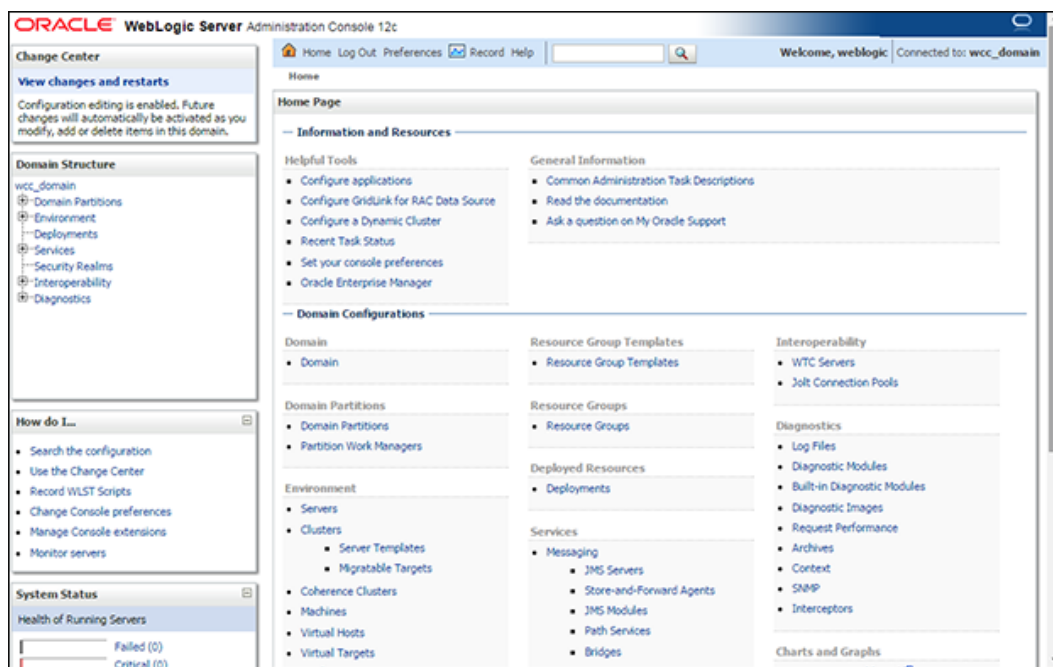
1. Enter the WebLogic Server URL, which includes the name of the host and the port number assigned to WebLogic Server during the installation. The following shows the format of the URL.

`http://hostname.domain:port/console`

Port is the IP port number of the Administration Server running on Oracle WebLogic Server. By default, the port number is 7001.

2. Enter the system administrator user name and password and click **Login**.
3. From the navigation pane, expand the farm and then WebLogic Domain, and select the capture\_domain component.

The Capture domain page displays.



4. In the WebLogic Server Administration Console, you can do the following:
  - Manage the Capture environment including servers, clusters, virtual hosts, and work managers. See Getting Started Managing Oracle Fusion Middleware in *Administering Oracle Fusion Middleware*.
  - Manage database connections for database lookups. See Configuring JDBC Data Sources in *Administering JDBC Data Sources for Oracle WebLogic Server*.
  - Manage users and groups. See Using the WebLogic Server Administration Console in *Understanding Oracle WebLogic Server*.



# 3

## Configuring Capture

This chapter describes the configuration options available to an Oracle WebCenter Enterprise Capture administrator and how they are accessed.

This chapter includes the following sections:

- [Overview of Configuring Oracle WebCenter Enterprise Capture](#)
- [Managing Capture Settings in Enterprise Manager](#)
- [Managing Users and Security](#)
- [Browsing Capture MBeans](#)
- [Configuring High Availability for Oracle WebCenter Enterprise Capture](#)

### Overview of Configuring Oracle WebCenter Enterprise Capture

System administrators use Oracle Enterprise Manager functions for:

- Making changes to the Capture system configuration. See [Modifying System Configuration Settings](#).
- Monitoring the overall Capture system on the Performance Summary page. See [Viewing Performance Metrics](#).
- Starting and stopping the Capture server. See [Starting and Stopping Oracle WebCenter Enterprise Capture](#).
- Changing logging levels. See [Configuring Settings for Log Files for Capture](#).
- Searching and viewing logs. See [Viewing Log Files for Capture](#).
- Receiving and viewing notification of critical issues. See [Managing Capture Settings in Enterprise Manager](#) for more information on how to configure an email account to send error messages when an error occurs during batch processing.
- Managing client bundles. See [Managing Client Bundles](#).
- Managing Capture users and security. See [Managing Users and Security](#).
- Browsing Capture MBeans. See [Browsing Capture MBeans](#).

By default, errors, warnings, and major application lifecycle events are logged. You can progressively increase the log level to cause configuration messages, debug messages, and trace messages to be logged. See [Configuring and Viewing Capture Log Files](#) for more information on how to configure log files.

### Managing Capture Settings in Enterprise Manager

The system administrator can make changes to the Capture system configuration from the System Configuration page in Oracle Enterprise Manager Fusion Middleware Control. The system administrator can change the following settings from the System Configuration page:

- System Properties

- Import Processor Settings
- SMTP Settings for E-mail broadcasts

## Modifying System Configuration Settings

To modify the system configuration:

1. Log in to Oracle Enterprise Manager using the steps listed in [Starting Capture Functions in Enterprise Manager](#).
2. Click the Capture server in the top left pane to display the Capture menu options.
3. To modify the system configuration, select **Configuration**, and then **System Configuration** from the Capture menu. The System Configuration page displays.

**System Configuration** Apply Revert

**System Properties**

- \* Capture System ID: Capture\_01
- \* Maximum batches to return per search: 100
- \* Days to maintain cache on client workstations: 5
- \* Frequency to poll for client bundles (seconds): 30
- GD Font Path:

**Import Processor Settings**

- \* Frequency to check for new or updated jobs (seconds): 60
- \* Import HA token expiration (minutes): 5

**SMTP Settings for E-mail broadcasts**

- SMTP Host:
- SMTP Port: 0
- SMTP User ID:
- Change SMTP Password:
- Confirm SMTP Password:
- SMTP SSL:
- SMTP STARTTLS:
- SMTP Message From:

The following table lists all the configuration parameters that you can set in this page.

Table 3-1 System Configuration Parameters

Group	Parameter	Description
<b>System Properties</b>		This group contains configuration settings for batches and client bundles.
	Capture System ID	A value that uniquely identifies the Capture system. Enter a value that uniquely identifies the Capture system on the network. <b>Value:</b> Any string, for example, Capture_01. <b>Default value:</b> Capture_01
	Maximum batches to return per search	Specify the maximum number of batches to return per search. <b>Value:</b> Any integer, for example, 100. <b>Default value:</b> 100
	Days to maintain cache on client workstations	Specify the number of days a batch will remain cached on client workstations. If a batch is locked, it will not be deleted from the client workstation's cache. No warning is given when a batch is deleted from the cache. <b>Value:</b> Any integer, for example, 3. <b>Default value:</b> 5
	Frequency to poll for client bundles (seconds)	Specify the frequency that the Capture server checks its client bundles directory for updates. This is measured in seconds. <b>Default value:</b> 30
	GD Font Path	For Unix systems, specify the location of the Unix font directory. This path is used by the PDF Image Only document output format driver to render the fonts for PDF documents. <b>Value:</b> A valid directory path, for example, /usr/share/X11/fonts.
<b>Import Processor Settings</b>		This group contains configuration settings for the Import Processor.
	Frequency to check for new or updated jobs (seconds)	Specify how often an internal timer will fire to check for Import Processor jobs that need to be processed. This is measured in seconds. <b>Value:</b> Any integer, for example, 60. <b>Default value:</b> 60
	Import HA token expiration (minutes)	Specify the duration for which an Import HA Token is valid. This is measured in minutes. An Import HA Token uniquely identifies and maintains processing state of an object being imported such as an email, file, or list file. <b>Value:</b> Any integer, for example, 60. <b>Default value:</b> 5
<b>SMTP Settings for E-mail broadcasts</b>		This group contains settings for configuring an email account to use when sending error messages if an error occurs during batch processing.

Table 3-1 (Cont.) System Configuration Parameters

Group	Parameter	Description
	SMTP Host	Specify an SMTP Server Host. <b>Value:</b> Any string, for example, test.example.com.
	SMTP Port	Specify the SMTP Server Port. <b>Value:</b> Any valid port number, for example, 25.
	SMTP User ID	Specify a user ID for the SMTP server. <b>Value:</b> Any string, for example, TEST01.
	Change SMTP Password	Specify a value for the SMTP password. <b>Value:</b> Any string
	Confirm SMTP Password	Re-enter the new SMTP password. <b>Value:</b> Any string
	SMTP SSL	Specify if the SMTP server should use SSL security.
	SMTP STARTTLS	Specify if the SMTP server should use start TLS.
	SMTP Message From	Specify a value for the From field for SMTP messages. <b>Value:</b> Any string

## Managing Client Bundles

Bundles are program modules that are downloaded and executed by the Capture client. As a system administrator, you may need to delete selected bundles, search for new or updated bundles, and apply them.

To manage client bundles from Oracle Enterprise Manager:

1. Log in to Oracle Enterprise Manager using the steps listed in [Starting Capture Functions in Enterprise Manager](#).
2. Click the Capture server in the top left pane to display the Capture menu options.
3. To manage client bundles, select **Configuration**, and then **Bundle Manager** from the Capture menu. The Bundle Manager page displays.
4. To delete orphaned client bundles, from the list of installed client bundles, select the ones you want to delete, then click **Delete selected bundles**.
5. To scan for and install updated client bundles, click **Scan for Client Bundles**. Any updated client bundles are installed.

### Note:

To install a new bundle, copy the bundle archive to the `<ECM_HOME>/wccapture/capture/clientbundles` directory, and then click **Scan for Client Bundles**.

6. Click **Apply** to save your changes. You may need to restart the Capture server for the changes to take effect.

# Managing Users and Security

This section covers the following topics:

- [About Security and Capture Roles](#)
- [Assigning Capture Roles in Oracle Enterprise Manager](#)
- [About Authentication](#)
- [About SSL](#)

## About Security and Capture Roles

Capture includes the following roles:

- [System Administrator](#)
- [Capture Workspace Manager](#)
- [Capture Workspace Viewer](#)
- [Capture Client User](#)

### System Administrator

The system administrator is a *super user* that has complete control over the Capture system's configuration and administration. This user can give permissions to access the system to others. The system administrator can perform the following tasks:

- Access the Enterprise Manager application to configure system parameters, assign roles to Capture users and groups, view performance data, and manage system logs.
- Apply system updates.
- Grant the workspace manager role to individuals or groups of individual users.

### Capture Workspace Manager

A workspace manager is allowed to create Capture workspaces, and create client profiles and batch processing jobs for processes that act upon batches within the workspace. In addition, the workspace manager also grants other users permission to access the workspace in the workspace manager, workspace viewer, or user roles.

### Capture Workspace Viewer

A workspace viewer is granted read-only permission to the workspace for the purpose of reviewing the workspace configuration, which includes client profiles and batch processor job configurations.

### Capture Client User

A Capture client user may create, update, and delete batch-related content within a workspace, including batches, batch items, documents, and pages.

## Assigning Capture Roles in Oracle Enterprise Manager

You can create Capture users in Oracle WebLogic Server Administration Console, and then assign roles to them in Oracle Enterprise Manager.

To create an Oracle WebCenter Enterprise Capture user:

1. Log into the WebLogic Server Administration Console using the steps listed in [Starting Capture Functions in the WebLogic Server Console](#).
2. Navigate to the capture\_domain within WebLogic Server, and then click **Security Realms**.
3. In the table under the Summary of Security Realms section, click **myrealm**, the built-in realm that works with the integrated LDAP.
4. Select the **Users and Groups** tab and then the **Users** subtab.
5. Under the Users section, click **New** to display the Create a New User section.
6. In the **Name** field, specify a name, for example, **Workspace Manager**.
7. In the **Password** field, specify a password.
8. In the **Confirm Password** field, enter the password again, and then click **OK**.
9. Create another user by performing steps 4 to 8.

You can assign LDAP users and groups to Capture roles in Oracle Enterprise Manager.

To assign a Capture role to users and groups:

1. Log in to Oracle Enterprise Manager using the steps listed in [Starting Capture Functions in Enterprise Manager](#).
2. Navigate to the capture\_domain within the WebLogic Domain.
3. Right-click the capture\_domain, select **Security**, and then **Application Roles**. The Application Roles page displays.
4. In the **Application Stripe** field, select capture, and then click the **Search application roles** icon to display the Capture application roles.
5. Select a role from the list, for example, **CaptureWorkspaceManager**, then click **Edit**. The Edit Application Role page for the selected role displays.
6. In the Edit Application Role page, under Members, click **Add**.
7. In the **Add Principal** dialog box, search for users or groups that you want to add to the selected Capture role.
8. Click **OK** to add the selected user or group.
9. Repeat steps 6 to 8 to add more users or groups to the selected role.

 **Note:**

After a user has been granted the `CaptureWorkspaceManager` role, that user can sign in to the workspace console, create a workspace, and grant Capture access to other LDAP users who have been assigned Capture roles.

 **Note:**

You must assign the `CaptureWorkspaceManager` and `CaptureUser` roles to provide access to the Capture workspace console and the Capture client. Only members of the `CaptureUser` role can use the Capture client.

10. Click **OK**.
11. Add users and groups to the other Capture roles by performing steps 5 to 10.

## About Authentication

Authentication is handled by the application server. Capture's user login, access, and authentication are integrated with Oracle WebLogic Server and Oracle Platform Security Services (OPSS). Once authenticated, users' permissions are dictated by application role membership and the workspaces and Capture resources to which they have been granted permission. Within Capture, workspace managers grant access to users or groups. For example, a workspace manager assigns a user group granted the Capture user role to a client profile within the workspace.

 **Note:**

Capture 11g uses file-based credential store while Capture 12c uses DB-based credential store. In the case of DB credential stores, data is encrypted using a client-side key using the Advanced Encryption Standard (AES) algorithm. During domain creation, OPSS uses the keystore service to create an AES symmetric key used to encrypt security store data. OPSS tries to generate a 256-bit key first. If it is not supported, then it tries to generate a 192-bit key, and if not supported either, then it creates a 128-bit key. If 128-bit keys are not supported, the `invalidKeyException` exception is thrown.

## About SSL

Capture supports communication between the client and server using HTTP or HTTPS application protocols. If the Capture client is accessed outside the protection of an organization's firewall, the application server's web container should be configured to require HTTPS connections to ensure that all sensitive information is properly secured. SSL applies to the managed server and encompasses both the client and workspace console. Therefore, configuring the server to use SSL affects both the client and workspace console web applications. See *Configuring SSL in Oracle Fusion Middleware in Administering Oracle Fusion Middleware*.

## Browsing Capture MBeans

Java Management Beans, called MBeans, are part of the greater Java Management eXtensions (JMX) standard which defines ways for administration applications to configure and control Java applications externally. At installation, Capture registers its MBeans with the hosting application server's MBean server. This allows other applications to interact with Capture's configuration data. This includes WebLogic Scripting Tool (WLST) and Oracle Enterprise Manager MBean browser.

### Viewing Capture MBeans

If you use Oracle Enterprise Manager to monitor server performance, you may want to also use the Enterprise Manager System MBean Browser to view Oracle WebCenter Enterprise Capture MBean values.

To view Capture MBeans using the System MBean Browser:

1. Log in to Oracle Enterprise Manager using the steps listed in [Starting Capture Functions in Enterprise Manager](#).
2. Click the Capture server in the top left pane to display the Capture menu options.
3. To view Capture MBeans, select **System MBean Browser** from the Capture menu. The System MBean Browser page displays.
4. In the left navigation pane, under Application Defined MBeans, expand **oracle.capture**. Select the appropriate server.
5. Expand the appropriate server.
6. Expand the Capture application within the selected server.
7. Expand **config**.
8. Click **Config**. The list of Capture MBeans displays in the right pane.

The Capture MBeans can be configured from the System Configuration page in Oracle Enterprise Manager. See [Managing Capture Settings in Enterprise Manager](#).

You can also use WLST to view Capture MBeans. See Oracle WebCenter Enterprise Capture Custom WLST Commands in *WebCenter WLST Command Reference*.

### Configuring Capture MBeans

The following table describes MBean attributes specific to Capture.

**Table 3-2 MBean Attributes**

Name	Description
AdvancedRecognitionSymbologies	Comma separated symbology IDs, which will be used for advanced recognition. 19 is ID for Data Matrix, 1 is the ID for Code 128. Any updates to this property takes effect at server restart.



Table 3-2 (Cont.) MBean Attributes

Name	Description
AdvancedRecognitionTimeout	Maximum time limit for detecting barcode for any configured symbology. This is measured in seconds. Any updates to this property takes effect at server restart.
AuditableActions	Auditable action IDs.
BatchRefreshLimit	Maximum number of batches to return per search.
CaptureNativePath	Path to Capture native libraries.
CaptureSystemID	A unique identifier for the Capture instance.
ClientUserDataLocation	Custom location for client user data. For example, <code>D:\UserHome</code>
DefaultDaysToRetainBatches	Days to maintain cache on clients workstations.
DocConversionMaxPaperSizeOIT	Specifies the maximum paper size allowed when images are converted with Oracle Outside In Technology.
EMailProcessorConnectionRetries	This setting determines the number of connection retries when the initial attempt to connect to an email server fails.
EMailProcessorConnectionTimeout	Specifies the timeout period (in milliseconds) that Capture will wait to establish a connection to the email server.
EMailProcessorDisablePlainAuth	Set this to <code>True</code> to disable the default usage of PLAIN Auth in authentication while connecting to an email account.
EMailProcessorJavaMailBufferSize	Specifies the size in bytes of the buffer used when processing email message attachments.
EMailProcessorJavaMailDebug	Set this to <code>True</code> to enable JavaMail debugging output, which is placed into the <code>servers.out</code> log file.
EMailProcessorJavaMailProps	MBean can have more property values, it could be used to set any javamail session property. For example: Set this to <code>mail.imap.partialfetch=false,mail.mime.base64.ignoreerrors=true</code>
EMailProcessorOperationTimeout	After connecting to an email server, this timeout (in milliseconds) applies to all other email server related functions.
GDFontPath	For Unix systems, specify the location of the Unix font directory. This path is used by the PDF Image Only export driver to render the fonts for PDF documents.
ImportHATokenExpiration	This setting determines the duration for which an Import HA Token is valid. This is measured in minutes.
ImportJobRefreshInterval	This setting determines how often an internal timer will fire to check for import jobs that need to be processed. This is measured in seconds.

Table 3-2 (Cont.) MBean Attributes

Name	Description
InstalledBundles	Returns a list of bundles that are installed on the system.
AdminLogoutRedirectURL	Redirects the user on logout URL. This property is specific to the admin console and takes precedence over logoutRedirectURL.
logoutRedirectURL	Specifies a custom logout URL to be used instead for redirecting upon logout.
MaxBatchProcessingAttempts	Set the number of retries when initial attempt to process a batch fails.
MaxPropertyUpdatesT2P	Maximum number of capture object (profile/job) specific property updates allowed while performing a T2P operation.
OITTimeout	Specifies how long an OIT conversion should take, beyond that the conversion task will result in an error. The default value is 300 seconds.
OITNativePath	Path to Oracle Outside In Technology native libraries.
OrphanedImportTokensCheckInterval	Frequency to check for orphaned import tokens. This is measured in seconds.
PollForBundles	Frequency to check for updated client bundles. This is measured in seconds.
RecognitionServiceJVMArgs	Optional Java Runtime Parameters used to tune the Barcode Recognition Service. It is primarily used to increase memory. For example, <code>-Xmx2048m</code> would limit the maximum heap memory size in RAM to 2 GB. For more information, run <code>java -help</code> .
SMTPHost	Specifies an SMTP server host.
SMTPMessageFrom	This value determines the name which will appear in the "From" field for all emails sent from Capture.
SMTPPassword	Password for logging in to the Capture SMTP server.
SMTPPort	Specifies the SMTP server port.
SMTPSSL	If true, it indicates that the SMTP server should use SSL security.
SMTPStartTLS	If true, it indicates that the SMTP server should use start TLS.
SMTPUserID	User ID for the Capture SMTP server.

## Configuring High Availability for Oracle WebCenter Enterprise Capture

There are special considerations to keep in mind when you configure high availability for Oracle WebCenter Enterprise Capture.

- [About Creating a WebCenter Enterprise Capture Domain with Oracle SOA](#)
- [About Scaling Out WebCenter Enterprise Capture and Configuring OWSM](#)

## About Creating a WebCenter Enterprise Capture Domain with Oracle SOA

If you create a WebCenter Enterprise Capture domain with an Oracle SOA component, you must select the JRF-MAN-SVR and WSMPM-MAN-SVR server groups. These server groups ensure that the oracle JRF and Oracle Web Services Manager (OWSM) services target the Managed Servers you are creating.

## About Scaling Out WebCenter Enterprise Capture and Configuring OWSM

OWSM uses cross-component wiring to auto-discover the Policy Manager in a domain. When you use the Configuration Wizard to create or update a domain that includes OWSM, Policy Manager URLs publish to the Local Service table.

OWSM Agent is automatically wired to the OWSM Policy Manager using endpoint entries published to the Local Service table. If, however, you change the domain using tools other than the Configuration Wizard (such as WebLogic Administration Console, Fusion Middleware Control, or WLST), any changes to the Policy Manager URL automatically publish to the Local Service table but the OWSM Agent client isn't automatically bound to the new URL. In this case, you must manually bind OWSM Agent to the Policy Manager URL.

For more, see *Verifying Agent Bindings Using Fusion Middleware Control* in *Oracle Fusion Middleware Securing Web Services and Managing Policies with Oracle Web Services Manager*.

# 4

## Monitoring Capture

This chapter provides information on monitoring the Capture system, including an overview of monitoring, how to view the status of your Capture system, monitor and audit its performance, and view system messages.

This chapter includes the following sections:

- [Overview of Monitoring Capture](#)
- [Monitoring Capture](#)
- [Viewing Capture Status](#)
- [Auditing Capture](#)
- [System Messages](#)

### Overview of Monitoring Capture

Oracle Enterprise Manager allows you to monitor the performance of your Capture system. It provides a set of key performance metrics that you can use to monitor the state of different Capture components, monitor process requests, audit the system performance and view system messages.

### Monitoring Capture

You can monitor performance metrics of your Capture system from the Performance Monitor page in Oracle Enterprise Manager.

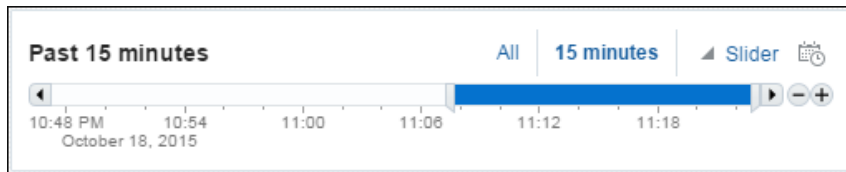
This section contains the following topics:

- [Viewing Performance Metrics](#)
- [Understanding Capture Performance Metrics](#)

### Viewing Performance Metrics

To view the performance metrics of your Capture system installation:

1. Log in to Oracle Enterprise Manager using the steps listed in [Starting Capture Functions in Enterprise Manager](#).
2. Click the Capture server in the top left pane to display the Capture menu options.
3. To view the performance metrics, select **Monitoring**, and then **Performance Summary** from the Capture menu. The Performance Summary page displays. By default, the Performance Summary page displays the performance metrics for the past 15 minutes.
4. Optionally, click **Slider** in the top right side of the page to view the time slider.

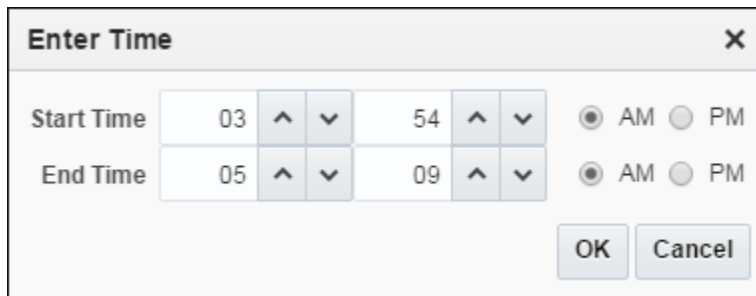


Use the time slider to select the time period for which to display the metrics.

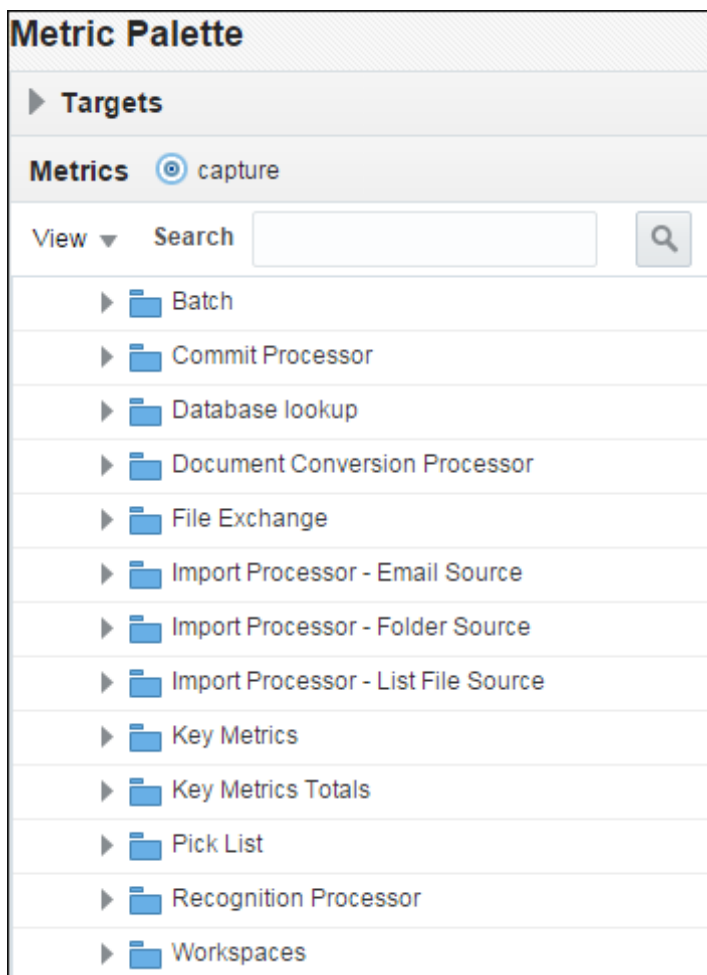
5. Optionally, click the **Enter Time** icon next to **Slider** in the top right side of the page.



The Enter Time dialog box displays.



6. Enter the start and end time for which to display the metrics, then click **OK**.
7. Click **Show Metric Palette** in the right pane. The Metric Palette displays.

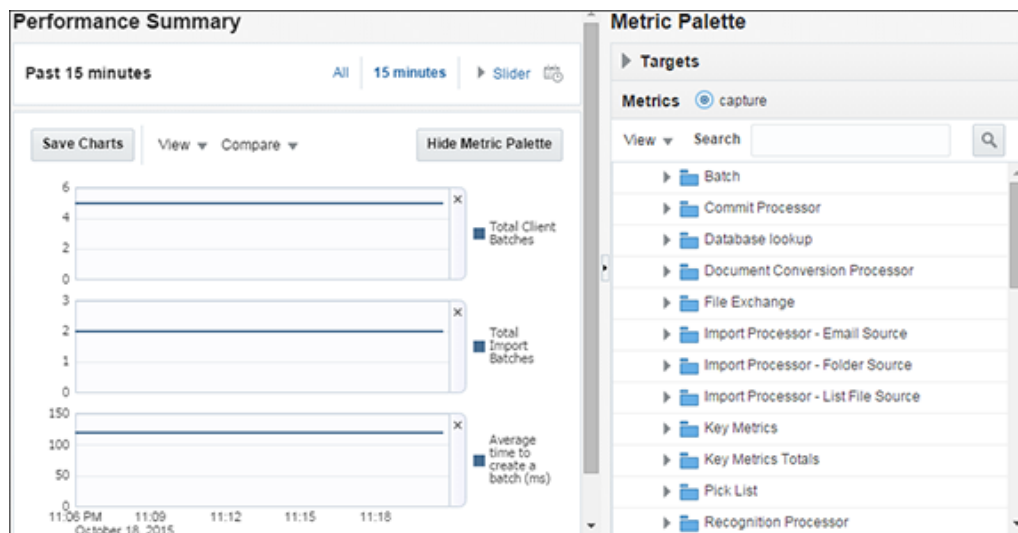


8. In the Metric Palette, select the metrics that you want to display in the Performance Summary page. To view metrics in a table format, select **Table View**.

For more information about the available Capture metrics, see [Understanding Capture Performance Metrics](#).

## Understanding Capture Performance Metrics

You can view key metrics of your Capture system from Oracle Enterprise Manager.



The following tables list the Capture performance metrics along with their descriptions.

## Key Performance Metrics

The following table lists the Capture key metrics. These metrics allow you to quickly assess the overall performance of the system. These metrics are displayed by default on the Capture home page.

Metric Name	Description
Total Recognition Batches	The total number of batches that have been processed by the Recognition Processor.
Total Committed Batches	The total number of batches committed by the Commit Processor.
Total Import Batches	The total number of batches that have been created by the Import Processor.
Total Client Batches	The total number of batches created by Capture clients.
Total Items Uploaded	The total number of items uploaded by Capture client workstations.
Total Documents Converted	The total number of documents processed by the Document Conversion Processor.



### Note:

Each metric listed above is a system total across all configured jobs.

The following table lists the key metrics for the last one minute.

Metric Name	Description
Number of recognition batches in the last one minute	The total number of batches processed by the Recognition Processor in the last one minute.
Number of batches committed in the last one minute	The total number of batches committed by the Commit Processor in the last one minute.
Number of batches imported in the last one minute	The total number of batches created by the Import Processor in the last one minute.
Number of client batches created in the last one minute	The total number of batches created by Capture clients in the last one minute.
Number of items uploaded in the last one minute	The total number of items uploaded by Capture client workstations in the last one minute.
Number of documents converted in the last one minute	The total number of documents processed by the Document Conversion Processor in the last one minute.

## Workspace Metrics

The following table lists the Capture workspace metrics. These metrics display information related to operations on workspaces defined in the Capture system. These metrics are displayed as graphs.

Metric Name	Description
Average time required to load workspaces	The average, maximum and minimum values of the times taken to load the list of workspaces in the Capture workspace console.
Average time required to load metadata fields	The average, maximum and minimum values of the times taken to load the list of metadata fields in the Capture workspace console when a workspace name is selected.
Average time required to load document profiles	The average, maximum and minimum values of the times taken to load the list of document profiles in the Capture workspace console when a workspace name is selected.

## Batch Metrics

The following table lists the batch metrics. These metrics display information related to batch operations and are displayed as graphs.

Metric Name	Description
Average time to load batches	The average, maximum and minimum values of the times taken to load the list of batches by the user or client workstation.
Average time to query locked batches	The average, maximum and minimum values of the times taken to load the list of locked batches by the user or client workstation.
Average time to search for batches	The average, maximum and minimum values of the times taken to execute the search operation on the batches by the Capture client.



Metric Name	Description
Average time to create a batch	The average, maximum and minimum values of the times taken to create batches by different users at different times.
Average time to update a batch	The average, maximum and minimum values of the times taken to commit changes to a batch to the server.
Average time to delete a batch	The average, maximum and minimum values of the times taken to delete batches by different users at different times.
Average time to lock a batch	The average, maximum and minimum values of the times taken to lock a batch.
Number of failed batch lock attempts	The number of batch lock failures which have occurred.
Average time to release a batch	The average, maximum and minimum values of the times taken to release a batch by the system administrator.
Average time to load documents for a batch	The average, maximum and minimum values of the times taken to load the documents for a batch whenever such loading is required.
Average time to load the items for a batch	The average, maximum and minimum values of the times taken to load the items for a batch whenever such loading is required.
Average time to create a batch item	The average, maximum and minimum values of the times taken to create batch items or images during scan or import operations.
Average time to delete a batch item	The average, maximum and minimum values of the times taken to delete items or images from a batch.
Average time to link a batch item to a document	Batch items are linked or added to documents depending on the client profile during scanning or adding or removing documents from a batch. This metric gives the average, maximum and minimum values of the times taken to execute these link or add operations.
Average time to create a document record	The average, maximum and minimum values of the times taken to create a document.
Average time to update a document record	The average, maximum and minimum values of the times taken to commit the changes to the document to the server.
Average time to load document items	The average, maximum and minimum values of the times taken to load the pages for a document when the user chooses to review or index the documents in a batch.
Average time to delete a document	The average, maximum and minimum values of the times taken to delete a document or item in the review or index section.
Average time to remove an item from a document	The average, maximum and minimum values of the times taken to unlink or delete a batch item from a document.

## DB Lookup Metric

The following table lists the database lookup metric. This metric provides information related to database lookups and is displayed as a graph.

Metric Name	Description
Average time to execute a Database Lookup	The aggregated value of the times taken to search the database for each DB lookup profile along with the maximum and minimum values.

## Pick-List Metric

The following table lists the pick-list metric. This metric provides information related to choice list operations and is displayed as a graph.

Metric Name	Description
Average time to load the items for a Pick-list	The average value of the times taken to load choice list items for a particular choice list when the client chose to index a document.

## File Exchange Metrics

The following table lists the file exchange metrics. These metrics provide information related to file exchanges between clients and the server. These metrics are displayed as a metric table with a row for each Handler.

Metric Name	Description
Average time to upload an item	The average, maximum and minimum values of the times taken to upload an item from the client to the server for each Handler.
Failed upload exceptions occurring	The number of failed upload operations for each Handler.
Average time to download an item	The average, maximum and minimum values of the times taken to download an item from the server to the client end for each Handler.
Failed download exceptions occurring	The total number of failed download operations.

## Commit Processor Metrics

The following table lists the Commit Processor metrics. These metrics provide information related to batch commit operations. These metrics are displayed as a metric table with a row for each commit profile.

Metric Name	Description
Total committed batches	The total number of batches committed for a commit profile.
Total exceptions	The total number of exceptions that have occurred committing documents for a commit profile.
Total cancelled	The total number of document commits that were cancelled.
Average commit time	The average time it takes for the commit profile to commit a batch.

## Recognition Processor Metrics

The following table lists the Recognition Processor metrics. These metrics provide information related to barcode recognition operations. These metrics are displayed as a metric table with a row for each recognition job.

Metric Name	Description
Total Processing Barcode Phase Completed	The total number of batches that have been processed by the recognition job.
Total Processing Batches Avg Time	The average time taken to process a batch.
Total Processing Batches Completed	The total number of batches processed.
Total System Errors	The total number of system errors while processing documents for a recognition job.
Total Time Processing Barcode Phase	The total time spent in recognizing barcodes on images.
Total Time Processing Barcode Phase Avg	The average time spent in recognizing barcodes on images.
Total Time Processing Batches	The total time taken to process a batch.

## Import Processor Metrics

This section lists the metrics specific to the Import Processor.

The following table lists the Import Processor level metrics. These metrics are captured as a total across all jobs that are processed. These metrics are used to measure the performance of the Import Processor as a whole.

Metric Name	Description
Total imported batches	The total number of batches that have been created.
Total imported documents	The total number of documents imported.
Total imported pages	The total number of pages imported by the job.

The following table lists the Import Processor - Email Source metrics. These metrics are captured at the source level for the email import source.

Metric Name	Description
Connect Account Avg Time	The average time taken to connect to the email server specified in the import job.
Connect Account Completed	The total time taken to complete the connection to an email server.
Connect Account Time	The total time taken to connect to an email server.
Process Account Avg Time	The average time taken to retrieve messages from an inbox.
Process Account Completed	The time taken to complete retrieving messages from an inbox.
Process Account Time	The time taken to retrieve messages from an inbox.

The following table list the Import Processor - Folder Source metrics. These metrics are used to measure the overall performance of an import job when processing a folder. These metrics are displayed as graphs.

<b>Metric Name</b>	<b>Description</b>
Process File Avg Time	The average time taken to process a file within the folder.
Process File Completed	The total number of files processed.
Process File Time	The total time taken to process a file.
Process Folder Avg Time	The average time taken to process a folder.
Process Folder Time	The total time taken to process a folder.
Process Folder Completed	The total number of folders processed.
Total Files Imported	The total number of files imported by the import job.
Total Folders Imported	The total number of folders imported by the import job.

The following table list the Import Processor - List File Source metrics. These metrics are used to measure the overall performance of an import job when processing a list file. These metrics are displayed as graphs.

<b>Metric Name</b>	<b>Description</b>
Process File Avg Time	The average time taken to process a file within the folder.
Process File Completed	The total number of files processed by the import job.
Process File Time	The total time taken to process a file specified in the list file.
Process Folder Avg Time	The average time taken to process a folder.
Process Folder Completed	The total number of folders processed by the import job.
Process Folder Time	The total time taken to process a folder.
Process List File Avg Time	The average time taken to process a list file import job.
Process List File Completed	The time taken to complete a list file import job.
Process List File Time	The time taken to process a list file.
Total Folders Imported	The total number of folders imported by the import job.

## Document Conversion Processor Metrics

This section lists the metrics specific to the Document Conversion Processor.

The following table lists the Document Conversion Processor metrics. These metrics are displayed as graphs.

<b>Metric Name</b>	<b>Description</b>
Document Conversion Completed	The total number of documents processed for a document processing job.

Metric Name	Description
Document Conversion Time	The time taken to process a document.
Document Conversion Time Avg	The average time taken to process a document.
Total Batches Converted	The total number of batches processed by the job.
Total Document Conversion Exceptions	The number of exceptions that occurred while processing documents.

## Viewing Capture Status

You can view the status of Oracle WebCenter Enterprise Capture using Oracle Enterprise Manager or Oracle WebLogic Server. The Capture home page in Oracle Enterprise Manager displays the status of your Capture system. It displays the state, version, and uptime of the Capture system.

To view the status of your Capture system installation:

1. Log in to Oracle Enterprise Manager using the steps listed in [Starting Capture Functions in Enterprise Manager](#).
2. By default, the Capture home page displays.
3. The General Information section on the home page displays the status of your Capture system (state, version, and uptime).
4. The Key Metrics section on the lower pane displays the Capture Performance metrics. See [Understanding Capture Performance Metrics](#).

You can navigate to the home page from any other page by clicking **Home** in the Capture menu options in the top left pane.



### Note:

For more information on viewing the status of your Capture system using the Oracle WebLogic Server Administration Console, see the Oracle WebLogic Server documentation.

## Auditing Capture

Oracle WebCenter Enterprise Capture audits certain activities and saves the information in an audit table.

You can use audit information to create reports using a third-party reporting application. For example, you might build a custom report that provides the total number of pages scanned per day per user. This would allow you to compare the output of scanning users.

## ecAudit Table

The ecAudit table stores information about actions taken during processing. [Table 4-1](#) describes the columns in the ecAudit table.

**Table 4-1 ecAudit Table**

Column Name	Data Type	Field Length	Description
ecDateTime	Integer	4	Date and time the activity occurred. The date and time are relative to the locale of the server where the application is running.
ecUserID	Text	255	User ID of the person who performed the activity.
ecProcessorID	Text	40	The name of the processor that is logging the activity.
ecActionID	Number	4	Activity ID of the activity being logged. This number is relevant only for the processor logging the activity.
ecActionDesc	Text	255	Description of the activity.
ecWorkspace	Text	128	The workspace where the audit is created.
ecBatch	Text	128	Batch affected by the activity.
ecBatchID	Text	255	Internal ID assigned to the batch.
ecActionDataInt	Long Integer	4	If the activity produces an integer result, that result is saved here.
ecActionDataFloat	Floating Point	126	If the activity produces a floating-point value result, that result is saved here.
ecActionDataText1	Text	255	If the activity produces a text result, that result is saved here.
ecActionDataText2	Text	255	Miscellaneous information about the activity.
ecActionDataText3	Text	255	Miscellaneous information about the activity.
ecActionDataText4	Text	255	Miscellaneous information about the activity.
ecActionDataText5	Text	255	Miscellaneous information about the activity.
ecErrorNum	Integer	4	Error number associated with activity failure.
ecErrorDesc	Text	255	Error Description.

## Recognition Processor Activity IDs

This section describes the activities Recognition Processor audits and reports.

In [Table 4-1](#), Date, UserID, FileCabinet, and Batch are automatically filled in for each activity. The ecActionDataText1 field typically contains the batch job name for each activity. The following table describes the remaining data elements for Recognition Processor audit activity:

Activity ID	Description	ecActionDataInt	ecActionDataText1	ecActionDataFloat
3001	Start of batch processing	Number of documents in the batch before processing	Current batch job ID	Number of batch items in the batch before processing

Activity ID	Description	ecActionDataInt	ecActionDataText1	ecActionDataFloat
3002	End of batch processing	Number of documents in the batch after processing	Current batch job ID	Number of batch items in the batch after processing

## Document Conversion Processor Activity IDs

This section describes the activities Document Conversion Processor audits and reports.

In [Table 4-1](#), Date, Time, UserID, ProcessID, Workspace, BatchID, and Batch are automatically filled in for each activity. The ecActionDataText1 field always contains the profile name for each activity. The following table describes the remaining data elements for Document Conversion Processor audit activity:

Activity ID	Description	ecActionDataInt	ecActionDataText1	ecActionDataFloat
4001	Start of batch processing	Number of documents in the batch before processing	Current batch job ID	Number of batch items in the batch before processing
4002	End of batch processing	Number of documents in the batch after processing	Current batch job ID	Number of batch items in the batch after processing

## Commit Processor Activity IDs

This section describes the activities Commit Processor audits and reports.

In [Table 4-1](#), Date, Time, UserID, ProcessID, Workspace, BatchID, and Batch are automatically filled in for each activity. The following table describes the remaining data elements for Commit Processor audit activity:

Activity ID	Description	ecActionDataInt	ecActionDataText1	ecActionDataText 2	ecActionDataText 3	ecActionDataText 4
2001	Start of batch processing	N/A	Commit profile ID	Commit profile name	N/A	N/A
2002	End of batch processing	Number of documents committed	Commit profile ID	Commit profile name	N/A	N/A
2003	Indicates a document was committed.	Number of pages in the document	Document ID	Document profile name	Commit profile ID	Commit profile name

## Activity IDs

The following table describes the actions that the Capture server components audit.

ActionID	Description	ecActionDataInt	ecActionDataText1	ecActionDataText2
1001	Create batch	N/A	N/A	N/A
1003	Update batch	N/A	N/A	N/A
1004	Delete batch	N/A	N/A	N/A
1005	Batch released	N/A	The ID of the batch processor that will process the batch.	The ID of the commit processor job that will process the batch.
1006	Batch unlocked	N/A	N/A	N/A
1007	Create batch item	N/A	Batch Item ID	N/A
1009	Update batch item	N/A	Batch Item ID	N/A
1010	Delete batch item	N/A	Batch Item ID	N/A
1011	Create document	N/A	Document ID	N/A
1013	Update document	N/A	N/A	N/A
1014	Delete document	Document Number	Document ID	N/A
1015	Batch item linked to document	Page Number	Batch Item ID	Document ID
1016	Batch item unlinked from document	Page Number	Batch Item ID	Document ID
2001	Start of batch processing	N/A	Commit profile ID	Commit profile name
2002	End of batch processing	Total count of documents committed using the commit profile.	Commit profile ID	Commit profile name

## System Messages

This section provides information on the system messages generated by Capture. Information about Capture system messages, their causes and actions can help you troubleshoot and resolve Capture system errors.

The following table provides detailed information about Capture error messages, their causes, and associated actions.

Message ID	Description	Cause	Action
10000	Initializing Capture	The capture application is starting.	No action required.
10001	Error creating batch item	The user tried adding an item to the batch.	Make sure the batch path exists and there is no problem accessing the database.



Message ID	Description	Cause	Action
10002	Error committing documents	There was a problem updating the committed column of the document record.	Make sure the database is accessible and that the user has proper permission to the database tables.
10003	Error creating workspace	Database connectivity issue.	Ensure the database is accessible.
10004	Error updating workspace	Database connectivity issue.	Ensure the database is accessible.
10005	Error deleting workspace	Database connectivity issue.	Ensure the database is accessible.
10006	Error loading workspaces	Database connectivity issue.	Ensure the database is accessible.
10007	Error creating metadata definition	Database connectivity issue.	Ensure the database is accessible.
10008	Error loading metadata definitions	Database connectivity issue.	Ensure the database is accessible.
10009	Error updating metadata definition	Database connectivity issue.	Ensure the database is accessible.
10010	Error deleting metadata definition	Database connectivity issue.	Ensure the database is accessible.
10011	Error locating capture object	Database connectivity issue.	Ensure the database is accessible.
10012	Error locating capture object children	Database connectivity issue.	Ensure the database is accessible.
10013	Error loading capture objects	Database connectivity issue.	Ensure the database is accessible.
10014	Error creating batch	Database connectivity issue.	Ensure the database is accessible.
10015	Error updating batch	Database connectivity issue.	Ensure the database is accessible.
10016	The batch lock is no longer valid	Database connectivity issue.	Ensure the database is accessible.
10017	Error deleting batch	Database connectivity issue.	Ensure the database is accessible.
10018	Error finding batch by id	Database connectivity issue.	Ensure the database is accessible.
10019	Error finding batch item by id	Database connectivity issue.	Ensure the database is accessible.
10020	Error loading batches	Database connectivity issue.	Ensure the database is accessible.
10021	Error loading batches by user and workstation	Database connectivity issue.	Ensure the database is accessible.
10022	Error loading batches by user	Database connectivity issue.	Ensure the database is accessible.
10023	Error loading locked batches by user	Database connectivity issue.	Ensure the database is accessible.

Message ID	Description	Cause	Action
10024	Error loading locked batches by workstation	Database connectivity issue.	Ensure the database is accessible.
10025	Error loading locked batches by user and workstation	Database connectivity issue.	Ensure the database is accessible.
10026	Error loading batch items	Database connectivity issue.	Ensure the database is accessible.
10027	Error deleting batch item	Database connectivity issue.	Ensure the database is accessible.
10028	The batch is already locked by <userid> on workstation <workstationid>	The batch is locked by another user.	The batch must be unlocked before it can be locked by someone else.
10029	Error locking batch	Database connectivity issue.	Ensure the database is accessible.
10030	The specified batch has not been persisted or has been deleted by another user.	Database connectivity issue.	Ensure the database is accessible.
10031	Error unlocking batch	Database connectivity issue.	Ensure the database is accessible.
10032	Error creating batch name	Database connectivity issue.	Ensure the database is accessible.
10033	Error creating document	Database connectivity issue.	Ensure the database is accessible.
10034	Error creating db return field	Database connectivity issue.	Ensure the database is accessible.
10035	Error creating db search field	Database connectivity issue.	Ensure the database is accessible.
10036	Error creating db search profile	Database connectivity issue.	Ensure the database is accessible.
10037	Error loading documents	Database connectivity issue.	Ensure the database is accessible.
10038	Error deleting document	Database connectivity issue.	Ensure the database is accessible.
10039	Error loading documents	Database connectivity issue.	Ensure the database is accessible.
10040	Error linking item to document	Database connectivity issue.	Ensure the database is accessible.
10041	Error unlinking item from document	Database connectivity issue.	Ensure the database is accessible.
10042	Error locating datasource	The data source could not be found.	Ensure the database connection is configured properly and the database is accessible.
10043	Error generating batch id	Database connectivity issue.	Ensure the database is accessible.
10044	Error creating log record	Database connectivity issue.	Ensure the database is accessible.

Message ID	Description	Cause	Action
10045	Error updating capture object	Database connectivity issue.	Ensure the database is accessible.
10046	Error saving database search profile	Database connectivity issue.	Ensure the database is accessible.
10047	Error deleting object child entities	Database connectivity issue.	Ensure the database is accessible.
10048	Error deleting capture object entity	Database connectivity issue.	Ensure the database is accessible.
10049	Error loading search profile	Database connectivity issue.	Ensure the database is accessible.
10050	Error loading search profiles	Database connectivity issue.	Ensure the database is accessible.
10051	Error deleting search profile	Database connectivity issue.	Ensure the database is accessible.
10052	Error loading search fields	Database connectivity issue.	Ensure the database is accessible.
10053	Error loading return fields	Database connectivity issue.	Ensure the database is accessible.
10054	Error deleting return field	Database connectivity issue.	Ensure the database is accessible.
10055	Error deleting search field	Database connectivity issue.	Ensure the database is accessible.
10056	Error saving search field	Database connectivity issue.	Ensure the database is accessible.
10057	Error saving return field	Database connectivity issue.	Ensure the database is accessible.
10058	Error loading database schemas	Database connectivity issue. Database permission issue.	Ensure the database is accessible. Ensure the user has proper permissions to the required database objects.
10059	Error loading database table fields	Database connectivity issue. Database permission issue.	Ensure the database is accessible. Ensure the user has proper permissions to the required database objects.
10060	Error loading database tables	Database connectivity issue. Database permission issue.	Ensure the database is accessible. Ensure the user has proper permissions to the required database objects.
10061	Error executing database lookup	Database connectivity issue.	Ensure the database is accessible.
10062	Error saving document	Database connectivity issue.	Ensure the database is accessible.

Message ID	Description	Cause	Action
10063	Error testing lock	Database connectivity issue.	Ensure the database is accessible.
10064	Error creating extension profile	Database connectivity issue.	Ensure the database is accessible.
10065	Error loading extension profiles	Database connectivity issue.	Ensure the database is accessible.
10066	Error updating extension profile	Database connectivity issue.	Ensure the database is accessible.
10067	Error deleting extension profile	Database connectivity issue.	Ensure the database is accessible.
10068	Error searching for extension profile	Database connectivity issue.	Ensure the database is accessible.
10069	Error getting batch number	Database connectivity issue.	Ensure the database is accessible.
10070	Error requesting session information	Application configuration error.	The application configuration is invalid or incomplete. Ensure the application is properly configured.
10071	Error moving document pages	Database connectivity issue.	Ensure the database is accessible.
10072	Error splitting document	Database connectivity issue.	Ensure the database is accessible.
10073	Error deleting document pages	Database connectivity issue.	Ensure the database is accessible.
10074	Error creating documents	Database connectivity issue.	Ensure the database is accessible.
10075	Error deleting documents	Database connectivity issue.	Ensure the database is accessible.
10076	Error inserting into documents	Database connectivity issue.	Ensure the database is accessible.
10077	Error searching database	Database connectivity issue.	Ensure the database is accessible.
10078	Error creating bundle entity	Database connectivity issue.	Ensure the database is accessible.
10079	Error loading installed bundles	Database connectivity issue.	Ensure the database is accessible.
10080	Error loading installed bundles by name and version	Database connectivity issue.	Ensure the database is accessible.
10081	Error deleting bundle	Database connectivity issue.	Ensure the database is accessible.
10082	Error updating bundle	Database connectivity issue.	Ensure the database is accessible.
10083	Error during bundle lookup	Database connectivity issue.	Ensure the database is accessible.
10084	Error finding bundle by interface name	Database connectivity issue.	Ensure the database is accessible.

Message ID	Description	Cause	Action
10085	Error scanning for bundles	Database connectivity issue.	Ensure the database is accessible.
10086	Error creating script	Database connectivity issue.	Ensure the database is accessible.
10087	Error loading scripts for product	Database connectivity issue.	Ensure the database is accessible.
10088	Error updating script	Database connectivity issue.	Ensure the database is accessible.
10089	Error deleting script	Database connectivity issue.	Ensure the database is accessible.
10090	Error loading script	Database connectivity issue.	Ensure the database is accessible.
10091	Error loading choice list source	Database connectivity issue.	Ensure the database is accessible.
10092	Error loading choice list link profiles	Database connectivity issue.	Ensure the database is accessible.
10093	Error updating choice list source	Database connectivity issue.	Ensure the database is accessible.
10094	Error creating choice list source	Database connectivity issue.	Ensure the database is accessible.
10095	Error deleting choice list source	Database connectivity issue.	Ensure the database is accessible.
10096	Error loading choice list drivers	Database connectivity issue.	Ensure the database is accessible.
10097	Error finding choice list source	Database connectivity issue.	Ensure the database is accessible.
10098	Error loading choice lists	Database connectivity issue.	Ensure the database is accessible.
10099	Error creating choice list	Database connectivity issue.	Ensure the database is accessible.
10100	Error updating choice list	Database connectivity issue.	Ensure the database is accessible.
10101	Error deleting choice list	Database connectivity issue.	Ensure the database is accessible.
10102	Error creating choice list item	Database connectivity issue.	Ensure the database is accessible.
10103	Error loading choice list items	Database connectivity issue.	Ensure the database is accessible.
10104	Error updating choice list items	Database connectivity issue.	Ensure the database is accessible.
10105	Error deleting choice list item	Database connectivity issue.	Ensure the database is accessible.
10106	Error creating dependent choice list	Database connectivity issue.	Ensure the database is accessible.

Message ID	Description	Cause	Action
10107	Error loading dependent choice list	Database connectivity issue.	Ensure the database is accessible.
10108	Error updating dependent choice list	Database connectivity issue.	Ensure the database is accessible.
10109	Error deleting dependent choice list	Database connectivity issue.	Ensure the database is accessible.
10110	Error deleting profile links	Database connectivity issue.	Ensure the database is accessible.
10111	Error linking item to list	Database connectivity issue.	Ensure the database is accessible.
10112	Error unlinking item from list	Database connectivity issue.	Ensure the database is accessible.
10113	Error finding item link	Database connectivity issue.	Ensure the database is accessible.
10114	Error creating commit profile	Database connectivity issue.	Ensure the database is accessible.
10115	Error loading commit profiles	Database connectivity issue.	Ensure the database is accessible.
10116	Error updating commit profile	Database connectivity issue.	Ensure the database is accessible.
10117	Error deleting commit profile	Database connectivity issue.	Ensure the database is accessible.
10118	Error deleting batch statuses for workspace	Database connectivity issue.	Ensure the database is accessible.
10119	Error deleting metadata definitions for workspace	Database connectivity issue.	Ensure the database is accessible.
10120	Error deleting batch status from workspace	Database connectivity issue.	Ensure the database is accessible.
10121	A JMS Error has occurred	Diskspace capacity may have been reached. Network connectivity problem.	Check the disk space capacity and increase as needed. Ensure the JMS server is accessible.
10122	Error creating release agent	The required batch release agent could not be created.	Contact the system administrator.
10123	Failed to load document types	Database connectivity failure.	Contact the system administrator.
10124	The commit driver's configuration is invalid	The commit driver configuration has missing or invalid information.	Verify the configuration settings in Administration.
10126	Unknown commit error	An unexpected exception was encountered processing the document. This is usually caused by an unhandled exception in the commit driver or export driver.	Verify the configuration settings in Administration.
10127	The import processor context must contain a valid DocumentEntity reference	The Import Job may not be properly configured.	Verify the configuration settings in Administration.

Message ID	Description	Cause	Action
10128	The import source file is null in the Import Context	The data being imported could not be found.	Ensure that the Import Processor has privileges to the source file.
10129	The HA token was not found in the import processor context	The Import Processor Context HA Token was missing.	Ensure that the database server is running.
10130	The specified workspace could not be found	The Import Processor Context HA Token was missing.	Ensure that the database server is running.
10131	Batch [{0}] was successfully locked by user [{1}] batch id is [{2}]		
10132	Failed to deliver email	Unable to send email. (See message)	Use the Enterprise Manager to ensure that the Email server settings are correct. Ensure that the Email server can be reached.
10133	Error copying workspace	Database connectivity issue.	Ensure the database is accessible.
10134	Commit profile [{0}] does not specify a commit driver	Commit profile configuration problem.	Ensure the specified commit profile has a commit driver specified.
10135	Commit profile [{0}] does not specify an export driver	Commit profile configuration problem.	Ensure the specified commit profile has an export driver specified.
10136	Commit profile [{0}] specifies a commit driver that could not be found on the system.	The commit driver specified in the commit profile could not be found.	Ensure the specified commit driver is properly installed or edit the commit profile and select a different commit driver.
10137	Commit profile [{0}] specifies an export driver that could not be found on the system	The export driver specified in the commit profile could not be found.	Ensure the specified export driver is properly installed or edit the commit profile and select a different export driver.
10138	Unable to create the export directory	The export driver specified in the commit profile could not be found.	Ensure the specified export driver is properly installed or edit the commit profile and select a different export driver.
10139	The following required fields do not have values: [{0}]	Document is missing one or more required fields.	Ensure all required fields are indexed.
10140	The batch was routed to a processing job that could not be found	The batch was routed to a job that was not found. The job may have been deleted.	Ensure that the specified job exists.
10141	The batch was routed to a processing job that is currently offline	The batch was routed to a job that is in an offline state.	The job needs to be put in an online state by someone with the required permissions.
10142	A workspace by the specified name already exists	The user tried to create a workspace using a name that already exists.	The user should try again using a unique name.
10143	Error loading locked batches for the specified workspace id	An invalid workspace id was specified or the specified workspace id does not exist.	Ensure a valid workspace id is specified.

Message ID	Description	Cause	Action
10144	Method access violation. User {0} attempted to invoke a method they are not authorized to access.	An invocation was made on a method to which the subject was not permitted access.	Ensure the subject is a member of a security role with permission to invoke the method.
10145	Unable to send a broadcast email. The SMTP Server connection information is incomplete.	The SMTP server connection information is incomplete.	Use Fusion Middleware Control to configure the SMTP Connection information.
10146	Document contains no pages.	The document contains no pages.	Review the batch in the Capture client and check the system logs for more information.
10147	The specified export driver feature is not supported on this platform.	The export driver specified in the commit profile is not supported on this platform.	Ensure the specified export driver is properly installed or edit the commit profile and select a different export driver.
10148	Generic commit error.	An error occurred during the commit process.	Check previous log entries for error detail.
10149	Error duplicating documents.	Database connectivity issue.	Ensure the database is accessible and the specified user has the necessary permissions to the database.
10150	Document Id does not exist.	A document ID was specified but was not found in the database. The document may have been deleted.	Ensure that the specified document ID exists.
10151	Index Field [{0}] of Document [{1}] was assigned invalid value [{2}]	An attempt was made to save a document containing an invalid field value. The field may have contained an unprintable character.	Ensure that only valid printable characters are assigned to document index fields.
10152	Error loading Import Processor HA Tokens.	Database connectivity issue.	Ensure the database is accessible and the specified user has the necessary permissions to the database.
10153	Error loading document type attachment types.	Database connectivity failure.	Contact the system administrator.
10154	The following required attachment types were not found :[{0}]	Document is missing one or more required attachment types.	Ensure all required attachment types are provided.



# 5

## Configuring and Viewing Capture Log Files

This chapter describes how to configure and view the log files for Oracle WebCenter Enterprise Capture.

This chapter includes the following sections:

- [Introduction to Managing Log Files for Capture](#)
- [Viewing Log Files for Capture](#)
- [Configuring Settings for Log Files for Capture](#)
- [Understanding Loggers for Capture](#)

### Introduction to Managing Log Files for Capture

By default, errors, warnings, and major application lifecycle events in Capture are logged on the application server. As a system administrator, you can progressively increase the log level to enable logging of configuration messages, debug messages, and trace messages. You can use Oracle Enterprise Manager to view and configure log messages for your Oracle WebCenter Enterprise Capture system. See *Managing Log Files and Diagnostic Data in Administering Oracle Fusion Middleware*.

### Client Logging

Oracle WebCenter Enterprise Capture client errors are logged by the client using the logging level set under client preferences. Client log files are stored locally in the `.oracle_capture/Log` directory in the client user's home directory.

A log file is named as follows: `WC{date}` where `date` is in the format of `MMddyyyy`.

To view client log files, you may need to first direct the client user to increase the logging level. The client user can then retrieve log files from the specified location and manually send them to you.

### Viewing Log Files for Capture

You can view log files for Oracle WebCenter Enterprise Capture from the Oracle Enterprise Manager or use the WLST commands.

To view the log files using the Oracle Enterprise Manager:

1. Log in to Oracle Enterprise Manager using the steps listed in [Starting Capture Functions in Enterprise Manager](#).
2. Click the Capture server in the top left pane to display the Capture menu options.
3. To view the log files for Capture, select **Logs**, and then **View Log Messages** from the Capture menu. The Log Messages page displays.
4. In this page, you can search for messages by specified date range, type, or containing certain keywords. You can also select a message from the list and view its details.

See Oracle WebCenter Enterprise Capture Custom WLST Commands in *WebCenter WLST Command Reference*.

## Configuring Settings for Log Files for Capture

You can configure the log files for Oracle WebCenter Enterprise Capture using Oracle Enterprise Manager or WLST.

You can configure the names and locations of log files, the size of the log files, the level of information written to the log files, the format, and the Locale encoding, as described in Configuring Settings for Log Files in *Administering Oracle Fusion Middleware*.

See Oracle WebCenter Enterprise Capture Custom WLST Commands in *WebCenter WLST Command Reference*.

## Understanding Loggers for Capture

To view the loggers specific to Capture using Oracle Enterprise Manager:

1. Log in to Oracle Enterprise Manager using the steps listed in [Starting Capture Functions in Enterprise Manager](#).
2. Click the Capture server in the top left pane to display the Capture menu options.
3. To view the loggers specific to Capture, select **Logs**, and then **Log Configuration** from the Capture menu. The Log Configuration page displays.
4. In the **Log Levels** tab, select to view the Runtime Loggers.
5. In the Logger Name column, expand the oracle.odc logger to display the loggers specific to Capture.

[Table 5-1](#) lists the loggers for Oracle WebCenter Enterprise Capture, along with a description of each.

**Table 5-1 Loggers for Oracle WebCenter Enterprise Capture**

Logger Name	Description
oracle.odc.batchmanager.BatchManagerSessionBean	Used to log operations related to batch management.
oracle.odc.batchprocessor.BatchProcessorBean	Used to log the flow of batches as they are passed between processors.
oracle.odc.commitprocessor.CommitProcessor	Used by the Commit Processor to log information and errors related to committing a batch.
oracle.odc.CoreLogger	Used to log common core activity.
oracle.odc.documentconverterprocessor.DocumentConverterProcessor	Used by the Document Conversion Processor to log information and errors related to processing a document.
oracle.odc.servlet.FileExchange	Used to log activity related to the exchange of files between the client and server.
oracle.odc.importprocessor.ImportJobSchedulerSessionBean	Used by the ImportJobScheduleSessionBean to log information related to the processing of import jobs.
oracle.odc.recognitionprocessor.RecognitionProcessor	Used by the Recognition Processor to log information and errors related to barcode recognition operations.

**Table 5-1 (Cont.) Loggers for Oracle WebCenter Enterprise Capture**

<b>Logger Name</b>	<b>Description</b>
oracle.odc.security.CaptureOPSS	Used to log information related to Capture security management.

# 6

## Troubleshooting

This chapter contains information about troubleshooting Oracle WebCenter Enterprise Capture.

This chapter includes the following sections:

- [General](#)
- [Commit Processor](#)
- [Client](#)
- [Document Conversion Processor](#)

### General

This section covers the following topics:

- [Changing the number of worker threads for a batch processor](#)
- [Creating a hash partition to improve database performance](#)

### Changing the number of worker threads for a batch processor

The number of worker threads can be modified for any of the batch processors. For example, perform the following steps to change the number of worker threads for the import processor. In this example, the thread count is being changed from 10 to 1:

1. Stop the Capture Managed Server.
2. In the WebLogic Server Administration Console, click **Deployments** in the **Domain Structure** tree on the left. The **Summary of Deployments** page displays.
3. In the Deployments table, expand the Capture deployment node.
4. Expand the **Modules** node under the Capture deployment node and select oddc-core.jar. The settings page for oddc-core.jar displays.
5. Select the **Configuration** tab and then the **Workload** subtab.
6. Select **ImportProcessorMgr** from the list of **Application Scoped Work Managers**. The settings page for ImportProcessorMgr displays.
7. Select **ImportProcessorMaxThreads** from the list of **Application Scoped Work Manager Components**. The settings page for ImportProcessorMaxThreads displays.
8. Set the value of the **Count** field to 1 (from 10).
9. Click **Save**.

Perform the following steps to confirm the changes to the thread count setting:

1. Start the Capture Managed Server.
2. In the WebLogic Server Administration Console, expand the **Services** node in the **Domain Structure** tree on the left.

3. Expand the **Messaging** node under **Services** and click **JMS Modules**. The JMS Modules page displays.
4. In the JMS Modules table, select **capture-jms-module**. The settings page for capture-jms-module displays.
5. In the Summary of Resources table, select **capture-batchinput-queue**. The settings page for capture-batchinput-queue displays.
6. Select the **Monitoring** tab. In the Destinations table, the values in the **Consumers Current** and the **Consumers High** columns should be 1.

## Creating a hash partition to improve database performance

You can use a hash partition of the EBATCTITEMS table to minimize the database wait event **enq: HW- contention**, which prevents the database from scaling. This event occurs when many threads are trying to update and add new BLOB items to ECBATCHITEMS, as follows:

```
table - "UPDATE ECBATCHITEMS SET ECITEMDATA=:1 WHERE ECITEMID=:2"
```

Creating a hash partition minimizes this contention because different items will be in eight different partitions. See *Creating a Hash Partition to Improve Database Performance* in *Installing and Configuring Oracle WebCenter Content*.

### Note:

The use of a hash partition on an Oracle Database has licensing implications since it requires the purchase of an "Oracle Partitioning" license. Please refer to this document: [http://docs.oracle.com/cd/B28359\\_01/license.111/b28287.pdf](http://docs.oracle.com/cd/B28359_01/license.111/b28287.pdf).

## Commit Processor

This section covers troubleshooting topics related to the Commit Processor.

### Testing the PDF Image-Only document export driver outside of Capture

To test the Outside In Technology (OIT) PDF Export utility, it is necessary to supply a TIFF file to test the export. Perform the following steps:

#### Using Linux

1. Open a terminal window.
2. Change to the `{Middleware Home}/oit/linux64/lib/contentaccess` directory.

**Note:** The default `{Middleware Home}` path on Linux is `/Oracle/Middleware/Oracle_Home`.

3. Enter the following command, which first sets the `LD_LIBRARY_PATH` variable to the current directory (".") and then executes the `PDFExport64` utility:

```
env LD_LIBRARY_PATH=../../../../../wccapture/capture/bin/linux/PDFExport64 -i
{TIFF file to read} -o {PDF file to create} -l {log file to create} -f {Path
to font folder}
```

**Example:**

```
env LD_LIBRARY_PATH=../../../../../wccapture/capture/bin/linux/PDFExport64 -
i /tmp/sample.tif -o /tmp/test.pdf -l /tmp/pdfexport.log -f /usr/share/X11/
fonts
```

The logging of the OIT PDF Export utility will be captured in the log file specified in the command above (example: /tmp/pdfexport.log).

**Using Windows**

1. Open a terminal window.
2. Change to the {Middleware Home}\oit\windows-amd64\lib\contentaccess directory.

**Note:** The default {Middleware Home} path on Windows is

c:\Oracle\Middleware\Oracle\_Home.

3. Enter the following command, which executes the PDFExport64 utility:

```
..\..\..\..\wccapture\capture\bin\win64\PdfExport64 -i {TIFF file to read} -
o {PDF file to create} -l {log file to create}
```

**Example:**

```
..\..\..\..\wccapture\capture\bin\win64\PdfExport64 -i C:\tmp\sample.tif -o
C:\tmp\test.pdf -l C:\tmp\pdfexport.log
```

The logging of the OIT PDF Export utility will be captured in the log file specified in the command above (example: C:\tmp\pdfexport.log).

## Client

This section covers the following topics:

- [Setting logging in the Capture client](#)
- [Scanning in black/white with Kofax VRS TWAIN driver](#)

## Setting logging in the Capture client

**Perform the following steps to enable additional Java logging for the Capture client:**

1. Begin modifying the **WebCenter Enterprise Capture Client** desktop shortcut by right-clicking on the shortcut icon and selecting **Properties** from the menu.
2. On the **Shortcut** tab, click inside the **Target** field and position the cursor at the end of the line. Type in a space followed by "-showconsole" (without the quotes).
3. Click **OK** to save the changes. The next time you start the Capture client using the desktop shortcut, a debug console will display providing additional logging information.

**Perform the following steps in the Capture client to activate batch logging:**

1. Click the drop-down list arrow in the upper right corner of the window and select **Preferences**. The Preferences window displays.
2. In the **Logging Level** field, select a new level.

By default, logging is set to **Off**. Other values include **Severe**, **Warning**, **Info**, **Config**, **Fine**, **Finer**, **Finest**, and **All**.

Log files are stored locally in the `.oracle_capture\Log` directory in your home directory. A log file is named as follows: `WC{date}` where date is in the format of `MMddyyyy`.

3. Click **Save**.

**For issues involving a TWAIN driven scanning device, a TWAIN log is automatically created:**

```
C:\Users\WINDOWS_USER\AppData\Local\Temp\capture_twain.log
```

## Scanning in black/white with Kofax VRS TWAIN driver

When scanning in black/white in the Capture client using the Kofax VRS TWAIN driver, the black and white areas are inverted in the scanned images.

Perform the following steps to resolve this issue:

1. Login to the Capture client.
2. Click the drop-down list arrow in the upper right corner of the window and select **Preferences**. The Preferences window displays.
3. Select the **Prevent File Mode Transfer** field.
4. Click **Save**.

The above settings may cause performance issues when scanning color images with a large DPI value, for example, a DPI value between 300 and 600.

## Document Conversion Processor

This section covers the following topics:

- ["Image export failed with code 3" error in Conversion Processor \(OIT conversion\)](#)
- [Running CaptureOITExport32 to debug issues related to converting to TIFF](#)

### "Image export failed with code 3" error in Conversion Processor (OIT conversion)

The "Image export failed with code 3" error message is a generic error message related to the OIT conversion in Capture. To gather a more detailed error message, you will need to set the `CAPTUREOITEXPORTLOG` environment variable to generate a log file.

#### Using Linux

To set the environment variable in Linux, you need to modify the `setDomainEnv.sh` file which is located in `{Oracle Home}/user_projects/domains/{Capture domain}/bin` directory.

Add the following two lines to the end of the file:

```
CAPTUREOITEXPORTLOG="/scratch/captureoit.log"
```

```
export CAPTUREOITEXPORTLOG
```

You can change `"/scratch"` to any other directory if it exists and is writable. After you add the environmental variable, restart the Capture Managed Server and duplicate the issue. Then examine the **captureoit.log** file to see the more detailed error message.

### Using Windows

To set the environment variable in Windows, you need to modify the **setDomainEnv.cmd** file which is located in `{Oracle Home}\user_projects\domains\{Capture domain}\bin` directory.

Add the following line to the end of the file:

```
set CAPTUREOITEXPORTLOG="C:\temp\captureoit.log"
```

You can change `"C:\temp"` to any other directory if it exists and is writable. After you add the environmental variable, restart the Capture Managed Server and duplicate the issue. Then examine the **captureoit.log** file to see the more detailed error message.

## Running CaptureOITExport to debug issues related to converting to TIFF

Capture uses OIT libraries for performing the conversion to TIFF. Internally, it uses CaptureOITExport for the conversion. It will create OIT specific logs which can be useful to resolve OIT related errors.

### Using Linux

1. Open a shell prompt and change directories to `{Oracle WebCenter Home}/oit/linux64/lib/contentaccess`.
2. For conversions to work on some platforms, certain environment variables must be set. On a Linux operating system running XWindows, when redirecting the display to a system with suitable graphic capabilities, export `DISPLAY` to a valid X Server before starting the conversion.

**Note:** On Oracle Linux, the display server is available. On AIX server, it might need to be installed separately.

3. Create an OIT specific log file. Export the `CAPTUREOITEXPORTLOG` environment variable to create the log file specified.
4. Create an input file which contains the parameters for conversion. The name of the input file is `/test/testuser/input.txt` and contains the following lines:

```
BEGINSESSION|1|/test/testuser/Test_07.docx|/test/testuser/output/out.tif|FI_TIFF~1|
0|0|0|/test/testuser/output/che.lst|300
quit
```

5. Run `CaptureOITExport64`.

#### Example:

```
export DISPLAY=:0
export CAPTUREOITEXPORTLOG=/test/testuser/oit.log
../../../../wccapture/capture/bin/linux/CaptureOITExport64 < /test/testuser/
input.txt
CaptureOITExport Started.
ACKSESSION
FINISHSESSION
INITIATE_TERMINATE
```



In the above example:

- /test/testuser/Test\_07.docx: Input Microsoft Word document file
- /test/testuser/output/out.tif: Output TIFF
- /test/testuser/output/che.lst: Contains the list of pages for the multi page TIFF

### Using Windows

Example:

1. The input file in this example is input.txt (C:\OIT\convtest\input.txt). The input file contains the parameters required for the conversion. It includes the file to be converted (C:\OIT\convtest\Test\_07.docx), the output TIFF file (C:\OIT\convtest\output\out.tif) and the following two lines:

```
BEGINSESSION|1|C:\OIT\convtest\Test_07.docx|
C:\OIT\convtest\output\out.tif|FI_TIFF~1|0|0|0|
C:\OIT\convtest\output\che.lst|300
```

```
quit
```

2. Setting CAPTUREOITEXPORTLOG in the command prompt:

```
C:\Users\odc>set CAPTUREOITEXPORTLOG=C:\OIT\convtest\oit.log
```

3. Change directories to {Oracle WebCenter Home}\oit\windows-amd64\lib\contentaccess.

4. Invoking the conversion using the input file:

```
C:\Oracle\Middleware\Oracle_Home\oit\windows-
amd64\lib\contentaccess>C:\Oracle\Middleware\Oracle_Home\wccapture\cap
ture\bin\win64\CaptureOITExport.exe < C:\OIT\convtest\input.txt
```

```
CaptureOITExport Started.
```

```
ACKSESSION
```

```
FINISHSESSION
```

```
INITIATE_TERMINATE
```

```
C:\Oracle\Middleware\Oracle_Home\oit\windows-amd64\lib\contentaccess>
```

## Resolve Linux Image Conversion and Rendering Issues

This section discusses the symptoms, cause, troubleshooting steps, and solutions to the problem to fix the Linux image conversion and rendering issues in Capture.

The following errors are resolved:

- Image export failed with Code 3
- XOpenDisplay failed
- Unable to fully render document
- Failed image conversion and cannot be stored in cache at this time
- A cache exception occurred
- Transformation process returned error code 135

- A failure occurred while encrypting the document
- Failed to launch CaptureOITExport
- Error launching the external transformation process

To resolve the above errors, perform the following troubleshooting steps:

**1. Check `DISPLAY` and `GDFONTPATH` environment variables:**

If `DISPLAY` is not set or is not set to a valid value, an error will occur. The `GDFONTPATH` environment variable must be set to a valid TrueType font directory path. On Oracle Linux machine, the default TrueType font directory is `/user/share/fonts/liberation`. The directory contains six `.TTF` font files. There is no `GDFONTPATH` MBean for Capture.

If Capture and Imaging are running on the same server, the `DISPLAY` variable will be set for both processes, because they both depend on the file `setDomainEnv.sh` for this setting. In this environment, Imaging will also use the X server for image conversion.

To check if the running process has the `DISPLAY` and/or `GDFONTPATH` environment variables set:

```
$ ps -ef | grep <capture_server1 or IPM_server1>
```

For example, to find the process ID (PID), enter the following command:

Sample output:

```
[example@linuxtest2 ~]$ ps -ef | grep capture_server1 example 1184 802 9
Sep24 ? 2-13:25:39 /usr/java/jdk1.8.0_171-amd64/bin/java -server -Xms256m
-Xmx1024m -cp /oracle2/Middleware12c/wlserver/server/lib/weblogic-
launcher.jar
-Dlaunch.use.env.classpath=true -
Dweblogic.Name=capture_server1<actual output truncated>
```

1184 is the PID of the Capture server. It's usually a 4 or 5 digit decimal number.

To query the running process for the `DISPLAY` and `GDFONTPATH` environment variable values as follows:

On Linux:

```
$ ps ewww <capture_server1 PID> | tr ' ' '\n' | grep \= | grep DISPLAY
$ ps ewww <capture_server1 PID> | tr ' ' '\n' | grep \= | grep GDFONTPATH
```

On Solaris:

```
$ pargs -e <capture_server1 PID> | grep DISPLAY
$ pargs -e <capture_server1 PID> | grep GDFONTPATH
```

Example:

```
$ ps ewww 1184 | tr ' ' '\n' | grep \= | grep DISPLAY
```

**Output:**

```
DISPLAY=10.148.51.219:0
```

```
$ ps ewww 1184 | tr ' ' '\n' | grep \= | grep GDFONTPATH
```

**Output:**

```
GDFONTPATH=/usr/share/fonts/liberation
```

**Sample bad output:**

```
$ ps ewww 1184 | tr ' ' '\n' | grep \= | grep DISPLAY
```

<no output displayed>

```
$ ps ewww 1184 | tr ' ' '\n' | grep \= | grep GDFONTPATH
```

<no output displayed>

**Problem resolution:**

The following environment variables should be set as needed in the file `setDomainEnv.sh ($DOMAIN_HOME/bin/)`:

```
1 DISPLAY=<machine name or IP>:<display>:<port>
export DISPLAY
GDFONTPATH=<path to .ttf font files>
export GDFONTPATH
```

If one or both variables are defined, they may be set in the `setDomainEnv.sh` file (`$DOMAIN_HOME/bin/setDomainEnv.sh`), but they also can be set at many other places on the system. The `DISPLAY` and `GDFONTPATH` variables can be set in other process startup scripts such as `.profile`, `.bash_profile` and so on. If the `DISPLAY` variable is not required, add the following command in the `setDomainEnv.sh` file to remove the variable from the process:

```
unset DISPLAY
```

 **Note:**

The `GDFONTPATH` environment variable must always be set.

If there is no `DISPLAY` or `GDFONTPATH` variable defined, the reason is that the file `setDomainEnv.sh ($DOMAIN_HOME/bin/)` does not include the definitions of these variables. If they are defined, but not created or set in the `setDomainEnv.sh` file, defining them in the `setDomainEnv.sh` file will overwrite the preset values.

The value of `DISPLAY` will often be set to `localhost:n.0`. That refers to the server, display `n`, port `0` which is fine as long as an X server is running on the local server.

The `GDFONTPATH` variable must also be set in the file `setSOADomainEnv.sh` (`$DOMAIN_HOME/bin/`) if SOA is running on the same server.

After making the necessary changes to the `setDomainEnv.sh` file, restart the entire domain and then retest.

If the problem is still not solved, continue troubleshooting.

2. Verify that X server is running:

If Capture is not running on the server, skip to Step 4. If Capture is running on the server, an X server must be running. The known options are X, VNC (several flavors of Linux), Gnome Desktop Manager (GDM), or Virtual Frame Buffers (VFB, Solaris-only). There are other software packages available that do the same thing.

Command:

```
$ ps -ef | grep 'X ' | grep -v grep
```

Sample Output:

```
root 6497 1 0 Sep23 tty7 00:00:01 X :0
```

Sample bad or non-existent output:

```
$ ps -ef | grep vfb | grep -v grep
$ ps -ef | grep gdm | grep -v gdm
$ ps -ef | grep vnc | grep -v vnc
```

Interpretation of the sample output:

- There is an X server running with `DISPLAY` set to `localhost:0.0`
- There is no VFB (for Solaris only), GDM, or VNC running on this host.

Problem detection and resolution:

The configuring and running an X server is beyond the scope of Oracle support. The system administrator needs to perform these operations.

For a Capture issue, an X server must be running regardless of which type it is (X, VNC, GDM, VFB or any other kind).

3. Verify X server configuration and permissions:

If using VNC, add the following line in the VNC configuration file `/etc/sysconfig/vncservers`.

```
VNCSERVERS="0:root 1:oracle"
```

where `oracle` is the user account of the Capture server. To have more detailed description about this configuration, see [Configuring VNC Server on Linux](#). If this line is changed, stop and restart the VNC server for display 1. The above two steps are often the source of the problem. If those are fine, follow the next steps.

4. Check OIT libraries' location and consistency:

The OIT libraries are located at `$ECM_HOME/oit/<platform>/lib/contentaccess`. For Solaris, navigate to the `solaris/lib` location, and not to the `solaris-x86/lib` location.

Navigate to the location:

```
$ cd $ECM_HOME/oit/<platform>/lib/contentaccess
```

Check that all the required components are installed.

On Linux and Solaris:

```
$ ldd libos_gd.so
$ ldd libos_xwin.so
```

On AIX, enter the command:

```
$ dump -H libos_gd.so
$ dump -H libos_xwin.so
```

Sample Output:

```
$ cd /oracle/Middleware/Oracle_ECM1/oit/linux/lib/contentaccess
$ ldd libos_gd.so
linux-gate.so.1 => (0xf777b000)
libwv_gdlib.so => /oracle/Middleware/Oracle_ECM1/oit/linux/lib/
contentaccess/./libwv_gdlib.so (0xf7753000)
libwv_core.so => /oracle/Middleware/Oracle_ECM1/oit/linux/lib/
contentaccess/./libwv_core.so (0xf737d000)
libm.so.6 => /lib/libm.so.6 (0xf7353000)
libpthread.so.0 => /lib/libpthread.so.0 (0xf7337000)
libstdc++.so.6 => /usr/lib/libstdc++.so.6 (0xf724c000)
libgcc_s.so.1 => /lib/libgcc_s.so.1 (0xf722e000)
libc.so.6 => /lib/libc.so.6 (0xf7097000)
libfreetype.so.6 => /oracle/Middleware/Oracle_ECM1/oit/linux/lib/
contentaccess/./libfreetype.so.6 (0xf702c000)
libdl.so.2 => /lib/libdl.so.2 (0xf7026000)
/lib/ld-linux.so.2 (0xf777c000)
libz.so.1 => /lib/libz.so.1 (0xf7012000)
```

If something is missing, the line clearly states that it's missing. For example:

```
libcsfml-window.so.2.2 => not found
libcsfml-graphics.so.2.2 => not found
```

Problem detection and resolution:

If there are libraries missing, the system administrators must be engaged to install the missing package(s) prior to continuing. The installation of the required packages is beyond the scope of Oracle support.

5. Double check Imaging OIT location:  
If the problem is solved for Capture, skip this step and go to Step 6.
6. Check OIT libraries' version:  
Check version manually, where platform can be Linux, Solaris, etc..

```
$ cd $ECM_HOME/oit/<platform>/lib/contentaccess
$ for i in *; do echo
$i; strings
$i | grep _VER; done
```